APPENDIX N

Supplemental Materials

DUDEK

MAIN OFFICE
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MEMORANDUM

To: Sarah Lozano
From: Connor Burke
Subject: SDSU Supplemental Noise Data
Date: June 22, 2017
Attachment(s): Attachment A – Acoustic Definitions and Discussion; Sound and Vibration

Dudek acousticians conducted supplemental noise measurements and traffic counts on April 27, 2017 during typical mid-day conditions, at the same locations measured on January 16, 2017. A summary of these results are presented below in Table 1, Supplemental Noise Measurements and Traffic Volumes, April 27, 2017.

Table 1
Supplemental Noise Measurements and Traffic Volumes, April 27, 2017

Site	Description	Date Time	L_{eq} [1] (dBA)	Cars	MT [2]	HT [3]	MC [4]
R1	5433 Hewlett Drive, approximately 30 feet to the centerline of Hewlett Drive	4/27/17 11:30 a.m. to 11:40 a.m.	48	3	0	0	0
R2	5312 Remington Road, approximately 115 feet to centerline of Remington Road	4/27/17 11:16 a.m. to 11:26 a.m.	48	N/A	N/A	N/A	N/A
R3	Chapultepec Convenience Store approximately 40 feet to centerline of Remington Road	4/27/17 11:45 a.m. to 11:55 a.m.	61	16	1	0	1
R4	5420 55th Street, approximately 130 feet to centerline of 55th Street	4/27/17 12:00 p.m. to 12:10 p.m.	52	N/A	N/A	N/A	N/A
R5	5335 Remington Road,	4/27/17	59	25	4	0	0

Table 1
Supplemental Noise Measurements and Traffic Volumes, April 27, 2017

Site	Description	Date Time	L_{eq} [1] (dBA)	Cars	MT [2]	HT [3]	MC [4]
	Approximately 50 feet to centerline of Remington Road	11:02 a.m. to 11:12 a.m.					

Notes:
1 Equivalent Continuous Sound Level (Time-Average Sound Level)
2 Medium Trucks
3 Heavy Trucks
4 Motorcycles

CONCLUSIONS

Based upon the supplemental noise measurements and observations, traffic noise was determined to be the dominant noise source during non-holiday conditions. However, other noise sources including athletic field noise and HVAC equipment, contributed to the overall noise levels during the measurements. The noise level data, traffic counts and general conditions were similar to those encountered during the January 16, 2017 field noise measurements.

ATTACHMENT A

Acoustic Definitions and Discussion;

Sound and Vibration

ATTACHMENT A
Acoustical Terms and Definitions; Sound and Vibration

ACOUSTIC TERMINOLOGY AND DEFINITIONS

Term	Definition
Ambient Noise Level	The normal or existing sounds pressure level of environmental noise at a given location. The composite of noise from all sources near and far.
Decibel	dB is the unit for measuring sound pressure level, equal to 10 times the logarithm to the base 10 of the ratio of the measured sound pressure squared to a reference pressure, which is 20 micro-Pascal.
A-Weighted Sound Level	dBA is the sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Community Noise Equivalent Level	CNEL is the A-weighted equivalent continuous sound exposure (CNEL) level for a 24-hour period with a ten dB adjustment added to sound levels occurring during nighttime hours (10 pm to 7 am) and a five dB adjustment added to the sound levels occurring during the evening hours (7 pm to 10 pm).
Day / Night Noise Equivalent Level	L_{dn} (or DNL) is the A-weighted equivalent continuous sound exposure level for a 24-hour period with a ten dB adjustment added to sound levels occurring during nighttime hours (10 pm to 7 am).
Equivalent Sound Level	L_{eq} is the sound level corresponding to a steady state sound level and containing the same total energy as a time varying signal over a given sample period.
Acoustic Center	For a source, the position where the propagating waves can be traced back to a single point of origin.

SOUND AND VIBRATION BACKGROUND

Vibrations, traveling as waves through air from a source, exert pressure perceived by the human ear as sound. Sound pressure level (referred to as sound level) is measured on a logarithmic scale in decibels (dB) that represent the fluctuation of air pressure above and below atmospheric pressure. Frequency, or pitch, is a physical characteristic of sound and is expressed in units of cycles per second or hertz (Hz). The normal frequency range of hearing for most people extends from about 20 to 20,000 Hz. The human ear is more sensitive to middle and high frequencies (about 1,000 to 4,000 Hz), especially when background noise levels are lower. As noise levels get louder, the human ear starts to hear the frequency spectrum more evenly. To accommodate for this phenomenon, a weighting system to evaluate how loud a noise level is to a human was developed. The frequency weighting called "A" weighting is typically used for quieter noise levels which de-emphasizes the low frequency components of the sound in a manner similar to the response of a human ear. A-weighted sound level is referenced with units of dBA.

"It is generally accepted that the average healthy ear…can barely perceive a noise level change of 3 dB" (Caltrans 2013). A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as twice or half as loud. A doubling of sound energy results in a 3 dBA increase in sound, which means that a doubling of sound energy (e.g., doubling the average daily numbers of traffic on a road) would result in a barely perceptible change in sound level.

An individual's noise exposure occurs over a period of time; however, instantaneous noise level is a measure of noise at a given instant in time. The equivalent noise level L_{eq}, also referred to as the average sound level, is a single-number representing the fluctuating sound level in decibels (dB) over a specified period of time. It is a sound-energy average of the fluctuating level and is equal to a constant unchanging sound of that dB level. Community noise sources vary. Often a relatively stable background or ambient noise environment can still be assessed based on long term measurements.

Noise levels are generally higher during the daytime and early evening when traffic (including airplanes), commercial, and industrial activity is the greatest. However, noise sources experienced during nighttime hours when background levels are generally lower can be potentially more conspicuous and irritating to the receiver. In order to evaluate noise in a way that considers periodic fluctuations experienced throughout the day and night, a concept termed "community noise equivalent level" (CNEL) was developed, The CNEL scale represents a time-weighted 24-hour average noise level based on the A-weighted sound level. CNEL accounts for the increased noise sensitivity during the evening hours (7 p.m. to 10 p.m.) and nighttime hours (10 p.m. to 7 a.m.) by adding five dB to the average sound levels occurring during the evening hours and 10 dB to the sound levels occurring during nighttime hours. The Day-Night Level (L_{dn}) is a similar metric without the five dB penalty during evening hours included.

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April 24, 2017 10105-6

U.S. Fish and Wildlife Service
Attention: Recovery Permit Coordinator
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: ***Focused California Gnatcatcher Survey Report for the SDSU New Student Housing Project, City of San Diego, San Diego County, California***

Dear Recovery Permit Coordinator:

This report documents the results of a protocol-level presence/absence survey for the coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher). The focused survey was conducted within the San Diego State University (SDSU) New Student Housing Project, located in the City of San Diego, California (Figure 1).

The gnatcatcher is a federally listed threatened species and a California Department of Fish and Wildlife (CDFW) Species of Special Concern. It is closely associated with coastal sage scrub habitat and typically occurs below elevations of 950 feet above mean sea level (AMSL) and on slopes less than 40%, but gnatcatchers have been observed at elevations greater than 2,000 feet AMSL. The species is threatened primarily by loss, degradation, and fragmentation of coastal sage scrub habitat and is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

LOCATION AND EXISTING CONDITIONS

The SDSU New Student Housing Project (Project) is located in the City of San Diego, California (City). Specifically, the project is located at the northwest corner of the main SDSU campus, north of the campus athletic fields and Remington Road, west of 55th Street and east of privately owned residential properties. The elevation ranges from approximately 300 feet above mean sea level (amsl) to 450 feet amsl. The project site is located on the U.S. Geological Survey 7.5-minute La Mesa quadrangle, in Section 15, Township 16 South, Range 2 West (Figure 2). The approximate centroid of the project is 117°4′44.626″W, 32°46′32.968″N. The project site is comprised of developed areas, ornamental plantings, and native habitat. The focused survey area included the proposed project impact area.

VEGETATION COMMUNITIES

The vegetation type that potentially supports California gnatcatchers within the focused survey area includes Diegan coastal sage scrub. Diegan coastal sage scrub is described below.

Diegan Coastal Sage Scrub

According to Holland (1986), Diegan coastal sage scrub is composed of a variety of soft, low shrubs, characteristically dominated by drought-deciduous species such as California sagebrush (*Artemisia californica*), flat-top buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.), with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*). It typically develops on xeric (dry) slopes.

Diegan coastal sage scrub and all its variants generally are recognized as sensitive plant communities by local, state, and federal resource agencies. It supports a diversity of sensitive plants and animals, and it is estimated that it has been reduced by 75% to 80% of its historical coverage throughout Southern California. Diegan coastal sage scrub has a global rank of G3 and state rank of S3.1, meaning it is considered vulnerable and is considered a sensitive biological resource by CDFW under the California Environmental Quality Act (CEQA; CDFG 2010). Diegan coastal sage scrub vegetation on site totals 3.31 acres, and is dominated by California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), coyotebrush (*Baccharis pilularis*), lemonadeberry (*Rhus integrifolia*), and laurel sumac (*Malosma laurina*).

METHODS

Because SDSU is not signatory to the State of California Natural Communities Conservation Planning (NCCP) Act, the protocol for conducting a focused California gnatcatcher survey must follow the methods for areas not enrolled in an NCCP. Therefore, six focused gnatcatcher surveys were conducted at a minimum of 7-day intervals. All potentially suitable habitat was surveyed by Dudek wildlife biologist Paul Lemons (Permit No TE051248-5). Details and conditions for each survey visit are summarized in Table 1.

Table 1
Survey Details and Conditions

Date	Biologist	Time	Survey Conditions (temp., skies, wind)
3/16/2017	P. Lemons	0815-1010	61-71 Degrees Fahrenheit (°F), 100-0% cloud cover (cc), 0-5 mile per hour (mph) winds
3/24/2017	P. Lemons	0740-0945	55-61 °F, 0%cc, 0-3 mph winds

Table 1
Survey Details and Conditions

Date	Biologist	Time	Survey Conditions (temp., skies, wind)
3/31/2017	P. Lemons	0825-1015	58-63 °F, 80-10%cc, 0-4 mph wind
4/8/2017	P. Lemons	0830-1010	63-66 °F, 100-80%cc, 0-4 mph wind
4/17/2017	P. Lemons	0750-1000	58-70 °F, 80-50%cc, 0-3 mph wind
4/24/2017	P. Lemons	0720-0850	58-63 °F, 100-90%cc, 1-4 mph wind

All suitable habitat within and immediately adjacent to the approximately 8–acre project area was covered on-foot during each survey visit for 100% visual and audible coverage of the site; routes of the survey are illustrated on Figure 3. Survey visits were conducted at minimum one-week intervals (i.e., 7-day) and were performed in conformance with the currently accepted protocol of the USFWS *Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol* (USFWS 1997).

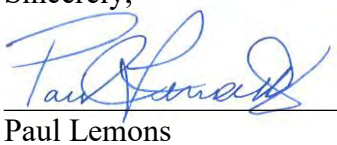
A tape of recorded gnatcatcher vocalizations was played approximately every 75-100 feet to induce responses from potentially present gnatcatchers. Tape-playback would have been terminated immediately upon detection of any gnatcatchers to minimize the potential for harassment. A 200-scale (1 inch = 200 feet) aerial photograph of the site and a vegetation map was used to identify suitable habitats and map any gnatcatchers detected. Binoculars (10x50 magnification) were used to aid in detecting and identifying bird species. Weather conditions, time of day, and season were appropriate for the detection of gnatcatchers.

RESULTS

No gnatcatchers were observed or detected during this survey effort. A total of 22 species of wildlife were detected during the surveys, which is provided in Appendix A. Please feel free to contact me at 760.479.4238 with questions or if you require additional information.

I certify that the information in this survey report and attached exhibits fully and accurately represents my work.

Sincerely,



Paul Lemons
Permit # TE051248-5

Att: Figure 1, Regional Map
Figure 2, Vicinity Map
Figure 3, 2017 Focused California Gnatcatcher Survey Map
Appendix A, List of Wildlife Species Observed or Detected

LITERATURE CITED

Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Nongame-Heritage Program, California Department of Fish and Game.

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REFERENCES FOR LATIN AND COMMON NAMES

American Ornithologists' Union. 1998. Check-list of North American Birds, 7th edition. American Ornithologists' Union. Washington D. C.

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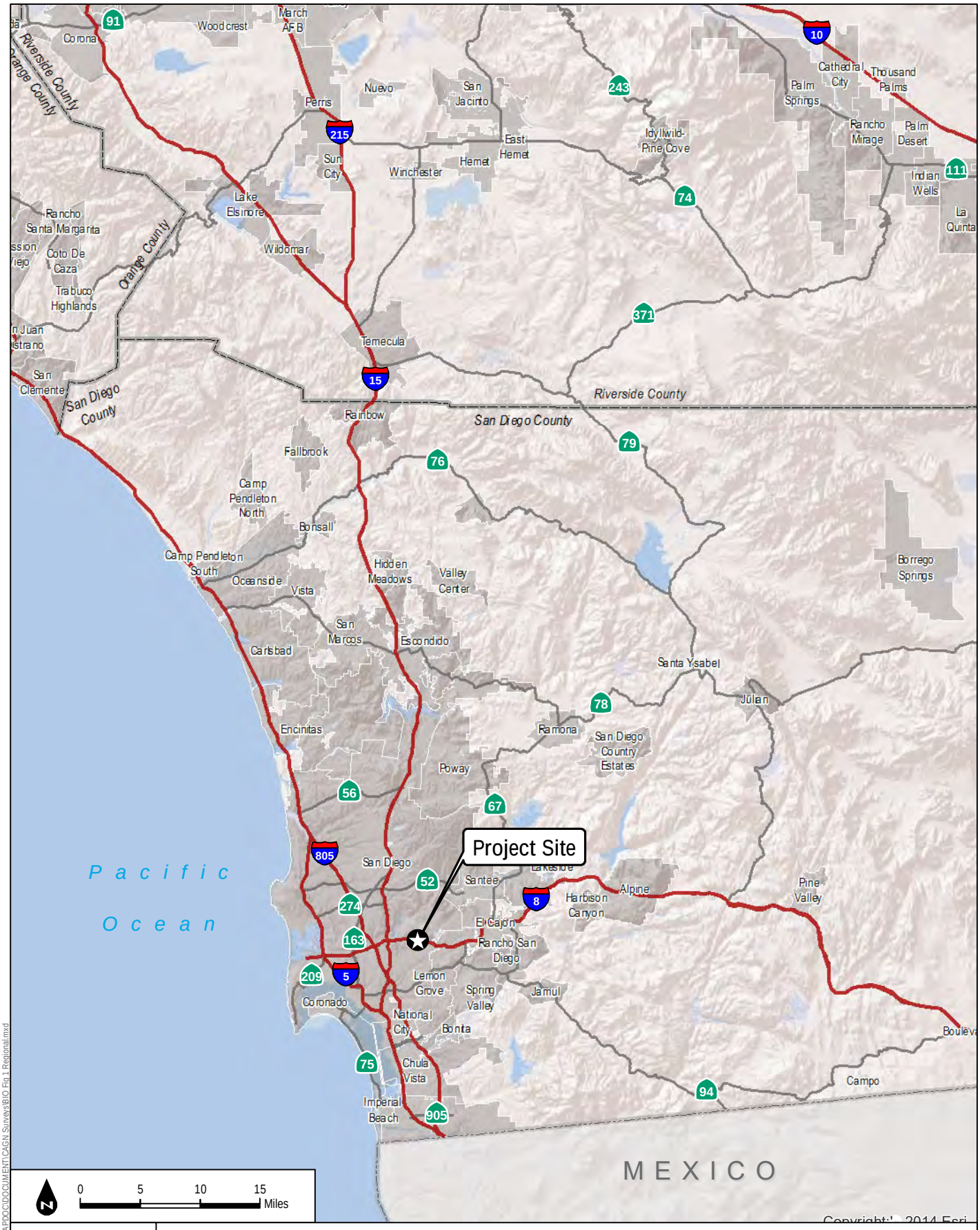
Jones, J.K., Jr., D.C. Carter, H.H. Genoways, R.S. Hoffman, and D.W. Rice. 1992. Revised Checklist of North American Mammals North of Mexico. Occasional Papers of the Museum of Texas Tech University, no. 146.



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SOURCE: Service Layer Credits: Copyright:' 2014 Esri

Figure 1
Regional Map

2017 Focused California Gnatcatcher Survey Report for the SDSU New Student Housing Project, City of San Diego
San Diego County, California

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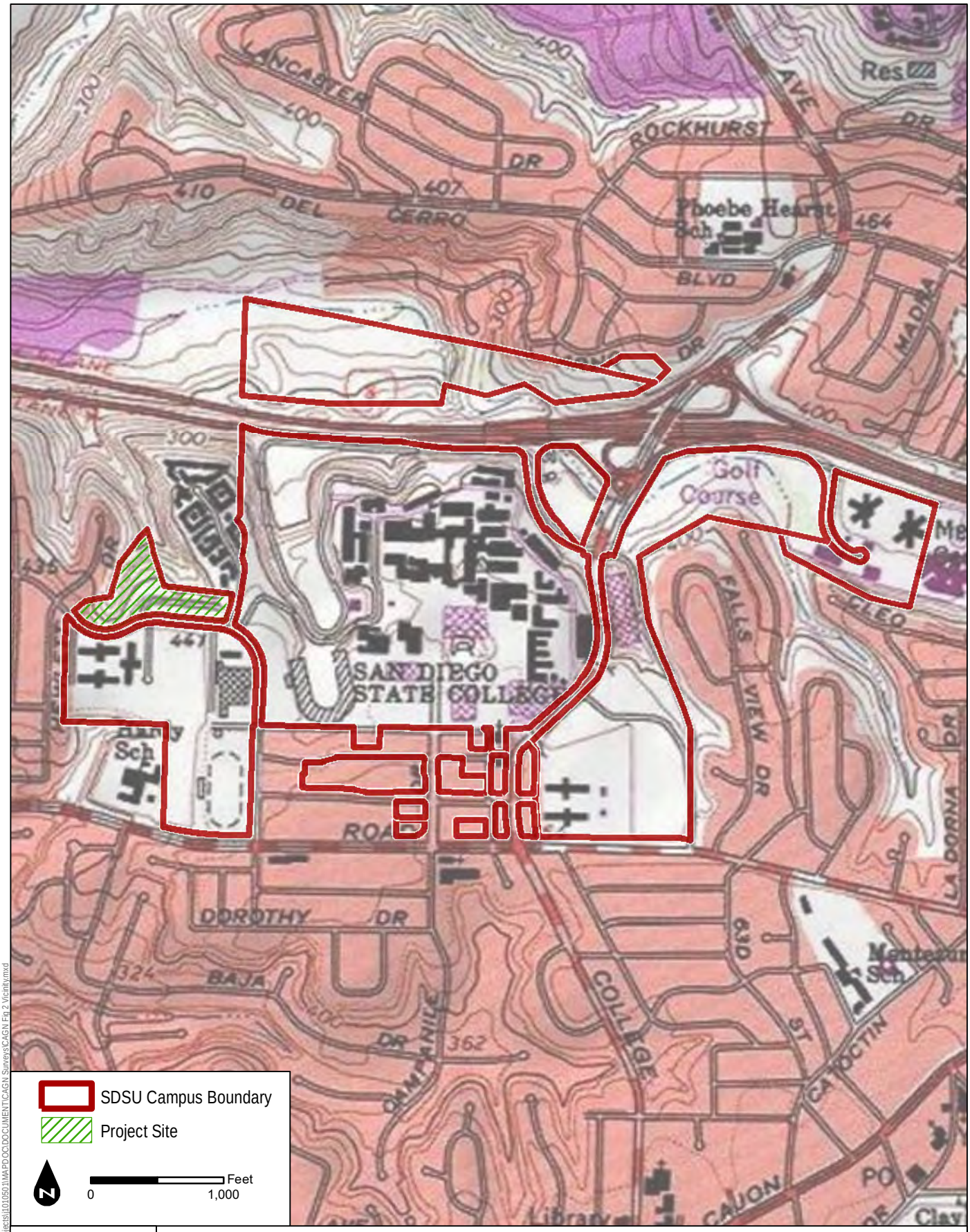

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SOURCE: USGS 7.5-Minute Series La Mesa

Figure 2
Vicinity Map

2017 Focused California Gnatcatcher Survey Report for the SDSU New Student Housing Project, City of San Diego
San Diego County, California

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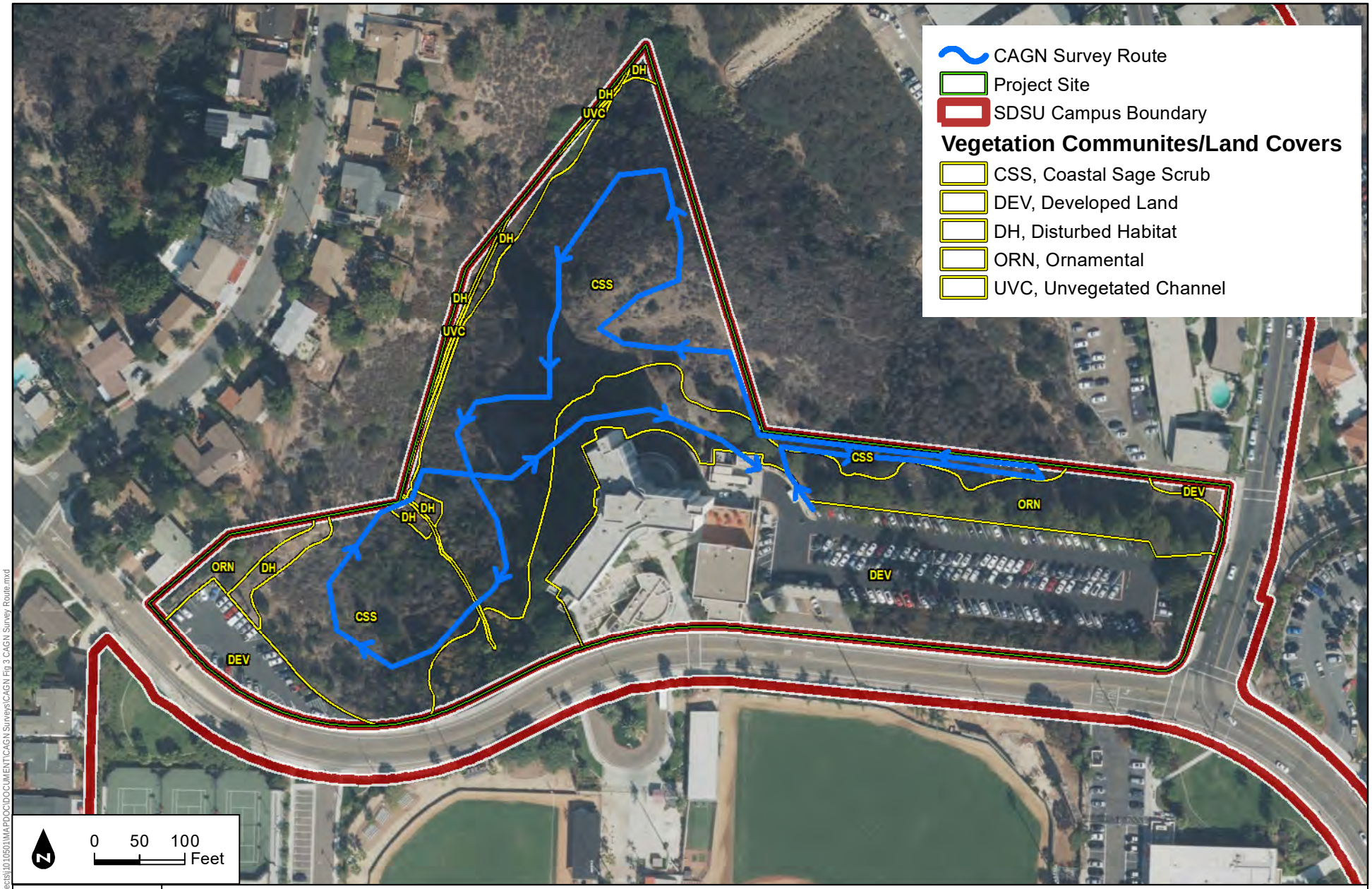

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AERIAL SOURCE: SANDAG IMAGERY 2014

Figure 3

2017 Focused California Gnatcatcher Survey Map

2017 Focused California Gnatcatcher Survey Report for the SDSU New Student Housing Project, City of San Diego, San Diego County, California

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APPENDIX A

List of Wildlife Species Observed or Detected

APPENDIX A
List of Wildlife Species Observed or Detected

BIRD

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

EMBERIZINES

EMBERIZIDAE—EMBERIZIDS

Melozone crissalis—California towhee

Pipilo maculatus—spotted towhee

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria—lesser goldfinch

Haemorhous mexicanus—house finch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Myiarchus cinerascens—ash-throated flycatcher

Sayornis nigricans—black phoebe

Empidonax difficilis—Pacific-slope flycatcher

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Buteo lineatus—red-shouldered hawk

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

Corvus corax—common raven

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

Toxostoma redivivum—California thrasher

OLD WORLD SPARROWS

PASSERIDAE—OLD WORLD SPARROWS

* *Passer domesticus*—house sparrow

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Stelgidopteryx serripennis—northern rough-winged swallow

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Setophaga coronata—yellow-rumped warbler

WRENS

TROGLODYTIDAE—WRENS

Thryomanes bewickii—Bewick's wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

MAMMAL

HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

Sylvilagus bachmani—brush rabbit

RATS AND MICE

MURIDAE—RATS AND MICE

Neotoma fuscipes—dusky-footed woodrat

REPTILE

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

* signifies introduced (non-native) species

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DUDEK

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MEMORANDUM

To: Laura Shinn, San Diego State University
From: Erin Bergman, Dudek
Subject: 2017 Rare Plant Surveys for the SDSU New Student Housing Project
Date: June 16, 2017
cc: Sarah Lozano, Dudek
Attachment(s): Figure 1, Special-Status Plants
Attachment A, Plant Compendium

Dear Ms. Shinn,

This memorandum documents the methods and results of the 2017 rare plant survey conducted for the SDSU New Student Housing Project.

METHODS

Dudek conducted an updated focused plant survey in April and June 2017. All native and naturalized plant species encountered on the project site were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (CRPR) (formerly California Native Plant Society (CNPS) List) follow the California Native Plant Society On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2017). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2017), and common names follow the List of Vegetation Alliances and Associations (CDFW 2010) or the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service Plants Database (USDA 2017).

Table 1
Schedule of Surveys

Date	Hours	Personnel	Focus	Conditions
4/1/2017	9:02 AM–12:58 PM	Erin Bergman	Rare Plant Survey	62°F–76°F; 0% cloud cover; 0–2 mph wind
6/11/2017	7:11 AM–10:14 AM	Erin Bergman	Rare Plant Survey	63°F–79°F; 0%–70% cloud cover; 0–3 mph wind

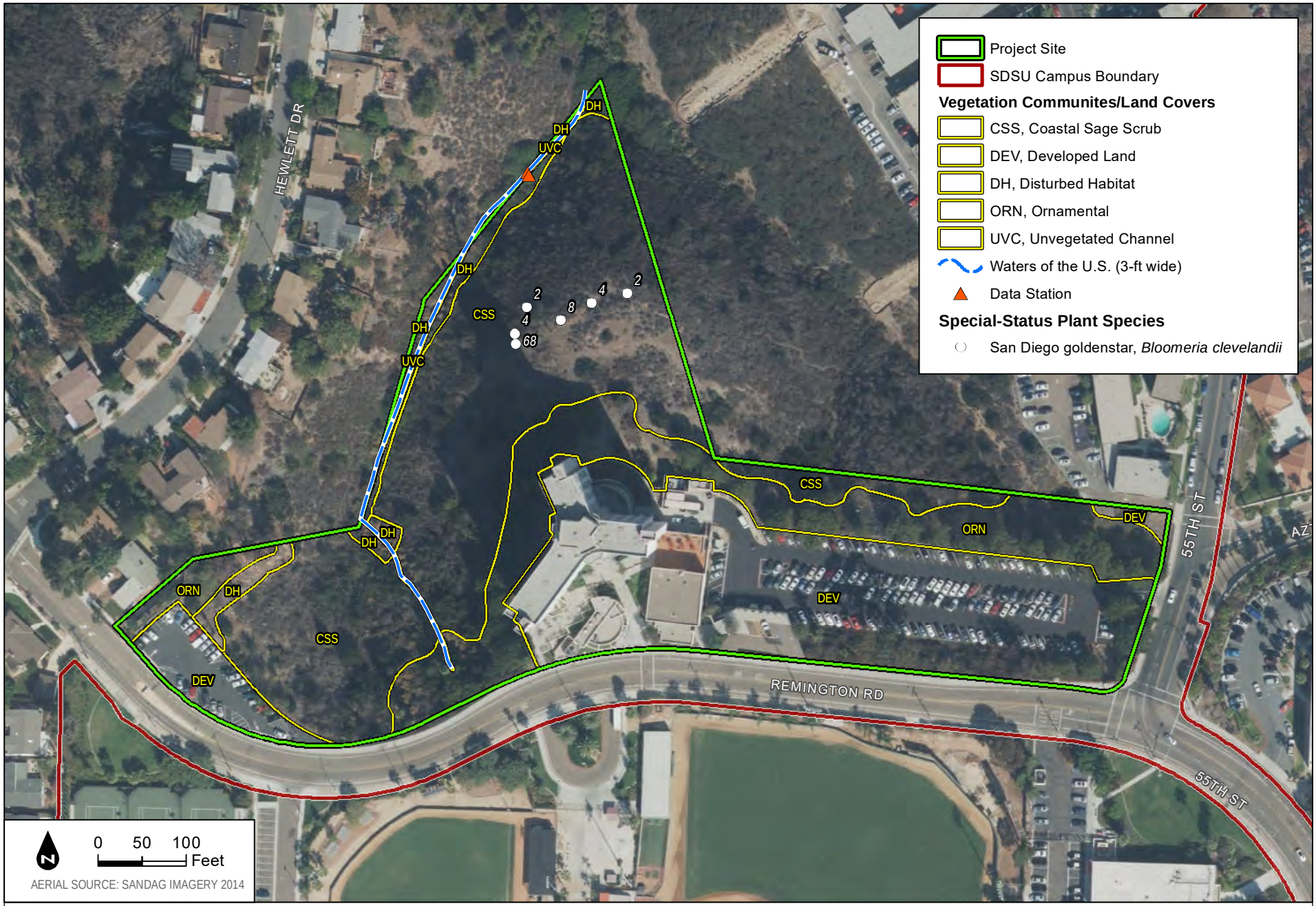
RESULTS

A total of 115 species of native or naturalized plants, 53 native (46%) and 62 non-native (54%), was recorded on the site in 2017 (see Attachment A).

Sensitive Plant Species

Endangered, rare, or threatened plant species, as defined in California Environmental Quality Act (CEQA) Guidelines Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status plant species" in this report and include (1) endangered or threatened plant species recognized in the context of the California Endangered Species Act and the federal Endangered Species Act (CDFW 2017); and (2) plant species with a CRPR 1 through 3 (CNPS 2017).

Special-status plant surveys were conducted within the project site to determine the presence or absence of plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 (14 CCR 15000 et seq.). The April 2017 pass identified one special-status plant: San Diego goldenstar (*Bloomeria clevelandii*) (Figure 1). No special-status plants were identified in the June 2017 pass.



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SDSU New Student Housing

2017 Rare Plant Survey

San Diego State University

Figure 1

Special-Status Plants

ATTACHMENT A

Plant Compendium

ATTACHMENT A
Plant Compendium

VASCULAR SPECIES

FERNS AND FERN ALLIES

PTERIDACEAE—BRAKE FAMILY

Pellaea mucronata—birdfoot cliffbrake

SELAGINELLACEAE—SPIKE-MOSS FAMILY

Selaginella cinerascens—ashy spike-moss

MONOCOTS

ARECACEAE—PALM FAMILY

* *Washingtonia robusta*—Washington fan palm

ASPARAGACEAE—ASPARAGUS FAMILY

* *Asparagus asparagoides*—African asparagus fern

IRIDACEAE—IRIS FAMILY

Sisyrinchium bellum—western blue-eyed grass

LILIACEAE—LILY FAMILY

Bloomeria clevelandii—San Diego goldenstar

POACEAE—GRASS FAMILY

* *Avena barbata*—slender oat
* *Brachypodium distachyon*—purple false brome
* *Bromus catharticus* var. *catharticus*—rescuegrass
* *Bromus diandrus*—ripgut brome
* *Bromus madritensis* ssp. *madritensis*—compact brome
* *Bromus madritensis* ssp. *rubens*—red brome
* *Cortaderia jubata*—purple pampas grass
* *Cynodon dactylon*—Bermudagrass
* *Festuca myuros*—rat-tail fescue
* *Hordeum murinum*—mouse barley
* *Lamarckia aurea*—goldentop grass
* *Poa annua*—annual bluegrass
* *Stipa mil*iacea—no common name
* *Stipa miliacea* var. *miliacea*—smilograss
Stipa pulchra—purple needle grass

Festuca microstachys—six-weeks fescue

THEMIDACEAE—BRODIAEA FAMILY

Dichelostemma capitatum ssp. *capitatum*—bluedicks

EUDICOTS

ADOXACEAE—MUSKROOT FAMILY

Sambucus nigra ssp. *caerulea*—blue elderberry

AIZOACEAE—FIG-MARIGOLD FAMILY

* *Carpobrotus edulis*—ice plant

ANACARDIACEAE—SUMAC OR CASHEW FAMILY

Malosma laurina—laurel sumac

* *Schinus terebinthifolius*—Brazilian peppertree

Rhus aromatica—basket bush

Rhus integrifolia—lemonade berry

APIACEAE—CARROT FAMILY

Daucus pusillus—American wild carrot

* *Foeniculum vulgare*—fennel

APOCYNACEAE—DOGBANE FAMILY

* *Nerium oleander*—oleander

* *Vinca major*—bigleaf periwinkle

ASTERACEAE—SUNFLOWER FAMILY

* *Sonchus oleraceus*—common sowthistle

Baccharis sarothroides—desertbroom

Corethrogyne filaginifolia—common sandaster

Deinandra fasciculata—clustered tarweed

Erigeron canadensis—Canadian horseweed

Eriophyllum confertiflorum—golden-yarrow

Isocoma menziesii var. *menziesii*—Menzies' goldenbush

Pseudognaphalium beneolens—Wright's cudweed

Pseudognaphalium californicum—ladies' tobacco

Psilocarphus tenellus—slender woollyheads

Stylocline gnaphaloides—mountain neststraw

* *Bidens pilosa*—hairy beggarticks

* *Carduus pycnocephalus* ssp. *pycnocephalus*—Italian plumeless thistle

* *Cotula australis*—Australian waterbuttons
* *Erigeron bonariensis*—asthmaweed
* *Glebionis coronaria*—crowndaisy
* *Helminthotheca echioides*—bristly oxtongue
* *Hypochaeris glabra*—smooth cat's ear
* *Lactuca serriola*—prickly lettuce
* *Logfia gallica*—narrowleaf cottonrose
* *Matricaria discoidea*—disc mayweed
* *Sonchus asper*—spiny sowthistle
Pentachaeta aurea ssp. *aurea*—golden-rayed pentachaeta
Encelia californica—California brittle bush
Artemisia californica—California sagebrush
Baccharis pilularis—coyote brush

BORAGINACEAE—BORAGE FAMILY
Cryptantha clevelandii—Cleveland's cryptantha
Eucrypta chrysanthemifolia—spotted hideseed
Phacelia cicutaria var. *hispida*—caterpillar phacelia
Plagiobothrys collinus var. *gracilis*—Cooper's popcornflower

BRASSICACEAE—MUSTARD FAMILY
* *Sisymbrium irio*—London rocket
* *Lepidium didymum*—lesser swinecress
* *Sisymbrium altissimum*—tall tumblemustard

CACTACEAE—CACTUS FAMILY
Cylindropuntia prolifera—coastal cholla
* *Opuntia ficus-indica*—Barbary fig
Opuntia littoralis—coast prickly pear

CARYOPHYLLACEAE—PINK FAMILY
* *Silene gallica*—common catchfly

CHENOPODIACEAE—GOOSEFOOT FAMILY
* *Chenopodium album*—lambsquarters
* *Chenopodium murale*—nettleleaf goosefoot
* *Salsola tragus*—prickly Russian thistle

CLEOMACEAE—CLEOME FAMILY
Peritoma arborea—bladderpod spiderflower

CRASSULACEAE—STONECROP FAMILY

Crassula connata—sand pygmyweed
Dudleya pulverulenta—chalk dudleya
* *Crassula ovata*—jade plant

CUCURBITACEAE—GOURD FAMILY

Marah macrocarpa—Cucamonga manroot

ERICACEAE—HEATH FAMILY

Xylococcus bicolor—mission manzanita

EUPHORBIACEAE—SPURGE FAMILY

* *Euphorbia peplus*—petty spurge

FABACEAE—LEGUME FAMILY

Acmispon glaber var. *glaber*—common deerweed
* *Acacia melanoxylon*—blackwood
* *Melilotus indicus*—annual yellow sweetclover
* *Vicia sativa*—garden vetch

GERANIACEAE—GERANIUM FAMILY

* *Erodium cicutarium*—redstem stork's bill
* *Erodium moschatum*—musky stork's bill

GROSSULARIACEAE—GOOSEBERRY FAMILY

Ribes speciosum—fuchsiaflower gooseberry

LAMIACEAE—MINT FAMILY

Salvia apiana—white sage
Salvia mellifera—black sage
* *Marrubium vulgare*—horehound

LYTHRACEAE—LOOSESTRIFE FAMILY

* *Lythrum hyssopifolia*—hyssop loosestrife

MYRSINACEAE—MYRSINE FAMILY

* *Lysimachia arvensis*—scarlet pimpernel

MYRTACEAE—MYRTLE FAMILY

* *Eucalyptus camaldulensis*—river redgum
* *Eucalyptus sideroxylon*—red ironbark

NYCTAGINACEAE—FOUR O'CLOCK FAMILY

Mirabilis laevis var. *crassifolia*—California four o'clock

OLEACEAE—OLIVE FAMILY

* *Olea europaea*—olive

OROBANCHACEAE—BROOM-RAPE FAMILY

Castilleja exserta ssp. *exserta*—exserted Indian paintbrush

OXALIDACEAE—OXALIS FAMILY

* *Oxalis corniculata*—creeping woodsorrel

* *Oxalis pes-caprae*—Bermuda buttercup

PLANTAGINACEAE—PLANTAIN FAMILY

Antirrhinum nuttallianum—violet snapdragon

Plantago erecta—dwarf plantain

POLEMONIACEAE—PHLOX FAMILY

Navarretia hamata ssp. *hamata*—hooked pincushionplant

POLYGONACEAE—BUCKWHEAT FAMILY

Eriogonum fasciculatum var. *fasciculatum*—Eastern Mojave buckwheat

PORTULACACEAE—PURSLANE FAMILY

* *Portulaca oleracea*—little hogweed

ROSACEAE—ROSE FAMILY

Heteromeles arbutifolia—toyon

RUBIACEAE—MADDER FAMILY

Galium angustifolium—narrowleaf bedstraw

Galium aparine—stickywilly

SCROPHULARIACEAE—FIGWORT FAMILY

Scrophularia californica—California figwort

* *Myoporum laetum*—myoporum

SOLANACEAE—NIGHTSHADE FAMILY

Solanum douglasii—greenspot nightshade

* *Nicotiana glauca*—tree tobacco

TROPAEOLACEAE—NASTURTIUM FAMILY

* *Tropaeolum majus*—nasturtium

URTICACEAE—NETTLE FAMILY

Hesperocnide tenella—western stingingnettle

* *Urtica urens*—dwarf nettle

VERBENACEAE—VERVAIN FAMILY

* *Lantana camara*—lantana

* signifies introduced (non-native) species

From: Sarah Lozano
Sent: Wednesday, April 26, 2017 11:09 AM
To: Forburger, Kristen <KForburger@sandiego.gov>; Paul.Schlitt@wildlife.ca.gov; Gower, Patrick <patrick_gower@fws.gov>
Cc: Smit-Kicklighter, Holly <HSmit@sandiego.gov>; Zoutendyk, David <david_zoutendyk@fws.gov>; David.Mayer@wildlife.ca.gov; Laura Shinn <lshinn@mail.sdsu.edu>; Michael Haberkorn <mhaberkorn@gdandb.com>; Aarti Kewalramani (AKewalramani@gdandb.com) <AKewalramani@gdandb.com>; Katie Laybourn <klaybourn@dudek.com>; Anita Hayworth <ahayworth@dudek.com>; Callie Ford <cford@dudek.com>
Subject: RE: SDSU Student Housing Project MHPA BLC

Hi Kristy,

Thank you for following up and for outlining the decisions that were made in the conference call last week and how these modifications will be reflecting in the 2017 annual report. Please let us know if you have any other questions regarding this matter.

Thank you,
Sarah

From: Forburger, Kristen [mailto:KForburger@sandiego.gov]
Sent: Tuesday, April 25, 2017 1:17 PM
To: Paul.Schlitt@wildlife.ca.gov; Gower, Patrick <patrick_gower@fws.gov>
Cc: Sarah Lozano <slozano@dudek.com>; Smit-Kicklighter, Holly <HSmit@sandiego.gov>; Zoutendyk, David <david_zoutendyk@fws.gov>; David.Mayer@wildlife.ca.gov
Subject: SDSU Student Housing Project MHPA BLC

Hello everyone,

Friday April 21, 2017 a conference call was conducted to discuss the SDSU Housing Project and MHPA boundary designation on State University property.

The City, CDFW, and USFW concur that the subject parcel was incorrectly mapped MHPA and will be corrected out of the City's preserve. SDSU is not signatory to the MSCP nor would the City of SD be a permitting authority for entailments to construct the proposed project. Incidental Take Authority would be granted by the appropriate permitting agency based upon potential impact. This does not avert SDSU from incorporating the MHPA Land Use Adjacency Guidelines when designing and implementing the proposal.

The City's 2017 MSCP Annual Report will reflect the MHPA Boundary Line Correction change of habitat loss and gain under the City's MSCP.

Thank you,

Kristy Forburger
Senior Planner
City of San Diego
Planning Department/Multiple Species Conservation Program (MSCP)

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Avian Monitoring Plan
for the
San Diego State University New Housing Project

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AUGUST 2017

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1 INTRODUCTION

1.1 Project Description

The proposed San Diego State University (SDSU) New Student Housing Project (proposed project) is the expansion of on-campus student housing facilities to be located east of the existing Chapultepec Hall, in the northwest corner of the main SDSU campus and within the existing Campus Master Plan boundary. The proposed project is bounded by Remington Road to the south, an open space canyon area to the north and west, and 55th Street and a portion of the undeveloped canyon to the east.

The project site is located approximately 8 miles east of downtown San Diego (see Figure 1, Regional Map, and Figure 2, Vicinity Map, in Appendix A), and lies within the College Area Community Planning Area in the City of San Diego. As shown on Figure 3, Proposed Site Plan (see Appendix A for figures), land uses adjacent to the project site consist of SDSU athletic fields to the south, undeveloped land and Interstate (I-) 8 to the north, single-family residences to the west, and multifamily residences and institutional uses associated with SDSU to the east.

The project would include construction of dormitory facilities to house up to 850 student housing beds on the existing Parking Lot 9, east of the existing Chapultepec Hall, including two new buildings, outdoor gathering spaces. The project would also entail the removal of the existing Parking Lot 9, small retail building, and a multi-purpose building (Cholula).

The Environmental Impact Report (EIR) for the project indicated that the project could affect various nesting birds, and thus recommended preparation and implementation of an avian monitoring plan. This Avian Monitoring Plan satisfies that recommendation. It describes nesting bird deterrents, survey protocols, guidelines for establishing buffers, and instructions for monitoring and reporting nesting activities for the project.

1.2 Objectives

The purpose of this plan is to provide the construction management team with a description of protocols and methods that will be implemented to avoid and minimize impacts to nesting birds associated with construction of the project. This plan satisfies the following mitigation measures and permit conditions associated with the project:

MM-BIO-1 **NESTING BIRD SURVEY:** If construction activity occurs during the breeding season (typically February 1 through September 15), a biological survey for nesting bird species shall be conducted within the proposed impact area and a 300-foot buffer within 72 hours prior to construction. Any suitable raptor nesting

areas will be surveyed within 500 feet of the construction limits. The number of surveys required for covering this area will be commensurate with the schedule for construction and the acreage that will be covered. Multiple surveys for nesting birds will be separated by at least 48 hours in order to be confident that nesting is detected but the survey will be no more 72 hours prior to the onset of construction. The survey is necessary to assure avoidance of impacts to nesting raptors (e.g., Cooper's hawk (*Accipiter cooperii*) and red-tailed hawk (*Buteo jamaicensis*)) and/or birds protected by the federal Migratory Bird Treaty Act. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with a buffer for native passerine species and raptors, as determined by the project biologist, and will be avoided until the nesting cycle is complete. Nest buffers will be determined based on the criteria outlined in an Avian Monitoring Plan, which will be submitted to, and receive approval, from the Wildlife Agencies when the Final EIR is certified. The Avian Monitoring Plan will outline criteria for the buffer determinations, including species type, tolerance for human activities, topography, vegetation, screening, adjoining habitat, type of work proposed, and duration of proposed work. In accordance with this mitigation measure, nest buffers shall be implemented to ensure compliance with the MBTA and Fish and Game Code Sections 3503, 3503.5, and 3513. Additionally, if grading activities lapse for more than 48 hours, an additional nesting bird survey shall be conducted. The results of the nesting bird surveys and buffers, including any determinations to reduce buffers, shall be included in the monitoring report.

MM-BIO-2 **CONSTRUCTION MONITORING AND REPORTING:** To prevent inadvertent disturbance to areas outside the limits of grading, all grading shall be monitored by a biologist. The biological monitor shall be contracted to perform biological monitoring during all grading, clearing, grubbing, and construction activities.

The following shall be completed:

1. The project biologist also shall perform the following duties:
    a. Attend the preconstruction meeting with the contractor and other key construction personnel prior to clearing, grubbing, or grading to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds).
    b. Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated

areas and of minimizing harm to or harassment of wildlife prior to clearing, grubbing, or grading.

c. Review and/or designate the construction area in the field with the contractor in accordance with the final grading plan prior to clearing, grubbing, or grading.

d. Supervise and monitor vegetation clearing, grubbing, and grading weekly to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved and to document that protective fencing is intact.

e. Flush special-status species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities.

f. Verify that the construction site is implementing the following stormwater pollution prevention plan best management practices: dust-control, silt fencing, removal of construction debris and a clean work area, covered trash receptacles that are animal-proof and weather-proof, prohibition of pets on the construction site, and a speed limit of 15 miles per hour during the daylight and 10 miles per hour during dark hours.

g. Periodically monitor the construction site after grading is completed and during the construction phase to see that artificial security light fixtures are directed away from open space and are shielded and to document that no unauthorized impacts have occurred.

h. Keep monitoring notes for the duration of the project for submittal in a final report to substantiate the biological supervision of the vegetation clearing and grading activities and the protection of the biological resources.

i. Prepare a monitoring report after the construction activities are completed, which describes the biological monitoring activities; including a monitoring log; photos of the site before, during, and after the grading and clearing activities; and a list of special-status species observed.

MM-BIO-6 **NOISE**: For any work proposed between February 1 and September 15, prior to start of construction activities, a qualified biologist shall conduct a preconstruction survey for the coastal California gnatcatcher to document the presence/absence and extent of occupied habitat. The preconstruction survey area for the coastal California gnatcatcher shall encompass all habitats within the

impact area, as well as within a 300-foot buffer. If a coastal California gnatcatcher nest is detected, on-site noise reduction techniques shall be implemented to ensure that construction noise levels do not exceed 60 A-weighted decibels L_{eq-h} at the nest location.

This plan is also intended to comply with state and federal regulations, including the Migratory Bird Treaty Act (MBTA) and Fish and Game Code Sections 3503, 3503.5, and 3513. It should also be noted that this document is intended to be adaptive and could be modified during construction with concurrence from the applicable resource agencies.

2 AVOIDANCE AND MINIMIZATION MEASURES

In order to satisfy the requirements, conditions, and state and federal regulations discussed in Section 1.2, the following avoidance and minimization measures will be implemented during the nesting season (February 1 through September 15) prior to, and during, construction of the project.

2.1 Preconstruction Surveys and Reporting

Preconstruction nesting bird surveys will be conducted by a qualified biologist no more than 3 days prior to planned construction in order to locate nests within and adjacent to the proposed work area. Surveys will be conducted within a 300-foot buffer for birds other than raptors and within a 500-foot buffer for raptors surrounding the project boundary. Results of the nest surveys will be documented in a nest survey report (Section 3.1) and made available to the California Department of Fish and Wildlife (CDFW) upon request. If a nest is detected during the preconstruction nest survey, the biologist will include the details of each nest along with minimization and avoidance measures and size of buffers in the nest survey report. If a nest is detected during construction monitoring, the details of each nest, along with minimization and avoidance measures and size of buffers will be included in a nest monitoring log (Section 3.2). Details of each nest discovered during surveys or during monitoring will be included in the nest monitoring log. The nest monitoring log will be updated regularly during the nesting season and distributed monthly to the CDFW via email (see Section 3.2 for additional details).

2.2 Nest Buffers

Buffers will be applied to each nest in order to avoid and minimize impacts to nesting birds. The standard buffer distances recommended for the project are 300 feet for passerine birds and 500 feet for raptors. However, effective buffer distances can vary based on specific project settings, bird species, stage of nesting cycle, work type, and the tolerance of a particular bird pair. Therefore, effective buffer distances for nests will be determined by the qualified biologist in the field. Guidelines for determining and implementing buffers include:

- Nesting chronologies
- Geographic location
- Existing ambient conditions (human activity within line of sight, such as cars, bikes, pedestrians, dogs, and noise)
- Type and extent of disturbance (e.g., noise levels and quality)
- Visibility of project disturbance area

- Duration and timing of project activity
- Influence of other environmental factors
- Species' site-specific level of habituation to the project disturbance.

Recommended buffers will be determined on site and will be based on the factors listed above. Application of recommended buffers is expected to avoid and minimize the potential for project-related nest abandonment and failure of fledging, and minimize any disturbance to nesting behavior. If the biologist determines that Project activities cause or contribute to a bird leaving a nest or other signs of disturbance of a nesting bird at a level that has potential to cause nest failure, the buffer will be re-evaluated and revised if necessary. Buffers could allow for drive-through access, but not sustained work. Once a nest buffer is established, the monitoring frequency and construction restrictions for each nest will depend on the bird's sensitivity to disturbance from the specific work activity.

2.3 Passive Deterrents

To minimize harm to birds or their eggs or young, passive deterrents will be implemented in advance of construction to minimize the potential for nests to become established in active work areas. Possible passive deterrents are described below:

- Removing vegetation from the active construction area;
- Installation of appropriate-sized mesh netting or tarps on construction equipment and materials in material storage and contractor yards, or other project equipment or facilities (mesh should be no greater than a 0.75 inches);
- Covering staged/stored straw wattle and other potential nesting substrate in active construction areas, if used;
- Wrapping, stuffing, or covering ends of pipes or other materials that could attract birds for nesting;
- Managing construction yard trash to reduce potential food sources in active construction areas.

All nesting deterrents are intended to prevent nesting attempts and do not include the use of devices that prevent nesting from continuing once a nest is built.

2.4 Nest Monitoring

Nests located in proximity to active work (e.g., excavation, trenching, demolition, staging) will be monitored to assure that disturbance resulting from the project does not increase the potential for nest failure.

Monitoring will be conducted by a qualified biologist as needed to determine if the recommended buffer is effective during active work in proximity to the nest. Frequent monitoring (e.g., daily) will occur during the initial construction work or when there is a significant change in work activity. All data collected by the biologist will be entered into the nest monitoring log.

Nest monitoring will cease when the final nest completion determination is made (i.e., fledged, failed, etc.).

Specific Nest Monitoring Methods

- Nests will be monitored from a distance using binoculars or a spotting scope whenever possible to minimize nest disturbance.
- Approaching the nest may be necessary to gather useful information. When approaching a nest, the biologist will first determine whether there are any potential nest predators nearby. If no predators are observed, the biologist will approach the nest.

If work activities are found to result in destruction of a nest by the biologist, the CDFW will be notified within 24 hours via email.

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3 REPORTING

3.1 Preconstruction Nest Survey Reports

The preconstruction nest survey reports will document the preconstruction nest survey results at each work area. The preconstruction nest survey reports will be available to the CDFW upon request.

At a minimum, preconstruction nest survey reports will include the following information:

- Date
- Biologist name
- Description of Survey Area
- Proposed Construction Activity
- Survey Conditions
    - Start and End Time
    - Start and End Temperature
    - Start and End Wind Speed (miles per hour)
    - Start and End % Cloud Cover
    - Precipitation Type and Duration, if any
    - Habitat and Vegetation Description
- Nest Information, as needed
    - Unique ID
    - Date Observed
    - Species
    - Nest Status (e.g., nest building, incubating, etc.)
    - Observation Details
    - Distance to Construction Activity (feet)
    - Established Buffer Size
    - Buffer Justification.

3.2 Nest Monitoring Log

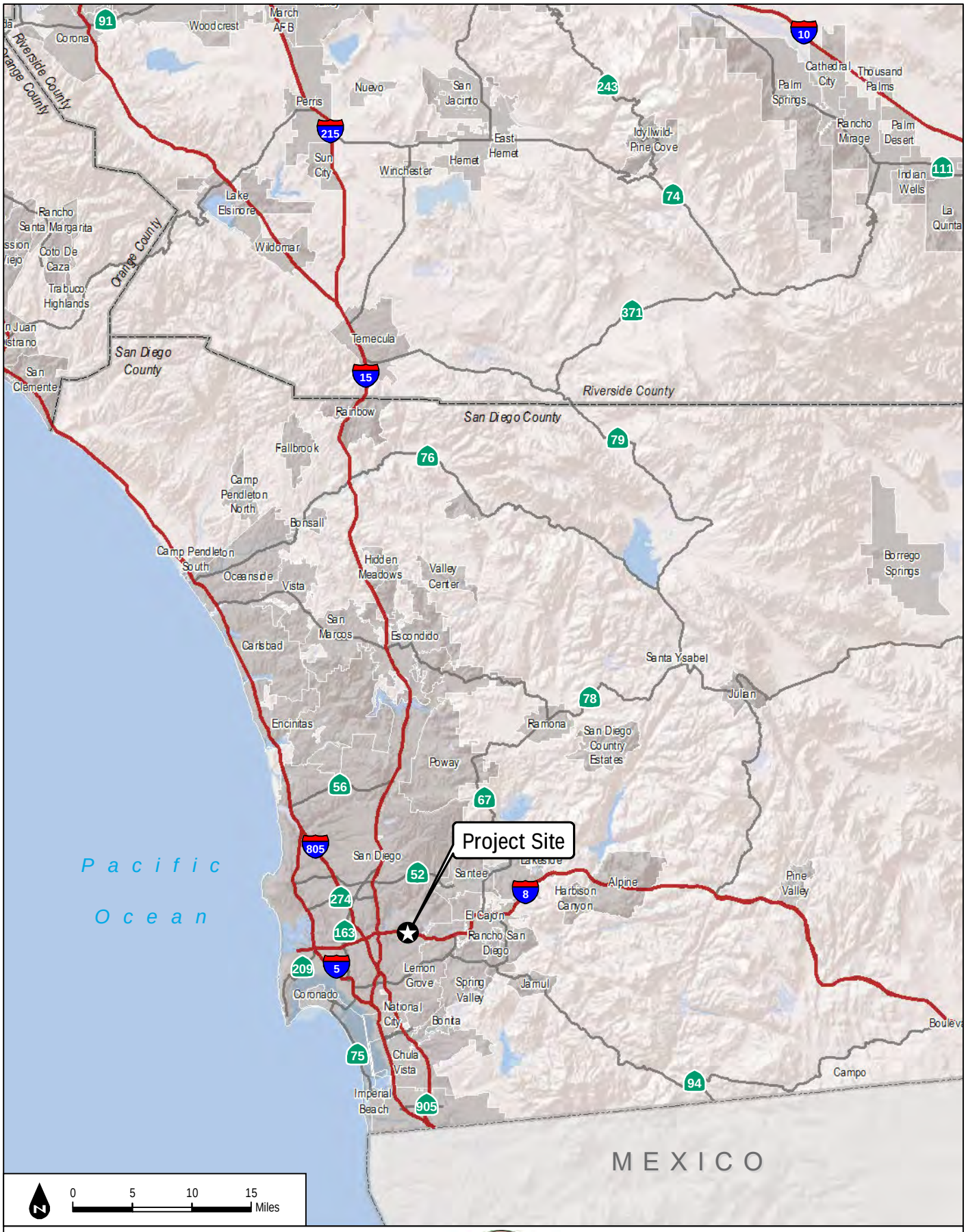
The nest monitoring log will be updated regularly during the nesting season and will be submitted to the CDFW monthly via email.

At a minimum, the nest monitoring log will include the following information for each nest that is monitored:

- Unique ID
- Date Observed
- Species
- Nest Status (e.g., nest building, incubating, etc.)
- Observation Details
- Distance to Construction Activity (feet)
- Established Buffer Size
- Buffer Justification
- Construction Activity Nearby
- Nest Outcome (e.g., fledged, failed, construction complete, etc.; number of young if known)
- Nest Outcome Date.

APPENDIX A

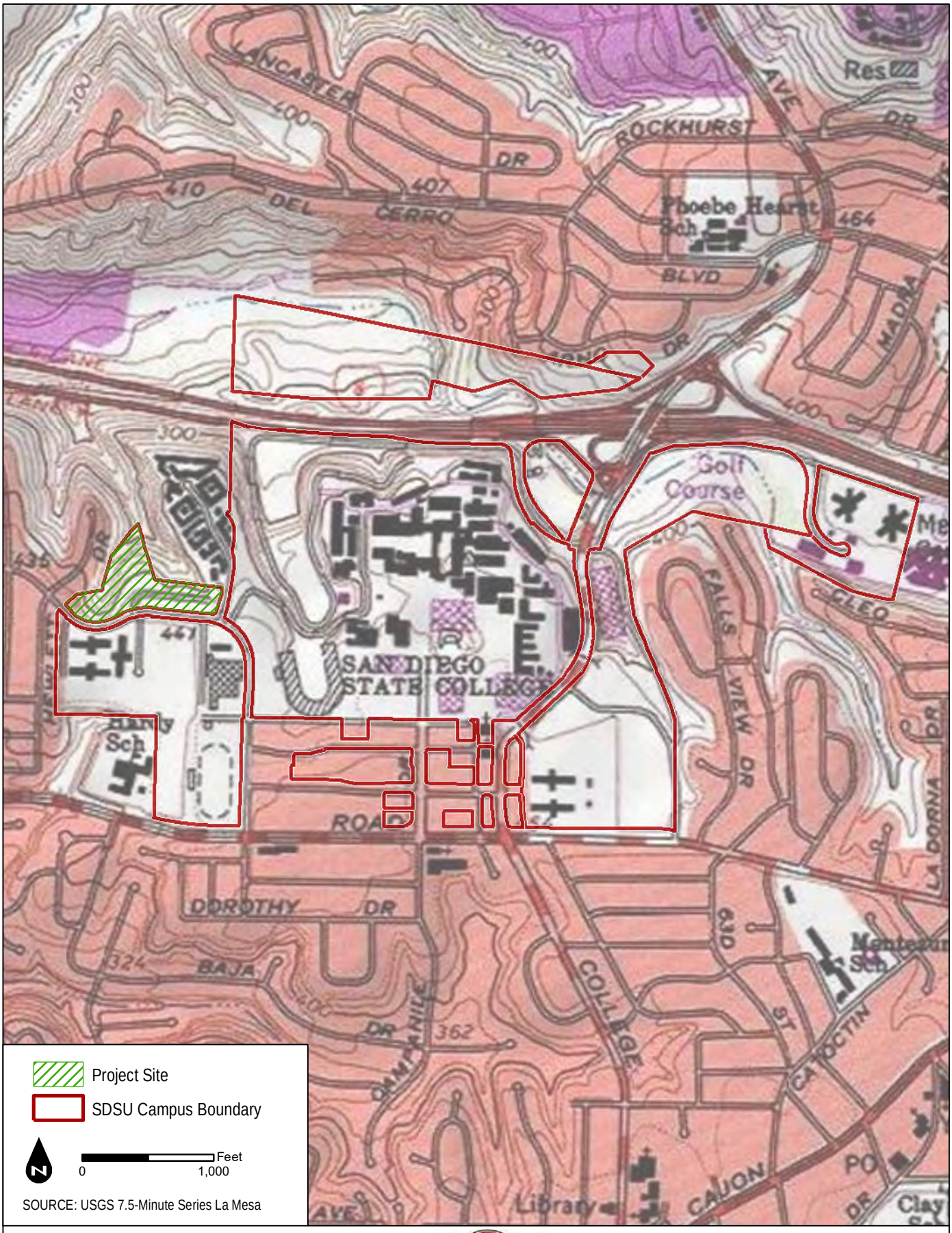
Figures



SDSU New Student Housing Project
Avian Monitoring Plan

SAN DIEGO STATE UNIVERSITY

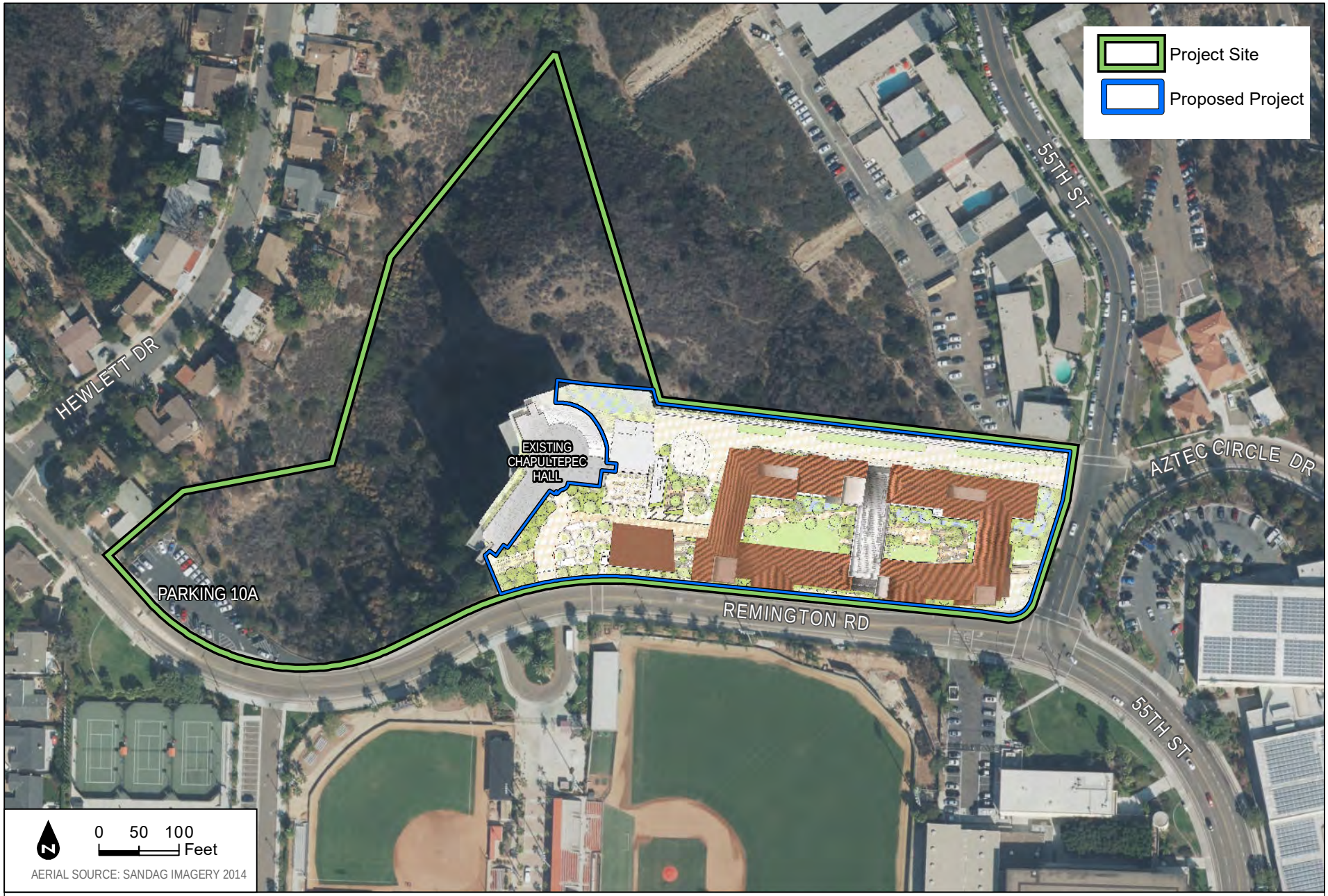
Figure 1
Regional Map



SDSU New Student Housing Project
Avian Monitoring Plan

SAN DIEGO STATE UNIVERSITY

Figure 2
Vicinity Map



SDSU New Student Housing Project

Avian Monitoring Plan

San Diego State University

Figure 3

Proposed Site Plan

Document Path: Z:\Projects\10105011\MAPDOC\DOCUMENT\Tech Reports\Avian Monitoring\AMR Fig 3 Proposed Site Design.mxd

The SDSU CAP is not a CEQA-certified GHG reduction plan; however, for informational purposes, the New Student Housing Project's consistency is evaluated against the SDSU CAP's GHG emission reduction measures in the table below.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
	Energy	
1.1.1	Implement recommendations from the optimization study. SDSU is already shutting off one turbine during wholesale off-peak periods. The next step is to upgrade meters and explore real-time optimized operation.	*Not Applicable.* The optimization study referenced in the measure pertains to the campus' co-generation plant, not the New Student Housing Project.
1.1.2	Complete central energy system study that will focus on developing a long-term strategy to reduce lifecycle costs and allow campus to achieve carbon neutrality cost effectively. The target completion of this study is May 2017.	*Not Applicable.* The measure requires SDSU to prepare a central energy system study that evaluates the campus as a whole. The New Student Housing Project would not impair SDSU's ability to complete the referenced study.
1.1.3	Complete Fowler Athletic Center chiller plant upgrades including connection to main chiller plant.	*Not Applicable.* The measure applies to the Fowler Athletic Center chiller, not the New Student Housing Project.
1.1.4	Replace insulation on thermal energy storage tanks.	*Not Applicable.* The measure calls for the replacement of insulation on existing thermal energy storage tanks. The New Student Housing Project would be new development and does not include existing thermal energy storage tanks.
1.1.5	Implement central plant overhaul as identified in central energy study.	*Not Applicable.* The measure applies to the campus' central plant, not the New Student Housing Project.
1.2.1	Implement an EIS that captures the core functionality needed, including utility bill management, auxiliary recharge, existing building-level metering, dashboards and fault-detection diagnostics.	*Consistent*. The New Student Housing Project's residence halls and food service building would include sub-metering on each building and building information systems to monitor, track, and manage the Project's energy systems. (As defined in the CAP, "EIS" refers to "energy information system.")
1.2.2	Upon success of the initial EIS launch, expand the buildings covered by fault-detection diagnostics.	*Consistent*. The New Student Housing Project would be constructed with EIS and fault-detection diagnostics.
1.2.3	Continue the campuswide metering effort to install building-level meters of all utilities. Any major renovations, controls retrofits or MBC_x projects will install building-level metering at a minimum.	*Consistent*. The New Student Housing Project's residence halls and food service building would include sub-metering on each building.
1.3.1	Complete project to develop new front end and replace Robertshaw DMS through Chancellor's Office-funded HVAC Controls Modernization Project. This project will also ensure existing DDC systems are visible and trending.	*Not Applicable.* The measure applies to the Robertshaw DMS (a legacy direct digital control system), not the New Student Housing Project.
1.3.2	Complete effort to securely allow front end to be viewed by appropriate individuals from multiple locations (office, field, home).	*Consistent*. The New Student Housing Project would tie into the existing EIS, which would utilize the new front end system.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
1.3.3	Begin adjusting heating and cooling temperatures. Buildings with zone-level control should decrease heating and increase cooling temperatures until the targets of 68-70º F and 74-76º F are reached. This effort will start in buildings with capability to set different heating and cooling temperatures remotely.	*Consistent*. The New Student Housing Project's residence halls and food service building would include building information systems to monitor, track, and manage the energy systems within the Project. The HVAC systems associated with the structures also would be maintained in accordance with SDSU guidelines to reduce energy usage.
1.3.4	Ensure that a preventative maintenance schedule is in place for controls systems. Carbon dioxide sensors and economizers should take high priority, as these are common failure points.	*Consistent*. The New Student Housing Project's residence halls and food service building would be included in any preventative maintenance schedule developed by the campus.
1.3.5	Investigate and address excessive nighttime cooling usage.	*Consistent*. The New Student Housing Project would monitor and evaluate nighttime cooling and adjust control systems (e.g., thermostats) to maintain the proper balance between comfort and energy use.
1.3.6	Develop process to regularly update equipment operational schedules to more closely meet campus needs, including optimum start and resets. Investigate opportunities to automate scheduling process.	*Consistent*. The New Student Housing Project would be included in the development of equipment operational schedules.
1.3.7	Explore campuswide pumping efficiency effort, including the utilization of energy valves and conversion of three-way to two-way valves.	*Consistent*. The New Student Housing Project would include two-way valves in its construction and participate in campuswide pumping efficiency efforts.
1.3.8	Complete conversion from pneumatics and Robertshaw DMS.	*Not Applicable.* The measure applies to the Robertshaw DMS (a legacy direct digital control system), not the New Student Housing Project.
1.4.1	Enact HVAC-related actions from Building Automation and Preventative Maintenance sections.	*Consistent*. The New Student Housing Project would be included in the campus' preventive maintenance programs.
1.4.2	Develop budget for regularly scheduled replacement of mechanical equipment.	*Consistent*. The New Student Housing Project would be included in the budget for mechanical equipment replacement.
1.4.3	Pilot duct-sealing project on five buildings.	*Not Applicable.* The measure relates to sealing existing ducts in existing buildings.
1.5.1	Begin conducting a minimum of three MBC_x projects each year, increasing to five. Complete commissioning of all major buildings by 2025.	*Consistent*. Although this relates specifically to existing buildings, the New Student Housing Project's residence halls and food service building will be commissioned as part of the construction process. (Building commissioning is the process of verifying all (or some, depending on scope) of the subsystems for mechanical (HVAC), plumbing, electrical, fire/life safety, building envelopes, interior systems (example laboratory units), co-generation, utility plants, sustainable systems, lighting, etc. The Project's systems will then be re-commissioned on the schedule set by SDSU. (As defined in the CAP, "MBC_x" refers to "Monitoring-Based and Continuous Commissioning.")

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
1.5.2	Determine feasibility of creating an in-house MBC_x team to implement recommendations identified by MBC_x and fault-detection diagnostic system.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
1.5.3	Develop a continuous commissioning program to ensure that savings continue to be achieved and that new problems are quickly identified. This will be based on the fault-detection diagnostics system provided by the new EIS.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
1.5.4	Implement recommendations from Storm-Nasatir Measurement and Verification report.	*Not Applicable.* The New Student Housing Project is not included in the report referenced in the measure.
1.6.1	Complete first phase of exterior lighting retrofit project, prioritizing retrofitting exterior fixtures, starting with parking lots, roadways and parking structure roofs.	*Not Applicable.* The New Student Housing Project would result in new development, thus opportunities to retrofit existing lighting would not exist. Note also that the Project would include high-efficiency lighting as part of its design.
1.6.2	Explore opportunities for campuswide interior lighting retrofit. Both new fixture replacements and retrofits will be considered.	*Not Applicable.* The New Student Housing Project would result in new development, thus opportunities to retrofit existing lighting would not exist. Note also that the Project would include high-efficiency lighting as part of its design.
1.6.3	Include advanced lighting controls, like daylighting and task-tuning, in new construction and renovation. Controls will meet Title 24 Energy Code as a minimum.	*Consistent.* The New Student Housing Project would comply with applicable provisions of the Title 24 Energy Code.
1.7.1	Implement ENERGY STAR and energy-efficiency purchasing requirements. Computers, monitors and other devices that qualify for the Electronic Product Environment Assessment Tool will be certified at a Silver level.	*Consistent*. The New Student Housing Project's residence halls and food service building would install and utilize ENERGY STAR equipment where available.
1.7.2	Test and select a computer power-management solution.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
1.7.3	Release campus energy policy that bans personal space heaters and large fans and discourages personal refrigerators and coffee makers.	*Consistent.* The New Student Housing Project's employees and staff would be required to enforce campus energy policy in the residence halls.
1.7.4	For large, departmental process loads, provide delta funds through the revolving loan fund to pay for additional cost of more-efficient equipment. This will be piloted with ultra-low temperature freezers.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
1.8.1	Support Associated Students in its efforts to install additional solar capacity to meet its goals.	*Not Applicable.* The measure relates to the Associated Students' (AS) goal of achieving net zero power for their facilities, such as the Aztec Recreation Center, Student Union, Viejas Arena, Open Air Theater and some recreational fields. AS' goal is to construct solar panels either on AS facility roofs, campus parking lots or structures to provide solar capacity that equals or exceeds the power collectively used by AS facilities. The entire campus will benefit from the increased solar power in the energy mix; as such, it is envisioned as a campus resource, not specific to a particular building.
1.8.2	Pursue solar Power Purchase Agreement bids with the Chancellor's Office.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by the campus in concert with the Chancellor's Office.
1.8.3	Investigate battery storage as part of the Chancellor's Office systemwide effort.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by the campus in concert with the Chancellor's Office.
1.8.4	Include solar in LEED projects to achieve net zero energy at the building or from panels installed elsewhere on campus.	*Not Applicable* This relates to Measure 1.8.1; please see assessment provided above.
1.8.5	Complete central energy study that will look alternatives to the current co-generation system, including solar, to meet GHG emissions goals.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
1.8.6	Increase green-power portion of purchased electricity.	*Not Applicable.* The measure does not apply to the New Student Housing Project, and relates to general energy procurement decisions made on a campuswide basis.
Transportation		
2.1.1	Enroll the campus community in pretax benefits for transit.	*Not Applicable.* The measure does not apply to the New Student Housing Project, and relates to campuswide programming efforts.
2.1.2	Conduct parking pricing, bikeway and shared mobility network study.	*Not Applicable.* The measure does not apply to the New Student Housing Project, and relates to campuswide planning efforts.
2.1.3	Explore feasibility of a universal transit pass.	*Not Applicable.* The measure does not apply to the New Student Housing Project, and relates to campuswide planning efforts.
2.1.4	Continue to improve and increase on-campus housing and amenities.	*Consistent*. The New Student Housing Project includes housing for students, a dining commons, and recreation.
2.1.5	Identify potential carpool and vanpool incentives to reduce single-vehicle occupancy trips.	*Not Applicable.* The measure does not apply to the New Student Housing Project, and relates to campuswide programming efforts.
2.1.6	Improve bicycle and pedestrian amenities –install bike-repair stations, access to bike lockers and shower facilities, explore bike-share option and conduct extensive marketing.	*Consistent*. The New Student Housing Project includes on-site bike parking for all residents and employees.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
2.1.7	Enhance student outreach and engagement. Provide a summary of transportation options to students before orientation and develop a transportation resources section on sustainability website.	*Consistent*. The residence halls proposed by the New Student Housing Project would participate in the student outreach and engagement program for transportation resources.
2.1.8	Complete vehicle replacement plan for Facilities Services and begin purchasing electric carts.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
2.1.9	Increase electric vehicle-ready infrastructure as identified.	*Not Applicable.* On-campus parking is a campuswide resource and electric vehicle-ready infrastructure is provided in lots and structures that are more generally available to the campus. Because the New Student Housing Project would not provide parking that is available to the campus at large, the measure is not applicable.
2.1.10	Study feasibility of telecommuting options for regular commuting, meetings and conferences.	*Not Applicable.* The measure does not apply to the New Student Housing Project, and relates to campuswide programming efforts.
Water		
3.1.1	Complete turf conversion project through Campus as a Living Lab.	*Consistent*. The New Student Housing Project only would include turf in areas designated for recreation and special events.
3.1.2	Enact landscape policy limiting turfgrass to functional areas, specifying irrigation system requirements and setting plant-palette guidelines.	*Consistent*. The New Student Housing Project only would include turf in functional areas designated for recreation and special events.
3.1.3	Convert identified nonprogrammable lawns to drought-tolerant landscaping with high-efficient irrigation. SDSU has retained a landscape architect to survey existing turf areas in an effort to reduce environmental impact and improve aesthetics.	*Consistent*. The New Student Housing Project only would include turf in areas designated for recreation and special events. No aesthetic turf is included in the Project. All other landscaping is drought tolerant.
3.1.4	Convert irrigation to rotators or drip as appropriate.	*Consistent*. The New Student Housing Project's irrigated acreage would utilize rotators or drip, as appropriate.
3.1.5	Enact a tree planting-to-removal ratio of 2:1.	*Consistent.* The New Student Housing Project would plant trees at a ratio of 2:1 for those that are removed.
3.1.6	Overhaul water budget to reflect soil type, canopy coverage, irrigation efficiency, microclimates and plant type.	*Not Applicable.* The measure refers to an overhaul of the campuswide water budget, and does not apply specifically to the New Student Housing Project.
3.1.7	Pilot biological testing to direct-amendment application.	*Not Applicable.* The New Student Housing Project may participate in the pilot testing, if selected. However, the measure does not directly apply to the Project.
3.1.8	Complete a test on water-retention amendments, such as biochar, polymers, or crystals, on Campanile Mall.	*Not Applicable.* The measure pertains to Campanile Mall, not the New Student Housing Project.
3.2.1	Complete survey of once-through potable water equipment and develop conversion project.	*Not Applicable.* The New Student Housing Project does not include once-through potable water equipment; therefore, the measure does not apply.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
3.2.2	Analyze advanced cooling tower technologies like soft water, reverse osmosis and chemical-free treatment.	*Not Applicable.* The New Student Housing Project does not include cooling towers; therefore, the measure does not apply.
3.3.1	Complete leak-detection survey and address discovered issues.	*Not Applicable.* The measure relates to existing facilities and infrastructure.
3.3.2	Receive cost estimate to convert high- and standard-flow fixtures to low-flow fixtures.	*Not Applicable.* The measure refers to the retrofit of existing plumbing fixtures. As the New Student Housing Project proposes new development, the measure would not apply. However, please note that the Project's design includes low-flow fixtures.
3.3.3	Develop system to identify and address excessive flushing.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
3.3.4	Complete showerhead pilot effort.	*Consistent.* The New Student Housing Project would utilize low-flow showerheads.
3.3.5	Continually test new, more-efficient fixtures.	*Consistent*. The New Student Housing Project will include low-flow, highly efficient water fixtures in the residence halls. The Project would participate in future test cases, if selected.
	Waste	
4.1.1	Continue with assessments and ordering of new bins through the waste hauler. Focus on classrooms and public areas.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
4.1.2	Codify bin standards on projects going forward.	*Consistent.* The New Student Housing Project would utilize codified bin standards.
4.1.3	Develop system to better advertise available surplus.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
4.1.4	Continue installing hydration stations. Show locations on campus map.	*Consistent.* The New Student Housing Project would install hydration stations and the location of the stations would be identified on the campus map, with a note that the stations are available to students and their guests.
4.1.5	Prepare for and participate in post-consumer food composting when locally available.	*Consistent*. The New Student Housing Project's dining commons will participate in food waste composting programs, when locally available.
4.2.1	Complete website and publish recycling information online. Integrate with the Energy Information System.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
4.2.2	Create a highly visible zero-waste campaign to promote recycling guidelines, zero-waste campus events and green office certifications.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department. However, the Project would participate in campaigns to promote zero-waste events and programs on campus.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
4.2.3	Continue to engage custodial staff. Develop standard operating procedures for recycling.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
4.2.4	Engage in comprehensive recycling outreach program within housing and during orientation.	*Consistent*. The New Student Housing Project's residents would receive recycling and waste diversion outreach during new student orientation on how and where to recycle in accordance with the campus recycling policy.
4.2.5	Increase effort to implement waste-reduction measures, such as surplus and double sided printing.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by the Campus Sustainability Council.
4.2.6	Expand special disposal programs for students, faculty and staff—both continuously and during drop-off events.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
4.2.7	Complete paperless reporting effort in Accounts Payable.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Accounts Payable Department.
Preventive Maintenance		
5.1.1	Complete priority of PM tasks based on resource availability. If an ideal PM schedule cannot be met for a piece of equipment, it should still be maintained on some level of frequency. Contracted services, such as cooling tower cleaning, should also be included. Predictive maintenance can be used for specific items, such as filter changes, to optimally mange resources.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
5.1.2	Specific areas of focus for mechanical services include filter changes, heating and cooling coil cleaning, economizer operation, cooling and heating valve operation, sensor calibration, and carbon dioxide sensors.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
5.1.3	Continue regular irrigation system checks.	*Consistent*. The New Student Housing Project's greenspace areas would be subject to regular irrigation system checks in collaboration with the campus' Grounds Maintenance Department.
5.1.4	Implement a system to check for leaks and phantom flushing in plumbing fixtures.	*Consistent*. The New Student Housing Project's plumbing fixtures would be subject to checks in collaboration with SDSU's Facilities Services Department.
5.1.5	Develop process to bring equipment from new construction and renovations into the CMMS.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department. However, the Project would participate in the program and include its equipment in the CMMS.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
5.1.6	Gauge program resource needs after implementation of new PM program and staff hires.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
New Construction and Renovations		
6.1.1	Adopt LEED Silver certification as the campus standard for new construction and major renovation. All projects over $10 million will trigger certification requirements. Projects will be analyzed for feasibility to achieve a Gold or Platinum rating.	*Consistent*. The New Student Housing Project's residence halls and food service building have been designed and will be certified to at least a LEED Silver rating. The Project's structures will be evaluated for certification at a higher LEED level once the designs are finalized.
6.1.2	Identify a set of sustainability guidelines, informed by LEED, that all projects—regardless of size—must comply with.	*Not Applicable.* The measure relates to campuswide sustainability policy; the New Student Housing Project would comply with applicable sustainability guidelines, where issued and applicable.
6.1.3	Revise set of campus buildings standards that will apply to new construction, major renovations and smaller projects—whether in-house or contracted out. Review for sustainability elements.	*Not Applicable.* The measure relates to campuswide sustainability programming efforts; the New Student Housing Project would apply with applicable sustainability guidelines, where issued and applicable.
6.1.4	Require the use of total-cost-of-ownership model, with inputs from capital costs, energy models and anticipated maintenance and replacement costs.	*Consistent*. SDSU evaluated the feasibility of the New Student Housing Project based on a lifecycle model, which evaluated total cost of ownership. This resulted in a design that increased daylighting, included green roofs, and highlighted the use of alternative transportation.
6.1.5	Create and adopt maximum energy-use intensity targets.	*Not Applicable.* The measure relates to campuswide sustainability programming efforts; the New Student Housing Project would apply with applicable sustainability guidelines, where issued and applicable.
6.2.1	Complete a campuswide assessment for the potential of LEED EBOM certification. The focus will be on compliance with high-level programmatic and performance elements, as well as opportunities to improve.	*Not Applicable.* The measure relates to campuswide sustainability programming efforts; the New Student Housing Project would apply with applicable sustainability guidelines, where issued and applicable. The measure also applies to existing buildings, not new construction like that proposed by the Project.
6.2.2	Achieve LEED EBOM certifications in two general fund campus buildings by end of 2018.	*Not Applicable.* The measure applies to existing buildings, not new construction like that proposed by the Project.
6.2.3	Complete Ongoing Purchasing and Waste Policy and the Facilities Maintenance and Renovations Policies to meet LEED EBOM prerequisites.	*Not Applicable.* The measure applies to existing buildings, not new construction like that proposed by the Project.
6.2.4	Compile and submit reporting for the latest version of STARS.	*Not Applicable*. This measure is a campus wide sustainability rating and is not implemented on an individual building or project basis.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
	Food	
7.1.1	Analyze total sustainable food purchases with both the Real Food Challenge and Certified Green Restaurant standards. Increase sustainable food purchases to meet the CSU sustainability policy goal of 20% by 2020.	*Consistent*. The New Student Housing Project's dining commons would implement a sustainable food purchasing program in accordance with campus policy. The Project would ensure that at least 20% of food purchases meet the Real Food Challenge and Certified Green Restaurant standards to meet the CSU sustainability goal.
7.1.2	Ensure all food vendors to be certified as Level 2 under the Certified Green Restaurant standards.	*Consistent*. The New Student Housing Project's dining commons would require all food vendors to be certified to a Level 2 under the Certified Green Restaurant standards.
7.1.3	Increase self-operated facilities from Level 2- to Level 3-certified.	*Consistent*. The New Student Housing Project's dining commons would be certified to meet the Green Restaurant Associations Certified Green Restaurant Level 3 standard.
7.1.4	Provide additional vegan and vegetarian options and outreach to reduce meat intake and related carbon emissions.	*Consistent*. The New Student Housing Project's dining commons would include vegan and vegetarian options for residents and guests.
7.1.5	Prepare and participate in post-consumer composting when available.	*Consistent*. The New Student Housing Project would participate in a post-consumer composting program when available.
7.1.6	Expand No Waste program to recover more edible food.	*Consistent*. The New Student Housing Project would participate in the No Waste program to recover more edible food.
7.1.7	Grow more food on campus, including through hydroponic towers.	*Consistent*. The New Student Housing Project will participate in the campus food growing program and include on-site food growing, if feasible.
	Engagement	
8.1.1	Complete sustainability website, with a section highlighting energy projects and performance. Engage in larger social media efforts.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
8.1.2	Strengthen partnership with Marketing and Communications to produce SDSU News Center content and inclusion in other communications like provost's and University Research and Development's newsletters.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Marketing and Communications Department.
8.1.3	Increase collaboration with students. Expand team of student sustainability interns and increase engagement with student groups.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
8.1.4	Roll out public-facing dashboards with energy information system.	*Consistent.* The New Student Housing Project would include a public-facing dashboard displaying energy information.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
8.1.5	Participate in Recyclemania and other sustainability competitions.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department and the Department of Residential Education.
8.1.6	Develop a green office certification program supported by a network of sustainability liaisons within departments.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
8.1.7	Create partnerships with academics to analyze data.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
8.1.8	Include sustainability training in new employee onboarding.	*Consistent*. SDSU would provide sustainability training to new employees at the New Student Housing Project's residence halls and food service building.
Housing and Residential Life		
8.2.1	Provide and improve sustainability guidance at orientation and as residents move into the halls.	*Consistent*. SDSU would provide sustainability guidance during new student orientation at the New Student Housing Project's residence halls.
8.2.2	Include sustainability and recycling information in the student handbook provided to new students during orientation.	*Consistent*. SDSU would include sustainability and recycling information in the new student handbook during orientation at the New Student Housing Project's residence halls.
8.2.3	Create sustainability advocates' program.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department in cooperation with the Department of Residential Education.
8.2.4	Provide consistent and expand recycling signage.	*Consistent.* The New Student Housing Project would include recycling signage that meets applicable campus standards.
8.2.5	Improve waste collection system based on bin study.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
8.2.6	Educate residence hall and apartment staff on sustainability during summer training.	*Consistent*. The employees and staff of the New Student Housing Project's residence halls and food service building would participate in the summer training, which would address sustainability.
8.2.7	Develop green certification program for on-campus rooms/unit.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Facilities Services Department.
8.2.8	Advertise move-in as a zero-waste event.	*Consistent*. SDSU would advertise move-in as a zero-waste event and will coordinate with campus housing to maximize solid waste diversion during move-in events at the New Student Housing Project's residence halls.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
8.2.9	Replace failed exterior bulbs with LED or high-efficiency compact fluorescent bulbs.	*Consistent*. The New Student Housing Project's design includes LED or other equivalent high-efficiency bulbs.
8.2.10	Connect Maya and Olmeca Halls to the existing residence hall Building Automation System to achieve 100% BAS control.	*Not Applicable.* The measure applies to the Maya and Olmeca Halls, not the New Student Housing Project.
8.2.11	Install metering in Maya and Olmeca Halls for natural gas, water, electricity, heating and cooling meters.	*Not Applicable.* The measure applies to the Maya and Olmeca Halls, not the New Student Housing Project.
Academic and Research		
9.1.1	Identify courses, faculty and research related to sustainability. Make available on campus sustainability website. Utilize this information to achieve STARS certification. Explore opportunities to formalize this distinction.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Academic Affairs Department.
9.1.2	Provide opportunities for researchers working on sustainability issues to collaborate. This could include symposia, luncheons and rapid presentations like Pecha Kucha.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Office of Academic Affairs
9.1.3	Develop and share resources (readings, presentation slides) on relevant topics, including climate change.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Office of Academic Affairs
9.1.4	Investigate options for sustainability literacy assessments.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Office of Academic Affairs
Purchasing		
10.1.1	Implement sustainability policy, including purchasing.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Purchasing Department.
10.1.2	Improve system to track and enforce compliance of purchasing policies.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Purchasing Department.
Funding		
10.2.1	Complete first revolving loan fund project, the MBC_x of the Chemical Sciences Laboratory.	*Not Applicable.* The measure applies to the Chemical Sciences Laboratory, not the New Student Housing Project.
10.2.2	Pilot tracking projects in Green Revolving Investment Tracking System (GRITS).	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Business and Financial Affairs Department.
10.2.3	Vet alternative financing options through Budget and Finance.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Business and Financial Affairs Department.
10.2.4	Discuss development of sustainability fund with The Campanile Foundation.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Business and Financial Affairs Department.

Evaluation of New Student Housing Project's Consistency with SDSU CAP

Measure Number	Policy Objective or Strategy	Consistency Analysis
10.2.5	Re-establish utility incentives based on modified co-generation operation.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Business and Financial Affairs Department.
Policy		
10.4.1	Approve policy to be reviewed by the Climate Action Planning Council and approved by Business and Financial Affairs. Draft policy is provided in the Appendix.	*Not Applicable.* The measure calls for a policy action not specifically related to construction or the New Student Housing Project.
10.4.2	Publicize energy and sustainability policy and encourage compliance and additional recommendations.	*Not Applicable.* The measure does not apply to the New Student Housing Project and will be implemented and accomplished by SDSU's Climate Action Planning Council.

Source: SDSU 2017.

As shown in the table above, the New Student Housing Project would be consistent with applicable policy measures in the CAP. Of particular note, the Project would support the CAP's goals and measures and help SDSU reduce GHG emissions from one of its largest sources, student commuting, by providing additional on-campus housing.

SDSU West Campus Housing Project

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Quality Restaurant	16.10	1000sqft	0.37	16,100.00	0
Recreational Swimming Pool	6.40	1000sqft	0.15	6,400.00	0
Apartments Mid Rise	249.00	Dwelling Unit	2.34	205,000.00	850

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	1220.81	**CH4 Intensity (lb/MWhr)**	0.049	**N2O Intensity (lb/MWhr)**	0.01

1.3 User Entered Comments & Non-Default Data

Project Characteristics - GHG intensity based on SDSU provided energy mix.

Land Use - Based on data provided by SDSU. See Section 2.0 of the DEIR for more information.

Construction Phase - Based on data provided by SDSU. See Section 2.0 of the DEIR for more information.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

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Off-road Equipment - See Section 2.6.2 for Construction Details.

Trips and VMT - See Section 2.6.2 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Demolition - No demolition of structures anticipated for this project.

Grading - See Section 2.6.2 for Construction Details.

Architectural Coating - No VOC paint used for interior. It was assumed 5 g/L to be conservative. No exterior architectural coating.

Vehicle Trips - Based on Traffic Impact Analysis, Linscott, Law & Greenspan, Engineers 2017.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No woodstoves or fireplaces.

Consumer Products - CalEEMod defaults.

Area Coating - The campus standard is a No VOC paint. It was conservatively assumed 5 g/L for interior and 50 g/L for exterior.

Landscape Equipment - CalEEMod defaults.

Energy Use - Based on energy usage from SDSU. See Section 2.0 of the DEIR for more information.

Water And Wastewater - Based on water usage from SDSU. See Section 2.0 of the DEIR for more information.

Solid Waste - CalEEMod defaults.

Land Use Change - Does not apply to this project.

Sequestration - Does not apply to this project.

Construction Off-road Equipment Mitigation - Fugitive dust mitigation in accordance with SDAPCD Rule 55.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No commute mitigation.

SDSU West Campus Housing Project - San Diego County APCD Air District, Annual

Area Mitigation - The campus standard is a No VOC paint. It was conservatively assumed 5 g/L for interior and 50 g/L for exterior.
Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - CSU Sustainability Policy goal of 80% diversion by 2020.

Stationary Sources - Emergency Generators and Fire Pumps - There is 1 emergency generator for each project phase.

Stationary Sources - Process Boilers - Does not apply to this project.

Stationary Sources - User Defined - Does not apply to this project.

Stationary Sources - Emergency Generators and Fire Pumps EF - CalEEMod defaults.

Stationary Sources - Process Boilers EF - Does not apply to this project.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	5.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	5.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	5
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	741.44	9,143.74
tblEnergyUse	LightingElect	6.97	9.06
tblEnergyUse	NT24E	3,277.06	40,414.03
tblEnergyUse	NT24E	23.69	30.78
tblEnergyUse	NT24NG	4,180.00	56,636.77
tblEnergyUse	NT24NG	138.46	294.29
tblEnergyUse	T24E	246.93	3,045.24
tblEnergyUse	T24E	8.63	11.21

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tblEnergyUse	T24NG	4,687.93	63,518.95
tblEnergyUse	T24NG	36.10	76.73
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	136.95	0.00
tblFireplaces	NumberNoFireplace	24.90	0.00
tblFireplaces	NumberWood	87.15	0.00
tblFleetMix	FleetMixLandUseSubType	Quality Restaurant	Apartments Mid Rise
tblFleetMix	FleetMixLandUseSubType	Recreational Swimming Pool	Quality Restaurant
tblFleetMix	FleetMixLandUseSubType	Apartments Mid Rise	Recreational Swimming Pool
tblGrading	AcresOfGrading	74.25	94.50
tblGrading	MaterialExported	0.00	3,111.00
tblGrading	MaterialImported	0.00	30,209.00
tblLandUse	BuildingSpaceSquareFeet	249,000.00	205,000.00
tblLandUse	LandUseSquareFeet	249,000.00	205,000.00
tblLandUse	LotAcreage	6.55	2.34
tblLandUse	Population	712.00	850.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.049
tblProjectCharacteristics	CO2IntensityFactor	0	1220.81
tblProjectCharacteristics	N2OIntensityFactor	0	0.01
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00

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tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	140.00
tblTripsAndVMT	HaulingTripNumber	4,165.00	2,200.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	30.00	20.00
tblTripsAndVMT	VendorTripNumber	30.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	24.00
tblTripsAndVMT	WorkerTripNumber	5.00	14.00
tblTripsAndVMT	WorkerTripNumber	189.00	60.00
tblTripsAndVMT	WorkerTripNumber	189.00	90.00
tblTripsAndVMT	WorkerTripNumber	189.00	440.00
tblTripsAndVMT	WorkerTripNumber	8.00	40.00
tblTripsAndVMT	WorkerTripNumber	38.00	24.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	69.00	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00

tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	12.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	HO_TL	7.50	3.40
tblVehicleTrips	HO_TTP	39.60	100.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	HW_TTP	41.60	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	38.00	0.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	6.65	6.29
tblVehicleTrips	WD_TR	89.95	0.00
tblVehicleTrips	WD_TR	33.82	0.00

tblWater	IndoorWaterUseRate	16,223,352.38	29,617,560.00
tblWater	IndoorWaterUseRate	4,886,892.77	539,353.20
tblWater	OutdoorWaterUseRate	10,227,765.63	18,671,940.00
tblWater	OutdoorWaterUseRate	311,929.33	34,426.80
tblWoodstoves	NumberCatalytic	12.45	0.00
tblWoodstoves	NumberNoncatalytic	12.45	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0957	1.3126	0.6399	1.5700e-003	0.1276	0.0448	0.1724	0.0431	0.0413	0.0844	0.0000	148.4520	148.4520	0.0339	0.0000	149.3006
2018	0.2330	1.5956	1.7607	4.8300e-003	0.2306	0.0609	0.2915	0.0618	0.0575	0.1193	0.0000	440.9430	440.9430	0.0537	0.0000	442.2849
2019	0.2364	0.9398	1.4444	3.6000e-003	0.2229	0.0429	0.2659	0.0595	0.0409	0.1004	0.0000	326.2679	326.2679	0.0286	0.0000	326.9832
Maximum	**0.2364**	**1.5956**	**1.7607**	**4.8300e-003**	**0.2306**	**0.0609**	**0.2915**	**0.0618**	**0.0575**	**0.1193**	**0.0000**	**440.9430**	**440.9430**	**0.0537**	**0.0000**	**442.2849**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0957	1.3126	0.6399	1.5700e-003	0.0652	0.0448	0.1100	0.0215	0.0413	0.0628	0.0000	148.4519	148.4519	0.0339	0.0000	149.3005
2018	0.2330	1.5633	1.7607	4.8300e-003	0.2306	0.0609	0.2915	0.0618	0.0575	0.1193	0.0000	440.9428	440.9428	0.0537	0.0000	442.2847
2019	0.2364	0.9027	1.4444	3.6000e-003	0.2229	0.0429	0.2659	0.0595	0.0409	0.1004	0.0000	326.2678	326.2678	0.0286	0.0000	326.9831
Maximum	**0.2364**	**1.5633**	**1.7607**	**4.8300e-003**	**0.2306**	**0.0609**	**0.2915**	**0.0618**	**0.0575**	**0.1193**	**0.0000**	**440.9428**	**440.9428**	**0.0537**	**0.0000**	**442.2847**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**1.80**	**0.00**	**0.00**	**10.74**	**0.00**	**8.55**	**13.14**	**0.00**	**7.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-8-2017**	**2-7-2018**	1.7465	1.7465
2	**2-8-2018**	**5-7-2018**	0.8024	0.8024
3	**5-8-2018**	**8-7-2018**	0.2303	0.2303
4	**8-8-2018**	**11-7-2018**	0.2524	0.2339
5	**11-8-2018**	**2-7-2019**	0.2869	0.2639
6	**2-8-2019**	**5-7-2019**	0.8187	0.7971
7	**5-8-2019**	**8-7-2019**	0.2396	0.2338
		Highest	1.7465	1.7465

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9421	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941
Energy	0.1935	1.6714	0.8326	0.0106		0.1337	0.1337		0.1337	0.1337	0.0000	9,623.6251	9,623.6251	0.3461	0.0983	9,661.5577
Mobile	0.2790	1.0696	2.5094	6.7200e-003	0.5218	7.0500e-003	0.5289	0.1398	6.6100e-003	0.1464	0.0000	619.3893	619.3893	0.0396	0.0000	620.3780
Stationary	0.0111	0.0311	0.0283	5.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1560	5.1560	7.2000e-004	0.0000	5.1741
Waste						0.0000	0.0000		0.0000	0.0000	33.6376	0.0000	33.6376	1.9879	0.0000	83.3358
Water						0.0000	0.0000		0.0000	0.0000	9.6875	336.6839	346.3714	1.0085	0.0263	379.4073
Total	**1.4257**	**2.7935**	**5.2256**	**0.0174**	**0.5218**	**0.1526**	**0.6744**	**0.1398**	**0.1522**	**0.2919**	**43.3251**	**10,587.8748**	**10,631.1999**	**3.3858**	**0.1245**	**10,752.9470**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9421	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941
Energy	0.1935	1.6714	0.8326	0.0106		0.1337	0.1337		0.1337	0.1337	0.0000	9,623.6251	9,623.6251	0.3461	0.0983	9,661.5577
Mobile	0.2790	1.0696	2.5094	6.7200e-003	0.5218	7.0500e-003	0.5289	0.1398	6.6100e-003	0.1464	0.0000	619.3893	619.3893	0.0396	0.0000	620.3780
Stationary	0.0111	0.0311	0.0283	5.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1560	5.1560	7.2000e-004	0.0000	5.1741
Waste						0.0000	0.0000		0.0000	0.0000	6.7275	0.0000	6.7275	0.3976	0.0000	16.6672
Water						0.0000	0.0000		0.0000	0.0000	9.6875	336.6839	346.3714	1.0085	0.0263	379.4073
Total	**1.4257**	**2.7935**	**5.2256**	**0.0174**	**0.5218**	**0.1526**	**0.6744**	**0.1398**	**0.1522**	**0.2919**	**16.4150**	**10,587.8748**	**10,604.2898**	**1.7954**	**0.1245**	**10,686.2784**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**62.11**	**0.00**	**0.25**	**46.97**	**0.00**	**0.62**

3.0 Construction Detail

Construction Phase

SDSU West Campus Housing Project - San Diego County APCD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition-Phase I	Demolition	11/8/2017	11/29/2017	5	16	
2	Grading-Phase I	Grading	11/15/2017	12/21/2017	5	27	
3	Trenching-Phase I	Trenching	12/22/2017	1/22/2018	5	22	
4	Building Construction-Phase I-1	Building Construction	1/9/2018	4/23/2018	5	75	
5	Building Construction-Phase I-2	Building Construction	4/23/2018	8/16/2018	5	84	
6	Building Construction-Phase I-3	Building Construction	8/27/2018	5/31/2019	5	200	
7	Paving-Phase I	Paving	2/8/2019	5/31/2019	5	81	
8	Architectural Coating-Phase I	Architectural Coating	3/1/2019	5/31/2019	5	66	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 415,125; Residential Outdoor: 138,375; Non-Residential Indoor: 24,150; Non-Residential Outdoor: 8,050; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Excavators	2	8.00	158	0.38
	Rubber Tired Loaders	1	8.00	203	0.36
Demolition-Phase I	Excavators	2	8.00	158	0.38
Demolition-Phase I	Rubber Tired Loaders	1	8.00	203	0.36
Grading-Phase I	Crawler Tractors	1	8.00	212	0.43
Grading-Phase I	Excavators	2	8.00	158	0.38
Grading-Phase I	Graders	1	4.00	187	0.41
Grading-Phase I	Rubber Tired Dozers	1	6.00	247	0.40

Grading-Phase I	Rubber Tired Loaders	1	4.00	203	0.36
Grading-Phase I	Scrapers	2	8.00	367	0.48
Trenching-Phase I	Excavators	2	8.00	158	0.38
Building Construction-Phase I-1	Bore/Drill Rigs	2	8.00	221	0.50
Building Construction-Phase I-1	Cranes	1	4.00	231	0.29
Building Construction-Phase I-1	Forklifts	1	2.00	89	0.20
Building Construction-Phase I-1	Generator Sets	1	8.00	84	0.74
Building Construction-Phase I-1	Pumps	1	3.00	84	0.74
Building Construction-Phase I-1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction-Phase I-2	Forklifts	1	2.00	89	0.20
Building Construction-Phase I-2	Pumps	1	2.00	84	0.74
Building Construction-Phase I-2	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction-Phase I-2	Welders	1	1.00	46	0.45
Building Construction-Phase I-3	Aerial Lifts	2	4.00	63	0.31
Building Construction-Phase I-3	Cranes	1	0.50	231	0.29
Building Construction-Phase I-3	Forklifts	1	4.00	89	0.20
Paving-Phase I	Pavers	1	8.00	130	0.42
Paving-Phase I	Rollers	2	8.00	80	0.38
Architectural Coating-Phase I	Air Compressors	4	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition-Phase I	3	24.00	0.00	140.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Grading-Phase I	8	20.00	0.00	2,200.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Trenching-Phase I	2	14.00	4.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-1	8	60.00	20.00	10.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-2	4	90.00	30.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-3	4	440.00	24.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Paving-Phase I	3	40.00	8.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating-Phase I	4	24.00	2.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.5000e-003	0.1117	0.0680	1.3000e-004		4.7500e-003	4.7500e-003		4.3700e-003	4.3700e-003	0.0000	12.3016	12.3016	3.7700e-003	0.0000	12.3959
Total	**9.5000e-003**	**0.1117**	**0.0680**	**1.3000e-004**		**4.7500e-003**	**4.7500e-003**		**4.3700e-003**	**4.3700e-003**	**0.0000**	**12.3016**	**12.3016**	**3.7700e-003**	**0.0000**	**12.3959**

3.2 Demolition-Phase I - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.7000e-004	0.0160	3.1500e-003	3.0000e-005	6.0000e-004	7.0000e-005	6.7000e-004	1.6000e-004	7.0000e-005	2.4000e-004	0.0000	3.1191	3.1191	3.3000e-004	0.0000	3.1274
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-004	7.3000e-004	7.0600e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.5247	1.5247	6.0000e-005	0.0000	1.5261
Total	**1.3800e-003**	**0.0168**	**0.0102**	**5.0000e-005**	**2.1400e-003**	**8.0000e-005**	**2.2200e-003**	**5.7000e-004**	**8.0000e-005**	**6.6000e-004**	**0.0000**	**4.6438**	**4.6438**	**3.9000e-004**	**0.0000**	**4.6536**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.5000e-003	0.1117	0.0680	1.3000e-004		4.7500e-003	4.7500e-003		4.3700e-003	4.3700e-003	0.0000	12.3016	12.3016	3.7700e-003	0.0000	12.3959
Total	**9.5000e-003**	**0.1117**	**0.0680**	**1.3000e-004**		**4.7500e-003**	**4.7500e-003**		**4.3700e-003**	**4.3700e-003**	**0.0000**	**12.3016**	**12.3016**	**3.7700e-003**	**0.0000**	**12.3959**

3.2 Demolition-Phase I - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.7000e-004	0.0160	3.1500e-003	3.0000e-005	6.0000e-004	7.0000e-005	6.7000e-004	1.6000e-004	7.0000e-005	2.4000e-004	0.0000	3.1191	3.1191	3.3000e-004	0.0000	3.1274
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-004	7.3000e-004	7.0600e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.5247	1.5247	6.0000e-005	0.0000	1.5261
Total	**1.3800e-003**	**0.0168**	**0.0102**	**5.0000e-005**	**2.1400e-003**	**8.0000e-005**	**2.2200e-003**	**5.7000e-004**	**8.0000e-005**	**6.6000e-004**	**0.0000**	**4.6438**	**4.6438**	**3.9000e-004**	**0.0000**	**4.6536**

3.3 Grading-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1134	0.0000	0.1134	0.0393	0.0000	0.0393	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0738	0.9058	0.4802	8.3000e-004		0.0376	0.0376		0.0346	0.0346	0.0000	76.8190	76.8190	0.0235	0.0000	77.4074
Total	**0.0738**	**0.9058**	**0.4802**	**8.3000e-004**	**0.1134**	**0.0376**	**0.1511**	**0.0393**	**0.0346**	**0.0739**	**0.0000**	**76.8190**	**76.8190**	**0.0235**	**0.0000**	**77.4074**

3.3 Grading-Phase I - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.3400e-003	0.2519	0.0495	5.0000e-004	9.4200e-003	1.1600e-003	0.0106	2.5900e-003	1.1100e-003	3.7000e-003	0.0000	49.0143	49.0143	5.2400e-003	0.0000	49.1454
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2800e-003	1.0300e-003	9.9200e-003	2.0000e-005	2.1700e-003	2.0000e-005	2.1800e-003	5.8000e-004	2.0000e-005	5.9000e-004	0.0000	2.1441	2.1441	8.0000e-005	0.0000	2.1461
Total	**8.6200e-003**	**0.2529**	**0.0594**	**5.2000e-004**	**0.0116**	**1.1800e-003**	**0.0128**	**3.1700e-003**	**1.1300e-003**	**4.2900e-003**	**0.0000**	**51.1584**	**51.1584**	**5.3200e-003**	**0.0000**	**51.2915**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0510	0.0000	0.0510	0.0177	0.0000	0.0177	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0738	0.9058	0.4802	8.3000e-004		0.0376	0.0376		0.0346	0.0346	0.0000	76.8189	76.8189	0.0235	0.0000	77.4074
Total	**0.0738**	**0.9058**	**0.4802**	**8.3000e-004**	**0.0510**	**0.0376**	**0.0887**	**0.0177**	**0.0346**	**0.0523**	**0.0000**	**76.8189**	**76.8189**	**0.0235**	**0.0000**	**77.4074**

3.3 Grading-Phase I - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.3400e-003	0.2519	0.0495	5.0000e-004	9.4200e-003	1.1600e-003	0.0106	2.5900e-003	1.1100e-003	3.7000e-003	0.0000	49.0143	49.0143	5.2400e-003	0.0000	49.1454
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2800e-003	1.0300e-003	9.9200e-003	2.0000e-005	2.1700e-003	2.0000e-005	2.1800e-003	5.8000e-004	2.0000e-005	5.9000e-004	0.0000	2.1441	2.1441	8.0000e-005	0.0000	2.1461
Total	**8.6200e-003**	**0.2529**	**0.0594**	**5.2000e-004**	**0.0116**	**1.1800e-003**	**0.0128**	**3.1700e-003**	**1.1300e-003**	**4.2900e-003**	**0.0000**	**51.1584**	**51.1584**	**5.3200e-003**	**0.0000**	**51.2915**

3.4 Trenching-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1200e-003	0.0235	0.0200	3.0000e-005		1.1600e-003	1.1600e-003		1.0600e-003	1.0600e-003	0.0000	2.8734	2.8734	8.8000e-004	0.0000	2.8954
Total	**2.1200e-003**	**0.0235**	**0.0200**	**3.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.0600e-003**	**1.0600e-003**	**0.0000**	**2.8734**	**2.8734**	**8.8000e-004**	**0.0000**	**2.8954**

3.4 Trenching-Phase I - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	1.7200e-003	4.9000e-004	0.0000	8.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.3223	0.3223	3.0000e-005	0.0000	0.3230
Worker	2.0000e-004	1.6000e-004	1.5400e-003	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3335	0.3335	1.0000e-005	0.0000	0.3338
Total	**2.7000e-004**	**1.8800e-003**	**2.0300e-003**	**0.0000**	**4.2000e-004**	**2.0000e-005**	**4.4000e-004**	**1.1000e-004**	**2.0000e-005**	**1.3000e-004**	**0.0000**	**0.6558**	**0.6558**	**4.0000e-005**	**0.0000**	**0.6568**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1200e-003	0.0235	0.0200	3.0000e-005		1.1600e-003	1.1600e-003		1.0600e-003	1.0600e-003	0.0000	2.8734	2.8734	8.8000e-004	0.0000	2.8954
Total	**2.1200e-003**	**0.0235**	**0.0200**	**3.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.0600e-003**	**1.0600e-003**	**0.0000**	**2.8734**	**2.8734**	**8.8000e-004**	**0.0000**	**2.8954**

3.4 Trenching-Phase I - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	1.7200e-003	4.9000e-004	0.0000	8.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.3223	0.3223	3.0000e-005	0.0000	0.3230
Worker	2.0000e-004	1.6000e-004	1.5400e-003	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3335	0.3335	1.0000e-005	0.0000	0.3338
Total	**2.7000e-004**	**1.8800e-003**	**2.0300e-003**	**0.0000**	**4.2000e-004**	**2.0000e-005**	**4.4000e-004**	**1.1000e-004**	**2.0000e-005**	**1.3000e-004**	**0.0000**	**0.6558**	**0.6558**	**4.0000e-005**	**0.0000**	**0.6568**

3.4 Trenching-Phase I - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.6300e-003	0.0495	0.0524	8.0000e-005		2.4000e-003	2.4000e-003		2.2100e-003	2.2100e-003	0.0000	7.5418	7.5418	2.3500e-003	0.0000	7.6005
Total	**4.6300e-003**	**0.0495**	**0.0524**	**8.0000e-005**		**2.4000e-003**	**2.4000e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**7.5418**	**7.5418**	**2.3500e-003**	**0.0000**	**7.6005**

3.4 Trenching-Phase I - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	4.2700e-003	1.1700e-003	1.0000e-005	2.1000e-004	3.0000e-005	2.5000e-004	6.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.8565	0.8565	7.0000e-005	0.0000	0.8583
Worker	4.8000e-004	3.8000e-004	3.6400e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8644	0.8644	3.0000e-005	0.0000	0.8651
Total	**6.5000e-004**	**4.6500e-003**	**4.8100e-003**	**2.0000e-005**	**1.1100e-003**	**4.0000e-005**	**1.1500e-003**	**3.0000e-004**	**4.0000e-005**	**3.3000e-004**	**0.0000**	**1.7209**	**1.7209**	**1.0000e-004**	**0.0000**	**1.7234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.6300e-003	0.0495	0.0524	8.0000e-005		2.4000e-003	2.4000e-003		2.2100e-003	2.2100e-003	0.0000	7.5418	7.5418	2.3500e-003	0.0000	7.6004
Total	**4.6300e-003**	**0.0495**	**0.0524**	**8.0000e-005**		**2.4000e-003**	**2.4000e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**7.5418**	**7.5418**	**2.3500e-003**	**0.0000**	**7.6004**

3.4 Trenching-Phase I - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	4.2700e-003	1.1700e-003	1.0000e-005	2.1000e-004	3.0000e-005	2.5000e-004	6.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.8565	0.8565	7.0000e-005	0.0000	0.8583
Worker	4.8000e-004	3.8000e-004	3.6400e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8644	0.8644	3.0000e-005	0.0000	0.8651
Total	**6.5000e-004**	**4.6500e-003**	**4.8100e-003**	**2.0000e-005**	**1.1100e-003**	**4.0000e-005**	**1.1500e-003**	**3.0000e-004**	**4.0000e-005**	**3.3000e-004**	**0.0000**	**1.7209**	**1.7209**	**1.0000e-004**	**0.0000**	**1.7234**

3.5 Building Construction-Phase I-1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0814	0.8676	0.5848	1.4000e-003		0.0433	0.0433		0.0409	0.0409	0.0000	125.8609	125.8609	0.0322	0.0000	126.6669
Total	**0.0814**	**0.8676**	**0.5848**	**1.4000e-003**		**0.0433**	**0.0433**		**0.0409**	**0.0409**	**0.0000**	**125.8609**	**125.8609**	**0.0322**	**0.0000**	**126.6669**

3.5 Building Construction-Phase I-1 - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.0700e-003	2.1000e-004	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2216	0.2216	2.0000e-005	0.0000	0.2222
Vendor	3.9300e-003	0.1001	0.0275	2.1000e-004	4.9800e-003	7.8000e-004	5.7600e-003	1.4400e-003	7.4000e-004	2.1800e-003	0.0000	20.0744	20.0744	1.6500e-003	0.0000	20.1158
Worker	9.6200e-003	7.6100e-003	0.0730	1.9000e-004	0.0180	1.3000e-004	0.0182	4.7900e-003	1.2000e-004	4.9200e-003	0.0000	17.3649	17.3649	6.0000e-004	0.0000	17.3799
Total	**0.0136**	**0.1088**	**0.1008**	**4.0000e-004**	**0.0231**	**9.1000e-004**	**0.0240**	**6.2400e-003**	**8.6000e-004**	**7.1200e-003**	**0.0000**	**37.6610**	**37.6610**	**2.2700e-003**	**0.0000**	**37.7179**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0814	0.8676	0.5848	1.4000e-003		0.0433	0.0433		0.0409	0.0409	0.0000	125.8608	125.8608	0.0322	0.0000	126.6668
Total	**0.0814**	**0.8676**	**0.5848**	**1.4000e-003**		**0.0433**	**0.0433**		**0.0409**	**0.0409**	**0.0000**	**125.8608**	**125.8608**	**0.0322**	**0.0000**	**126.6668**

3.5 Building Construction-Phase I-1 - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.0700e-003	2.1000e-004	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2216	0.2216	2.0000e-005	0.0000	0.2222
Vendor	3.9300e-003	0.1001	0.0275	2.1000e-004	4.9800e-003	7.8000e-004	5.7600e-003	1.4400e-003	7.4000e-004	2.1800e-003	0.0000	20.0744	20.0744	1.6500e-003	0.0000	20.1158
Worker	9.6200e-003	7.6100e-003	0.0730	1.9000e-004	0.0180	1.3000e-004	0.0182	4.7900e-003	1.2000e-004	4.9200e-003	0.0000	17.3649	17.3649	6.0000e-004	0.0000	17.3799
Total	**0.0136**	**0.1088**	**0.1008**	**4.0000e-004**	**0.0231**	**9.1000e-004**	**0.0240**	**6.2400e-003**	**8.6000e-004**	**7.1200e-003**	**0.0000**	**37.6610**	**37.6610**	**2.2700e-003**	**0.0000**	**37.7179**

3.6 Building Construction-Phase I-2 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0112	0.0830	0.0747	1.1000e-004		5.7900e-003	5.7900e-003		5.6100e-003	5.6100e-003	0.0000	9.8774	9.8774	1.5600e-003	0.0000	9.9164
Total	**0.0112**	**0.0830**	**0.0747**	**1.1000e-004**		**5.7900e-003**	**5.7900e-003**		**5.6100e-003**	**5.6100e-003**	**0.0000**	**9.8774**	**9.8774**	**1.5600e-003**	**0.0000**	**9.9164**

3.6 Building Construction-Phase I-2 - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6100e-003	0.1682	0.0463	3.5000e-004	8.3600e-003	1.3100e-003	9.6700e-003	2.4100e-003	1.2500e-003	3.6700e-003	0.0000	33.7250	33.7250	2.7800e-003	0.0000	33.7945
Worker	0.0162	0.0128	0.1227	3.2000e-004	0.0303	2.2000e-004	0.0305	8.0500e-003	2.1000e-004	8.2600e-003	0.0000	29.1731	29.1731	1.0100e-003	0.0000	29.1983
Total	**0.0228**	**0.1810**	**0.1690**	**6.7000e-004**	**0.0387**	**1.5300e-003**	**0.0402**	**0.0105**	**1.4600e-003**	**0.0119**	**0.0000**	**62.8981**	**62.8981**	**3.7900e-003**	**0.0000**	**62.9928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0112	0.0830	0.0747	1.1000e-004		5.7900e-003	5.7900e-003		5.6100e-003	5.6100e-003	0.0000	9.8774	9.8774	1.5600e-003	0.0000	9.9163
Total	**0.0112**	**0.0830**	**0.0747**	**1.1000e-004**		**5.7900e-003**	**5.7900e-003**		**5.6100e-003**	**5.6100e-003**	**0.0000**	**9.8774**	**9.8774**	**1.5600e-003**	**0.0000**	**9.9163**

3.6 Building Construction-Phase I-2 - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6100e-003	0.1682	0.0463	3.5000e-004	8.3600e-003	1.3100e-003	9.6700e-003	2.4100e-003	1.2500e-003	3.6700e-003	0.0000	33.7250	33.7250	2.7800e-003	0.0000	33.7945
Worker	0.0162	0.0128	0.1227	3.2000e-004	0.0303	2.2000e-004	0.0305	8.0500e-003	2.1000e-004	8.2600e-003	0.0000	29.1731	29.1731	1.0100e-003	0.0000	29.1983
Total	**0.0228**	**0.1810**	**0.1690**	**6.7000e-004**	**0.0387**	**1.5300e-003**	**0.0402**	**0.0105**	**1.4600e-003**	**0.0119**	**0.0000**	**62.8981**	**62.8981**	**3.7900e-003**	**0.0000**	**62.9928**

3.7 Building Construction-Phase I-3 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.5900e-003	0.0876	0.0844	1.3000e-004		4.5900e-003	4.5900e-003		4.2200e-003	4.2200e-003	0.0000	11.6453	11.6453	3.6300e-003	0.0000	11.7359
Total	**7.5900e-003**	**0.0876**	**0.0844**	**1.3000e-004**		**4.5900e-003**	**4.5900e-003**		**4.2200e-003**	**4.2200e-003**	**0.0000**	**11.6453**	**11.6453**	**3.6300e-003**	**0.0000**	**11.7359**

3.7 Building Construction-Phase I-3 - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7300e-003	0.1458	0.0401	3.0000e-004	7.2500e-003	1.1300e-003	8.3800e-003	2.0900e-003	1.0800e-003	3.1800e-003	0.0000	29.2283	29.2283	2.4100e-003	0.0000	29.2886
Worker	0.0856	0.0678	0.6498	1.7100e-003	0.1605	1.1800e-003	0.1617	0.0427	1.0900e-003	0.0438	0.0000	154.5094	154.5094	5.3300e-003	0.0000	154.6427
Total	**0.0913**	**0.2135**	**0.6899**	**2.0100e-003**	**0.1678**	**2.3100e-003**	**0.1701**	**0.0448**	**2.1700e-003**	**0.0469**	**0.0000**	**183.7377**	**183.7377**	**7.7400e-003**	**0.0000**	**183.9313**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.5900e-003	0.0552	0.0844	1.3000e-004		4.5900e-003	4.5900e-003		4.2200e-003	4.2200e-003	0.0000	11.6452	11.6452	3.6300e-003	0.0000	11.7359
Total	**7.5900e-003**	**0.0552**	**0.0844**	**1.3000e-004**		**4.5900e-003**	**4.5900e-003**		**4.2200e-003**	**4.2200e-003**	**0.0000**	**11.6452**	**11.6452**	**3.6300e-003**	**0.0000**	**11.7359**

3.7 Building Construction-Phase I-3 - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7300e-003	0.1458	0.0401	3.0000e-004	7.2500e-003	1.1300e-003	8.3800e-003	2.0900e-003	1.0800e-003	3.1800e-003	0.0000	29.2283	29.2283	2.4100e-003	0.0000	29.2886
Worker	0.0856	0.0678	0.6498	1.7100e-003	0.1605	1.1800e-003	0.1617	0.0427	1.0900e-003	0.0438	0.0000	154.5094	154.5094	5.3300e-003	0.0000	154.6427
Total	**0.0913**	**0.2135**	**0.6899**	**2.0100e-003**	**0.1678**	**2.3100e-003**	**0.1701**	**0.0448**	**2.1700e-003**	**0.0469**	**0.0000**	**183.7377**	**183.7377**	**7.7400e-003**	**0.0000**	**183.9313**

3.7 Building Construction-Phase I-3 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.3000e-003	0.0965	0.0999	1.5000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	13.7247	13.7247	4.3400e-003	0.0000	13.8333
Total	**8.3000e-003**	**0.0965**	**0.0999**	**1.5000e-004**		**4.7900e-003**	**4.7900e-003**		**4.4100e-003**	**4.4100e-003**	**0.0000**	**13.7247**	**13.7247**	**4.3400e-003**	**0.0000**	**13.8333**

3.7 Building Construction-Phase I-3 - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1300e-003	0.1642	0.0441	3.6000e-004	8.6800e-003	1.1400e-003	9.8200e-003	2.5100e-003	1.0900e-003	3.5900e-003	0.0000	34.7507	34.7507	2.7900e-003	0.0000	34.8204
Worker	0.0945	0.0726	0.7016	1.9900e-003	0.1923	1.4000e-003	0.1937	0.0511	1.2900e-003	0.0524	0.0000	179.4895	179.4895	5.7700e-003	0.0000	179.6338
Total	**0.1007**	**0.2367**	**0.7458**	**2.3500e-003**	**0.2010**	**2.5400e-003**	**0.2035**	**0.0536**	**2.3800e-003**	**0.0560**	**0.0000**	**214.2402**	**214.2402**	**8.5600e-003**	**0.0000**	**214.4542**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.3000e-003	0.0594	0.0999	1.5000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	13.7247	13.7247	4.3400e-003	0.0000	13.8333
Total	**8.3000e-003**	**0.0594**	**0.0999**	**1.5000e-004**		**4.7900e-003**	**4.7900e-003**		**4.4100e-003**	**4.4100e-003**	**0.0000**	**13.7247**	**13.7247**	**4.3400e-003**	**0.0000**	**13.8333**

3.7 Building Construction-Phase I-3 - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1300e-003	0.1642	0.0441	3.6000e-004	8.6800e-003	1.1400e-003	9.8200e-003	2.5100e-003	1.0900e-003	3.5900e-003	0.0000	34.7507	34.7507	2.7900e-003	0.0000	34.8204
Worker	0.0945	0.0726	0.7016	1.9900e-003	0.1923	1.4000e-003	0.1937	0.0511	1.2900e-003	0.0524	0.0000	179.4895	179.4895	5.7700e-003	0.0000	179.6338
Total	**0.1007**	**0.2367**	**0.7458**	**2.3500e-003**	**0.2010**	**2.5400e-003**	**0.2035**	**0.0536**	**2.3800e-003**	**0.0560**	**0.0000**	**214.2402**	**214.2402**	**8.5600e-003**	**0.0000**	**214.4542**

3.8 Paving-Phase I - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0300	0.3081	0.2720	4.0000e-004		0.0181	0.0181		0.0167	0.0167	0.0000	36.1849	36.1849	0.0115	0.0000	36.4712
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0300**	**0.3081**	**0.2720**	**4.0000e-004**		**0.0181**	**0.0181**		**0.0167**	**0.0167**	**0.0000**	**36.1849**	**36.1849**	**0.0115**	**0.0000**	**36.4712**

3.8 Paving-Phase I - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5200e-003	0.0407	0.0109	9.0000e-005	2.1500e-003	2.8000e-004	2.4300e-003	6.2000e-004	2.7000e-004	8.9000e-004	0.0000	8.6080	8.6080	6.9000e-004	0.0000	8.6252
Worker	6.3900e-003	4.9000e-003	0.0474	1.3000e-004	0.0130	9.0000e-005	0.0131	3.4500e-003	9.0000e-005	3.5400e-003	0.0000	12.1256	12.1256	3.9000e-004	0.0000	12.1354
Total	**7.9100e-003**	**0.0456**	**0.0583**	**2.2000e-004**	**0.0151**	**3.7000e-004**	**0.0155**	**4.0700e-003**	**3.6000e-004**	**4.4300e-003**	**0.0000**	**20.7336**	**20.7336**	**1.0800e-003**	**0.0000**	**20.7606**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0300	0.3081	0.2720	4.0000e-004		0.0181	0.0181		0.0167	0.0167	0.0000	36.1849	36.1849	0.0115	0.0000	36.4711
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0300**	**0.3081**	**0.2720**	**4.0000e-004**		**0.0181**	**0.0181**		**0.0167**	**0.0167**	**0.0000**	**36.1849**	**36.1849**	**0.0115**	**0.0000**	**36.4711**

3.8 Paving-Phase I - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5200e-003	0.0407	0.0109	9.0000e-005	2.1500e-003	2.8000e-004	2.4300e-003	6.2000e-004	2.7000e-004	8.9000e-004	0.0000	8.6080	8.6080	6.9000e-004	0.0000	8.6252
Worker	6.3900e-003	4.9000e-003	0.0474	1.3000e-004	0.0130	9.0000e-005	0.0131	3.4500e-003	9.0000e-005	3.5400e-003	0.0000	12.1256	12.1256	3.9000e-004	0.0000	12.1354
Total	**7.9100e-003**	**0.0456**	**0.0583**	**2.2000e-004**	**0.0151**	**3.7000e-004**	**0.0155**	**4.0700e-003**	**3.6000e-004**	**4.4300e-003**	**0.0000**	**20.7336**	**20.7336**	**1.0800e-003**	**0.0000**	**20.7606**

3.9 Architectural Coating-Phase I - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2423	0.2431	3.9000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	33.7030	33.7030	2.8500e-003	0.0000	33.7741
Total	**0.0861**	**0.2423**	**0.2431**	**3.9000e-004**		**0.0170**	**0.0170**		**0.0170**	**0.0170**	**0.0000**	**33.7030**	**33.7030**	**2.8500e-003**	**0.0000**	**33.7741**

3.9 Architectural Coating-Phase I - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1000e-004	8.2800e-003	2.2300e-003	2.0000e-005	4.4000e-004	6.0000e-005	5.0000e-004	1.3000e-004	5.0000e-005	1.8000e-004	0.0000	1.7535	1.7535	1.4000e-004	0.0000	1.7570
Worker	3.1200e-003	2.4000e-003	0.0232	7.0000e-005	6.3500e-003	5.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	5.9281	5.9281	1.9000e-004	0.0000	5.9329
Total	**3.4300e-003**	**0.0107**	**0.0254**	**9.0000e-005**	**6.7900e-003**	**1.1000e-004**	**6.9000e-003**	**1.8200e-003**	**9.0000e-005**	**1.9100e-003**	**0.0000**	**7.6816**	**7.6816**	**3.3000e-004**	**0.0000**	**7.6899**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2423	0.2431	3.9000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	33.7029	33.7029	2.8500e-003	0.0000	33.7741
Total	**0.0861**	**0.2423**	**0.2431**	**3.9000e-004**		**0.0170**	**0.0170**		**0.0170**	**0.0170**	**0.0000**	**33.7029**	**33.7029**	**2.8500e-003**	**0.0000**	**33.7741**

3.9 Architectural Coating-Phase I - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1000e-004	8.2800e-003	2.2300e-003	2.0000e-005	4.4000e-004	6.0000e-005	5.0000e-004	1.3000e-004	5.0000e-005	1.8000e-004	0.0000	1.7535	1.7535	1.4000e-004	0.0000	1.7570
Worker	3.1200e-003	2.4000e-003	0.0232	7.0000e-005	6.3500e-003	5.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	5.9281	5.9281	1.9000e-004	0.0000	5.9329
Total	**3.4300e-003**	**0.0107**	**0.0254**	**9.0000e-005**	**6.7900e-003**	**1.1000e-004**	**6.9000e-003**	**1.8200e-003**	**9.0000e-005**	**1.9100e-003**	**0.0000**	**7.6816**	**7.6816**	**3.3000e-004**	**0.0000**	**7.6899**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2790	1.0696	2.5094	6.7200e-003	0.5218	7.0500e-003	0.5289	0.1398	6.6100e-003	0.1464	0.0000	619.3893	619.3893	0.0396	0.0000	620.3780
Unmitigated	0.2790	1.0696	2.5094	6.7200e-003	0.5218	7.0500e-003	0.5289	0.1398	6.6100e-003	0.1464	0.0000	619.3893	619.3893	0.0396	0.0000	620.3780

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,566.21	0.00	0.00	1,384,530	1,384,530
Quality Restaurant	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Total	1,566.21	0.00	0.00	1,384,530	1,384,530

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	3.40	0.00	0.00	100.00	100	0	0
Quality Restaurant	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Quality Restaurant	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Recreational Swimming Pool	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7,708.2835	7,708.2835	0.3094	0.0631	7,734.8341
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7,708.2835	7,708.2835	0.3094	0.0631	7,734.8341
NaturalGas Mitigated	0.1935	1.6714	0.8326	0.0106		0.1337	0.1337		0.1337	0.1337	0.0000	1,915.3417	1,915.3417	0.0367	0.0351	1,926.7236
NaturalGas Unmitigated	0.1935	1.6714	0.8326	0.0106		0.1337	0.1337		0.1337	0.1337	0.0000	1,915.3417	1,915.3417	0.0367	0.0351	1,926.7236

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.99188e+007	0.1613	1.3786	0.5866	8.8000e-003		0.1115	0.1115		0.1115	0.1115	0.0000	1,596.5798	1,596.5798	0.0306	0.0293	1,606.0675
Quality Restaurant	5.97337e+006	0.0322	0.2928	0.2460	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.7619	318.7619	6.1100e-003	5.8400e-003	320.6561
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1935**	**1.6714**	**0.8326**	**0.0106**		**0.1337**	**0.1337**		**0.1337**	**0.1337**	**0.0000**	**1,915.3417**	**1,915.3417**	**0.0367**	**0.0351**	**1,926.7236**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.99188e+007	0.1613	1.3786	0.5866	8.8000e-003		0.1115	0.1115		0.1115	0.1115	0.0000	1,596.5798	1,596.5798	0.0306	0.0293	1,606.0675
Quality Restaurant	5.97337e+006	0.0322	0.2928	0.2460	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.7619	318.7619	6.1100e-003	5.8400e-003	320.6561
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1935**	**1.6714**	**0.8326**	**0.0106**		**0.1337**	**0.1337**		**0.1337**	**0.1337**	**0.0000**	**1,915.3417**	**1,915.3417**	**0.0367**	**0.0351**	**1,926.7236**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.30981e+007	7,253.1008	0.2911	0.0594	7,278.0836
Quality Restaurant	822000	455.1827	0.0183	3.7300e-003	456.7505
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**7,708.2835**	**0.3094**	**0.0631**	**7,734.8341**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.30981e+007	7,253.1008	0.2911	0.0594	7,278.0836
Quality Restaurant	822000	455.1827	0.0183	3.7300e-003	456.7505
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**7,708.2835**	**0.3094**	**0.0631**	**7,734.8341**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9421	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941
Unmitigated	0.9421	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0221					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8635					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0565	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941
Total	**0.9421**	**0.0215**	**1.8552**	**1.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**3.0205**	**3.0205**	**2.9500e-003**	**0.0000**	**3.0941**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0221					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8635					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0565	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941
Total	**0.9421**	**0.0215**	**1.8552**	**1.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**3.0205**	**3.0205**	**2.9500e-003**	**0.0000**	**3.0941**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	346.3714	1.0085	0.0263	379.4073
Unmitigated	346.3714	1.0085	0.0263	379.4073

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	29.6176 / 18.6719	337.8230	0.9783	0.0255	369.8722
Quality Restaurant	0.539353 / 0.0344268	4.2719	0.0177	4.5000e-004	4.8490
Recreational Swimming Pool	0.378516 / 0.231994	4.2766	0.0125	3.3000e-004	4.6861
Total		**346.3714**	**1.0085**	**0.0263**	**379.4073**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	29.6176 / 18.6719	337.8230	0.9783	0.0255	369.8722
Quality Restaurant	0.539353 / 0.0344268	4.2719	0.0177	4.5000e-004	4.8490
Recreational Swimming Pool	0.378516 / 0.231994	4.2766	0.0125	3.3000e-004	4.6861
Total		**346.3714**	**1.0085**	**0.0263**	**379.4073**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.7275	0.3976	0.0000	16.6672
Unmitigated	33.6376	1.9879	0.0000	83.3358

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	114.54	23.2506	1.3741	0.0000	57.6023
Quality Restaurant	14.69	2.9819	0.1762	0.0000	7.3876
Recreational Swimming Pool	36.48	7.4051	0.4376	0.0000	18.3459
Total		**33.6376**	**1.9879**	**0.0000**	**83.3358**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	22.908	4.6501	0.2748	0.0000	11.5205
Quality Restaurant	2.938	0.5964	0.0353	0.0000	1.4775
Recreational Swimming Pool	7.296	1.4810	0.0875	0.0000	3.6692
Total		**6.7275**	**0.3976**	**0.0000**	**16.6672**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.25	20	677	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (600 - 750 HP)	0.0111	0.0311	0.0283	5.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1560	5.1560	7.2000e-004	0.0000	5.1741
Total	**0.0111**	**0.0311**	**0.0283**	**5.0000e-005**		**1.6300e-003**	**1.6300e-003**		**1.6300e-003**	**1.6300e-003**	**0.0000**	**5.1560**	**5.1560**	**7.2000e-004**	**0.0000**	**5.1741**

11.0 Vegetation

SDSU West Campus Housing Project

San Diego County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Quality Restaurant	16.10	1000sqft	0.37	16,100.00	0
Recreational Swimming Pool	6.40	1000sqft	0.15	6,400.00	0
Apartments Mid Rise	249.00	Dwelling Unit	2.34	205,000.00	850

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	1220.81	**CH4 Intensity (lb/MWhr)**	0.049	**N2O Intensity (lb/MWhr)**	0.01

1.3 User Entered Comments & Non-Default Data

Project Characteristics - GHG intensity based on SDSU provided energy mix.

Land Use - Based on data provided by SDSU. See Section 2.0 of the DEIR for more information.

Construction Phase - Based on data provided by SDSU. See Section 2.0 of the DEIR for more information.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

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Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Trips and VMT - See Section 2.6.2 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Demolition - No demolition of structures anticipated for this project.

Grading - See Section 2.6.2 for Construction Details.

Architectural Coating - No VOC paint used for interior. It was assumed 5 g/L to be conservative. No exterior architectural coating.

Vehicle Trips - Based on Traffic Impact Analysis, Linscott, Law & Greenspan, Engineers 2017.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No woodstoves or fireplaces.

Consumer Products - CalEEMod defaults.

Area Coating - The campus standard is a No VOC paint. It was conservatively assumed 5 g/L for interior and 50 g/L for exterior.

Landscape Equipment - CalEEMod defaults.

Energy Use - Based on energy usage from SDSU. See Section 2.0 of the DEIR for more information.

Water And Wastewater - Based on water usage from SDSU. See Section 2.0 of the DEIR for more information.

Solid Waste - CalEEMod defaults.

Land Use Change - Does not apply to this project.

Sequestration - Does not apply to this project.

Construction Off-road Equipment Mitigation - Fugitive dust mitigation in accordance with SDAPCD Rule 55.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No commute mitigation.

SDSU West Campus Housing Project - San Diego County APCD Air District, Summer

Area Mitigation - The campus standard is a No VOC paint. It was conservatively assumed 5 g/L for interior and 50 g/L for exterior.
Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - CSU Sustainability Policy goal of 80% diversion by 2020.

Stationary Sources - Emergency Generators and Fire Pumps - There is 1 emergency generator for each project phase.

Stationary Sources - Process Boilers - Does not apply to this project.

Stationary Sources - User Defined - Does not apply to this project.

Stationary Sources - Emergency Generators and Fire Pumps EF - CalEEMod defaults.

Stationary Sources - Process Boilers EF - Does not apply to this project.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	5.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	5.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	5
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	741.44	9,143.74
tblEnergyUse	LightingElect	6.97	9.06
tblEnergyUse	NT24E	3,277.06	40,414.03
tblEnergyUse	NT24E	23.69	30.78
tblEnergyUse	NT24NG	4,180.00	56,636.77
tblEnergyUse	NT24NG	138.46	294.29
tblEnergyUse	T24E	246.93	3,045.24
tblEnergyUse	T24E	8.63	11.21

SDSU West Campus Housing Project - San Diego County APCD Air District, Summer

tblEnergyUse	T24NG	4,687.93	63,518.95
tblEnergyUse	T24NG	36.10	76.73
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	136.95	0.00
tblFireplaces	NumberNoFireplace	24.90	0.00
tblFireplaces	NumberWood	87.15	0.00
tblFleetMix	FleetMixLandUseSubType	Quality Restaurant	Apartments Mid Rise
tblFleetMix	FleetMixLandUseSubType	Recreational Swimming Pool	Quality Restaurant
tblFleetMix	FleetMixLandUseSubType	Apartments Mid Rise	Recreational Swimming Pool
tblGrading	AcresOfGrading	74.25	94.50
tblGrading	MaterialExported	0.00	3,111.00
tblGrading	MaterialImported	0.00	30,209.00
tblLandUse	BuildingSpaceSquareFeet	249,000.00	205,000.00
tblLandUse	LandUseSquareFeet	249,000.00	205,000.00
tblLandUse	LotAcreage	6.55	2.34
tblLandUse	Population	712.00	850.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.049
tblProjectCharacteristics	CO2IntensityFactor	0	1220.81
tblProjectCharacteristics	N2OIntensityFactor	0	0.01
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00

tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	140.00
tblTripsAndVMT	HaulingTripNumber	4,165.00	2,200.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	30.00	20.00
tblTripsAndVMT	VendorTripNumber	30.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	24.00
tblTripsAndVMT	WorkerTripNumber	5.00	14.00
tblTripsAndVMT	WorkerTripNumber	189.00	60.00
tblTripsAndVMT	WorkerTripNumber	189.00	90.00
tblTripsAndVMT	WorkerTripNumber	189.00	440.00
tblTripsAndVMT	WorkerTripNumber	8.00	40.00
tblTripsAndVMT	WorkerTripNumber	38.00	24.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	69.00	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00

tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	12.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	HO_TL	7.50	3.40
tblVehicleTrips	HO_TTP	39.60	100.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	HW_TTP	41.60	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	38.00	0.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	6.65	6.29
tblVehicleTrips	WD_TR	89.95	0.00
tblVehicleTrips	WD_TR	33.82	0.00

tblWater	IndoorWaterUseRate	16,223,352.38	29,617,560.00
tblWater	IndoorWaterUseRate	4,886,892.77	539,353.20
tblWater	OutdoorWaterUseRate	10,227,765.63	18,671,940.00
tblWater	OutdoorWaterUseRate	311,929.33	34,426.80
tblWoodstoves	NumberCatalytic	12.45	0.00
tblWoodstoves	NumberNoncatalytic	12.45	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.4548	101.6182	49.6093	0.1234	9.5525	3.4780	13.0305	3.2220	3.2032	6.4252	0.0000	12,858.9483	12,858.9483	2.9183	0.0000	12,931.9047
2018	3.3323	32.7434	25.5220	0.0676	3.7770	1.4839	3.9287	1.0055	1.3953	1.7070	0.0000	6,802.2961	6,802.2961	1.3513	0.0000	6,831.1330
2019	5.6367	22.3150	32.5974	0.0781	4.3704	1.1095	5.4799	1.1644	1.0631	2.2275	0.0000	7,780.5151	7,780.5151	0.7123	0.0000	7,798.3219
Maximum	**7.4548**	**101.6182**	**49.6093**	**0.1234**	**9.5525**	**3.4780**	**13.0305**	**3.2220**	**3.2032**	**6.4252**	**0.0000**	**12,858.9483**	**12,858.9483**	**2.9183**	**0.0000**	**12,931.9047**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.4548	101.6182	49.6093	0.1234	4.9316	3.4780	8.4095	1.6217	3.2032	4.8248	0.0000	12,858.9483	12,858.9483	2.9183	0.0000	12,931.9047
2018	3.3323	32.7434	25.5220	0.0676	3.7770	1.4839	3.9287	1.0055	1.3953	1.7070	0.0000	6,802.2961	6,802.2961	1.3513	0.0000	6,831.1330
2019	5.6367	21.6342	32.5974	0.0781	4.3704	1.1095	5.4799	1.1644	1.0631	2.2275	0.0000	7,780.5151	7,780.5151	0.7123	0.0000	7,798.3219
Maximum	**7.4548**	**101.6182**	**49.6093**	**0.1234**	**4.9316**	**3.4780**	**8.4095**	**1.6217**	**3.2032**	**4.8248**	**0.0000**	**12,858.9483**	**12,858.9483**	**2.9183**	**0.0000**	**12,931.9047**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.43**	**0.00**	**0.00**	**26.11**	**0.00**	**20.59**	**29.68**	**0.00**	**15.45**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.4802	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133	0.0000	36.9945	36.9945	0.0361	0.0000	37.8965
Energy	1.0605	9.1585	4.5622	0.0578		0.7327	0.7327		0.7327	0.7327		11,568.7825	11,568.7825	0.2217	0.2121	11,637.5300
Mobile	2.2856	8.0576	19.0049	0.0540	4.1104	0.0540	4.1644	1.0987	0.0506	1.1493		5,485.3130	5,485.3130	0.3320		5,493.6137
Stationary	0.2778	0.7763	0.7082	1.3300e-003		0.0409	0.0409		0.0409	0.0409		142.0878	142.0878	0.0199		142.5858
Total	**9.1041**	**18.2308**	**44.8888**	**0.1143**	**4.1104**	**0.9409**	**5.0513**	**1.0987**	**0.9375**	**2.0362**	**0.0000**	**17,233.1777**	**17,233.1777**	**0.6098**	**0.2121**	**17,311.6259**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.4802	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133	0.0000	36.9945	36.9945	0.0361	0.0000	37.8965
Energy	1.0605	9.1585	4.5622	0.0578		0.7327	0.7327		0.7327	0.7327		11,568.7825	11,568.7825	0.2217	0.2121	11,637.5300
Mobile	2.2856	8.0576	19.0049	0.0540	4.1104	0.0540	4.1644	1.0987	0.0506	1.1493		5,485.3130	5,485.3130	0.3320		5,493.6137
Stationary	0.2778	0.7763	0.7082	1.3300e-003		0.0409	0.0409		0.0409	0.0409		142.0878	142.0878	0.0199		142.5858
Total	**9.1041**	**18.2308**	**44.8888**	**0.1143**	**4.1104**	**0.9409**	**5.0513**	**1.0987**	**0.9375**	**2.0362**	**0.0000**	**17,233.1777**	**17,233.1777**	**0.6098**	**0.2121**	**17,311.6259**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition-Phase I	Demolition	11/8/2017	11/29/2017	5	16	
2	Grading-Phase I	Grading	11/15/2017	12/21/2017	5	27	
3	Trenching-Phase I	Trenching	12/22/2017	1/22/2018	5	22	
4	Building Construction-Phase I-1	Building Construction	1/9/2018	4/23/2018	5	75	
5	Building Construction-Phase I-2	Building Construction	4/23/2018	8/16/2018	5	84	
6	Building Construction-Phase I-3	Building Construction	8/27/2018	5/31/2019	5	200	
7	Paving-Phase I	Paving	2/8/2019	5/31/2019	5	81	
8	Architectural Coating-Phase I	Architectural Coating	3/1/2019	5/31/2019	5	66	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 415,125; Residential Outdoor: 138,375; Non-Residential Indoor: 24,150; Non-Residential Outdoor: 8,050; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Excavators	2	8.00	158	0.38
	Rubber Tired Loaders	1	8.00	203	0.36
Demolition-Phase I	Excavators	2	8.00	158	0.38
Demolition-Phase I	Rubber Tired Loaders	1	8.00	203	0.36
Grading-Phase I	Crawler Tractors	1	8.00	212	0.43
Grading-Phase I	Excavators	2	8.00	158	0.38
Grading-Phase I	Graders	1	4.00	187	0.41
Grading-Phase I	Rubber Tired Dozers	1	6.00	247	0.40

Grading-Phase I	Rubber Tired Loaders	1	4.00	203	0.36
Grading-Phase I	Scrapers	2	8.00	367	0.48
Trenching-Phase I	Excavators	2	8.00	158	0.38
Building Construction-Phase I-1	Bore/Drill Rigs	2	8.00	221	0.50
Building Construction-Phase I-1	Cranes	1	4.00	231	0.29
Building Construction-Phase I-1	Forklifts	1	2.00	89	0.20
Building Construction-Phase I-1	Generator Sets	1	8.00	84	0.74
Building Construction-Phase I-1	Pumps	1	3.00	84	0.74
Building Construction-Phase I-1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction-Phase I-2	Forklifts	1	2.00	89	0.20
Building Construction-Phase I-2	Pumps	1	2.00	84	0.74
Building Construction-Phase I-2	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction-Phase I-2	Welders	1	1.00	46	0.45
Building Construction-Phase I-3	Aerial Lifts	2	4.00	63	0.31
Building Construction-Phase I-3	Cranes	1	0.50	231	0.29
Building Construction-Phase I-3	Forklifts	1	4.00	89	0.20
Paving-Phase I	Pavers	1	8.00	130	0.42
Paving-Phase I	Rollers	2	8.00	80	0.38
Architectural Coating-Phase I	Air Compressors	4	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition-Phase I	3	24.00	0.00	140.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Grading-Phase I	8	20.00	0.00	2,200.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Trenching-Phase I	2	14.00	4.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-1	8	60.00	20.00	10.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-2	4	90.00	30.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-3	4	440.00	24.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Paving-Phase I	3	40.00	8.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating-Phase I	4	24.00	2.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1869	13.9638	8.4998	0.0166		0.5943	0.5943		0.5467	0.5467		1,695.0296	1,695.0296	0.5194		1,708.0134
Total	**1.1869**	**13.9638**	**8.4998**	**0.0166**		**0.5943**	**0.5943**		**0.5467**	**0.5467**		**1,695.0296**	**1,695.0296**	**0.5194**		**1,708.0134**

3.2 Demolition-Phase I - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0573	1.9785	0.3723	4.0100e-003	0.0765	9.0800e-003	0.0856	0.0210	8.6900e-003	0.0297		434.9493	434.9493	0.0448		436.0692
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1128	0.0832	0.9264	2.2300e-003	0.1972	1.4500e-003	0.1986	0.0523	1.3400e-003	0.0536		221.5470	221.5470	8.2200e-003		221.7525
Total	**0.1701**	**2.0617**	**1.2987**	**6.2400e-003**	**0.2737**	**0.0105**	**0.2842**	**0.0733**	**0.0100**	**0.0833**		**656.4962**	**656.4962**	**0.0530**		**657.8217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1869	13.9638	8.4998	0.0166		0.5943	0.5943		0.5467	0.5467	0.0000	1,695.0296	1,695.0296	0.5194		1,708.0134
Total	**1.1869**	**13.9638**	**8.4998**	**0.0166**		**0.5943**	**0.5943**		**0.5467**	**0.5467**	**0.0000**	**1,695.0296**	**1,695.0296**	**0.5194**		**1,708.0134**

3.2 Demolition-Phase I - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0573	1.9785	0.3723	4.0100e-003	0.0765	9.0800e-003	0.0856	0.0210	8.6900e-003	0.0297		434.9493	434.9493	0.0448		436.0692
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1128	0.0832	0.9264	2.2300e-003	0.1972	1.4500e-003	0.1986	0.0523	1.3400e-003	0.0536		221.5470	221.5470	8.2200e-003		221.7525
Total	**0.1701**	**2.0617**	**1.2987**	**6.2400e-003**	**0.2737**	**0.0105**	**0.2842**	**0.0733**	**0.0100**	**0.0833**		**656.4962**	**656.4962**	**0.0530**		**657.8217**

3.3 Grading-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.4017	0.0000	8.4017	2.9097	0.0000	2.9097			0.0000			0.0000
Off-Road	5.4699	67.0993	35.5723	0.0613		2.7874	2.7874		2.5644	2.5644		6,272.4790	6,272.4790	1.9219		6,320.5259
Total	**5.4699**	**67.0993**	**35.5723**	**0.0613**	**8.4017**	**2.7874**	**11.1891**	**2.9097**	**2.5644**	**5.4741**		**6,272.4790**	**6,272.4790**	**1.9219**		**6,320.5259**

3.3 Grading-Phase I - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5339	18.4240	3.4666	0.0374	0.7128	0.0846	0.7974	0.1954	0.0809	0.2763		4,050.3211	4,050.3211	0.4172		4,060.7500
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0940	0.0693	0.7720	1.8600e-003	0.1643	1.2100e-003	0.1655	0.0436	1.1200e-003	0.0447		184.6225	184.6225	6.8500e-003		184.7937
Total	**0.6279**	**18.4934**	**4.2386**	**0.0392**	**0.8771**	**0.0858**	**0.9629**	**0.2390**	**0.0820**	**0.3210**		**4,234.9436**	**4,234.9436**	**0.4240**		**4,245.5437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7808	0.0000	3.7808	1.3094	0.0000	1.3094			0.0000			0.0000
Off-Road	5.4699	67.0993	35.5723	0.0613		2.7874	2.7874		2.5644	2.5644	0.0000	6,272.4790	6,272.4790	1.9219		6,320.5258
Total	**5.4699**	**67.0993**	**35.5723**	**0.0613**	**3.7808**	**2.7874**	**6.5682**	**1.3094**	**2.5644**	**3.8738**	**0.0000**	**6,272.4790**	**6,272.4790**	**1.9219**		**6,320.5258**

3.3 Grading-Phase I - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5339	18.4240	3.4666	0.0374	0.7128	0.0846	0.7974	0.1954	0.0809	0.2763		4,050.3211	4,050.3211	0.4172		4,060.7500
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0940	0.0693	0.7720	1.8600e-003	0.1643	1.2100e-003	0.1655	0.0436	1.1200e-003	0.0447		184.6225	184.6225	6.8500e-003		184.7937
Total	**0.6279**	**18.4934**	**4.2386**	**0.0392**	**0.8771**	**0.0858**	**0.9629**	**0.2390**	**0.0820**	**0.3210**		**4,234.9436**	**4,234.9436**	**0.4240**		**4,245.5437**

3.4 Trenching-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7066	7.8354	6.6732	0.0103		0.3855	0.3855		0.3547	0.3547		1,055.7946	1,055.7946	0.3235		1,063.8819
Total	**0.7066**	**7.8354**	**6.6732**	**0.0103**		**0.3855**	**0.3855**		**0.3547**	**0.3547**		**1,055.7946**	**1,055.7946**	**0.3235**		**1,063.8819**

3.4 Trenching-Phase I - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0238	0.5647	0.1550	1.1200e-003	0.0271	5.2600e-003	0.0323	7.8000e-003	5.0300e-003	0.0128		119.6412	119.6412	9.9000e-003		119.8887
Worker	0.0658	0.0485	0.5404	1.3000e-003	0.1150	8.5000e-004	0.1159	0.0305	7.8000e-004	0.0313		129.2357	129.2357	4.8000e-003		129.3556
Total	**0.0896**	**0.6132**	**0.6954**	**2.4200e-003**	**0.1421**	**6.1100e-003**	**0.1482**	**0.0383**	**5.8100e-003**	**0.0441**		**248.8769**	**248.8769**	**0.0147**		**249.2443**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7066	7.8354	6.6732	0.0103		0.3855	0.3855		0.3547	0.3547	0.0000	1,055.7946	1,055.7946	0.3235		1,063.8819
Total	**0.7066**	**7.8354**	**6.6732**	**0.0103**		**0.3855**	**0.3855**		**0.3547**	**0.3547**	**0.0000**	**1,055.7946**	**1,055.7946**	**0.3235**		**1,063.8819**

3.4 Trenching-Phase I - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0238	0.5647	0.1550	1.1200e-003	0.0271	5.2600e-003	0.0323	7.8000e-003	5.0300e-003	0.0128		119.6412	119.6412	9.9000e-003		119.8887
Worker	0.0658	0.0485	0.5404	1.3000e-003	0.1150	8.5000e-004	0.1159	0.0305	7.8000e-004	0.0313		129.2357	129.2357	4.8000e-003		129.3556
Total	**0.0896**	**0.6132**	**0.6954**	**2.4200e-003**	**0.1421**	**6.1100e-003**	**0.1482**	**0.0383**	**5.8100e-003**	**0.0441**		**248.8769**	**248.8769**	**0.0147**		**249.2443**

3.4 Trenching-Phase I - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5783	6.1918	6.5513	0.0103		0.3003	0.3003		0.2763	0.2763		1,039.1701	1,039.1701	0.3235		1,047.2578
Total	**0.5783**	**6.1918**	**6.5513**	**0.0103**		**0.3003**	**0.3003**		**0.2763**	**0.2763**		**1,039.1701**	**1,039.1701**	**0.3235**		**1,047.2578**

3.4 Trenching-Phase I - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0206	0.5270	0.1396	1.1100e-003	0.0271	4.1200e-003	0.0312	7.8000e-003	3.9400e-003	0.0117		119.2760	119.2760	9.4500e-003		119.5123
Worker	0.0596	0.0429	0.4793	1.2600e-003	0.1150	8.3000e-004	0.1158	0.0305	7.6000e-004	0.0313		125.6114	125.6114	4.3000e-003		125.7189
Total	**0.0802**	**0.5699**	**0.6188**	**2.3700e-003**	**0.1421**	**4.9500e-003**	**0.1470**	**0.0383**	**4.7000e-003**	**0.0430**		**244.8874**	**244.8874**	**0.0138**		**245.2312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5783	6.1918	6.5513	0.0103		0.3003	0.3003		0.2763	0.2763	0.0000	1,039.1701	1,039.1701	0.3235		1,047.2578
Total	**0.5783**	**6.1918**	**6.5513**	**0.0103**		**0.3003**	**0.3003**		**0.2763**	**0.2763**	**0.0000**	**1,039.1701**	**1,039.1701**	**0.3235**		**1,047.2578**

3.4 Trenching-Phase I - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0206	0.5270	0.1396	1.1100e-003	0.0271	4.1200e-003	0.0312	7.8000e-003	3.9400e-003	0.0117		119.2760	119.2760	9.4500e-003		119.5123
Worker	0.0596	0.0429	0.4793	1.2600e-003	0.1150	8.3000e-004	0.1158	0.0305	7.6000e-004	0.0313		125.6114	125.6114	4.3000e-003		125.7189
Total	**0.0802**	**0.5699**	**0.6188**	**2.3700e-003**	**0.1421**	**4.9500e-003**	**0.1470**	**0.0383**	**4.7000e-003**	**0.0430**		**244.8874**	**244.8874**	**0.0138**		**245.2312**

3.5 Building Construction-Phase I-1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1693	23.1346	15.5948	0.0373		1.1544	1.1544		1.0913	1.0913		3,699.6771	3,699.6771	0.9477		3,723.3695
Total	**2.1693**	**23.1346**	**15.5948**	**0.0373**		**1.1544**	**1.1544**		**1.0913**	**1.0913**		**3,699.6771**	**3,699.6771**	**0.9477**		**3,723.3695**

3.5 Building Construction-Phase I-1 - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.5000e-004	0.0281	5.3300e-003	6.0000e-005	1.1700e-003	9.0000e-005	1.2600e-003	3.2000e-004	9.0000e-005	4.1000e-004		6.5955	6.5955	6.6000e-004		6.6121
Vendor	0.1031	2.6351	0.6978	5.5700e-003	0.1354	0.0206	0.1560	0.0390	0.0197	0.0587		596.3797	596.3797	0.0473		597.5614
Worker	0.2554	0.1839	2.0540	5.4100e-003	0.4929	3.5500e-003	0.4964	0.1307	3.2700e-003	0.1340		538.3347	538.3347	0.0184		538.7953
Total	**0.3593**	**2.8471**	**2.7571**	**0.0110**	**0.6295**	**0.0243**	**0.6537**	**0.1700**	**0.0231**	**0.1931**		**1,141.3100**	**1,141.3100**	**0.0664**		**1,142.9688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1693	23.1346	15.5948	0.0373		1.1544	1.1544		1.0913	1.0913	0.0000	3,699.6771	3,699.6771	0.9477		3,723.3695
Total	**2.1693**	**23.1346**	**15.5948**	**0.0373**		**1.1544**	**1.1544**		**1.0913**	**1.0913**	**0.0000**	**3,699.6771**	**3,699.6771**	**0.9477**		**3,723.3695**

3.5 Building Construction-Phase I-1 - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.5000e-004	0.0281	5.3300e-003	6.0000e-005	1.1700e-003	9.0000e-005	1.2600e-003	3.2000e-004	9.0000e-005	4.1000e-004		6.5955	6.5955	6.6000e-004		6.6121
Vendor	0.1031	2.6351	0.6978	5.5700e-003	0.1354	0.0206	0.1560	0.0390	0.0197	0.0587		596.3797	596.3797	0.0473		597.5614
Worker	0.2554	0.1839	2.0540	5.4100e-003	0.4929	3.5500e-003	0.4964	0.1307	3.2700e-003	0.1340		538.3347	538.3347	0.0184		538.7953
Total	**0.3593**	**2.8471**	**2.7571**	**0.0110**	**0.6295**	**0.0243**	**0.6537**	**0.1700**	**0.0231**	**0.1931**		**1,141.3100**	**1,141.3100**	**0.0664**		**1,142.9688**

3.6 Building Construction-Phase I-2 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2660	1.9763	1.7786	2.7300e-003		0.1380	0.1380		0.1336	0.1336		259.2373	259.2373	0.0409		260.2598
Total	**0.2660**	**1.9763**	**1.7786**	**2.7300e-003**		**0.1380**	**0.1380**		**0.1336**	**0.1336**		**259.2373**	**259.2373**	**0.0409**		**260.2598**

3.6 Building Construction-Phase I-2 - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1547	3.9526	1.0467	8.3600e-003	0.2031	0.0309	0.2340	0.0585	0.0296	0.0880		894.5696	894.5696	0.0709		896.3421
Worker	0.3831	0.2759	3.0809	8.1100e-003	0.7393	5.3200e-003	0.7447	0.1961	4.9100e-003	0.2010		807.5021	807.5021	0.0276		808.1929
Total	**0.5378**	**4.2285**	**4.1276**	**0.0165**	**0.9424**	**0.0362**	**0.9787**	**0.2546**	**0.0345**	**0.2891**		**1,702.0717**	**1,702.0717**	**0.0985**		**1,704.5350**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2660	1.9763	1.7786	2.7300e-003		0.1380	0.1380		0.1336	0.1336	0.0000	259.2373	259.2373	0.0409		260.2598
Total	**0.2660**	**1.9763**	**1.7786**	**2.7300e-003**		**0.1380**	**0.1380**		**0.1336**	**0.1336**	**0.0000**	**259.2373**	**259.2373**	**0.0409**		**260.2598**

3.6 Building Construction-Phase I-2 - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1547	3.9526	1.0467	8.3600e-003	0.2031	0.0309	0.2340	0.0585	0.0296	0.0880		894.5696	894.5696	0.0709		896.3421
Worker	0.3831	0.2759	3.0809	8.1100e-003	0.7393	5.3200e-003	0.7447	0.1961	4.9100e-003	0.2010		807.5021	807.5021	0.0276		808.1929
Total	**0.5378**	**4.2285**	**4.1276**	**0.0165**	**0.9424**	**0.0362**	**0.9787**	**0.2546**	**0.0345**	**0.2891**		**1,702.0717**	**1,702.0717**	**0.0985**		**1,704.5350**

3.7 Building Construction-Phase I-3 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1667	1.9244	1.8541	2.8000e-003		0.1009	0.1009		0.0929	0.0929		282.1251	282.1251	0.0878		284.3209
Total	**0.1667**	**1.9244**	**1.8541**	**2.8000e-003**		**0.1009**	**0.1009**		**0.0929**	**0.0929**		**282.1251**	**282.1251**	**0.0878**		**284.3209**

3.7 Building Construction-Phase I-3 - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1238	3.1621	0.8373	6.6900e-003	0.1625	0.0247	0.1872	0.0468	0.0237	0.0704		715.6557	715.6557	0.0567		717.0737
Worker	1.8729	1.3488	15.0624	0.0397	3.6145	0.0260	3.6405	0.9587	0.0240	0.9827		3,947.7881	3,947.7881	0.1351		3,951.1652
Total	**1.9967**	**4.5109**	**15.8997**	**0.0463**	**3.7770**	**0.0508**	**3.8277**	**1.0055**	**0.0477**	**1.0532**		**4,663.4438**	**4,663.4438**	**0.1918**		**4,668.2389**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1667	1.2136	1.8541	2.8000e-003		0.1009	0.1009		0.0929	0.0929	0.0000	282.1251	282.1251	0.0878		284.3209
Total	**0.1667**	**1.2136**	**1.8541**	**2.8000e-003**		**0.1009**	**0.1009**		**0.0929**	**0.0929**	**0.0000**	**282.1251**	**282.1251**	**0.0878**		**284.3209**

3.7 Building Construction-Phase I-3 - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1238	3.1621	0.8373	6.6900e-003	0.1625	0.0247	0.1872	0.0468	0.0237	0.0704		715.6557	715.6557	0.0567		717.0737
Worker	1.8729	1.3488	15.0624	0.0397	3.6145	0.0260	3.6405	0.9587	0.0240	0.9827		3,947.7881	3,947.7881	0.1351		3,951.1652
Total	**1.9967**	**4.5109**	**15.8997**	**0.0463**	**3.7770**	**0.0508**	**3.8277**	**1.0055**	**0.0477**	**1.0532**		**4,663.4438**	**4,663.4438**	**0.1918**		**4,668.2389**

3.7 Building Construction-Phase I-3 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1522	1.7704	1.8332	2.8000e-003		0.0880	0.0880		0.0809	0.0809		277.5945	277.5945	0.0878		279.7902
Total	**0.1522**	**1.7704**	**1.8332**	**2.8000e-003**		**0.0880**	**0.0880**		**0.0809**	**0.0809**		**277.5945**	**277.5945**	**0.0878**		**279.7902**

3.7 Building Construction-Phase I-3 - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1105	2.9757	0.7682	6.6300e-003	0.1625	0.0207	0.1832	0.0468	0.0198	0.0666		710.4399	710.4399	0.0549		711.8112
Worker	1.7277	1.2057	13.6141	0.0384	3.6145	0.0258	3.6403	0.9587	0.0237	0.9825		3,828.8784	3,828.8784	0.1223		3,831.9350
Total	**1.8381**	**4.1814**	**14.3824**	**0.0451**	**3.7770**	**0.0465**	**3.8234**	**1.0055**	**0.0435**	**1.0490**		**4,539.3183**	**4,539.3183**	**0.1771**		**4,543.7462**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1522	1.0896	1.8332	2.8000e-003		0.0880	0.0880		0.0809	0.0809	0.0000	277.5945	277.5945	0.0878		279.7902
Total	**0.1522**	**1.0896**	**1.8332**	**2.8000e-003**		**0.0880**	**0.0880**		**0.0809**	**0.0809**	**0.0000**	**277.5945**	**277.5945**	**0.0878**		**279.7902**

3.7 Building Construction-Phase I-3 - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1105	2.9757	0.7682	6.6300e-003	0.1625	0.0207	0.1832	0.0468	0.0198	0.0666		710.4399	710.4399	0.0549		711.8112
Worker	1.7277	1.2057	13.6141	0.0384	3.6145	0.0258	3.6403	0.9587	0.0237	0.9825		3,828.8784	3,828.8784	0.1223		3,831.9350
Total	**1.8381**	**4.1814**	**14.3824**	**0.0451**	**3.7770**	**0.0465**	**3.8234**	**1.0055**	**0.0435**	**1.0490**		**4,539.3183**	**4,539.3183**	**0.1771**		**4,543.7462**

3.8 Paving-Phase I - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7408	7.6064	6.7162	9.9500e-003		0.4477	0.4477		0.4119	0.4119		984.8657	984.8657	0.3116		992.6557
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7408**	**7.6064**	**6.7162**	**9.9500e-003**		**0.4477**	**0.4477**		**0.4119**	**0.4119**		**984.8657**	**984.8657**	**0.3116**		**992.6557**

3.8 Paving-Phase I - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0368	0.9919	0.2561	2.2100e-003	0.0542	6.9000e-003	0.0611	0.0156	6.6000e-003	0.0222		236.8133	236.8133	0.0183		237.2704
Worker	0.1571	0.1096	1.2377	3.4900e-003	0.3286	2.3400e-003	0.3309	0.0872	2.1600e-003	0.0893		348.0799	348.0799	0.0111		348.3577
Total	**0.1939**	**1.1015**	**1.4937**	**5.7000e-003**	**0.3828**	**9.2400e-003**	**0.3920**	**0.1028**	**8.7600e-003**	**0.1115**		**584.8932**	**584.8932**	**0.0294**		**585.6281**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7408	7.6064	6.7162	9.9500e-003		0.4477	0.4477		0.4119	0.4119	0.0000	984.8657	984.8657	0.3116		992.6557
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7408**	**7.6064**	**6.7162**	**9.9500e-003**		**0.4477**	**0.4477**		**0.4119**	**0.4119**	**0.0000**	**984.8657**	**984.8657**	**0.3116**		**992.6557**

3.8 Paving-Phase I - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0368	0.9919	0.2561	2.2100e-003	0.0542	6.9000e-003	0.0611	0.0156	6.6000e-003	0.0222		236.8133	236.8133	0.0183		237.2704
Worker	0.1571	0.1096	1.2377	3.4900e-003	0.3286	2.3400e-003	0.3309	0.0872	2.1600e-003	0.0893		348.0799	348.0799	0.0111		348.3577
Total	**0.1939**	**1.1015**	**1.4937**	**5.7000e-003**	**0.3828**	**9.2400e-003**	**0.3920**	**0.1028**	**8.7600e-003**	**0.1115**		**584.8932**	**584.8932**	**0.0294**		**585.6281**

3.9 Architectural Coating-Phase I - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.5425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.0658	7.3415	7.3653	0.0119		0.5151	0.5151		0.5151	0.5151		1,125.7922	1,125.7922	0.0951		1,128.1694
Total	**2.6082**	**7.3415**	**7.3653**	**0.0119**		**0.5151**	**0.5151**		**0.5151**	**0.5151**		**1,125.7922**	**1,125.7922**	**0.0951**		**1,128.1694**

3.9 Architectural Coating-Phase I - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.0942	0.0658	0.7426	2.1000e-003	0.1972	1.4100e-003	0.1986	0.0523	1.2900e-003	0.0536		208.8479	208.8479	6.6700e-003		209.0146
Total	**0.1035**	**0.3138**	**0.8066**	**2.6500e-003**	**0.2107**	**3.1400e-003**	**0.2138**	**0.0562**	**2.9400e-003**	**0.0591**		**268.0512**	**268.0512**	**0.0112**		**268.3322**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.5425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.0658	7.3415	7.3653	0.0119		0.5151	0.5151		0.5151	0.5151	0.0000	1,125.7922	1,125.7922	0.0951		1,128.1694
Total	**2.6082**	**7.3415**	**7.3653**	**0.0119**		**0.5151**	**0.5151**		**0.5151**	**0.5151**	**0.0000**	**1,125.7922**	**1,125.7922**	**0.0951**		**1,128.1694**

3.9 Architectural Coating-Phase I - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.0942	0.0658	0.7426	2.1000e-003	0.1972	1.4100e-003	0.1986	0.0523	1.2900e-003	0.0536		208.8479	208.8479	6.6700e-003		209.0146
Total	**0.1035**	**0.3138**	**0.8066**	**2.6500e-003**	**0.2107**	**3.1400e-003**	**0.2138**	**0.0562**	**2.9400e-003**	**0.0591**		**268.0512**	**268.0512**	**0.0112**		**268.3322**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2856	8.0576	19.0049	0.0540	4.1104	0.0540	4.1644	1.0987	0.0506	1.1493		5,485.3130	5,485.3130	0.3320		5,493.6137
Unmitigated	2.2856	8.0576	19.0049	0.0540	4.1104	0.0540	4.1644	1.0987	0.0506	1.1493		5,485.3130	5,485.3130	0.3320		5,493.6137

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,566.21	0.00	0.00	1,384,530	1,384,530
Quality Restaurant	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Total	1,566.21	0.00	0.00	1,384,530	1,384,530

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	3.40	0.00	0.00	100.00	100	0	0
Quality Restaurant	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Quality Restaurant	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Recreational Swimming Pool	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.0605	9.1585	4.5622	0.0578		0.7327	0.7327		0.7327	0.7327		11,568.7825	11,568.7825	0.2217	0.2121	11,637.5300
NaturalGas Unmitigated	1.0605	9.1585	4.5622	0.0578		0.7327	0.7327		0.7327	0.7327		11,568.7825	11,568.7825	0.2217	0.2121	11,637.5300

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	81969.2	0.8840	7.5540	3.2145	0.0482		0.6108	0.6108		0.6108	0.6108		9,643.4410	9,643.4410	0.1848	0.1768	9,700.7471
Quality Restaurant	16365.4	0.1765	1.6045	1.3477	9.6300e-003		0.1219	0.1219		0.1219	0.1219		1,925.3415	1,925.3415	0.0369	0.0353	1,936.7829
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.0605**	**9.1585**	**4.5622**	**0.0579**		**0.7327**	**0.7327**		**0.7327**	**0.7327**		**11,568.7825**	**11,568.7825**	**0.2217**	**0.2121**	**11,637.5300**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	81.9692	0.8840	7.5540	3.2145	0.0482		0.6108	0.6108		0.6108	0.6108		9,643.4410	9,643.4410	0.1848	0.1768	9,700.7471
Quality Restaurant	16.3654	0.1765	1.6045	1.3477	9.6300e-003		0.1219	0.1219		0.1219	0.1219		1,925.3415	1,925.3415	0.0369	0.0353	1,936.7829
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.0605**	**9.1585**	**4.5622**	**0.0579**		**0.7327**	**0.7327**		**0.7327**	**0.7327**		**11,568.7825**	**11,568.7825**	**0.2217**	**0.2121**	**11,637.5300**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.4802	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133	0.0000	36.9945	36.9945	0.0361	0.0000	37.8965
Unmitigated	5.4802	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133	0.0000	36.9945	36.9945	0.0361	0.0000	37.8965

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6278	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133		36.9945	36.9945	0.0361		37.8965
Total	**5.4802**	**0.2384**	**20.6134**	**1.0800e-003**		**0.1133**	**0.1133**		**0.1133**	**0.1133**	**0.0000**	**36.9945**	**36.9945**	**0.0361**	**0.0000**	**37.8965**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6278	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133		36.9945	36.9945	0.0361		37.8965
Total	**5.4802**	**0.2384**	**20.6134**	**1.0800e-003**		**0.1133**	**0.1133**		**0.1133**	**0.1133**	**0.0000**	**36.9945**	**36.9945**	**0.0361**	**0.0000**	**37.8965**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.25	20	677	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (600 - 750 HP)	0.2778	0.7763	0.7082	1.3300e-003		0.0409	0.0409		0.0409	0.0409		142.0878	142.0878	0.0199		142.5858
Total	**0.2778**	**0.7763**	**0.7082**	**1.3300e-003**		**0.0409**	**0.0409**		**0.0409**	**0.0409**		**142.0878**	**142.0878**	**0.0199**		**142.5858**

11.0 Vegetation

SDSU West Campus Housing Project

San Diego County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Quality Restaurant	16.10	1000sqft	0.37	16,100.00	0
Recreational Swimming Pool	6.40	1000sqft	0.15	6,400.00	0
Apartments Mid Rise	249.00	Dwelling Unit	2.34	205,000.00	850

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	1220.81	**CH4 Intensity (lb/MWhr)**	0.049	**N2O Intensity (lb/MWhr)**	0.01

1.3 User Entered Comments & Non-Default Data

Project Characteristics - GHG intensity based on SDSU provided energy mix.

Land Use - Based on data provided by SDSU. See Section 2.0 of the DEIR for more information.

Construction Phase - Based on data provided by SDSU. See Section 2.0 of the DEIR for more information.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

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Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Trips and VMT - See Section 2.6.2 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Demolition - No demolition of structures anticipated for this project.

Grading - See Section 2.6.2 for Construction Details.

Architectural Coating - No VOC paint used for interior. It was assumed 5 g/L to be conservative. No exterior architectural coating.

Vehicle Trips - Based on Traffic Impact Analysis, Linscott, Law & Greenspan, Engineers 2017.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No woodstoves or fireplaces.

Consumer Products - CalEEMod defaults.

Area Coating - The campus standard is a No VOC paint. It was conservatively assumed 5 g/L for interior and 50 g/L for exterior.

Landscape Equipment - CalEEMod defaults.

Energy Use - Based on energy usage from SDSU. See Section 2.0 of the DEIR for more information.

Water And Wastewater - Based on water usage from SDSU. See Section 2.0 of the DEIR for more information.

Solid Waste - CalEEMod defaults.

Land Use Change - Does not apply to this project.

Sequestration - Does not apply to this project.

Construction Off-road Equipment Mitigation - Fugitive dust mitigation in accordance with SDAPCD Rule 55.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No commute mitigation.

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Area Mitigation - The campus standard is a No VOC paint. It was conservatively assumed 5 g/L for interior and 50 g/L for exterior.
Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - CSU Sustainability Policy goal of 80% diversion by 2020.

Stationary Sources - Emergency Generators and Fire Pumps - There is 1 emergency generator for each project phase.

Stationary Sources - Process Boilers - Does not apply to this project.

Stationary Sources - User Defined - Does not apply to this project.

Stationary Sources - Emergency Generators and Fire Pumps EF - CalEEMod defaults.

Stationary Sources - Process Boilers EF - Does not apply to this project.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	5.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	5.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	5
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblEnergyUse	LightingElect	741.44	9,143.74
tblEnergyUse	LightingElect	6.97	9.06
tblEnergyUse	NT24E	3,277.06	40,414.03
tblEnergyUse	NT24E	23.69	30.78
tblEnergyUse	NT24NG	4,180.00	56,636.77
tblEnergyUse	NT24NG	138.46	294.29
tblEnergyUse	T24E	246.93	3,045.24
tblEnergyUse	T24E	8.63	11.21

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tblEnergyUse	T24NG	4,687.93	63,518.95
tblEnergyUse	T24NG	36.10	76.73
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	136.95	0.00
tblFireplaces	NumberNoFireplace	24.90	0.00
tblFireplaces	NumberWood	87.15	0.00
tblFleetMix	FleetMixLandUseSubType	Quality Restaurant	Apartments Mid Rise
tblFleetMix	FleetMixLandUseSubType	Recreational Swimming Pool	Quality Restaurant
tblFleetMix	FleetMixLandUseSubType	Apartments Mid Rise	Recreational Swimming Pool
tblGrading	AcresOfGrading	74.25	94.50
tblGrading	MaterialExported	0.00	3,111.00
tblGrading	MaterialImported	0.00	30,209.00
tblLandUse	BuildingSpaceSquareFeet	249,000.00	205,000.00
tblLandUse	LandUseSquareFeet	249,000.00	205,000.00
tblLandUse	LotAcreage	6.55	2.34
tblLandUse	Population	712.00	850.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.049
tblProjectCharacteristics	CO2IntensityFactor	0	1220.81
tblProjectCharacteristics	N2OIntensityFactor	0	0.01
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00

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tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	140.00
tblTripsAndVMT	HaulingTripNumber	4,165.00	2,200.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	30.00	20.00
tblTripsAndVMT	VendorTripNumber	30.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	24.00
tblTripsAndVMT	WorkerTripNumber	5.00	14.00
tblTripsAndVMT	WorkerTripNumber	189.00	60.00
tblTripsAndVMT	WorkerTripNumber	189.00	90.00
tblTripsAndVMT	WorkerTripNumber	189.00	440.00
tblTripsAndVMT	WorkerTripNumber	8.00	40.00
tblTripsAndVMT	WorkerTripNumber	38.00	24.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	69.00	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00

tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	12.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	HO_TL	7.50	3.40
tblVehicleTrips	HO_TTP	39.60	100.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	HW_TTP	41.60	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	38.00	0.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	6.65	6.29
tblVehicleTrips	WD_TR	89.95	0.00
tblVehicleTrips	WD_TR	33.82	0.00

tblWater	IndoorWaterUseRate	16,223,352.38	29,617,560.00
tblWater	IndoorWaterUseRate	4,886,892.77	539,353.20
tblWater	OutdoorWaterUseRate	10,227,765.63	18,671,940.00
tblWater	OutdoorWaterUseRate	311,929.33	34,426.80
tblWoodstoves	NumberCatalytic	12.45	0.00
tblWoodstoves	NumberNoncatalytic	12.45	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.5071	101.6286	50.0280	0.1220	9.5525	3.4812	13.0337	3.2220	3.2063	6.4282	0.0000	12,707.1197	12,707.1197	2.9451	0.0000	12,780.7462
2018	3.4260	32.7766	25.4815	0.0664	3.7770	1.4843	3.9291	1.0055	1.3957	1.7079	0.0000	6,682.2970	6,682.2970	1.3539	0.0000	6,711.2683
2019	5.9026	22.4884	31.8580	0.0751	4.3704	1.1100	5.4804	1.1644	1.0636	2.2280	0.0000	7,486.3986	7,486.3986	0.7100	0.0000	7,504.1493
Maximum	**7.5071**	**101.6286**	**50.0280**	**0.1220**	**9.5525**	**3.4812**	**13.0337**	**3.2220**	**3.2063**	**6.4282**	**0.0000**	**12,707.1197**	**12,707.1197**	**2.9451**	**0.0000**	**12,780.7462**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.5071	101.6286	50.0280	0.1220	4.9316	3.4812	8.4128	1.6217	3.2063	4.8279	0.0000	12,707.1197	12,707.1197	2.9451	0.0000	12,780.7462
2018	3.4260	32.7766	25.4815	0.0664	3.7770	1.4843	3.9291	1.0055	1.3957	1.7079	0.0000	6,682.2970	6,682.2970	1.3539	0.0000	6,711.2683
2019	5.9026	21.8076	31.8580	0.0751	4.3704	1.1100	5.4804	1.1644	1.0636	2.2280	0.0000	7,486.3986	7,486.3986	0.7100	0.0000	7,504.1493
Maximum	**7.5071**	**101.6286**	**50.0280**	**0.1220**	**4.9316**	**3.4812**	**8.4128**	**1.6217**	**3.2063**	**4.8279**	**0.0000**	**12,707.1197**	**12,707.1197**	**2.9451**	**0.0000**	**12,780.7462**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.43**	**0.00**	**0.00**	**26.11**	**0.00**	**20.59**	**29.68**	**0.00**	**15.44**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.4802	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133	0.0000	36.9945	36.9945	0.0361	0.0000	37.8965
Energy	1.0605	9.1585	4.5622	0.0578		0.7327	0.7327		0.7327	0.7327		11,568.7825	11,568.7825	0.2217	0.2121	11,637.5300
Mobile	2.2185	8.1796	19.8218	0.0511	4.1104	0.0547	4.1651	1.0987	0.0513	1.1500		5,189.6760	5,189.6760	0.3424		5,198.2367
Stationary	0.2778	0.7763	0.7082	1.3300e-003		0.0409	0.0409		0.0409	0.0409		142.0878	142.0878	0.0199		142.5858
Total	**9.0370**	**18.3528**	**45.7057**	**0.1114**	**4.1104**	**0.9416**	**5.0520**	**1.0987**	**0.9382**	**2.0369**	**0.0000**	**16,937.5408**	**16,937.5408**	**0.6202**	**0.2121**	**17,016.2490**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.4802	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133	0.0000	36.9945	36.9945	0.0361	0.0000	37.8965
Energy	1.0605	9.1585	4.5622	0.0578		0.7327	0.7327		0.7327	0.7327		11,568.7825	11,568.7825	0.2217	0.2121	11,637.5300
Mobile	2.2185	8.1796	19.8218	0.0511	4.1104	0.0547	4.1651	1.0987	0.0513	1.1500		5,189.6760	5,189.6760	0.3424		5,198.2367
Stationary	0.2778	0.7763	0.7082	1.3300e-003		0.0409	0.0409		0.0409	0.0409		142.0878	142.0878	0.0199		142.5858
Total	**9.0370**	**18.3528**	**45.7057**	**0.1114**	**4.1104**	**0.9416**	**5.0520**	**1.0987**	**0.9382**	**2.0369**	**0.0000**	**16,937.5408**	**16,937.5408**	**0.6202**	**0.2121**	**17,016.2490**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

SDSU West Campus Housing Project - San Diego County APCD Air District, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition-Phase I	Demolition	11/8/2017	11/29/2017	5	16	
2	Grading-Phase I	Grading	11/15/2017	12/21/2017	5	27	
3	Trenching-Phase I	Trenching	12/22/2017	1/22/2018	5	22	
4	Building Construction-Phase I-1	Building Construction	1/9/2018	4/23/2018	5	75	
5	Building Construction-Phase I-2	Building Construction	4/23/2018	8/16/2018	5	84	
6	Building Construction-Phase I-3	Building Construction	8/27/2018	5/31/2019	5	200	
7	Paving-Phase I	Paving	2/8/2019	5/31/2019	5	81	
8	Architectural Coating-Phase I	Architectural Coating	3/1/2019	5/31/2019	5	66	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 415,125; Residential Outdoor: 138,375; Non-Residential Indoor: 24,150; Non-Residential Outdoor: 8,050; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Excavators	2	8.00	158	0.38
	Rubber Tired Loaders	1	8.00	203	0.36
Demolition-Phase I	Excavators	2	8.00	158	0.38
Demolition-Phase I	Rubber Tired Loaders	1	8.00	203	0.36
Grading-Phase I	Crawler Tractors	1	8.00	212	0.43
Grading-Phase I	Excavators	2	8.00	158	0.38
Grading-Phase I	Graders	1	4.00	187	0.41
Grading-Phase I	Rubber Tired Dozers	1	6.00	247	0.40

Grading-Phase I	Rubber Tired Loaders	1	4.00	203	0.36
Grading-Phase I	Scrapers	2	8.00	367	0.48
Trenching-Phase I	Excavators	2	8.00	158	0.38
Building Construction-Phase I-1	Bore/Drill Rigs	2	8.00	221	0.50
Building Construction-Phase I-1	Cranes	1	4.00	231	0.29
Building Construction-Phase I-1	Forklifts	1	2.00	89	0.20
Building Construction-Phase I-1	Generator Sets	1	8.00	84	0.74
Building Construction-Phase I-1	Pumps	1	3.00	84	0.74
Building Construction-Phase I-1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction-Phase I-2	Forklifts	1	2.00	89	0.20
Building Construction-Phase I-2	Pumps	1	2.00	84	0.74
Building Construction-Phase I-2	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction-Phase I-2	Welders	1	1.00	46	0.45
Building Construction-Phase I-3	Aerial Lifts	2	4.00	63	0.31
Building Construction-Phase I-3	Cranes	1	0.50	231	0.29
Building Construction-Phase I-3	Forklifts	1	4.00	89	0.20
Paving-Phase I	Pavers	1	8.00	130	0.42
Paving-Phase I	Rollers	2	8.00	80	0.38
Architectural Coating-Phase I	Air Compressors	4	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition-Phase I	3	24.00	0.00	140.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Grading-Phase I	8	20.00	0.00	2,200.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Trenching-Phase I	2	14.00	4.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-1	8	60.00	20.00	10.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-2	4	90.00	30.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-3	4	440.00	24.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Paving-Phase I	3	40.00	8.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating-Phase I	4	24.00	2.00	0.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1869	13.9638	8.4998	0.0166		0.5943	0.5943		0.5467	0.5467		1,695.0296	1,695.0296	0.5194		1,708.0134
Total	**1.1869**	**13.9638**	**8.4998**	**0.0166**		**0.5943**	**0.5943**		**0.5467**	**0.5467**		**1,695.0296**	**1,695.0296**	**0.5194**		**1,708.0134**

3.2 Demolition-Phase I - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0598	1.9777	0.4204	3.9000e-003	0.0765	9.3900e-003	0.0859	0.0210	8.9900e-003	0.0300		422.6322	422.6322	0.0475		423.8188
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1274	0.0934	0.8840	2.0900e-003	0.1972	1.4500e-003	0.1986	0.0523	1.3400e-003	0.0536		208.0124	208.0124	7.8500e-003		208.2085
Total	**0.1872**	**2.0711**	**1.3044**	**5.9900e-003**	**0.2737**	**0.0108**	**0.2846**	**0.0733**	**0.0103**	**0.0836**		**630.6446**	**630.6446**	**0.0553**		**632.0273**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1869	13.9638	8.4998	0.0166		0.5943	0.5943		0.5467	0.5467	0.0000	1,695.0296	1,695.0296	0.5194		1,708.0134
Total	**1.1869**	**13.9638**	**8.4998**	**0.0166**		**0.5943**	**0.5943**		**0.5467**	**0.5467**	**0.0000**	**1,695.0296**	**1,695.0296**	**0.5194**		**1,708.0134**

3.2 Demolition-Phase I - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0598	1.9777	0.4204	3.9000e-003	0.0765	9.3900e-003	0.0859	0.0210	8.9900e-003	0.0300		422.6322	422.6322	0.0475		423.8188
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1274	0.0934	0.8840	2.0900e-003	0.1972	1.4500e-003	0.1986	0.0523	1.3400e-003	0.0536		208.0124	208.0124	7.8500e-003		208.2085
Total	**0.1872**	**2.0711**	**1.3044**	**5.9900e-003**	**0.2737**	**0.0108**	**0.2846**	**0.0733**	**0.0103**	**0.0836**		**630.6446**	**630.6446**	**0.0553**		**632.0273**

3.3 Grading-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.4017	0.0000	8.4017	2.9097	0.0000	2.9097			0.0000			0.0000
Off-Road	5.4699	67.0993	35.5723	0.0613		2.7874	2.7874		2.5644	2.5644		6,272.4790	6,272.4790	1.9219		6,320.5259
Total	**5.4699**	**67.0993**	**35.5723**	**0.0613**	**8.4017**	**2.7874**	**11.1891**	**2.9097**	**2.5644**	**5.4741**		**6,272.4790**	**6,272.4790**	**1.9219**		**6,320.5259**

3.3 Grading-Phase I - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5570	18.4165	3.9150	0.0363	0.7128	0.0875	0.8003	0.1954	0.0837	0.2791		3,935.6229	3,935.6229	0.4420		3,946.6725
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1061	0.0779	0.7366	1.7400e-003	0.1643	1.2100e-003	0.1655	0.0436	1.1200e-003	0.0447		173.3437	173.3437	6.5400e-003		173.5071
Total	**0.6632**	**18.4943**	**4.6516**	**0.0381**	**0.8771**	**0.0887**	**0.9658**	**0.2390**	**0.0848**	**0.3238**		**4,108.9665**	**4,108.9665**	**0.4485**		**4,120.1796**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7808	0.0000	3.7808	1.3094	0.0000	1.3094			0.0000			0.0000
Off-Road	5.4699	67.0993	35.5723	0.0613		2.7874	2.7874		2.5644	2.5644	0.0000	6,272.4790	6,272.4790	1.9219		6,320.5258
Total	**5.4699**	**67.0993**	**35.5723**	**0.0613**	**3.7808**	**2.7874**	**6.5682**	**1.3094**	**2.5644**	**3.8738**	**0.0000**	**6,272.4790**	**6,272.4790**	**1.9219**		**6,320.5258**

3.3 Grading-Phase I - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5570	18.4165	3.9150	0.0363	0.7128	0.0875	0.8003	0.1954	0.0837	0.2791		3,935.6229	3,935.6229	0.4420		3,946.6725
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1061	0.0779	0.7366	1.7400e-003	0.1643	1.2100e-003	0.1655	0.0436	1.1200e-003	0.0447		173.3437	173.3437	6.5400e-003		173.5071
Total	**0.6632**	**18.4943**	**4.6516**	**0.0381**	**0.8771**	**0.0887**	**0.9658**	**0.2390**	**0.0848**	**0.3238**		**4,108.9665**	**4,108.9665**	**0.4485**		**4,120.1796**

3.4 Trenching-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7066	7.8354	6.6732	0.0103		0.3855	0.3855		0.3547	0.3547		1,055.7946	1,055.7946	0.3235		1,063.8819
Total	**0.7066**	**7.8354**	**6.6732**	**0.0103**		**0.3855**	**0.3855**		**0.3547**	**0.3547**		**1,055.7946**	**1,055.7946**	**0.3235**		**1,063.8819**

3.4 Trenching-Phase I - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0248	0.5664	0.1709	1.0900e-003	0.0271	5.3500e-003	0.0324	7.8000e-003	5.1100e-003	0.0129		116.7326	116.7326	0.0105		116.9961
Worker	0.0743	0.0545	0.5156	1.2200e-003	0.1150	8.5000e-004	0.1159	0.0305	7.8000e-004	0.0313		121.3406	121.3406	4.5800e-003		121.4550
Total	**0.0991**	**0.6209**	**0.6866**	**2.3100e-003**	**0.1421**	**6.2000e-003**	**0.1483**	**0.0383**	**5.8900e-003**	**0.0442**		**238.0732**	**238.0732**	**0.0151**		**238.4510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7066	7.8354	6.6732	0.0103		0.3855	0.3855		0.3547	0.3547	0.0000	1,055.7946	1,055.7946	0.3235		1,063.8819
Total	**0.7066**	**7.8354**	**6.6732**	**0.0103**		**0.3855**	**0.3855**		**0.3547**	**0.3547**	**0.0000**	**1,055.7946**	**1,055.7946**	**0.3235**		**1,063.8819**

3.4 Trenching-Phase I - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0248	0.5664	0.1709	1.0900e-003	0.0271	5.3500e-003	0.0324	7.8000e-003	5.1100e-003	0.0129		116.7326	116.7326	0.0105		116.9961
Worker	0.0743	0.0545	0.5156	1.2200e-003	0.1150	8.5000e-004	0.1159	0.0305	7.8000e-004	0.0313		121.3406	121.3406	4.5800e-003		121.4550
Total	**0.0991**	**0.6209**	**0.6866**	**2.3100e-003**	**0.1421**	**6.2000e-003**	**0.1483**	**0.0383**	**5.8900e-003**	**0.0442**		**238.0732**	**238.0732**	**0.0151**		**238.4510**

3.4 Trenching-Phase I - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5783	6.1918	6.5513	0.0103		0.3003	0.3003		0.2763	0.2763		1,039.1701	1,039.1701	0.3235		1,047.2578
Total	**0.5783**	**6.1918**	**6.5513**	**0.0103**		**0.3003**	**0.3003**		**0.2763**	**0.2763**		**1,039.1701**	**1,039.1701**	**0.3235**		**1,047.2578**

3.4 Trenching-Phase I - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0215	0.5279	0.1544	1.0900e-003	0.0271	4.1900e-003	0.0313	7.8000e-003	4.0100e-003	0.0118		116.2792	116.2792	0.0101		116.5307
Worker	0.0673	0.0482	0.4546	1.1800e-003	0.1150	8.3000e-004	0.1158	0.0305	7.6000e-004	0.0313		117.9258	117.9258	4.0900e-003		118.0280
Total	**0.0888**	**0.5761**	**0.6090**	**2.2700e-003**	**0.1421**	**5.0200e-003**	**0.1471**	**0.0383**	**4.7700e-003**	**0.0431**		**234.2050**	**234.2050**	**0.0142**		**234.5587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5783	6.1918	6.5513	0.0103		0.3003	0.3003		0.2763	0.2763	0.0000	1,039.1701	1,039.1701	0.3235		1,047.2578
Total	**0.5783**	**6.1918**	**6.5513**	**0.0103**		**0.3003**	**0.3003**		**0.2763**	**0.2763**	**0.0000**	**1,039.1701**	**1,039.1701**	**0.3235**		**1,047.2578**

3.4 Trenching-Phase I - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0215	0.5279	0.1544	1.0900e-003	0.0271	4.1900e-003	0.0313	7.8000e-003	4.0100e-003	0.0118		116.2792	116.2792	0.0101		116.5307
Worker	0.0673	0.0482	0.4546	1.1800e-003	0.1150	8.3000e-004	0.1158	0.0305	7.6000e-004	0.0313		117.9258	117.9258	4.0900e-003		118.0280
Total	**0.0888**	**0.5761**	**0.6090**	**2.2700e-003**	**0.1421**	**5.0200e-003**	**0.1471**	**0.0383**	**4.7700e-003**	**0.0431**		**234.2050**	**234.2050**	**0.0142**		**234.5587**

3.5 Building Construction-Phase I-1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1693	23.1346	15.5948	0.0373		1.1544	1.1544		1.0913	1.0913		3,699.6771	3,699.6771	0.9477		3,723.3695
Total	**2.1693**	**23.1346**	**15.5948**	**0.0373**		**1.1544**	**1.1544**		**1.0913**	**1.0913**		**3,699.6771**	**3,699.6771**	**0.9477**		**3,723.3695**

3.5 Building Construction-Phase I-1 - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.9000e-004	0.0280	6.0100e-003	6.0000e-005	1.1700e-003	9.0000e-005	1.2600e-003	3.2000e-004	9.0000e-005	4.1000e-004		6.4020	6.4020	7.0000e-004		6.4195
Vendor	0.1075	2.6396	0.7720	5.4400e-003	0.1354	0.0210	0.1564	0.0390	0.0200	0.0590		581.3959	581.3959	0.0503		582.6536
Worker	0.2885	0.2066	1.9484	5.0800e-003	0.4929	3.5500e-003	0.4964	0.1307	3.2700e-003	0.1340		505.3964	505.3964	0.0175		505.8342
Total	**0.3968**	**2.8742**	**2.7264**	**0.0106**	**0.6295**	**0.0246**	**0.6540**	**0.1700**	**0.0234**	**0.1934**		**1,093.1942**	**1,093.1942**	**0.0685**		**1,094.9074**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1693	23.1346	15.5948	0.0373		1.1544	1.1544		1.0913	1.0913	0.0000	3,699.6771	3,699.6771	0.9477		3,723.3695
Total	**2.1693**	**23.1346**	**15.5948**	**0.0373**		**1.1544**	**1.1544**		**1.0913**	**1.0913**	**0.0000**	**3,699.6771**	**3,699.6771**	**0.9477**		**3,723.3695**

3.5 Building Construction-Phase I-1 - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.9000e-004	0.0280	6.0100e-003	6.0000e-005	1.1700e-003	9.0000e-005	1.2600e-003	3.2000e-004	9.0000e-005	4.1000e-004		6.4020	6.4020	7.0000e-004		6.4195
Vendor	0.1075	2.6396	0.7720	5.4400e-003	0.1354	0.0210	0.1564	0.0390	0.0200	0.0590		581.3959	581.3959	0.0503		582.6536
Worker	0.2885	0.2066	1.9484	5.0800e-003	0.4929	3.5500e-003	0.4964	0.1307	3.2700e-003	0.1340		505.3964	505.3964	0.0175		505.8342
Total	**0.3968**	**2.8742**	**2.7264**	**0.0106**	**0.6295**	**0.0246**	**0.6540**	**0.1700**	**0.0234**	**0.1934**		**1,093.1942**	**1,093.1942**	**0.0685**		**1,094.9074**

3.6 Building Construction-Phase I-2 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2660	1.9763	1.7786	2.7300e-003		0.1380	0.1380		0.1336	0.1336		259.2373	259.2373	0.0409		260.2598
Total	**0.2660**	**1.9763**	**1.7786**	**2.7300e-003**		**0.1380**	**0.1380**		**0.1336**	**0.1336**		**259.2373**	**259.2373**	**0.0409**		**260.2598**

3.6 Building Construction-Phase I-2 - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1613	3.9593	1.1580	8.1500e-003	0.2031	0.0314	0.2345	0.0585	0.0301	0.0885		872.0938	872.0938	0.0755		873.9804
Worker	0.4327	0.3098	2.9225	7.6200e-003	0.7393	5.3200e-003	0.7447	0.1961	4.9100e-003	0.2010		758.0946	758.0946	0.0263		758.7513
Total	**0.5940**	**4.2692**	**4.0806**	**0.0158**	**0.9424**	**0.0368**	**0.9792**	**0.2546**	**0.0350**	**0.2895**		**1,630.1884**	**1,630.1884**	**0.1017**		**1,632.7318**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2660	1.9763	1.7786	2.7300e-003		0.1380	0.1380		0.1336	0.1336	0.0000	259.2373	259.2373	0.0409		260.2598
Total	**0.2660**	**1.9763**	**1.7786**	**2.7300e-003**		**0.1380**	**0.1380**		**0.1336**	**0.1336**	**0.0000**	**259.2373**	**259.2373**	**0.0409**		**260.2598**

3.6 Building Construction-Phase I-2 - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1613	3.9593	1.1580	8.1500e-003	0.2031	0.0314	0.2345	0.0585	0.0301	0.0885		872.0938	872.0938	0.0755		873.9804
Worker	0.4327	0.3098	2.9225	7.6200e-003	0.7393	5.3200e-003	0.7447	0.1961	4.9100e-003	0.2010		758.0946	758.0946	0.0263		758.7513
Total	**0.5940**	**4.2692**	**4.0806**	**0.0158**	**0.9424**	**0.0368**	**0.9792**	**0.2546**	**0.0350**	**0.2895**		**1,630.1884**	**1,630.1884**	**0.1017**		**1,632.7318**

3.7 Building Construction-Phase I-3 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1667	1.9244	1.8541	2.8000e-003		0.1009	0.1009		0.0929	0.0929		282.1251	282.1251	0.0878		284.3209
Total	**0.1667**	**1.9244**	**1.8541**	**2.8000e-003**		**0.1009**	**0.1009**		**0.0929**	**0.0929**		**282.1251**	**282.1251**	**0.0878**		**284.3209**

3.7 Building Construction-Phase I-3 - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1290	3.1675	0.9264	6.5200e-003	0.1625	0.0251	0.1876	0.0468	0.0241	0.0708		697.6751	697.6751	0.0604		699.1843
Worker	2.1156	1.5148	14.2880	0.0372	3.6145	0.0260	3.6405	0.9587	0.0240	0.9827		3,706.2400	3,706.2400	0.1284		3,709.4510
Total	**2.2446**	**4.6823**	**15.2144**	**0.0438**	**3.7770**	**0.0512**	**3.8281**	**1.0055**	**0.0481**	**1.0536**		**4,403.9151**	**4,403.9151**	**0.1888**		**4,408.6353**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1667	1.2136	1.8541	2.8000e-003		0.1009	0.1009		0.0929	0.0929	0.0000	282.1251	282.1251	0.0878		284.3209
Total	**0.1667**	**1.2136**	**1.8541**	**2.8000e-003**		**0.1009**	**0.1009**		**0.0929**	**0.0929**	**0.0000**	**282.1251**	**282.1251**	**0.0878**		**284.3209**

3.7 Building Construction-Phase I-3 - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1290	3.1675	0.9264	6.5200e-003	0.1625	0.0251	0.1876	0.0468	0.0241	0.0708		697.6751	697.6751	0.0604		699.1843
Worker	2.1156	1.5148	14.2880	0.0372	3.6145	0.0260	3.6405	0.9587	0.0240	0.9827		3,706.2400	3,706.2400	0.1284		3,709.4510
Total	**2.2446**	**4.6823**	**15.2144**	**0.0438**	**3.7770**	**0.0512**	**3.8281**	**1.0055**	**0.0481**	**1.0536**		**4,403.9151**	**4,403.9151**	**0.1888**		**4,408.6353**

3.7 Building Construction-Phase I-3 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1522	1.7704	1.8332	2.8000e-003		0.0880	0.0880		0.0809	0.0809		277.5945	277.5945	0.0878		279.7902
Total	**0.1522**	**1.7704**	**1.8332**	**2.8000e-003**		**0.0880**	**0.0880**		**0.0809**	**0.0809**		**277.5945**	**277.5945**	**0.0878**		**279.7902**

3.7 Building Construction-Phase I-3 - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1152	2.9781	0.8518	6.4600e-003	0.1625	0.0211	0.1835	0.0468	0.0202	0.0669		692.4006	692.4006	0.0584		693.8594
Worker	1.9539	1.3541	12.8653	0.0361	3.6145	0.0258	3.6403	0.9587	0.0237	0.9825		3,594.4205	3,594.4205	0.1160		3,597.3200
Total	**2.0692**	**4.3322**	**13.7171**	**0.0426**	**3.7770**	**0.0468**	**3.8238**	**1.0055**	**0.0439**	**1.0494**		**4,286.8211**	**4,286.8211**	**0.1743**		**4,291.1794**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1522	1.0896	1.8332	2.8000e-003		0.0880	0.0880		0.0809	0.0809	0.0000	277.5945	277.5945	0.0878		279.7902
Total	**0.1522**	**1.0896**	**1.8332**	**2.8000e-003**		**0.0880**	**0.0880**		**0.0809**	**0.0809**	**0.0000**	**277.5945**	**277.5945**	**0.0878**		**279.7902**

3.7 Building Construction-Phase I-3 - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1152	2.9781	0.8518	6.4600e-003	0.1625	0.0211	0.1835	0.0468	0.0202	0.0669		692.4006	692.4006	0.0584		693.8594
Worker	1.9539	1.3541	12.8653	0.0361	3.6145	0.0258	3.6403	0.9587	0.0237	0.9825		3,594.4205	3,594.4205	0.1160		3,597.3200
Total	**2.0692**	**4.3322**	**13.7171**	**0.0426**	**3.7770**	**0.0468**	**3.8238**	**1.0055**	**0.0439**	**1.0494**		**4,286.8211**	**4,286.8211**	**0.1743**		**4,291.1794**

3.8 Paving-Phase I - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7408	7.6064	6.7162	9.9500e-003		0.4477	0.4477		0.4119	0.4119		984.8657	984.8657	0.3116		992.6557
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7408**	**7.6064**	**6.7162**	**9.9500e-003**		**0.4477**	**0.4477**		**0.4119**	**0.4119**		**984.8657**	**984.8657**	**0.3116**		**992.6557**

3.8 Paving-Phase I - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0384	0.9927	0.2839	2.1500e-003	0.0542	7.0200e-003	0.0612	0.0156	6.7200e-003	0.0223		230.8002	230.8002	0.0195		231.2865
Worker	0.1776	0.1231	1.1696	3.2800e-003	0.3286	2.3400e-003	0.3309	0.0872	2.1600e-003	0.0893		326.7655	326.7655	0.0105		327.0291
Total	**0.2160**	**1.1158**	**1.4535**	**5.4300e-003**	**0.3828**	**9.3600e-003**	**0.3921**	**0.1028**	**8.8800e-003**	**0.1116**		**557.5657**	**557.5657**	**0.0300**		**558.3155**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7408	7.6064	6.7162	9.9500e-003		0.4477	0.4477		0.4119	0.4119	0.0000	984.8657	984.8657	0.3116		992.6557
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7408**	**7.6064**	**6.7162**	**9.9500e-003**		**0.4477**	**0.4477**		**0.4119**	**0.4119**	**0.0000**	**984.8657**	**984.8657**	**0.3116**		**992.6557**

3.8 Paving-Phase I - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0384	0.9927	0.2839	2.1500e-003	0.0542	7.0200e-003	0.0612	0.0156	6.7200e-003	0.0223		230.8002	230.8002	0.0195		231.2865
Worker	0.1776	0.1231	1.1696	3.2800e-003	0.3286	2.3400e-003	0.3309	0.0872	2.1600e-003	0.0893		326.7655	326.7655	0.0105		327.0291
Total	**0.2160**	**1.1158**	**1.4535**	**5.4300e-003**	**0.3828**	**9.3600e-003**	**0.3921**	**0.1028**	**8.8800e-003**	**0.1116**		**557.5657**	**557.5657**	**0.0300**		**558.3155**

3.9 Architectural Coating-Phase I - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.5425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.0658	7.3415	7.3653	0.0119		0.5151	0.5151		0.5151	0.5151		1,125.7922	1,125.7922	0.0951		1,128.1694
Total	**2.6082**	**7.3415**	**7.3653**	**0.0119**		**0.5151**	**0.5151**		**0.5151**	**0.5151**		**1,125.7922**	**1,125.7922**	**0.0951**		**1,128.1694**

3.9 Architectural Coating-Phase I - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.1066	0.0739	0.7017	1.9700e-003	0.1972	1.4100e-003	0.1986	0.0523	1.2900e-003	0.0536		196.0593	196.0593	6.3300e-003		196.2175
Total	**0.1162**	**0.3220**	**0.7727**	**2.5100e-003**	**0.2107**	**3.1700e-003**	**0.2139**	**0.0562**	**2.9700e-003**	**0.0592**		**253.7594**	**253.7594**	**0.0112**		**254.0391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.5425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.0658	7.3415	7.3653	0.0119		0.5151	0.5151		0.5151	0.5151	0.0000	1,125.7922	1,125.7922	0.0951		1,128.1694
Total	**2.6082**	**7.3415**	**7.3653**	**0.0119**		**0.5151**	**0.5151**		**0.5151**	**0.5151**	**0.0000**	**1,125.7922**	**1,125.7922**	**0.0951**		**1,128.1694**

3.9 Architectural Coating-Phase I - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.1066	0.0739	0.7017	1.9700e-003	0.1972	1.4100e-003	0.1986	0.0523	1.2900e-003	0.0536		196.0593	196.0593	6.3300e-003		196.2175
Total	**0.1162**	**0.3220**	**0.7727**	**2.5100e-003**	**0.2107**	**3.1700e-003**	**0.2139**	**0.0562**	**2.9700e-003**	**0.0592**		**253.7594**	**253.7594**	**0.0112**		**254.0391**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2185	8.1796	19.8218	0.0511	4.1104	0.0547	4.1651	1.0987	0.0513	1.1500		5,189.6760	5,189.6760	0.3424		5,198.2367
Unmitigated	2.2185	8.1796	19.8218	0.0511	4.1104	0.0547	4.1651	1.0987	0.0513	1.1500		5,189.6760	5,189.6760	0.3424		5,198.2367

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,566.21	0.00	0.00	1,384,530	1,384,530
Quality Restaurant	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Total	1,566.21	0.00	0.00	1,384,530	1,384,530

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	3.40	0.00	0.00	100.00	100	0	0
Quality Restaurant	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Quality Restaurant	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Recreational Swimming Pool	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.0605	9.1585	4.5622	0.0578		0.7327	0.7327		0.7327	0.7327		11,568.7825	11,568.7825	0.2217	0.2121	11,637.5300
NaturalGas Unmitigated	1.0605	9.1585	4.5622	0.0578		0.7327	0.7327		0.7327	0.7327		11,568.7825	11,568.7825	0.2217	0.2121	11,637.5300

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	81969.2	0.8840	7.5540	3.2145	0.0482		0.6108	0.6108		0.6108	0.6108		9,643.4410	9,643.4410	0.1848	0.1768	9,700.7471
Quality Restaurant	16365.4	0.1765	1.6045	1.3477	9.6300e-003		0.1219	0.1219		0.1219	0.1219		1,925.3415	1,925.3415	0.0369	0.0353	1,936.7829
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.0605**	**9.1585**	**4.5622**	**0.0579**		**0.7327**	**0.7327**		**0.7327**	**0.7327**		**11,568.7825**	**11,568.7825**	**0.2217**	**0.2121**	**11,637.5300**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	81.9692	0.8840	7.5540	3.2145	0.0482		0.6108	0.6108		0.6108	0.6108		9,643.4410	9,643.4410	0.1848	0.1768	9,700.7471
Quality Restaurant	16.3654	0.1765	1.6045	1.3477	9.6300e-003		0.1219	0.1219		0.1219	0.1219		1,925.3415	1,925.3415	0.0369	0.0353	1,936.7829
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.0605**	**9.1585**	**4.5622**	**0.0579**		**0.7327**	**0.7327**		**0.7327**	**0.7327**		**11,568.7825**	**11,568.7825**	**0.2217**	**0.2121**	**11,637.5300**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.4802	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133	0.0000	36.9945	36.9945	0.0361	0.0000	37.8965
Unmitigated	5.4802	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133	0.0000	36.9945	36.9945	0.0361	0.0000	37.8965

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6278	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133		36.9945	36.9945	0.0361		37.8965
Total	**5.4802**	**0.2384**	**20.6134**	**1.0800e-003**		**0.1133**	**0.1133**		**0.1133**	**0.1133**	**0.0000**	**36.9945**	**36.9945**	**0.0361**	**0.0000**	**37.8965**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.7315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6278	0.2384	20.6134	1.0800e-003		0.1133	0.1133		0.1133	0.1133		36.9945	36.9945	0.0361		37.8965
Total	**5.4802**	**0.2384**	**20.6134**	**1.0800e-003**		**0.1133**	**0.1133**		**0.1133**	**0.1133**	**0.0000**	**36.9945**	**36.9945**	**0.0361**	**0.0000**	**37.8965**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.25	20	677	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (600 - 750 HP)	0.2778	0.7763	0.7082	1.3300e-003		0.0409	0.0409		0.0409	0.0409		142.0878	142.0878	0.0199		142.5858
Total	**0.2778**	**0.7763**	**0.7082**	**1.3300e-003**		**0.0409**	**0.0409**		**0.0409**	**0.0409**		**142.0878**	**142.0878**	**0.0199**		**142.5858**

11.0 Vegetation

CO Hotspots Screening Evaluation

To verify that the project would not cause or contribute to a violation of the CO standards, a screening evaluation of the potential for CO hotspots was conducted. The California Department of Transportation (Caltrans) and the U.C. Davis Institute of Transportation Studies *Transportation Project-Level Carbon Monoxide Protocol* (CO Protocol) (Caltrans 1997), and the SCAQMD *CEQA Air Quality Handbook* (SCAQMD 1993) were followed. The City of San Diego recommends that a quantitative analysis of CO hotspots be performed if a proposed development causes a six- or four-lane roadway to deteriorate to a level of service (LOS) E or worse, causes a six-lane roadway to drop to LOS F, or if a proposed development is within 400 feet of a sensitive receptor and the LOS is D or worse.

For each scenario (existing plus cumulative projects plus total project and horizon year plus total project), the screening evaluation presents LOS with project improvements (mitigation), whether the recommended improvements (mitigation measures) are feasible, and whether a quantitative CO hotspots analysis may be required. According to the CO Protocol, there is a cap on the number of intersections that need to be analyzed for any one project. For a single project with multiple intersections, only the three intersections representing the worst LOS ratings of the project, and, to the extent they are different intersections, the three intersections representing the highest traffic volumes, need be analyzed. For each intersection failing a screening test as described in this protocol, an additional intersection should be analyzed (Caltrans 1997).

Table 1 shows a summary of the Project's LOS for all 12 intersections evaluated for existing year 2020.

Table 1
SDSU Campus Housing Intersection Analysis

Intersection	Control Type	Peak Hour	Existing + Cumulative Projects	Existing + Cumulative Projects + Project
			LOS	LOS
1. Montezuma Rd / Collwood Blvd	Signal	AM	C	C
		PM	C	C
2. Montezuma Rd / Yerba Santa Dr	Signal	AM	A	A
		PM	A	A
3. 55th St / Canyon Crest Dr	AWSC	AM	C	C
		PM	B	B
4. 55th St / Remington Rd	Signal	AM	A	A
		PM	B	B
5. 55th St / Hardy Ave	Signal	AM	C	C
		PM	**D**	**D**
6. 55th St / Montezuma Rd	Signal	AM	C	**D**
		PM	**D**	**D**
7. Montezuma Rd / Campanile Dr	Signal	AM	C	C
		PM	C	C
8. College Ave / I-8 WB Ramps	Signal	AM	A	A
		PM	B	B
9. College Ave / I-8 EB Ramps	Signal	AM	B	B
		PM	B	B
10. College Ave / Canyon Crest Ave	Signal	AM	**D**	**D**
		PM	**E**	**E**
11. College Ave / Zura Way	OWSC	AM	**C**	**C**
		PM	**F**	**F**
12. College Ave / Montezuma Way	Signal	AM	**D**	**D**
		PM	**E**	**E**

Notes: AWSC – All-way stop controlled intersection; OWSC – One-way stop controlled intersection; LOS – Level of service.
Bold indicates an LOS of D or worse.

JOB: College&Canyon2020
RUN: STANDARD RUN (WORST CASE ANGLE)
POLLUTANT: CO

I. SITE VARIABLES

U=	1.0 M/S	Z0=	10. CM	ALT=	110.9 (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	3.0 PPM		
SIGTH=	10. DEGREES	TEMP=	9.3 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. Canyon Crest	500	36	30	36	AG	380	3.1	0.0	33.0
B. Canyon Crest	500	18	-30	18	AG	42	3.1	0.0	33.0
C. Canyon Crest	500	-12	-18	-12	AG	29	3.1	0.0	33.0
D. Canyon Crest	-30	18	-500	18	AG	418	3.1	0.0	33.0
E. Canyon Crest	-500	-12	30	-12	AG	84	3.1	0.0	33.0
F. Canyon Crest	-500	-54	-18	-54	AG	11	3.1	0.0	33.0
G. Canyon Crest	0	-36	500	-36	AG	330	3.1	0.0	33.0
H. College Ave	12	-500	12	18	AG	147	3.1	0.0	33.0
I. College Ave	30	-500	30	-12	AG	25	3.1	0.0	33.0
J. College Ave	42	-500	42	-36	AG	1267	3.1	0.0	33.0
K. College Ave	30	-12	30	500	AG	81	3.1	0.0	33.0
L. College Ave	0	500	0	-36	AG	1977	3.1	0.0	33.0
M. College Ave	-18	500	-18	-12	AG	295	3.1	0.0	33.0
N. College Ave	-30	500	-30	18	AG	1223	3.1	0.0	33.0
O. College Ave	-18	-12	-18	-500	AG	111	3.1	0.0	33.0
P. Canyon Crest	-500	-36	0	-36	AG	1336	3.1	0.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. SR1	-40	25	5.9
2. SR2	40	45	5.9
3. SR3	-30	-60	5.9
4. SR4	50	-45	5.9

JOB: College&Canyon2020
RUN: STANDARD RUN (WORST CASE ANGLE)
POLLUTANT: CO

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. SR1	10.	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. SR2	257.	3.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3. SR3	6.	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. SR4	277.	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. SR1	0.0	0.0	0.0	0.2	0.1	0.4	0.0	0.0
2. SR2	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.1
3. SR3	0.0	0.0	0.0	0.3	0.1	0.2	0.0	0.1
4. SR4	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.3

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: College&Zura2020
RUN: STANDARD RUN (WORST CASE ANGLE)
POLLUTANT: CO

I. SITE VARIABLES

U=	1.0 M/S	Z0=	10. CM	ALT=	110.9 (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	3.0 PPM		
SIGTH=	10. DEGREES	TEMP=	9.3 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. Zura WBRA	500	36	30	36	AG	455	3.1	0.0	33.0
B. College NBTA	30	-500	30	-12	AG	1115	3.1	0.0	33.0
C. College NBRA	42	-500	42	-36	AG	40	3.1	0.0	33.0
D. College NBD	30	-12	30	500	AG	1570	3.1	0.0	33.0
E. College SBLA	0	500	0	-36	AG	160	3.1	0.0	33.0
F. College SBTA	-18	500	-18	-12	AG	1177	3.1	0.0	33.0
G. College SBD	-18	-12	-18	-500	AG	1177	3.1	0.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. SR1	-25	50	5.9
2. SR2	35	40	5.9
3. SR3	45	-40	5.9

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G
1. SR1	8.	3.6	0.0	0.0	0.0	0.1	0.0	0.4	0.0
2. SR2	355.	3.7	0.0	0.0	0.0	0.6	0.0	0.1	0.0
3. SR3	351.	3.6	0.0	0.1	0.0	0.4	0.0	0.1	0.0

A TOXIC AIR CONTAMINANT HEALTH RISK ASSESSMENT

The purpose of the health risk assessment (HRA) performed for the project was to determine the impact to nearby sensitive receptors (off-site and on-site residences) from diesel particulate matter (DPM), a toxic air contaminant (TAC), from construction equipment and trucks associated with construction of the project, as well as the long-term impact of testing and maintenance of one diesel emergency generator to be located at the project site. The dispersion modeling conducted for this assessment was performed using the U.S. Environmental Protection Agency (EPA)-approved dispersion model, American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) in conjunction with the Hotspots Analysis and Reporting Program Version 2 (HARP 2), and meteorological data provided by the San Diego Air Pollution Air District (SDAPCD) for the project area. HARP 2 has been developed by CARB as a tool to implement the risk assessments and incorporates all the requirements provided by the Office of Environmental Health Hazard Assessment (OEHHA) as outlined in the *Air Toxics Hot Spot Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2015). This HRA follows the OEHHA Guidelines (2015) and the SDAPCD *Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments (HRAs)* (SDAPCD 2015).

A.1 Cancer Risk

Cancer risk is defined as the increase in probability (chance) of an individual developing cancer due to exposure to a carcinogenic compound, typically expressed as the increased chances in one million. The cancer risk from exposure to a TAC is estimated by calculating the inhalation (and if applicable, ingestion or dermal) dose in units of milligrams/kilogram body weight per day based on an ambient concentration in units of micrograms per cubic meter ($\mu g/m^3$), age sensitivity factors, breathing rates, exposure period, fraction of time spent at home, and multiplying the dose by the inhalation cancer potency factor, expressed as $(\text{milligrams/kilogram body weight per day})^{-1}$. Cancer risks are typically calculated for all carcinogenic TACs and summed to calculate the overall increase in cancer risk to an individual. The calculation procedure assumes that cancer risk is proportional to concentrations at any level of exposure and that risks due to different carcinogens are additive. This approach is generally considered a conservative assumption at low doses and is consistent with the OEHHA regulatory approach.

The cancer risk calculations were performed by multiplying the predicted dispersion modeled output data by the TAC emissions and the appropriate risk values. The exposure and risk equations that were used to calculate the cancer risk at receptors are integrated in the HARP 2 model, in accordance with the *Air Toxics Hot Spot Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2015).

The following equations were used to calculate the cancer risk using the model output data and estimated TAC emissions associated with diesel exhaust.

Cancer Risk = DOSE * CPF * ASF * ED/AT * FAH

DOSE = (C_{air} * DBR * A * EF * 10^{-6})

C_{air}= ER * XOQ

Where:

- DOSE: Daily inhalation dose (mg/kg-day)
- CPF: Cancer potency factor $(mg/kg\text{-}day)^{-1}$
- ASF: Age sensitivity factor for a specified age group (unitless)
- ED: Exposure duration (in years) for a specified age group
- AT: Averaging time for lifetime cancer risk (years)
- FAH: Fraction of time spent at home (unitless)
- C_{air}: Average air concentration of TAC from the air dispersion model ($\mu g/m^3$)
- DBR: Daily breathing rate (L/kg body weight-day)
- EF: Exposure frequency (unitless), days/365 days
- A: Inhalation absorption factor (unitless)
- 10^{-6}: Micrograms to milligrams conversion, liters to cubic meters conversion
- ER: Emission rates (g/s)
- XOQ: Model output data $(\mu g/m^3)/(g/s)$

Studies have shown that children are more sensitive than adults to exposure to many carcinogens. Therefore, OEHHA developed age sensitivity factors (ASFs) to take into account the increased sensitivity to carcinogens during early-in-life exposure. In the absence of chemical-specific data, OEHHA recommends a default ASF of 10 for the third trimester to age 2 years and an ASF of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood (OEHHA 2015, Appendix B, Table 8.3). The ASF for adults is 1. In addition to the ASFs, children have higher daily breathing rates (DBR) per unit of body weight than adults. The OEHHA guidance manual considers the age-specific breathing rates in the cancer risk calculations. Cancer risk parameters, such as ASFs, DBRs, exposure period, and cancer potency factors were based on the values and data recommended by OEHHA as implemented in HARP 2 (OEHHA 2015).

A.2 Noncancer Health Impacts

The noncancer health impact of an inhaled TAC is measured by the hazard quotient, which is the ratio of the ambient concentration of a TAC in units of $\mu g/m^3$ divided by the reference exposure level (REL), also in units of $\mu g/m^3$. The REL is the concentration at or below which no adverse health effects are anticipated. The REL is typically based on health effects to a particular target organ system, such as the respiratory system, liver, or central nervous system. Hazard quotients of individual TACs are then summed for each target organ system to obtain a hazard index. For DPM, the target organ system is the respiratory system.

In addition to the potential cancer risk, DPM has chronic (i.e., long-term) noncancer health impacts. The REL is the concentration (inhalation) or daily dosage (noninhalation) at or below which no adverse health effects are anticipated. The chronic noncancer hazard indices for the proposed project were calculated by dividing the maximum modeled annual average concentrations of TACs by their REL as implemented by HARP 2.

The chronic hazard quotients were calculated for DPM using the following equations (OEHHA 2015).

$CHQ = (C_{air} / REL)$

Where:

- CHQ: Chronic Hazard Quotient
- C_{air}: Annual average concentration ($\mu g/m^3$)
- REL: Chronic Reference Exposure Level ($\mu g/m^3$)

A.3 Modeling Methodology

Air dispersion models calculate the atmospheric transport and fate of pollutants from the emission source. The models calculate the concentration of selected pollutants at specific downwind ground-level points, such as residential or off-site workplace receptors. The transformation (fate) of an airborne pollutant, its movement with the prevailing winds (transport), its crosswind and vertical movement due to atmospheric turbulence (dispersion), and its removal due to dry and wet deposition are influenced by the pollutant's physical and chemical properties and by meteorological and environmental conditions. Factors such as distance from the source to the receptor, meteorological conditions, intervening land use and terrain, pollutant release characteristics, and background pollutant concentrations affect the predicted air concentration of an air pollutant. Air dispersion models take all of these factors into consideration when calculating downwind ground-level pollutant concentrations.

Since construction and operation of the project would result in the emissions of DPM, a refined HRA using air dispersion modeling was performed using the EPA's AERMOD modeling system

(computer software) to assess health risk impacts of project construction and operational emissions. AERMOD is a steady-state Gaussian plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, building downwash, and both simple and complex terrain. Principal parameters of this modeling include:

- Model Version Selection: The air dispersion model used for the HRA was AERMOD Version 16216r, with the Lakes Environmental Software implementation/user interface, AERMOD View™ Version 9.4.0. AERMOD was run with all sources emitting unit emissions (1 g/s) to obtain the "X/Q" values that are necessary for input into the Hotspots Analysis and Reporting Program, Version 2 (HARP2). X/Q is a dispersion factor that is the average effluent concentration normalized by source strength, and is used as a way to simplify the representation of emissions from many sources for input into HARP2. The X/Q values that were determined for each source using AERMOD were imported into HARP2 and used in conjunction with hourly and annual emissions to determine the ground level concentrations (GLC) for each pollutant. The GLCs are then used to estimate the long-term cancer health risk to an individual, and the non-cancer chronic and acute health indices.

- Model Options: The modeling included the use of standard regulatory default options, including the use of rural dispersion parameters and elevated terrain per SDAPCD guidance.

- Coordinate System: All geographical coordinates referenced in this section and appendices are in the Universal Transverse Mercator (UTM) coordinate system, with the WGS84 Datum, zone 11.

- On-site Buildings: For the operational scenario, a total of 5 on-site buildings close to the emission sources were included in the modeling using best available dimensional data. Building downwash effects were assessed using Building Profile Input Program (BPIP) with Plume Rise Model Enhancements (PRIME). No buildings were included for the construction scenario.

- Meteorological Data: AERMOD-specific meteorological (met) data for the SDSU area (Kearny Mesa Station) was used for the dispersion modeling. For the Project, a 3-year met data set from 2010 through 2012 was obtained from the SDAPCD in a preprocessed format suitable for use in AERMOD.

- Terrain Characteristics: The terrain south of the project site is generally flat, with a canyon along the northern boundary. The elevation of the site is 440 feet above sea level (ASL). The proposed stack height for the operational scenario was assumed to be 3.84 meters above ground level (AGL).

- Elevation Data: Digital elevation data were imported into AERMOD and elevations were assigned to receptors, buildings, and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View™ WebGIS import feature in the United States Geological Survey's (USGS) 7.5-minute DEM data.

- Receptors: Model results were obtained at various locations around the project site. These receptor locations were identified as 1) a grid network of receptors to establish the impact area and area where the maximum impact would occur; and 2) discrete receptors that were positioned at specific locations of concern, namely the nearest on-site and off-site residences.

  A uniform 700 m by 700 m Cartesian receptor grid with 50-meter spacing was used for the operational scenario to ensure impacts were below the appropriate CEQA thresholds at all locations. Discrete Cartesian receptors were used in the construction and operational scenarios to evaluate the locations of the maximally exposed residences. A series of receptors were placed along the residences just north of the project. Figure 1 shows the construction area and discrete off-site and on-site (Chapultepec Hall) receptors. Figure 2 shows the one emergency diesel generator source and discrete receptors. Notably, although not all specifically labelled based on the quantity, Figure 2 includes Chapultepec Hall and the proposed project buildings that include freshman student housing as on-site sensitive receptors.

- Source Equipment Operating Scenarios: Air dispersion modeling of operational activities was conducted using the PM_{10} exhaust (representative of DPM) estimates provided by CalEEMod for the emergency generator.

- Emission Sources and Release Parameters: The exhaust stack from the emergency generator was modeled as an individual point source for the operation scenario. It was assumed that one emergency generator would be installed. A single area source was used to model the construction scenario.

- Source Release Characterizations: Modeling release parameters were developed for the construction and operational analyses. For modeling construction emissions impacts using AERMOD, an area of approximately 2-acres was assumed and an initial lateral dimension of 1.4 meters and release height of 5 meters was used for diesel equipment and truck exhaust. For on-road diesel trucks, the roundtrip length was assumed to be approximately 2,000 feet to capture pass-by exposure for individual receptors, with the PM_{10} exhaust from trucks summed with on-site equipment to estimate maximum total DPM exposure at proximate receptors.

  For modeling emergency generator emissions, it was assumed that the generator would be approximately 677 horsepower with a kilowatt rating of 505. It was assumed that the

generator would only be used for emergency back-up power in the event of power outages, as well as for routine testing and maintenance. The proposed project would not run at full capacity while running off power from the emergency generator. Based on historical operations of emergency generators on the SDSU campus, it was assumed that the generator would run for a maximum of 15 minutes every other week for a total of 20 hours per year. For AERMOD, a stack height of 3.84 meters, stack diameter of 0.17 meters, gas exit temperature of 798.16 Kelvin, and gas exit velocity of 160.56 meters per second was assumed for the generator based on the projected horsepower. These source release parameters (based on horsepower) are recommended by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for diesel-internal combustion engines if the project-specific engine model is unknown (SJVAPCD 2015).

Figure 1
Construction Area and Off-Site and On-Site Receptor Locations

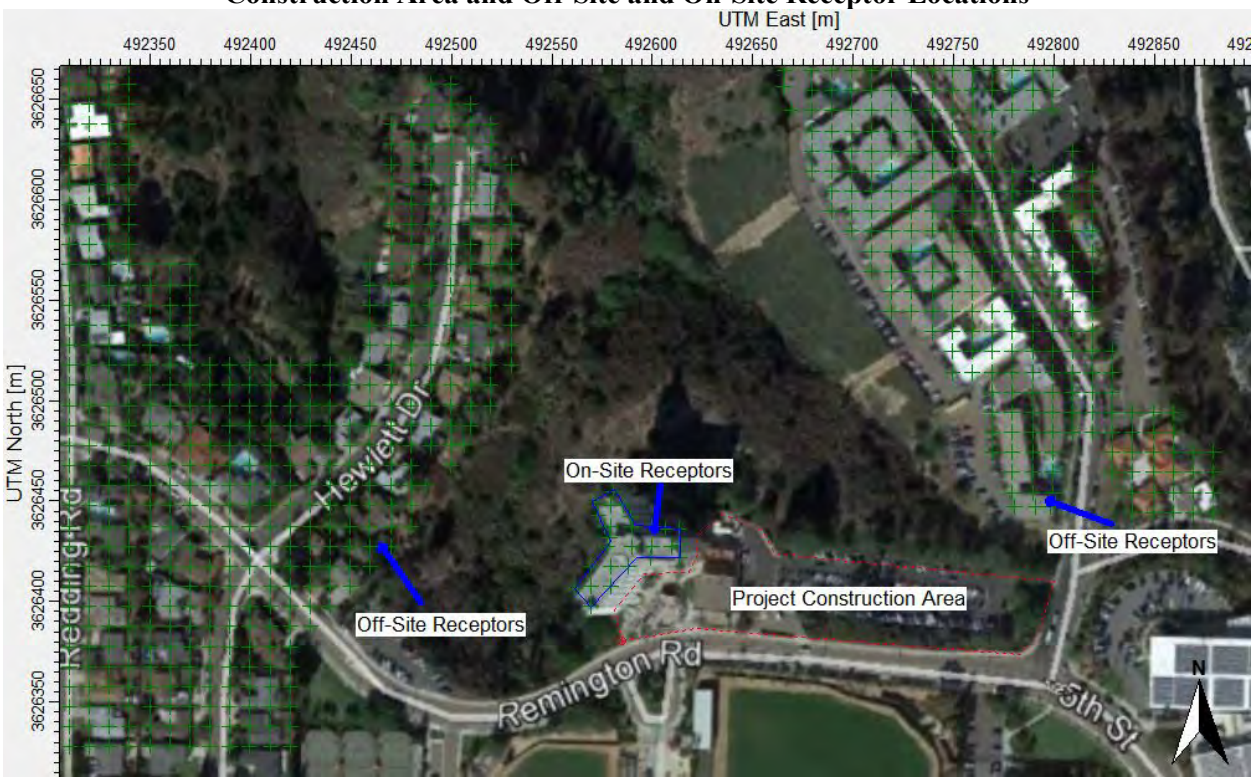
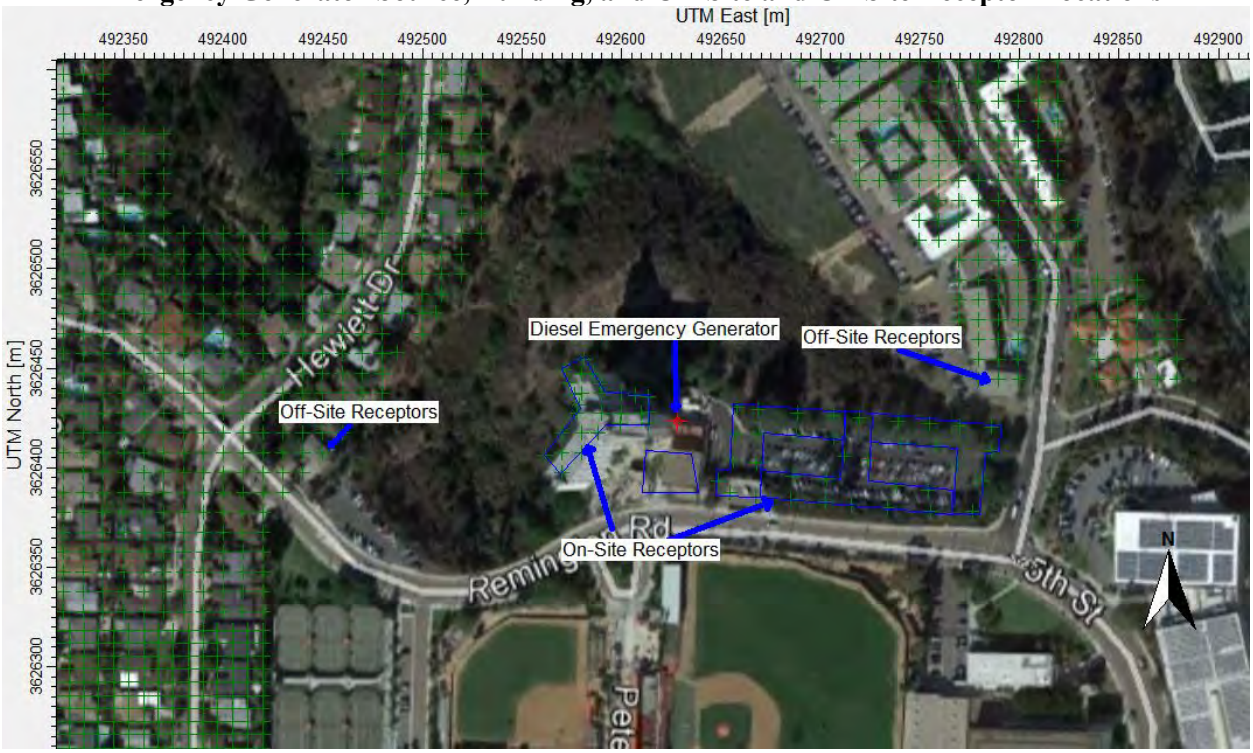


Figure 1
Emergency Generator Source, Building, and Off-Site and On-Site Receptor Locations



A.4 Health Risk Impacts

For construction, the individual cancer risk for the maximally exposed individual resident (MEIR) assumed exposure would occur 8 hours per day, five days per week during active construction. For the off-site MEIR, it was assumed exposure would occur for the full 3-years of construction. For the on-site MEIR, it was assumed exposure would occur for 1-year, since the resident halls are solely for 1st year students. Both scenarios assumed exposure would start in the 3rd trimester of pregnancy. The off-site MEIR and on-site MEIR would be located directly northeast of the project construction area and at Chapultepec Hall, respectively. AERMOD was run for an annual averaging period for long-term exposure (cancer and chronic). Plot files generated by AERMOD were imported to HARP 2 and post-processed using the actual source TAC emissions. Table 1 shows the maximum cancer and chronic health risks at the off-site MEIR and on-site MEIR from project construction. As depicted in Table 1, cancer and chronic health risk associated with project construction would be less than significant at both the off-site MEIR and on-site MEIR.

For operations, the routine testing and maintenance of the emergency generator was modeled in AERMOD, taking into account building downwash. For the off-site MEIR, it was assumed exposure would occur for 30-years of operation. For the on-site MEIR, it was assumed exposure would occur for 1-year, since the resident halls are solely for freshmen. Both scenarios assumed exposure would start in the 3rd trimester of pregnancy. The off-site MEIR

and on-site MEIR would be located southwest of the project area and at Chapultepec Hall, respectively. AERMOD was run for an annual averaging period for long-term exposure (cancer and chronic). Plot files generated by AERMOD were imported to HARP 2 and post-processed using the actual source TAC emissions. Table 1 shows the maximum cancer and chronic health risks at the off-site MEIR and on-site MEIR from emergency generator testing and maintenance. As depicted in Table 1, cancer and chronic health risk associated with testing and maintenance of the emergency generator would be less than significant at both the off-site MEIR and on-site MEIR.

Table 1
Summary of Maximum Cancer and Chronic Health Risks

Impact Analysis	Impact Parameter	Units	Project Impact	CEQA Threshold[1]	Level of Significance
Off-Site MEIR					
Construction HRA	Cancer Risk	Per Million	5.82	10	Less than Significant
	Chronic Hazard Index	Index Value	0.004	1.0	Less than Significant
Operational HRA	Cancer Risk	Per Million	0.60	10	Less than Significant
	Chronic Hazard Index	Index Value	0.0002	1.0	Less than Significant
On-Site MEIR					
Construction HRA	Cancer Risk	Per Million	5.93	10	Less than Significant
	Chronic Hazard Index	Index Value	0.008	1.0	Less than Significant
Operational HRA	Cancer Risk	Per Million	0.47	10	Less than Significant
	Chronic Hazard Index	Index Value	0.0006	1.0	Less than Significant

1. SDAPCD includes these thresholds in the *Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments (HRAs)*. Though the SDAPCD does not specifically recommend these for CEQA analyses, these risk thresholds are consistent with the cancer and chronic health risk thresholds typically used in CEQA analyses.

A.5 References

Office of Environmental Health Hazard Assessment (OEHHA). 2015. *Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments*. February 2015.

San Diego Air Pollution Control District (SDAPCD). 2015. *Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments (HRAs).* June 2015.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. AEP CEQA Modeling Training. March 31, 2015. Point Source Parameters were one of the SJVAPCD Tools provided at this training.

ATTACHMENT 1

CalEEMod Emission Estimates

SDSU West Campus Housing Project

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Quality Restaurant	16.10	1000sqft	0.37	16,100.00	0
Recreational Swimming Pool	6.40	1000sqft	0.15	6,400.00	0
Apartments Mid Rise	249.00	Dwelling Unit	2.34	205,000.00	850

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	1220.81	**CH4 Intensity (lb/MWhr)**	0.049	**N2O Intensity (lb/MWhr)**	0.01

1.3 User Entered Comments & Non-Default Data

Project Characteristics - GHG intensity based on SDSU provided energy mix.

Land Use - Based on data provided by SDSU. See Section 2.0 of the DEIR for more information.

Construction Phase - Based on data provided by SDSU. See Section 2.0 of the DEIR for more information.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.

Off-road Equipment - See Section 2.6.2 for Construction Details.
Off-road Equipment - See Section 2.6.2 for Construction Details.
Trips and VMT - See Section 2.6.2 for Construction Details.
On-road Fugitive Dust - CalEEMod defaults.
Demolition - No demolition of structures anticipated for this project.
Grading - See Section 2.6.2 for Construction Details.
Architectural Coating - No VOC paint used for interior. It was assumed 5 g/L to be conservative. No exterior architectural coating.
Vehicle Trips - Based on Traffic Impact Analysis, Linscott, Law & Greenspan, Engineers 2017.
Vehicle Emission Factors - CalEEMod defaults.
Vehicle Emission Factors - CalEEMod defaults.
Vehicle Emission Factors - CalEEMod defaults.
Road Dust - CalEEMod defaults.
Woodstoves - No woodstoves or fireplaces.
Consumer Products - CalEEMod defaults.
Area Coating - The campus standard is a No VOC paint. It was conservatively assumed 5 g/L for interior and 50 g/L for exterior.
Landscape Equipment - CalEEMod defaults.
Energy Use - Based on energy usage from SDSU. See Section 2.0 of the DEIR for more information.
Water And Wastewater - Based on water usage from SDSU. See Section 2.0 of the DEIR for more information.
Solid Waste - CalEEMod defaults.
Land Use Change - Does not apply to this project.
Sequestration - Does not apply to this project.
Construction Off-road Equipment Mitigation - Fugitive dust mitigation in accordance with SDAPCD Rule 55.
Mobile Land Use Mitigation - No traffic mitigation.
Mobile Commute Mitigation - No commute mitigation.
Area Mitigation - The campus standard is a No VOC paint. It was conservatively assumed 5 g/L for interior and 50 g/L for exterior.
Energy Mitigation - No energy mitigation.
Water Mitigation - No water use mitigation.
Waste Mitigation - CSU Sustainability Policy goal of 80% diversion by 2020.
Stationary Sources - Emergency Generators and Fire Pumps - There is 1 emergency generator for each project phase.
Stationary Sources - Process Boilers - Does not apply to this project.
Stationary Sources - User Defined - Does not apply to this project.
Stationary Sources - Emergency Generators and Fire Pumps EF - CalEEMod defaults.

Stationary Sources - Process Boilers EF - Does not apply to this project.

Table Name	Column Name	Default Value	New Value
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tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	5.00
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tblArchitecturalCoating	EF_Residential_Interior	250.00	5.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	5
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	5
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tblEnergyUse	LightingElect	6.97	9.72
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tblEnergyUse	NT24NG	4,180.00	56,636.77
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tblTripsAndVMT	WorkerTripNumber	189.00	6.00
tblTripsAndVMT	WorkerTripNumber	189.00	29.00
tblTripsAndVMT	WorkerTripNumber	8.00	3.00
tblTripsAndVMT	WorkerTripNumber	38.00	2.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	69.00	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	12.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00

tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	HO_TL	7.50	3.40
tblVehicleTrips	HO_TTP	39.60	100.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	HW_TTP	41.60	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	38.00	0.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	6.65	6.29
tblVehicleTrips	WD_TR	89.95	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblWater	IndoorWaterUseRate	16,223,352.38	29,617,560.00
tblWater	IndoorWaterUseRate	4,886,892.77	539,353.20
tblWater	OutdoorWaterUseRate	10,227,765.63	18,671,940.00
tblWater	OutdoorWaterUseRate	311,929.33	34,426.80
tblWoodstoves	NumberCatalytic	12.45	0.00
tblWoodstoves	NumberNoncatalytic	12.45	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0885	1.1663	0.5904	1.1200e-003	0.1137	0.0437	0.1574	0.0393	0.0402	0.0796	0.0000	104.1186	104.1186	0.0310	0.0000	104.8925
2018	0.1130	1.2980	0.8687	1.9200e-003	8.8000e-004	0.0564	0.0573	2.6000e-004	0.0533	0.0535	0.0000	173.7614	173.7614	0.0436	0.0000	174.8513
2019	0.1294	0.7577	0.6555	1.0500e-003	6.0000e-004	0.0401	0.0407	1.7000e-004	0.0382	0.0384	0.0000	94.0196	94.0196	0.0206	0.0000	94.5349
Maximum	**0.1294**	**1.2980**	**0.8687**	**1.9200e-003**	**0.1137**	**0.0564**	**0.1574**	**0.0393**	**0.0533**	**0.0796**	**0.0000**	**173.7614**	**173.7614**	**0.0436**	**0.0000**	**174.8513**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0885	1.1663	0.5904	1.1200e-003	0.0513	0.0437	0.0950	0.0177	0.0402	0.0580	0.0000	104.1185	104.1185	0.0310	0.0000	104.8924
2018	0.1130	1.2658	0.8687	1.9200e-003	8.8000e-004	0.0564	0.0573	2.6000e-004	0.0533	0.0535	0.0000	173.7612	173.7612	0.0436	0.0000	174.8511
2019	0.1294	0.7208	0.6555	1.0500e-003	6.0000e-004	0.0401	0.0407	1.7000e-004	0.0382	0.0384	0.0000	94.0195	94.0195	0.0206	0.0000	94.5348
Maximum	**0.1294**	**1.2658**	**0.8687**	**1.9200e-003**	**0.0513**	**0.0564**	**0.0950**	**0.0177**	**0.0533**	**0.0580**	**0.0000**	**173.7612**	**173.7612**	**0.0436**	**0.0000**	**174.8511**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**2.14**	**0.00**	**0.00**	**54.19**	**0.00**	**24.44**	**54.31**	**0.00**	**12.60**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-8-2017	2-7-2018	1.5727	1.5727
2	2-8-2018	5-7-2018	0.7380	0.7380
3	5-8-2018	8-7-2018	0.1424	0.1424
4	8-8-2018	11-7-2018	0.1125	0.0941
5	11-8-2018	2-7-2019	0.1205	0.0977
6	2-8-2019	5-7-2019	0.6404	0.6189
7	5-8-2019	8-7-2019	0.1934	0.1876
		Highest	1.5727	1.5727

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9421	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941
Energy	0.1959	1.6929	0.8507	0.0107		0.1354	0.1354		0.1354	0.1354	0.0000	9,680.3862	9,680.3862	0.3479	0.0990	9,718.5727
Mobile	0.2790	1.0696	2.5094	6.7200e-003	0.5218	7.0500e-003	0.5289	0.1398	6.6100e-003	0.1464	0.0000	619.3893	619.3893	0.0396	0.0000	620.3780
Stationary	0.0111	0.0311	0.0283	5.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1560	5.1560	7.2000e-004	0.0000	5.1741
Waste						0.0000	0.0000		0.0000	0.0000	33.6376	0.0000	33.6376	1.9879	0.0000	83.3358
Water						0.0000	0.0000		0.0000	0.0000	9.6875	336.6839	346.3714	1.0085	0.0263	379.4073
Total	**1.4281**	**2.8150**	**5.2436**	**0.0176**	**0.5218**	**0.1542**	**0.6761**	**0.1398**	**0.1538**	**0.2935**	**43.3251**	**10,644.6359**	**10,687.9610**	**3.3876**	**0.1252**	**10,809.9620**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9421	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941
Energy	0.1959	1.6929	0.8507	0.0107		0.1354	0.1354		0.1354	0.1354	0.0000	9,680.3862	9,680.3862	0.3479	0.0990	9,718.5727
Mobile	0.2790	1.0696	2.5094	6.7200e-003	0.5218	7.0500e-003	0.5289	0.1398	6.6100e-003	0.1464	0.0000	619.3893	619.3893	0.0396	0.0000	620.3780
Stationary	0.0111	0.0311	0.0283	5.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1560	5.1560	7.2000e-004	0.0000	5.1741
Waste						0.0000	0.0000		0.0000	0.0000	6.7275	0.0000	6.7275	0.3976	0.0000	16.6672
Water						0.0000	0.0000		0.0000	0.0000	9.6875	336.6839	346.3714	1.0085	0.0263	379.4073
Total	**1.4281**	**2.8150**	**5.2436**	**0.0176**	**0.5218**	**0.1542**	**0.6761**	**0.1398**	**0.1538**	**0.2935**	**16.4150**	**10,644.6359**	**10,661.0509**	**1.7972**	**0.1252**	**10,743.2933**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**62.11**	**0.00**	**0.25**	**46.95**	**0.00**	**0.62**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition-Phase I	Demolition	11/8/2017	11/29/2017	5	16	
2	Grading-Phase I	Grading	11/15/2017	12/21/2017	5	27	
3	Trenching-Phase I	Trenching	12/22/2017	1/22/2018	5	22	
4	Building Construction-Phase I-1	Building Construction	1/9/2018	4/23/2018	5	75	
5	Building Construction-Phase I-2	Building Construction	4/23/2018	8/16/2018	5	84	
6	Building Construction-Phase I-3	Building Construction	8/27/2018	5/31/2019	5	200	
7	Paving-Phase I	Paving	2/8/2019	5/31/2019	5	81	
8	Architectural Coating-Phase I	Architectural Coating	3/1/2019	5/31/2019	5	66	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 415,125; Residential Outdoor: 138,375; Non-Residential Indoor: 24,150; Non-Residential Outdoor: 8,050; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Excavators	2	8.00	158	0.38
	Rubber Tired Loaders	1	8.00	203	0.36
Demolition-Phase I	Excavators	2	8.00	158	0.38
Demolition-Phase I	Rubber Tired Loaders	1	8.00	203	0.36
Grading-Phase I	Crawler Tractors	1	8.00	212	0.43
Grading-Phase I	Excavators	2	8.00	158	0.38
Grading-Phase I	Graders	1	4.00	187	0.41
Grading-Phase I	Rubber Tired Dozers	1	6.00	247	0.40
Grading-Phase I	Rubber Tired Loaders	1	4.00	203	0.36
Grading-Phase I	Scrapers	2	8.00	367	0.48
Trenching-Phase I	Excavators	2	8.00	158	0.38
Building Construction-Phase I-1	Bore/Drill Rigs	2	8.00	221	0.50
Building Construction-Phase I-1	Cranes	1	4.00	231	0.29
Building Construction-Phase I-1	Forklifts	1	2.00	89	0.20
Building Construction-Phase I-1	Generator Sets	1	8.00	84	0.74
Building Construction-Phase I-1	Pumps	1	3.00	84	0.74
Building Construction-Phase I-1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction-Phase I-2	Forklifts	1	2.00	89	0.20
Building Construction-Phase I-2	Pumps	1	2.00	84	0.74
Building Construction-Phase I-2	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction-Phase I-2	Welders	1	1.00	46	0.45
Building Construction-Phase I-3	Cranes	1	0.50	231	0.29
Building Construction-Phase I-3	Forklifts	1	4.00	89	0.20
Paving-Phase I	Pavers	1	8.00	130	0.42
Paving-Phase I	Rollers	2	8.00	80	0.38
Architectural Coating-Phase I	Air Compressors	4	6.00	78	0.48

Building Construction-Phase I-3	Aerial Lifts	2	4.00	63	0.31

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition-Phase I	3	2.00	0.00	140.00	0.19	0.19	0.19	LD_Mix	HDT_Mix	HHDT
Grading-Phase I	8	1.00	0.00	2,200.00	0.19	0.19	0.19	LD_Mix	HDT_Mix	HHDT
Trenching-Phase I	2	1.00	4.00	0.00	0.19	0.19	0.19	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-1	8	4.00	20.00	10.00	0.19	0.19	0.19	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-2	4	6.00	30.00	0.00	0.19	0.19	0.19	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase I-3	4	29.00	24.00	0.00	0.19	0.19	0.19	LD_Mix	HDT_Mix	HHDT
Paving-Phase I	3	3.00	8.00	0.00	0.19	0.19	0.19	LD_Mix	HDT_Mix	HHDT
Architectural Coating-Phase I	4	2.00	2.00	0.00	0.19	0.19	0.19	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.5000e-003	0.1117	0.0680	1.3000e-004		4.7500e-003	4.7500e-003		4.3700e-003	4.3700e-003	0.0000	12.3016	12.3016	3.7700e-003	0.0000	12.3959
Total	**9.5000e-003**	**0.1117**	**0.0680**	**1.3000e-004**		**4.7500e-003**	**4.7500e-003**		**4.3700e-003**	**4.3700e-003**	**0.0000**	**12.3016**	**12.3016**	**3.7700e-003**	**0.0000**	**12.3959**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	7.4500e-003	1.3000e-003	1.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.7206	0.7206	1.6000e-004	0.0000	0.7247
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.7400e-003	5.7400e-003	0.0000	0.0000	5.7600e-003
Total	**2.0000e-004**	**7.4600e-003**	**1.4200e-003**	**1.0000e-005**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.7263**	**0.7263**	**1.6000e-004**	**0.0000**	**0.7305**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.5000e-003	0.1117	0.0680	1.3000e-004		4.7500e-003	4.7500e-003		4.3700e-003	4.3700e-003	0.0000	12.3016	12.3016	3.7700e-003	0.0000	12.3959
Total	**9.5000e-003**	**0.1117**	**0.0680**	**1.3000e-004**		**4.7500e-003**	**4.7500e-003**		**4.3700e-003**	**4.3700e-003**	**0.0000**	**12.3016**	**12.3016**	**3.7700e-003**	**0.0000**	**12.3959**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	7.4500e-003	1.3000e-003	1.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.7206	0.7206	1.6000e-004	0.0000	0.7247

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.7400e-003	5.7400e-003	0.0000	0.0000	5.7600e-003
Total	**2.0000e-004**	**7.4600e-003**	**1.4200e-003**	**1.0000e-005**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.7263**	**0.7263**	**1.6000e-004**	**0.0000**	**0.7305**

3.3 Grading-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1134	0.0000	0.1134	0.0393	0.0000	0.0393	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0738	0.9058	0.4802	8.3000e-004		0.0376	0.0376		0.0346	0.0346	0.0000	76.8190	76.8190	0.0235	0.0000	77.4074
Total	**0.0738**	**0.9058**	**0.4802**	**8.3000e-004**	**0.1134**	**0.0376**	**0.1511**	**0.0393**	**0.0346**	**0.0739**	**0.0000**	**76.8190**	**76.8190**	**0.0235**	**0.0000**	**77.4074**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7900e-003	0.1170	0.0204	1.2000e-004	2.0000e-004	1.7000e-004	3.7000e-004	6.0000e-005	1.6000e-004	2.2000e-004	0.0000	11.3237	11.3237	2.5900e-003	0.0000	11.3884
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.8500e-003	4.8500e-003	0.0000	0.0000	4.8600e-003
Total	**2.8100e-003**	**0.1170**	**0.0205**	**1.2000e-004**	**2.0000e-004**	**1.7000e-004**	**3.7000e-004**	**6.0000e-005**	**1.6000e-004**	**2.2000e-004**	**0.0000**	**11.3286**	**11.3286**	**2.5900e-003**	**0.0000**	**11.3933**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0510	0.0000	0.0510	0.0177	0.0000	0.0177	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0738	0.9058	0.4802	8.3000e-004		0.0376	0.0376		0.0346	0.0346	0.0000	76.8189	76.8189	0.0235	0.0000	77.4074
Total	**0.0738**	**0.9058**	**0.4802**	**8.3000e-004**	**0.0510**	**0.0376**	**0.0887**	**0.0177**	**0.0346**	**0.0523**	**0.0000**	**76.8189**	**76.8189**	**0.0235**	**0.0000**	**77.4074**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7900e-003	0.1170	0.0204	1.2000e-004	2.0000e-004	1.7000e-004	3.7000e-004	6.0000e-005	1.6000e-004	2.2000e-004	0.0000	11.3237	11.3237	2.5900e-003	0.0000	11.3884
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.8500e-003	4.8500e-003	0.0000	0.0000	4.8600e-003
Total	**2.8100e-003**	**0.1170**	**0.0205**	**1.2000e-004**	**2.0000e-004**	**1.7000e-004**	**3.7000e-004**	**6.0000e-005**	**1.6000e-004**	**2.2000e-004**	**0.0000**	**11.3286**	**11.3286**	**2.5900e-003**	**0.0000**	**11.3933**

3.4 Trenching-Phase I - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1200e-003	0.0235	0.0200	3.0000e-005		1.1600e-003	1.1600e-003		1.0600e-003	1.0600e-003	0.0000	2.8734	2.8734	8.8000e-004	0.0000	2.8954

Total	**2.1200e-003**	**0.0235**	**0.0200**	**3.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.0600e-003**	**1.0600e-003**	**0.0000**	**2.8734**	**2.8734**	**8.8000e-004**	**0.0000**	**2.8954**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	8.2000e-004	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0686	0.0686	2.0000e-005	0.0000	0.0690
Worker	0.0000	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.0800e-003
Total	**3.0000e-005**	**8.2000e-004**	**2.8000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0697**	**0.0697**	**2.0000e-005**	**0.0000**	**0.0701**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1200e-003	0.0235	0.0200	3.0000e-005		1.1600e-003	1.1600e-003		1.0600e-003	1.0600e-003	0.0000	2.8734	2.8734	8.8000e-004	0.0000	2.8954
Total	**2.1200e-003**	**0.0235**	**0.0200**	**3.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.0600e-003**	**1.0600e-003**	**0.0000**	**2.8734**	**2.8734**	**8.8000e-004**	**0.0000**	**2.8954**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	8.2000e-004	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0686	0.0686	2.0000e-005	0.0000	0.0690
Worker	0.0000	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.0800e-003
Total	**3.0000e-005**	**8.2000e-004**	**2.8000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0697**	**0.0697**	**2.0000e-005**	**0.0000**	**0.0701**

3.4 Trenching-Phase I - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.6300e-003	0.0495	0.0524	8.0000e-005		2.4000e-003	2.4000e-003		2.2100e-003	2.2100e-003	0.0000	7.5418	7.5418	2.3500e-003	0.0000	7.6005
Total	**4.6300e-003**	**0.0495**	**0.0524**	**8.0000e-005**		**2.4000e-003**	**2.4000e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**7.5418**	**7.5418**	**2.3500e-003**	**0.0000**	**7.6005**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	6.0000e-005	2.1400e-003	6.2000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.1860	0.1860	4.0000e-005	0.0000	0.1870
Worker	1.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.8000e-003	2.8000e-003	0.0000	0.0000	2.8000e-003
Total	**7.0000e-005**	**2.1400e-003**	**6.7000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1888**	**0.1888**	**4.0000e-005**	**0.0000**	**0.1898**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.6300e-003	0.0495	0.0524	8.0000e-005		2.4000e-003	2.4000e-003		2.2100e-003	2.2100e-003	0.0000	7.5418	7.5418	2.3500e-003	0.0000	7.6004
Total	**4.6300e-003**	**0.0495**	**0.0524**	**8.0000e-005**		**2.4000e-003**	**2.4000e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**7.5418**	**7.5418**	**2.3500e-003**	**0.0000**	**7.6004**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0000e-005	2.1400e-003	6.2000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.1860	0.1860	4.0000e-005	0.0000	0.1870
Worker	1.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.8000e-003	2.8000e-003	0.0000	0.0000	2.8000e-003
Total	**7.0000e-005**	**2.1400e-003**	**6.7000e-004**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1888**	**0.1888**	**4.0000e-005**	**0.0000**	**0.1898**

3.5 Building Construction-Phase I-1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0814	0.8676	0.5848	1.4000e-003		0.0433	0.0433		0.0409	0.0409	0.0000	125.8609	125.8609	0.0322	0.0000	126.6669
Total	**0.0814**	**0.8676**	**0.5848**	**1.4000e-003**		**0.0433**	**0.0433**		**0.0409**	**0.0409**	**0.0000**	**125.8609**	**125.8609**	**0.0322**	**0.0000**	**126.6669**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	5.2000e-004	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0525	0.0525	1.0000e-005	0.0000	0.0528
Vendor	1.4600e-003	0.0501	0.0146	4.0000e-005	1.5000e-004	7.0000e-005	2.2000e-004	4.0000e-005	7.0000e-005	1.1000e-004	0.0000	4.3601	4.3601	9.0000e-004	0.0000	4.3826
Worker	1.8000e-004	7.0000e-005	1.0100e-003	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0524	0.0524	1.0000e-005	0.0000	0.0526
Total	**1.6500e-003**	**0.0506**	**0.0157**	**4.0000e-005**	**1.7000e-004**	**7.0000e-005**	**2.4000e-004**	**5.0000e-005**	**7.0000e-005**	**1.2000e-004**	**0.0000**	**4.4650**	**4.4650**	**9.2000e-004**	**0.0000**	**4.4880**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0814	0.8676	0.5848	1.4000e-003		0.0433	0.0433		0.0409	0.0409	0.0000	125.8608	125.8608	0.0322	0.0000	126.6668

Total	**0.0814**	**0.8676**	**0.5848**	**1.4000e-003**		**0.0433**	**0.0433**		**0.0409**	**0.0409**	**0.0000**	**125.8608**	**125.8608**	**0.0322**	**0.0000**	**126.6668**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	5.2000e-004	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0525	0.0525	1.0000e-005	0.0000	0.0528
Vendor	1.4600e-003	0.0501	0.0146	4.0000e-005	1.5000e-004	7.0000e-005	2.2000e-004	4.0000e-005	7.0000e-005	1.1000e-004	0.0000	4.3601	4.3601	9.0000e-004	0.0000	4.3826
Worker	1.8000e-004	7.0000e-005	1.0100e-003	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0524	0.0524	1.0000e-005	0.0000	0.0526
Total	**1.6500e-003**	**0.0506**	**0.0157**	**4.0000e-005**	**1.7000e-004**	**7.0000e-005**	**2.4000e-004**	**5.0000e-005**	**7.0000e-005**	**1.2000e-004**	**0.0000**	**4.4650**	**4.4650**	**9.2000e-004**	**0.0000**	**4.4880**

3.6 Building Construction-Phase I-2 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0112	0.0830	0.0747	1.1000e-004		5.7900e-003	5.7900e-003		5.6100e-003	5.6100e-003	0.0000	9.8774	9.8774	1.5600e-003	0.0000	9.9164
Total	**0.0112**	**0.0830**	**0.0747**	**1.1000e-004**		**5.7900e-003**	**5.7900e-003**		**5.6100e-003**	**5.6100e-003**	**0.0000**	**9.8774**	**9.8774**	**1.5600e-003**	**0.0000**	**9.9164**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4500e-003	0.0841	0.0245	8.0000e-005	2.5000e-004	1.2000e-004	3.7000e-004	8.0000e-005	1.1000e-004	1.9000e-004	0.0000	7.3250	7.3250	1.5100e-003	0.0000	7.3628
Worker	3.1000e-004	1.2000e-004	1.7000e-003	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0881	0.0881	1.0000e-005	0.0000	0.0883
Total	**2.7600e-003**	**0.0842**	**0.0262**	**8.0000e-005**	**2.9000e-004**	**1.2000e-004**	**4.1000e-004**	**9.0000e-005**	**1.1000e-004**	**2.0000e-004**	**0.0000**	**7.4131**	**7.4131**	**1.5200e-003**	**0.0000**	**7.4512**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0112	0.0830	0.0747	1.1000e-004		5.7900e-003	5.7900e-003		5.6100e-003	5.6100e-003	0.0000	9.8774	9.8774	1.5600e-003	0.0000	9.9163
Total	**0.0112**	**0.0830**	**0.0747**	**1.1000e-004**		**5.7900e-003**	**5.7900e-003**		**5.6100e-003**	**5.6100e-003**	**0.0000**	**9.8774**	**9.8774**	**1.5600e-003**	**0.0000**	**9.9163**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	2.4500e-003	0.0841	0.0245	8.0000e-005	2.5000e-004	1.2000e-004	3.7000e-004	8.0000e-005	1.1000e-004	1.9000e-004	0.0000	7.3250	7.3250	1.5100e-003	0.0000	7.3628
Worker	3.1000e-004	1.2000e-004	1.7000e-003	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0881	0.0881	1.0000e-005	0.0000	0.0883
Total	**2.7600e-003**	**0.0842**	**0.0262**	**8.0000e-005**	**2.9000e-004**	**1.2000e-004**	**4.1000e-004**	**9.0000e-005**	**1.1000e-004**	**2.0000e-004**	**0.0000**	**7.4131**	**7.4131**	**1.5200e-003**	**0.0000**	**7.4512**

3.7 Building Construction-Phase I-3 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.5800e-003	0.0874	0.0841	1.3000e-004		4.5900e-003	4.5900e-003		4.2200e-003	4.2200e-003	0.0000	11.6048	11.6048	3.6100e-003	0.0000	11.6951
Total	**7.5800e-003**	**0.0874**	**0.0841**	**1.3000e-004**		**4.5900e-003**	**4.5900e-003**		**4.2200e-003**	**4.2200e-003**	**0.0000**	**11.6048**	**11.6048**	**3.6100e-003**	**0.0000**	**11.6951**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1200e-003	0.0729	0.0212	7.0000e-005	2.2000e-004	1.0000e-004	3.2000e-004	7.0000e-005	1.0000e-004	1.6000e-004	0.0000	6.3483	6.3483	1.3100e-003	0.0000	6.3811
Worker	1.6200e-003	6.4000e-004	8.9100e-003	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.4613	0.4613	5.0000e-005	0.0000	0.4625
Total	**3.7400e-003**	**0.0735**	**0.0302**	**8.0000e-005**	**4.2000e-004**	**1.1000e-004**	**5.3000e-004**	**1.2000e-004**	**1.1000e-004**	**2.2000e-004**	**0.0000**	**6.8096**	**6.8096**	**1.3600e-003**	**0.0000**	**6.8436**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.5800e-003	0.0552	0.0841	1.3000e-004		4.5900e-003	4.5900e-003		4.2200e-003	4.2200e-003	0.0000	11.6048	11.6048	3.6100e-003	0.0000	11.6951
Total	**7.5800e-003**	**0.0552**	**0.0841**	**1.3000e-004**		**4.5900e-003**	**4.5900e-003**		**4.2200e-003**	**4.2200e-003**	**0.0000**	**11.6048**	**11.6048**	**3.6100e-003**	**0.0000**	**11.6951**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1200e-003	0.0729	0.0212	7.0000e-005	2.2000e-004	1.0000e-004	3.2000e-004	7.0000e-005	1.0000e-004	1.6000e-004	0.0000	6.3483	6.3483	1.3100e-003	0.0000	6.3811
Worker	1.6200e-003	6.4000e-004	8.9100e-003	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.4613	0.4613	5.0000e-005	0.0000	0.4625
Total	**3.7400e-003**	**0.0735**	**0.0302**	**8.0000e-005**	**4.2000e-004**	**1.1000e-004**	**5.3000e-004**	**1.2000e-004**	**1.1000e-004**	**2.2000e-004**	**0.0000**	**6.8096**	**6.8096**	**1.3600e-003**	**0.0000**	**6.8436**

3.7 Building Construction-Phase I-3 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2800e-003	0.0963	0.0996	1.5000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	13.6770	13.6770	4.3300e-003	0.0000	13.7852

Total	**8.2800e-003**	**0.0963**	**0.0996**	**1.5000e-004**		**4.7900e-003**	**4.7900e-003**		**4.4100e-003**	**4.4100e-003**	**0.0000**	**13.6770**	**13.6770**	**4.3300e-003**	**0.0000**	**13.7852**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3100e-003	0.0850	0.0232	8.0000e-005	2.6000e-004	1.1000e-004	3.6000e-004	8.0000e-005	1.0000e-004	1.8000e-004	0.0000	7.5908	7.5908	1.4900e-003	0.0000	7.6280
Worker	1.7800e-003	6.8000e-004	9.6300e-003	1.0000e-005	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.5369	0.5369	5.0000e-005	0.0000	0.5382
Total	**4.0900e-003**	**0.0857**	**0.0329**	**9.0000e-005**	**5.0000e-004**	**1.2000e-004**	**6.1000e-004**	**1.5000e-004**	**1.1000e-004**	**2.6000e-004**	**0.0000**	**8.1277**	**8.1277**	**1.5400e-003**	**0.0000**	**8.1663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2800e-003	0.0594	0.0996	1.5000e-004		4.7900e-003	4.7900e-003		4.4100e-003	4.4100e-003	0.0000	13.6770	13.6770	4.3300e-003	0.0000	13.7852
Total	**8.2800e-003**	**0.0594**	**0.0996**	**1.5000e-004**		**4.7900e-003**	**4.7900e-003**		**4.4100e-003**	**4.4100e-003**	**0.0000**	**13.6770**	**13.6770**	**4.3300e-003**	**0.0000**	**13.7852**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3100e-003	0.0850	0.0232	8.0000e-005	2.6000e-004	1.1000e-004	3.6000e-004	8.0000e-005	1.0000e-004	1.8000e-004	0.0000	7.5908	7.5908	1.4900e-003	0.0000	7.6280
Worker	1.7800e-003	6.8000e-004	9.6300e-003	1.0000e-005	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.5369	0.5369	5.0000e-005	0.0000	0.5382
Total	**4.0900e-003**	**0.0857**	**0.0329**	**9.0000e-005**	**5.0000e-004**	**1.2000e-004**	**6.1000e-004**	**1.5000e-004**	**1.1000e-004**	**2.6000e-004**	**0.0000**	**8.1277**	**8.1277**	**1.5400e-003**	**0.0000**	**8.1663**

3.8 Paving-Phase I - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0300	0.3081	0.2720	4.0000e-004		0.0181	0.0181		0.0167	0.0167	0.0000	36.1849	36.1849	0.0115	0.0000	36.4712
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0300**	**0.3081**	**0.2720**	**4.0000e-004**		**0.0181**	**0.0181**		**0.0167**	**0.0167**	**0.0000**	**36.1849**	**36.1849**	**0.0115**	**0.0000**	**36.4712**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	5.7000e-004	0.0211	5.7500e-003	2.0000e-005	6.0000e-005	3.0000e-005	9.0000e-005	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	1.8803	1.8803	3.7000e-004	0.0000	1.8895
Worker	1.4000e-004	5.0000e-005	7.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0413	0.0413	0.0000	0.0000	0.0414
Total	**7.1000e-004**	**0.0211**	**6.4900e-003**	**2.0000e-005**	**8.0000e-005**	**3.0000e-005**	**1.1000e-004**	**3.0000e-005**	**2.0000e-005**	**5.0000e-005**	**0.0000**	**1.9216**	**1.9216**	**3.7000e-004**	**0.0000**	**1.9309**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0300	0.3081	0.2720	4.0000e-004		0.0181	0.0181		0.0167	0.0167	0.0000	36.1849	36.1849	0.0115	0.0000	36.4711
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0300**	**0.3081**	**0.2720**	**4.0000e-004**		**0.0181**	**0.0181**		**0.0167**	**0.0167**	**0.0000**	**36.1849**	**36.1849**	**0.0115**	**0.0000**	**36.4711**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7000e-004	0.0211	5.7500e-003	2.0000e-005	6.0000e-005	3.0000e-005	9.0000e-005	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	1.8803	1.8803	3.7000e-004	0.0000	1.8895
Worker	1.4000e-004	5.0000e-005	7.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0413	0.0413	0.0000	0.0000	0.0414
Total	**7.1000e-004**	**0.0211**	**6.4900e-003**	**2.0000e-005**	**8.0000e-005**	**3.0000e-005**	**1.1000e-004**	**3.0000e-005**	**2.0000e-005**	**5.0000e-005**	**0.0000**	**1.9216**	**1.9216**	**3.7000e-004**	**0.0000**	**1.9309**

3.9 Architectural Coating-Phase I - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2423	0.2431	3.9000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	33.7030	33.7030	2.8500e-003	0.0000	33.7741
Total	**0.0861**	**0.2423**	**0.2431**	**3.9000e-004**		**0.0170**	**0.0170**		**0.0170**	**0.0170**	**0.0000**	**33.7030**	**33.7030**	**2.8500e-003**	**0.0000**	**33.7741**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	4.2900e-003	1.1700e-003	0.0000	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.3830	0.3830	8.0000e-005	0.0000	0.3849
Worker	7.0000e-005	3.0000e-005	4.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0224	0.0224	0.0000	0.0000	0.0225
Total	**1.9000e-004**	**4.3200e-003**	**1.5700e-003**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**3.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.4054**	**0.4054**	**8.0000e-005**	**0.0000**	**0.4074**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0352	0.2423	0.2431	3.9000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	33.7029	33.7029	2.8500e-003	0.0000	33.7741
Total	**0.0861**	**0.2423**	**0.2431**	**3.9000e-004**		**0.0170**	**0.0170**		**0.0170**	**0.0170**	**0.0000**	**33.7029**	**33.7029**	**2.8500e-003**	**0.0000**	**33.7741**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	4.2900e-003	1.1700e-003	0.0000	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.3830	0.3830	8.0000e-005	0.0000	0.3849
Worker	7.0000e-005	3.0000e-005	4.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0224	0.0224	0.0000	0.0000	0.0225
Total	**1.9000e-004**	**4.3200e-003**	**1.5700e-003**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**3.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.4054**	**0.4054**	**8.0000e-005**	**0.0000**	**0.4074**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2790	1.0696	2.5094	6.7200e-003	0.5218	7.0500e-003	0.5289	0.1398	6.6100e-003	0.1464	0.0000	619.3893	619.3893	0.0396	0.0000	620.3780
Unmitigated	0.2790	1.0696	2.5094	6.7200e-003	0.5218	7.0500e-003	0.5289	0.1398	6.6100e-003	0.1464	0.0000	619.3893	619.3893	0.0396	0.0000	620.3780

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,566.21	0.00	0.00	1,384,530	1,384,530
Quality Restaurant	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Total	1,566.21	0.00	0.00	1,384,530	1,384,530

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	0.00	0.00	3.40	0.00	0.00	100.00	100	0	0
Quality Restaurant	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Quality Restaurant	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271
Recreational Swimming Pool	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7,741.6643	7,741.6643	0.3107	0.0634	7,768.3299
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7,741.6643	7,741.6643	0.3107	0.0634	7,768.3299
NaturalGas Mitigated	0.1959	1.6929	0.8507	0.0107		0.1354	0.1354		0.1354	0.1354	0.0000	1,938.7220	1,938.7220	0.0372	0.0355	1,950.2428
NaturalGas Unmitigated	0.1959	1.6929	0.8507	0.0107		0.1354	0.1354		0.1354	0.1354	0.0000	1,938.7220	1,938.7220	0.0372	0.0355	1,950.2428

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.99188e+007	0.1613	1.3786	0.5866	8.8000e-003		0.1115	0.1115		0.1115	0.1115	0.0000	1,596.5797	1,596.5797	0.0306	0.0293	1,606.0674
Quality Restaurant	6.4115e+006	0.0346	0.3143	0.2640	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	342.1422	342.1422	6.5600e-003	6.2700e-003	344.1754
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1959**	**1.6929**	**0.8506**	**0.0107**		**0.1354**	**0.1354**		**0.1354**	**0.1354**	**0.0000**	**1,938.7220**	**1,938.7220**	**0.0372**	**0.0355**	**1,950.2428**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.99188e+007	0.1613	1.3786	0.5866	8.8000e-003		0.1115	0.1115		0.1115	0.1115	0.0000	1,596.5797	1,596.5797	0.0306	0.0293	1,606.0674
Quality Restaurant	6.4115e+006	0.0346	0.3143	0.2640	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	342.1422	342.1422	6.5600e-003	6.2700e-003	344.1754
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total		**0.1959**	**1.6929**	**0.8506**	**0.0107**		**0.1354**	**0.1354**		**0.1354**	**0.1354**	**0.0000**	**1,938.7220**	**1,938.7220**	**0.0372**	**0.0355**	**1,950.2428**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.30981e+007	7,253.1016	0.2911	0.0594	7,278.0844
Quality Restaurant	882280	488.5626	0.0196	4.0000e-003	490.2455
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**7,741.6643**	**0.3107**	**0.0634**	**7,768.3299**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.30981e+007	7,253.1016	0.2911	0.0594	7,278.0844
Quality Restaurant	882280	488.5626	0.0196	4.0000e-003	490.2455
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**7,741.6643**	**0.3107**	**0.0634**	**7,768.3299**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9421	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941
Unmitigated	0.9421	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0221					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8635					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0565	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941
Total	**0.9421**	**0.0215**	**1.8552**	**1.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**3.0205**	**3.0205**	**2.9500e-003**	**0.0000**	**3.0941**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0221					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8635					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0565	0.0215	1.8552	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0205	3.0205	2.9500e-003	0.0000	3.0941
Total	**0.9421**	**0.0215**	**1.8552**	**1.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**3.0205**	**3.0205**	**2.9500e-003**	**0.0000**	**3.0941**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	346.3714	1.0085	0.0263	379.4073
Unmitigated	346.3714	1.0085	0.0263	379.4073

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	29.6176 / 18.6719	337.8230	0.9783	0.0255	369.8722
Quality Restaurant	0.539353 / 0.0344268	4.2719	0.0177	4.5000e-004	4.8490
Recreational Swimming Pool	0.378516 / 0.231994	4.2766	0.0125	3.3000e-004	4.6861
Total		**346.3714**	**1.0085**	**0.0263**	**379.4073**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	29.6176 / 18.6719	337.8230	0.9783	0.0255	369.8722
Quality Restaurant	0.539353 / 0.0344268	4.2719	0.0177	4.5000e-004	4.8490
Recreational Swimming Pool	0.378516 / 0.231994	4.2766	0.0125	3.3000e-004	4.6861
Total		**346.3714**	**1.0085**	**0.0263**	**379.4073**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.7275	0.3976	0.0000	16.6672
Unmitigated	33.6376	1.9879	0.0000	83.3358

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	114.54	23.2506	1.3741	0.0000	57.6023
Quality Restaurant	14.69	2.9819	0.1762	0.0000	7.3876
Recreational Swimming Pool	36.48	7.4051	0.4376	0.0000	18.3459
Total		**33.6376**	**1.9879**	**0.0000**	**83.3358**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	22.908	4.6501	0.2748	0.0000	11.5205

Quality Restaurant	2.938	0.5964	0.0353	0.0000	1.4775
Recreational Swimming Pool	7.296	1.4810	0.0875	0.0000	3.6692
Total		**6.7275**	**0.3976**	**0.0000**	**16.6672**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.25	20	677	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel	0.0111	0.0311	0.0283	5.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1560	5.1560	7.2000e-004	0.0000	5.1741
Total	**0.0111**	**0.0311**	**0.0283**	**5.0000e-005**		**1.6300e-003**	**1.6300e-003**		**1.6300e-003**	**1.6300e-003**	**0.0000**	**5.1560**	**5.1560**	**7.2000e-004**	**0.0000**	**5.1741**

ATTACHMENT 2

Diesel Particulate Matter Emissions

SDSU - New Campus Housing - Area Source
Annual Exhaust PM10 from Equipment and Haul Trucks

Total CalEEMod (mitigated)	0.1402	tons during overall construction	
Total	**0.1402**	tons during overall construction	
	280.40	lbs during overall construction	
	93.47	lbs/yr	
	0.044	lbs/hr	
	2112	hours/year	
		264 days/year	
Construction =		36 months	
		3 years	

Notes from CalEEMod 2016.3.1:

2017	0.0437
2018	0.0564
2019	0.0401
Total	***0.1402***

lb/year × 453.6 g/lb ÷ (8 hrs/day × 264 days per year) ÷ 3600 seconds/hour =

93.47 453.6 2112 3600

0.005576136 g/sec

SDSU - New Campus Housing
Emergency Diesel Engine-Generator Emissions

GeneratorsPumpsEquipm	NumberOfEqu	GeneratorsPu	HorsePowerValue	Load_Factor	HoursPerDay	HoursPerYear	GeneratorsPumpsEquipmentDescription
Emergency Generator	1	Diesel	677	0.73	0.25	20	Emergency Generator - Diesel (600 - 750 HP)

Total Daily Emissions:	0.1226	lb/day exhaust PM10
Total Annual Emissions:	4.90E-03	ton/year exhaust PM10
Per Generator:	0.00163	ton/year exhaust PM10
	3.26667	lb/year exhaust PM10
	0.00895	lb/day exhaust PM10
	0.00037	lb/hr exhaust PM10
	0.00005	g/s exhaust PM10

Emergency Generator Horsepower	Stack Height (m)*	Stack Diameter (m)*	Gas Exit Temp (K)*	Gas Exit Velocity (m/s)*
677	3.84	0.17	798.16	160.56

* Stack height and diameter are provided by SJVAPCD for general engines when specs unknown

ATTACHMENT 3

AERMOD Construction Output

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.4.0
** Lakes Environmental Software Inc.
** Date: 7/12/2017
** File: C:\Lakes\AERMOD View\SDSU_NCH_Const-Phase1\SDSU_NCH_Const.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\SDSU_NCH_Const\SDSU_NCH_Const.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   POLLUTID OTHER
   RUNORNOT RUN
   ERRORFIL SDSU_NCH_Const.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   492584.697  3626380.479      131.010
** Source Parameters **
   SRCPARAM PAREA1       0.000119662     5.000        14     1.400
   AREAVERT PAREA1       492584.697 3626380.479 492581.512 3626396.179
   AREAVERT PAREA1       492596.074 3626413.699 492618.372 3626414.609
   AREAVERT PAREA1       492622.695 3626422.800 492622.468 3626432.584
   AREAVERT PAREA1       492634.299 3626443.278 492655.005 3626435.542
   AREAVERT PAREA1       492661.148 3626423.710 492799.943 3626410.058
   AREAVERT PAREA1       492792.889 3626384.347 492783.333 3626373.653
   AREAVERT PAREA1       492664.106 3626382.754 492621.103 3626386.850
**
** No Building Downwash **
**

** Variable Emissions Type: "By Season / Hour / Day (SHRDOW)"
** Variable Emission Scenario: "Scenario 1"
** WeekDays:
** Winter
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
```

```
   EMISFACT PAREA1       SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Spring
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT PAREA1       SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Summer
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT PAREA1       SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Fall
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 1.0 1.0 1.0 1.0 0.0
   EMISFACT PAREA1       SHRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
** Winter
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Spring
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Summer
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Fall
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
** Winter
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Spring
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Summer
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
** Fall
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT PAREA1       SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**********************************
** AERMOD Receptor Pathway
**********************************
**
**
RE STARTING
   INCLUDED SDSU_NCH_Const.rou
RE FINISHED
**
**********************************
** AERMOD Meteorology Pathway
**********************************
**
**
ME STARTING
   SURFFILE "SDAPCD Kearny MetData\KMA2010_2012v15181.SFC"
   PROFFILE "SDAPCD Kearny MetData\KMA2010_2012v15181.PFL"
   SURFDATA 93107 2010
   UAIRDATA 3190 2010
   SITEDATA 6 2010
   PROFBASE 128.9 METERS
ME FINISHED
**
**********************************
** AERMOD Output Pathway
**********************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST SDSU_NCH_Const.AD\01H1GALL.PLT 31
   PLOTFILE PERIOD ALL SDSU_NCH_Const.AD\PE00GALL.PLT 32
   SUMMFILE SDSU_NCH_Const.sum
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: OTHER

**Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates PERIOD Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 1210 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 1 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

```
 **The AERMET Input Meteorological Data Version Date:  15181

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor
(RECTABLE Keyword)
          Model Outputs External File(s) of High Values for Plotting
(PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked Values
(SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for
Calm Hours
                                                                  m for
Missing Hours
                                                                  b for
Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   128.90 ;
Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC
;  Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Detailed Error/Message File:   SDSU_NCH_Const.err
 **File for Summary of Results:   SDSU_NCH_Const.sum
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
PAREA1	0	0.11966E-03	492584.7	3626380.5	131.0	5.00	14	1.40	NO	SHRDOW

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	PAREA1 ,

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = PAREA1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = WINTER; DAY OF WEEK = WEEKDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = SPRING; DAY OF WEEK = WEEKDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = SUMMER; DAY OF WEEK = WEEKDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = FALL ; DAY OF WEEK = WEEKDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SEASON = WINTER; DAY OF WEEK = SATURDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21
.0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = SPRING;  DAY OF
WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5
.0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13
.0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21
.0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = SUMMER;  DAY OF
WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5
.0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13
.0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21
.0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON =  FALL ;  DAY OF
WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5
.0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13
.0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21
.0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = WINTER;  DAY OF
WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5
.0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13
.0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21
.0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = SPRING;  DAY OF
WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5
.0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13
.0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21
.0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON = SUMMER;  DAY OF
WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5
.0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13
.0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21
.0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                  SEASON =  FALL ;  DAY OF
WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5
.0000E+00    6  .0000E+00    7  .0000E+00    8  .0000E+00
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    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13
.0000E+00   14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21
.0000E+00   22  .0000E+00   23  .0000E+00   24  .0000E+00
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

492248.3, 492298.3, 492348.3, 492398.3, 492448.3, 492498.3, 492548.3, 492598.3, 492648.3, 492698.3,
492748.3, 492798.3, 492848.3, 492898.3, 492948.3,

*** Y-COORDINATES OF GRID ***
(METERS)

3626079.1, 3626129.1, 3626179.1, 3626229.1, 3626279.1, 3626329.1, 3626379.1, 3626429.1, 3626479.1, 3626529.1,
3626579.1, 3626629.1, 3626679.1, 3626729.1, 3626779.1,

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)				
	492248.31	492298.31	492348.31	492398.31	492448.31
3626779.15	113.60	114.40	104.20	85.80	67.90
3626729.15	115.80	118.20	109.10	88.00	81.90
3626679.15	117.00	120.60	113.20	91.10	93.40
3626629.15	118.70	124.40	119.10	98.20	102.10
3626579.15	121.80	128.30	123.20	108.40	107.50
3626529.15	129.70	131.20	129.40	120.60	115.00
3626479.15	132.90	132.60	132.60	129.50	124.10
3626429.15	133.00	133.00	133.60	132.10	129.10
3626379.15	132.70	132.80	133.00	133.00	132.60
3626329.15	132.00	132.00	132.40	133.00	132.50
3626279.15	132.00	132.00	132.10	131.90	132.20
3626229.15	130.80	131.00	131.00	131.70	131.90
3626179.15	129.00	129.20	130.10	130.10	130.50
3626129.15	124.00	124.60	127.20	128.40	122.60
3626079.15	117.50	120.10	123.30	125.00	118.10

Y-COORD (METERS)	X-COORD (METERS)				
	492248.31	492298.31	492348.31	492398.31	492448.31
3626779.15	65.80	84.10	105.00	110.20	
3626729.15	84.40	73.20	93.60	116.90	
3626679.15	105.00	87.10	86.00	111.20	
3626629.15	116.40	103.50	87.30	108.50	
3626579.15	119.10	108.30	91.20	98.40	
3626529.15	118.80	103.60	103.90	102.80	
3626479.15	118.30	102.70	119.40	119.60	
3626429.15	117.40	113.80	128.00	129.40	
3626379.15	125.50	126.30	132.70	134.00	
3626329.15	130.40	131.90	132.70	133.40	
3626279.15	132.30	133.00	132.60	133.00	
3626229.15	131.90	131.80	132.00	131.60	132.80
3626179.15	130.50	130.10	131.10	131.10	132.00
3626129.15	122.60	113.80	120.30	126.40	130.00
3626079.15	118.10	114.80	128.90	130.00	130.50

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)				
	492698.31	492748.31	492798.31	492848.31	492898.31	492948.31
3626779.15	109.00	107.30	101.80	87.70	82.10	81.80
3626729.15	119.10	120.00	117.40	97.30	84.50	84.70
3626679.15	122.40	124.10	123.20	102.70	88.30	88.10
3626629.15	123.90	126.50	124.70	113.80	91.70	89.90
3626579.15	122.10	125.70	126.30	121.80	100.30	102.90
3626529.15	108.30	124.20	126.60	124.10	110.10	109.90
3626479.15	111.30	118.90	126.30	126.70	116.40	109.60
3626429.15	127.90	126.60	127.60	130.10	126.50	116.50
3626379.15	134.00	134.10	134.20	133.50	131.80	122.60
3626329.15	134.00	134.10	135.00	135.00	135.50	128.10
3626279.15	133.40	134.00	135.60	136.00	135.50	131.50
3626229.15	133.00	134.10	135.50	136.00	135.90	133.80
3626179.15	133.00	134.60	136.30	136.90	135.40	134.00
3626129.15	132.90	136.00	137.40	137.00	135.70	133.90
3626079.15	132.90	136.90	138.00	137.00	136.20	136.00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)				
	492248.31	492298.31	492348.31	492398.31	492448.31
3626779.15	114.00	118.00	132.00	134.00	136.00
3626729.15	115.80	118.20	132.00	134.00	135.00
3626679.15	130.00	120.60	132.00	134.00	134.00
3626629.15	132.00	124.40	132.00	134.00	134.00
3626579.15	133.00	128.30	132.00	134.00	134.00
3626529.15	129.70	131.20	132.00	134.00	134.00
3626479.15	132.90	132.60	132.60	130.00	133.00
3626429.15	133.00	133.00	133.60	132.10	132.00
3626379.15	132.70	132.80	133.00	133.00	132.60
3626329.15	132.00	132.00	132.40	133.00	132.50
3626279.15	132.00	132.00	132.10	131.90	132.20
3626229.15	130.80	131.00	131.00	131.70	131.90
3626179.15	129.00	129.20	130.10	130.10	130.50
3626129.15	129.00	128.00	127.20	128.40	132.00
3626079.15	131.00	128.00	123.30	126.00	132.00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)				
	492698.31	492748.31	492798.31	492848.31	492898.31	492948.31
3626779.15	127.00	127.00	127.00	136.00	136.00	136.00
3626729.15	119.10	122.00	126.00	135.00	137.00	136.00
3626679.15	122.40	124.10	123.20	134.00	137.00	137.00
3626629.15	123.90	126.50	124.70	127.00	137.00	137.00
3626579.15	122.10	125.70	126.30	126.00	136.00	136.00
3626529.15	136.00	126.00	126.60	124.10	136.00	136.00
3626479.15	136.00	135.00	126.30	126.70	136.00	136.00
3626429.15	134.00	135.00	135.00	130.10	135.00	136.00
3626379.15	134.00	134.10	134.20	133.50	135.00	136.00
3626329.15	134.00	134.10	135.00	135.00	135.50	136.00
3626279.15	133.40	134.00	135.60	136.00	135.50	136.00
3626229.15	133.00	134.10	135.50	136.00	135.90	133.80
3626179.15	133.00	134.60	136.30	136.90	135.40	134.00
3626129.15	132.90	138.00	137.40	137.00	135.70	133.90
3626079.15	132.90	136.90	138.00	137.00	136.20	136.00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492780.6, 3626444.2, 124.8, 135.0, 0.0); (492790.6, 3626444.2, 126.2, 135.0, 0.0);
(492798.5, 3626444.1, 126.5, 134.0, 0.0); (492839.3, 3626444.2, 128.5, 128.5, 0.0);
(492849.3, 3626444.2, 129.1, 129.1, 0.0); (492859.3, 3626444.2, 128.8, 128.8, 0.0);
(492869.3, 3626444.2, 128.4, 128.4, 0.0); (492879.3, 3626444.2, 128.1, 128.1, 0.0);
(492779.3, 3626454.2, 124.5, 135.0, 0.0); (492789.3, 3626454.2, 126.0, 134.0, 0.0);
(492799.3, 3626454.2, 126.3, 134.0, 0.0); (492839.3, 3626454.2, 128.0, 128.0, 0.0);
(492849.3, 3626454.2, 128.5, 128.5, 0.0); (492859.3, 3626454.2, 128.0, 128.0, 0.0);
(492869.3, 3626454.2, 127.6, 127.6, 0.0); (492879.3, 3626454.2, 127.2, 127.2, 0.0);
(492779.3, 3626464.2, 124.7, 134.0, 0.0); (492789.3, 3626464.2, 126.0, 134.0, 0.0);
(492799.3, 3626464.2, 126.3, 126.3, 0.0); (492829.3, 3626464.2, 127.3, 127.3, 0.0);
(492839.3, 3626464.2, 127.5, 127.5, 0.0); (492849.3, 3626464.2, 127.8, 127.8, 0.0);
(492859.3, 3626464.2, 127.2, 127.2, 0.0); (492869.3, 3626464.2, 126.7, 126.7, 0.0);
(492879.3, 3626464.2, 126.2, 126.2, 0.0); (492769.3, 3626474.2, 123.9, 134.0, 0.0);
(492779.3, 3626474.2, 125.0, 134.0, 0.0); (492789.3, 3626474.2, 126.0, 126.0, 0.0);
(492799.3, 3626474.2, 126.3, 126.3, 0.0); (492829.3, 3626474.2, 127.0, 127.0, 0.0);
(492839.3, 3626474.2, 127.1, 127.1, 0.0); (492849.3, 3626474.2, 127.1, 127.1, 0.0);
(492859.3, 3626474.2, 126.5, 126.5, 0.0); (492869.3, 3626474.2, 125.8, 125.8, 0.0);
(492879.3, 3626474.2, 125.2, 125.2, 0.0); (492769.3, 3626484.2, 124.2, 124.2, 0.0);
(492779.3, 3626484.2, 125.1, 125.1, 0.0); (492789.3, 3626484.2, 126.0, 126.0, 0.0);
(492799.3, 3626484.2, 126.3, 126.3, 0.0); (492809.3, 3626484.2, 126.7, 126.7, 0.0);

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     ( 492819.3, 3626484.2,     127.0,     127.0,       0.0);         (
492829.3, 3626484.2,     126.7,     126.7,       0.0);
     ( 492839.3, 3626484.2,     126.5,     126.5,       0.0);         (
492849.3, 3626484.2,     126.2,     126.2,       0.0);
     ( 492859.3, 3626484.2,     125.4,     127.0,       0.0);         (
492769.3, 3626494.2,     124.4,     124.4,       0.0);
     ( 492779.3, 3626494.2,     125.2,     125.2,       0.0);         (
492789.3, 3626494.2,     126.0,     126.0,       0.0);
     ( 492799.3, 3626494.2,     126.3,     126.3,       0.0);         (
492809.3, 3626494.2,     126.7,     126.7,       0.0);
     ( 492819.3, 3626494.2,     127.0,     127.0,       0.0);         (
492829.3, 3626494.2,     126.4,     126.4,       0.0);
     ( 492839.3, 3626494.2,     125.8,     125.8,       0.0);         (
492849.3, 3626494.2,     125.2,     125.2,       0.0);
     ( 492859.3, 3626494.2,     124.3,     127.0,       0.0);         (
492769.3, 3626504.2,     124.6,     124.6,       0.0);
     ( 492779.3, 3626504.2,     125.3,     125.3,       0.0);         (
492789.3, 3626504.2,     126.0,     126.0,       0.0);
     ( 492799.3, 3626504.2,     126.3,     126.3,       0.0);         (
492809.3, 3626504.2,     126.7,     126.7,       0.0);
     ( 492819.3, 3626504.2,     127.0,     127.0,       0.0);         (
492829.3, 3626504.2,     126.1,     126.1,       0.0);
     ( 492749.3, 3626514.2,     122.8,     126.0,       0.0);         (
492759.3, 3626514.2,     124.5,     124.5,       0.0);
     ( 492769.3, 3626514.2,     125.1,     125.1,       0.0);         (
492779.3, 3626514.2,     125.7,     125.7,       0.0);
     ( 492789.3, 3626514.2,     126.3,     126.3,       0.0);         (
492799.3, 3626514.2,     126.4,     126.4,       0.0);
     ( 492809.3, 3626514.2,     126.6,     126.6,       0.0);         (
492819.3, 3626514.2,     126.7,     126.7,       0.0);
     ( 492829.3, 3626514.2,     125.8,     125.8,       0.0);         (
492749.3, 3626524.2,     123.8,     126.0,       0.0);
     ( 492759.3, 3626524.2,     125.2,     125.2,       0.0);         (
492769.3, 3626524.2,     125.7,     125.7,       0.0);
     ( 492779.3, 3626524.2,     126.1,     126.1,       0.0);         (
492789.3, 3626524.2,     126.6,     126.6,       0.0);
     ( 492799.3, 3626524.2,     126.5,     126.5,       0.0);         (
492809.3, 3626524.2,     126.5,     126.5,       0.0);
     ( 492819.3, 3626524.2,     126.4,     126.4,       0.0);         (
492829.3, 3626524.2,     125.6,     125.6,       0.0);
     ( 492739.3, 3626534.2,     123.8,     126.0,       0.0);         (
492749.3, 3626534.2,     124.8,     126.0,       0.0);
     ( 492759.3, 3626534.2,     125.9,     125.9,       0.0);         (
492769.3, 3626534.2,     126.2,     126.2,       0.0);
     ( 492779.3, 3626534.2,     126.6,     126.6,       0.0);         (
492789.3, 3626534.2,     126.9,     126.9,       0.0);
     ( 492799.3, 3626534.2,     126.6,     126.6,       0.0);         (
492809.3, 3626534.2,     126.3,     126.3,       0.0);
     ( 492819.3, 3626534.2,     126.1,     126.1,       0.0);         (
492719.3, 3626544.2,     120.0,     127.0,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492729.3, 3626544.2, 123.3, 123.3, 0.0); (492739.3, 3626544.2, 124.2, 124.2, 0.0);
(492749.3, 3626544.2, 125.1, 125.1, 0.0); (492759.3, 3626544.2, 126.0, 126.0, 0.0);
(492769.3, 3626544.2, 126.3, 126.3, 0.0); (492779.3, 3626544.2, 126.7, 126.7, 0.0);
(492789.3, 3626544.2, 127.0, 127.0, 0.0); (492799.3, 3626544.2, 126.7, 126.7, 0.0);
(492809.3, 3626544.2, 126.3, 126.3, 0.0); (492819.3, 3626544.2, 126.0, 126.0, 0.0);
(492719.3, 3626554.2, 121.5, 126.0, 0.0); (492729.3, 3626554.2, 123.6, 123.6, 0.0);
(492739.3, 3626554.2, 124.4, 124.4, 0.0); (492749.3, 3626554.2, 125.2, 125.2, 0.0);
(492759.3, 3626554.2, 126.0, 126.0, 0.0); (492769.3, 3626554.2, 126.3, 126.3, 0.0);
(492779.3, 3626554.2, 126.7, 126.7, 0.0); (492789.3, 3626554.2, 127.0, 127.0, 0.0);
(492799.3, 3626554.2, 126.7, 126.7, 0.0); (492809.3, 3626554.2, 126.3, 126.3, 0.0);
(492819.3, 3626554.2, 126.0, 126.0, 0.0); (492709.3, 3626564.2, 122.2, 122.2, 0.0);
(492719.3, 3626564.2, 123.1, 123.1, 0.0); (492729.3, 3626564.2, 123.9, 123.9, 0.0);
(492739.3, 3626564.2, 124.6, 124.6, 0.0); (492749.3, 3626564.2, 125.3, 125.3, 0.0);
(492759.3, 3626564.2, 126.0, 126.0, 0.0); (492769.3, 3626564.2, 126.3, 126.3, 0.0);
(492779.3, 3626564.2, 126.7, 126.7, 0.0); (492789.3, 3626564.2, 127.0, 127.0, 0.0);
(492799.3, 3626564.2, 126.7, 126.7, 0.0); (492809.3, 3626564.2, 126.3, 126.3, 0.0);
(492819.3, 3626564.2, 126.0, 126.0, 0.0); (492709.3, 3626574.2, 122.9, 122.9, 0.0);
(492719.3, 3626574.2, 123.6, 123.6, 0.0); (492729.3, 3626574.2, 124.3, 124.3, 0.0);
(492739.3, 3626574.2, 124.9, 124.9, 0.0); (492749.3, 3626574.2, 125.6, 125.6, 0.0);
(492759.3, 3626574.2, 126.3, 126.3, 0.0); (492769.3, 3626574.2, 126.4, 126.4, 0.0);

```
     ( 492779.3, 3626574.2,     126.6,     126.6,       0.0);         (
492789.3, 3626574.2,     126.7,     126.7,       0.0);
     ( 492799.3, 3626574.2,     126.4,     126.4,       0.0);         (
492809.3, 3626574.2,     126.1,     126.1,       0.0);
     ( 492819.3, 3626574.2,     125.7,     125.7,       0.0);         (
492699.3, 3626584.2,     122.6,     122.6,       0.0);
     ( 492709.3, 3626584.2,     123.3,     123.3,       0.0);         (
492719.3, 3626584.2,     123.9,     123.9,       0.0);
     ( 492729.3, 3626584.2,     124.6,     124.6,       0.0);         (
492739.3, 3626584.2,     125.3,     125.3,       0.0);
     ( 492749.3, 3626584.2,     125.9,     125.9,       0.0);         (
492759.3, 3626584.2,     126.6,     126.6,       0.0);
     ( 492769.3, 3626584.2,     126.5,     126.5,       0.0);         (
492779.3, 3626584.2,     126.5,     126.5,       0.0);
     ( 492789.3, 3626584.2,     126.4,     126.4,       0.0);         (
492799.3, 3626584.2,     126.1,     126.1,       0.0);
     ( 492809.3, 3626584.2,     125.7,     125.7,       0.0);         (
492819.3, 3626584.2,     125.4,     125.4,       0.0);
     ( 492689.3, 3626594.2,     121.1,     123.0,       0.0);         (
492699.3, 3626594.2,     122.9,     122.9,       0.0);
     ( 492709.3, 3626594.2,     123.6,     123.6,       0.0);         (
492719.3, 3626594.2,     124.3,     124.3,       0.0);
     ( 492729.3, 3626594.2,     124.9,     124.9,       0.0);         (
492739.3, 3626594.2,     125.6,     125.6,       0.0);
     ( 492749.3, 3626594.2,     126.3,     126.3,       0.0);         (
492759.3, 3626594.2,     126.9,     126.9,       0.0);
     ( 492769.3, 3626594.2,     126.6,     126.6,       0.0);         (
492779.3, 3626594.2,     126.3,     126.3,       0.0);
     ( 492789.3, 3626594.2,     126.1,     126.1,       0.0);         (
492799.3, 3626594.2,     125.7,     125.7,       0.0);
     ( 492809.3, 3626594.2,     125.4,     125.4,       0.0);         (
492819.3, 3626594.2,     125.1,     125.1,       0.0);
     ( 492689.3, 3626604.2,     121.9,     121.9,       0.0);         (
492699.3, 3626604.2,     123.3,     123.3,       0.0);
     ( 492709.3, 3626604.2,     123.9,     123.9,       0.0);         (
492719.3, 3626604.2,     124.6,     124.6,       0.0);
     ( 492729.3, 3626604.2,     125.3,     125.3,       0.0);         (
492739.3, 3626604.2,     125.8,     125.8,       0.0);
     ( 492749.3, 3626604.2,     126.4,     126.4,       0.0);         (
492759.3, 3626604.2,     127.0,     127.0,       0.0);
     ( 492769.3, 3626604.2,     126.6,     126.6,       0.0);         (
492779.3, 3626604.2,     126.1,     126.1,       0.0);
     ( 492789.3, 3626604.2,     125.7,     125.7,       0.0);         (
492799.3, 3626604.2,     125.4,     125.4,       0.0);
     ( 492809.3, 3626604.2,     125.1,     125.1,       0.0);         (
492819.3, 3626604.2,     124.7,     124.7,       0.0);
     ( 492679.3, 3626614.2,     121.5,     124.0,       0.0);         (
492689.3, 3626614.2,     122.5,     122.5,       0.0);
     ( 492699.3, 3626614.2,     123.6,     123.6,       0.0);         (
492709.3, 3626614.2,     124.3,     124.3,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492719.3, 3626614.2, 124.9, 124.9, 0.0); (492729.3, 3626614.2, 125.6, 125.6, 0.0);
(492739.3, 3626614.2, 126.1, 126.1, 0.0); (492749.3, 3626614.2, 126.5, 126.5, 0.0);
(492759.3, 3626614.2, 127.0, 127.0, 0.0); (492769.3, 3626614.2, 126.5, 126.5, 0.0);
(492779.3, 3626614.2, 125.9, 125.9, 0.0); (492789.3, 3626614.2, 125.4, 125.4, 0.0);
(492799.3, 3626614.2, 125.1, 125.1, 0.0); (492809.3, 3626614.2, 124.7, 124.7, 0.0);
(492819.3, 3626614.2, 124.4, 124.4, 0.0); (492679.3, 3626624.2, 122.5, 122.5, 0.0);
(492689.3, 3626624.2, 123.2, 123.2, 0.0); (492699.3, 3626624.2, 123.9, 123.9, 0.0);
(492709.3, 3626624.2, 124.6, 124.6, 0.0); (492719.3, 3626624.2, 125.3, 125.3, 0.0);
(492729.3, 3626624.2, 125.9, 125.9, 0.0); (492739.3, 3626624.2, 126.3, 126.3, 0.0);
(492749.3, 3626624.2, 126.6, 126.6, 0.0); (492759.3, 3626624.2, 127.0, 127.0, 0.0);
(492769.3, 3626624.2, 126.3, 126.3, 0.0); (492809.3, 3626624.2, 124.4, 124.4, 0.0);
(492679.3, 3626634.2, 122.8, 122.8, 0.0); (492689.3, 3626634.2, 123.4, 123.4, 0.0);
(492699.3, 3626634.2, 124.0, 124.0, 0.0); (492709.3, 3626634.2, 124.6, 124.6, 0.0);
(492719.3, 3626634.2, 125.1, 125.1, 0.0); (492729.3, 3626634.2, 125.7, 125.7, 0.0);
(492739.3, 3626634.2, 126.1, 126.1, 0.0); (492749.3, 3626634.2, 126.4, 126.4, 0.0);
(492759.3, 3626634.2, 126.7, 126.7, 0.0); (492769.3, 3626634.2, 126.1, 126.1, 0.0);
(492679.3, 3626644.2, 123.1, 123.1, 0.0); (492689.3, 3626644.2, 123.5, 123.5, 0.0);
(492699.3, 3626644.2, 124.0, 124.0, 0.0); (492709.3, 3626644.2, 124.5, 124.5, 0.0);
(492719.3, 3626644.2, 124.9, 124.9, 0.0); (492729.3, 3626644.2, 125.4, 125.4, 0.0);
(492739.3, 3626644.2, 125.7, 125.7, 0.0); (492749.3, 3626644.2, 126.1, 126.1, 0.0);

```
     ( 492759.3, 3626644.2,     126.4,     126.4,       0.0);         (
492769.3, 3626644.2,     125.9,     125.9,       0.0);
     ( 492779.3, 3626644.2,     125.5,     125.5,       0.0);         (
492789.3, 3626644.2,     125.0,     125.0,       0.0);
     ( 492799.3, 3626644.2,     124.5,     124.5,       0.0);         (
492679.3, 3626654.2,     123.3,     123.3,       0.0);
     ( 492689.3, 3626654.2,     123.6,     123.6,       0.0);         (
492699.3, 3626654.2,     124.0,     124.0,       0.0);
     ( 492709.3, 3626654.2,     124.3,     124.3,       0.0);         (
492719.3, 3626654.2,     124.7,     124.7,       0.0);
     ( 492729.3, 3626654.2,     125.1,     125.1,       0.0);         (
492739.3, 3626654.2,     125.4,     125.4,       0.0);
     ( 492749.3, 3626654.2,     125.7,     125.7,       0.0);         (
492759.3, 3626654.2,     126.1,     126.1,       0.0);
     ( 492769.3, 3626654.2,     125.7,     125.7,       0.0);         (
492779.3, 3626654.2,     125.3,     125.3,       0.0);
     ( 492789.3, 3626654.2,     125.0,     125.0,       0.0);         (
492799.3, 3626654.2,     124.3,     124.3,       0.0);
     ( 492679.3, 3626664.2,     123.0,     123.0,       0.0);         (
492689.3, 3626664.2,     123.2,     123.2,       0.0);
     ( 492699.3, 3626664.2,     123.5,     123.5,       0.0);         (
492709.3, 3626664.2,     123.8,     123.8,       0.0);
     ( 492719.3, 3626664.2,     124.1,     124.1,       0.0);         (
492729.3, 3626664.2,     124.5,     124.5,       0.0);
     ( 492739.3, 3626664.2,     124.8,     124.8,       0.0);         (
492749.3, 3626664.2,     125.1,     125.1,       0.0);
     ( 492759.3, 3626664.2,     125.5,     125.5,       0.0);         (
492769.3, 3626664.2,     125.2,     125.2,       0.0);
     ( 492779.3, 3626664.2,     125.0,     125.0,       0.0);         (
492789.3, 3626664.2,     124.7,     124.7,       0.0);
     ( 492799.3, 3626664.2,     123.9,     123.9,       0.0);         (
492679.3, 3626674.2,     122.5,     122.5,       0.0);
     ( 492689.3, 3626674.2,     122.6,     122.6,       0.0);         (
492699.3, 3626674.2,     122.8,     122.8,       0.0);
     ( 492709.3, 3626674.2,     123.1,     123.1,       0.0);         (
492719.3, 3626674.2,     123.5,     123.5,       0.0);
     ( 492729.3, 3626674.2,     123.8,     123.8,       0.0);         (
492739.3, 3626674.2,     124.1,     124.1,       0.0);
     ( 492749.3, 3626674.2,     124.5,     124.5,       0.0);         (
492759.3, 3626674.2,     124.8,     124.8,       0.0);
     ( 492769.3, 3626674.2,     124.6,     124.6,       0.0);         (
492779.3, 3626674.2,     124.5,     124.5,       0.0);
     ( 492789.3, 3626674.2,     124.4,     124.4,       0.0);         (
492799.3, 3626674.2,     123.3,     123.3,       0.0);
     ( 492679.3, 3626684.2,     122.1,     122.1,       0.0);         (
492689.3, 3626684.2,     122.1,     122.1,       0.0);
     ( 492699.3, 3626684.2,     122.1,     122.1,       0.0);         (
492709.3, 3626684.2,     122.5,     122.5,       0.0);
     ( 492719.3, 3626684.2,     122.8,     122.8,       0.0);         (
492729.3, 3626684.2,     123.1,     123.1,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492739.3, 3626684.2, 123.5, 123.5, 0.0); (492749.3, 3626684.2, 123.8, 123.8, 0.0);
(492759.3, 3626684.2, 124.1, 124.1, 0.0); (492769.3, 3626684.2, 124.1, 124.1, 0.0);
(492779.3, 3626684.2, 124.1, 124.1, 0.0); (492789.3, 3626684.2, 124.1, 124.1, 0.0);
(492269.6, 3626327.5, 132.0, 132.0, 0.0); (492279.6, 3626327.5, 132.0, 132.0, 0.0);
(492289.6, 3626327.5, 132.0, 132.0, 0.0); (492299.6, 3626327.5, 132.0, 132.0, 0.0);
(492309.6, 3626327.5, 132.0, 132.0, 0.0); (492319.6, 3626327.5, 132.0, 132.0, 0.0);
(492329.6, 3626327.5, 132.0, 132.0, 0.0); (492339.6, 3626327.5, 132.1, 132.1, 0.0);
(492349.6, 3626327.5, 132.4, 132.4, 0.0); (492359.6, 3626327.5, 132.7, 132.7, 0.0);
(492369.6, 3626327.5, 133.0, 133.0, 0.0); (492379.6, 3626327.5, 133.0, 133.0, 0.0);
(492389.6, 3626327.5, 133.0, 133.0, 0.0); (492399.6, 3626327.5, 133.0, 133.0, 0.0);
(492409.6, 3626327.5, 133.0, 133.0, 0.0); (492419.6, 3626327.5, 133.0, 133.0, 0.0);
(492269.6, 3626337.5, 132.0, 132.0, 0.0); (492279.6, 3626337.5, 132.0, 132.0, 0.0);
(492289.6, 3626337.5, 132.0, 132.0, 0.0); (492299.6, 3626337.5, 132.0, 132.0, 0.0);
(492309.6, 3626337.5, 132.0, 132.0, 0.0); (492319.6, 3626337.5, 132.1, 132.1, 0.0);
(492329.6, 3626337.5, 132.3, 132.3, 0.0); (492339.6, 3626337.5, 132.4, 132.4, 0.0);
(492349.6, 3626337.5, 132.6, 132.6, 0.0); (492359.6, 3626337.5, 132.8, 132.8, 0.0);
(492369.6, 3626337.5, 133.0, 133.0, 0.0); (492379.6, 3626337.5, 133.0, 133.0, 0.0);
(492389.6, 3626337.5, 133.0, 133.0, 0.0); (492399.6, 3626337.5, 133.0, 133.0, 0.0);
(492409.6, 3626337.5, 133.1, 133.1, 0.0); (492419.6, 3626337.5, 133.3, 133.3, 0.0);
(492269.6, 3626347.5, 132.0, 132.0, 0.0); (492279.6, 3626347.5, 132.0, 132.0, 0.0);

```
     ( 492289.6, 3626347.5,     132.0,     132.0,       0.0);         (
492299.6, 3626347.5,     132.0,     132.0,       0.0);
     ( 492309.6, 3626347.5,     132.0,     132.0,       0.0);         (
492319.6, 3626347.5,     132.2,     132.2,       0.0);
     ( 492329.6, 3626347.5,     132.5,     132.5,       0.0);         (
492339.6, 3626347.5,     132.7,     132.7,       0.0);
     ( 492349.6, 3626347.5,     132.8,     132.8,       0.0);         (
492359.6, 3626347.5,     132.9,     132.9,       0.0);
     ( 492369.6, 3626347.5,     133.0,     133.0,       0.0);         (
492379.6, 3626347.5,     133.0,     133.0,       0.0);
     ( 492389.6, 3626347.5,     133.0,     133.0,       0.0);         (
492399.6, 3626347.5,     133.0,     133.0,       0.0);
     ( 492409.6, 3626347.5,     133.2,     133.2,       0.0);         (
492419.6, 3626347.5,     133.5,     133.5,       0.0);
     ( 492269.6, 3626357.5,     132.1,     132.1,       0.0);         (
492279.6, 3626357.5,     132.1,     132.1,       0.0);
     ( 492289.6, 3626357.5,     132.1,     132.1,       0.0);         (
492299.6, 3626357.5,     132.1,     132.1,       0.0);
     ( 492309.6, 3626357.5,     132.1,     132.1,       0.0);         (
492319.6, 3626357.5,     132.4,     132.4,       0.0);
     ( 492329.6, 3626357.5,     132.7,     132.7,       0.0);         (
492339.6, 3626357.5,     133.0,     133.0,       0.0);
     ( 492349.6, 3626357.5,     133.0,     133.0,       0.0);         (
492359.6, 3626357.5,     133.0,     133.0,       0.0);
     ( 492369.6, 3626357.5,     133.0,     133.0,       0.0);         (
492379.6, 3626357.5,     133.0,     133.0,       0.0);
     ( 492389.6, 3626357.5,     133.0,     133.0,       0.0);         (
492399.6, 3626357.5,     133.0,     133.0,       0.0);
     ( 492409.6, 3626357.5,     133.3,     133.3,       0.0);         (
492419.6, 3626357.5,     133.6,     133.6,       0.0);
     ( 492269.6, 3626367.5,     132.4,     132.4,       0.0);         (
492279.6, 3626367.5,     132.4,     132.4,       0.0);
     ( 492289.6, 3626367.5,     132.4,     132.4,       0.0);         (
492299.6, 3626367.5,     132.4,     132.4,       0.0);
     ( 492309.6, 3626367.5,     132.4,     132.4,       0.0);         (
492319.6, 3626367.5,     132.6,     132.6,       0.0);
     ( 492329.6, 3626367.5,     132.8,     132.8,       0.0);         (
492339.6, 3626367.5,     133.0,     133.0,       0.0);
     ( 492349.6, 3626367.5,     133.0,     133.0,       0.0);         (
492359.6, 3626367.5,     133.0,     133.0,       0.0);
     ( 492369.6, 3626367.5,     133.0,     133.0,       0.0);         (
492379.6, 3626367.5,     133.0,     133.0,       0.0);
     ( 492389.6, 3626367.5,     133.0,     133.0,       0.0);         (
492399.6, 3626367.5,     133.0,     133.0,       0.0);
     ( 492409.6, 3626367.5,     133.2,     133.2,       0.0);         (
492419.6, 3626367.5,     133.4,     133.4,       0.0);
     ( 492269.6, 3626377.5,     132.7,     132.7,       0.0);         (
492279.6, 3626377.5,     132.7,     132.7,       0.0);
     ( 492289.6, 3626377.5,     132.7,     132.7,       0.0);         (
492299.6, 3626377.5,     132.7,     132.7,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492309.6, 3626377.5, 132.7, 132.7, 0.0); (492319.6, 3626377.5, 132.8, 132.8, 0.0);
(492329.6, 3626377.5, 132.9, 132.9, 0.0); (492339.6, 3626377.5, 133.0, 133.0, 0.0);
(492349.6, 3626377.5, 133.0, 133.0, 0.0); (492359.6, 3626377.5, 133.0, 133.0, 0.0);
(492369.6, 3626377.5, 133.0, 133.0, 0.0); (492379.6, 3626377.5, 133.0, 133.0, 0.0);
(492389.6, 3626377.5, 133.0, 133.0, 0.0); (492399.6, 3626377.5, 133.0, 133.0, 0.0);
(492409.6, 3626377.5, 133.1, 133.1, 0.0); (492419.6, 3626377.5, 133.2, 133.2, 0.0);
(492269.6, 3626387.5, 133.0, 133.0, 0.0); (492279.6, 3626387.5, 133.0, 133.0, 0.0);
(492289.6, 3626387.5, 133.0, 133.0, 0.0); (492299.6, 3626387.5, 133.0, 133.0, 0.0);
(492309.6, 3626387.5, 133.0, 133.0, 0.0); (492319.6, 3626387.5, 133.0, 133.0, 0.0);
(492329.6, 3626387.5, 133.0, 133.0, 0.0); (492339.6, 3626387.5, 133.1, 133.1, 0.0);
(492349.6, 3626387.5, 133.1, 133.1, 0.0); (492359.6, 3626387.5, 133.1, 133.1, 0.0);
(492369.6, 3626387.5, 133.1, 133.1, 0.0); (492379.6, 3626387.5, 133.0, 133.0, 0.0);
(492389.6, 3626387.5, 133.0, 133.0, 0.0); (492399.6, 3626387.5, 133.0, 133.0, 0.0);
(492409.6, 3626387.5, 133.0, 133.0, 0.0); (492419.6, 3626387.5, 133.0, 133.0, 0.0);
(492429.6, 3626387.5, 132.9, 132.9, 0.0); (492269.6, 3626397.5, 133.0, 133.0, 0.0);
(492279.6, 3626397.5, 133.0, 133.0, 0.0); (492289.6, 3626397.5, 133.0, 133.0, 0.0);
(492299.6, 3626397.5, 133.0, 133.0, 0.0); (492309.6, 3626397.5, 133.0, 133.0, 0.0);
(492319.6, 3626397.5, 133.1, 133.1, 0.0); (492329.6, 3626397.5, 133.3, 133.3, 0.0);
(492339.6, 3626397.5, 133.4, 133.4, 0.0); (492349.6, 3626397.5, 133.4, 133.4, 0.0);
(492359.6, 3626397.5, 133.4, 133.4, 0.0); (492369.6, 3626397.5, 133.4, 133.4, 0.0);

```
     ( 492379.6, 3626397.5,     133.1,     133.1,       0.0);         (
492389.6, 3626397.5,     132.9,     132.9,       0.0);
     ( 492399.6, 3626397.5,     132.6,     132.6,       0.0);         (
492409.6, 3626397.5,     132.6,     132.6,       0.0);
     ( 492419.6, 3626397.5,     132.6,     132.6,       0.0);         (
492429.6, 3626397.5,     132.6,     132.6,       0.0);
     ( 492439.6, 3626397.5,     132.1,     132.1,       0.0);         (
492569.6, 3626397.5,     126.8,     134.0,       0.0);
     ( 492269.6, 3626407.5,     133.0,     133.0,       0.0);         (
492279.6, 3626407.5,     133.0,     133.0,       0.0);
     ( 492289.6, 3626407.5,     133.0,     133.0,       0.0);         (
492299.6, 3626407.5,     133.0,     133.0,       0.0);
     ( 492309.6, 3626407.5,     133.0,     133.0,       0.0);         (
492319.6, 3626407.5,     133.2,     133.2,       0.0);
     ( 492329.6, 3626407.5,     133.5,     133.5,       0.0);         (
492339.6, 3626407.5,     133.7,     133.7,       0.0);
     ( 492349.6, 3626407.5,     133.7,     133.7,       0.0);         (
492359.6, 3626407.5,     133.7,     133.7,       0.0);
     ( 492369.6, 3626407.5,     133.7,     133.7,       0.0);         (
492379.6, 3626407.5,     133.2,     133.2,       0.0);
     ( 492389.6, 3626407.5,     132.8,     132.8,       0.0);         (
492399.6, 3626407.5,     132.3,     132.3,       0.0);
     ( 492409.6, 3626407.5,     132.3,     132.3,       0.0);         (
492419.6, 3626407.5,     132.3,     132.3,       0.0);
     ( 492429.6, 3626407.5,     132.3,     132.3,       0.0);         (
492439.6, 3626407.5,     131.7,     131.7,       0.0);
     ( 492449.6, 3626407.5,     131.1,     131.1,       0.0);         (
492561.6, 3626406.5,     123.3,     134.0,       0.0);
     ( 492569.6, 3626407.5,     125.5,     134.0,       0.0);         (
492579.6, 3626407.5,     128.6,     134.0,       0.0);
     ( 492269.6, 3626417.5,     133.0,     133.0,       0.0);         (
492279.6, 3626417.5,     133.0,     133.0,       0.0);
     ( 492289.6, 3626417.5,     133.0,     133.0,       0.0);         (
492299.6, 3626417.5,     133.0,     133.0,       0.0);
     ( 492309.6, 3626417.5,     133.0,     133.0,       0.0);         (
492319.6, 3626417.5,     133.3,     133.3,       0.0);
     ( 492329.6, 3626417.5,     133.6,     133.6,       0.0);         (
492339.6, 3626417.5,     134.0,     134.0,       0.0);
     ( 492349.6, 3626417.5,     134.0,     134.0,       0.0);         (
492359.6, 3626417.5,     134.0,     134.0,       0.0);
     ( 492369.6, 3626417.5,     133.9,     133.9,       0.0);         (
492379.6, 3626417.5,     133.3,     133.3,       0.0);
     ( 492389.6, 3626417.5,     132.6,     132.6,       0.0);         (
492399.6, 3626417.5,     132.0,     132.0,       0.0);
     ( 492409.6, 3626417.5,     132.0,     132.0,       0.0);         (
492419.6, 3626417.5,     131.9,     131.9,       0.0);
     ( 492429.6, 3626417.5,     131.8,     132.0,       0.0);         (
492439.6, 3626417.5,     131.1,     131.1,       0.0);
     ( 492449.6, 3626417.5,     130.5,     130.5,       0.0);         (
492459.6, 3626417.5,     129.7,     130.0,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492569.6, 3626417.5, 124.1, 134.0, 0.0); (492579.6, 3626417.5, 127.8, 134.0, 0.0);
(492587.9, 3626417.5, 128.6, 134.0, 0.0); (492269.6, 3626427.5, 133.0, 133.0, 0.0);
(492279.6, 3626427.5, 133.0, 133.0, 0.0); (492289.6, 3626427.5, 133.0, 133.0, 0.0);
(492299.6, 3626427.5, 133.0, 133.0, 0.0); (492309.6, 3626427.5, 133.0, 133.0, 0.0);
(492319.6, 3626427.5, 133.2, 133.2, 0.0); (492329.6, 3626427.5, 133.4, 133.4, 0.0);
(492339.6, 3626427.5, 133.6, 133.6, 0.0); (492349.6, 3626427.5, 133.6, 133.6, 0.0);
(492359.6, 3626427.5, 133.6, 133.6, 0.0); (492369.6, 3626427.5, 133.6, 133.6, 0.0);
(492379.6, 3626427.5, 133.1, 133.1, 0.0); (492389.6, 3626427.5, 132.5, 132.5, 0.0);
(492399.6, 3626427.5, 132.0, 132.0, 0.0); (492409.6, 3626427.5, 131.6, 131.6, 0.0);
(492419.6, 3626427.5, 131.2, 131.2, 0.0); (492429.6, 3626427.5, 130.8, 132.0, 0.0);
(492439.6, 3626427.5, 130.0, 132.0, 0.0); (492449.6, 3626427.5, 129.2, 132.0, 0.0);
(492459.6, 3626427.5, 128.4, 132.0, 0.0); (492469.6, 3626427.5, 125.7, 134.0, 0.0);
(492577.7, 3626427.4, 125.5, 134.0, 0.0); (492589.6, 3626427.5, 127.2, 134.0, 0.0);
(492599.6, 3626427.5, 128.4, 134.0, 0.0); (492609.6, 3626427.5, 129.5, 134.0, 0.0);
(492269.6, 3626437.5, 133.0, 133.0, 0.0); (492279.6, 3626437.5, 133.0, 133.0, 0.0);
(492289.6, 3626437.5, 133.0, 133.0, 0.0); (492299.6, 3626437.5, 133.0, 133.0, 0.0);
(492309.6, 3626437.5, 133.0, 133.0, 0.0); (492319.6, 3626437.5, 133.1, 133.1, 0.0);
(492329.6, 3626437.5, 133.2, 133.2, 0.0); (492339.6, 3626437.5, 133.3, 133.3, 0.0);
(492349.6, 3626437.5, 133.3, 133.3, 0.0); (492359.6, 3626437.5, 133.3, 133.3, 0.0);
(492369.6, 3626437.5, 133.3, 133.3, 0.0); (492379.6, 3626437.5, 132.8, 132.8, 0.0);

```
     ( 492389.6, 3626437.5,     132.4,     132.4,       0.0);         (
492399.6, 3626437.5,     132.0,     132.0,       0.0);
     ( 492409.6, 3626437.5,     131.3,     131.3,       0.0);         (
492419.6, 3626437.5,     130.5,     130.5,       0.0);
     ( 492429.6, 3626437.5,     129.8,     132.0,       0.0);         (
492439.6, 3626437.5,     128.9,     132.0,       0.0);
     ( 492449.6, 3626437.5,     128.0,     132.0,       0.0);         (
492459.6, 3626437.5,     127.1,     132.0,       0.0);
     ( 492469.6, 3626437.5,     124.9,     133.0,       0.0);         (
492479.6, 3626437.5,     122.8,     134.0,       0.0);
     ( 492579.6, 3626437.5,     124.4,     134.0,       0.0);         (
492589.6, 3626437.5,     125.7,     134.0,       0.0);
     ( 492599.6, 3626437.5,     126.9,     134.0,       0.0);         (
492606.6, 3626436.3,     128.0,     134.0,       0.0);
     ( 492269.6, 3626447.5,     133.0,     133.0,       0.0);         (
492279.6, 3626447.5,     133.0,     133.0,       0.0);
     ( 492289.6, 3626447.5,     133.0,     133.0,       0.0);         (
492299.6, 3626447.5,     133.0,     133.0,       0.0);
     ( 492309.6, 3626447.5,     133.0,     133.0,       0.0);         (
492319.6, 3626447.5,     133.0,     133.0,       0.0);
     ( 492329.6, 3626447.5,     133.0,     133.0,       0.0);         (
492339.6, 3626447.5,     133.0,     133.0,       0.0);
     ( 492349.6, 3626447.5,     133.0,     133.0,       0.0);         (
492359.6, 3626447.5,     133.0,     133.0,       0.0);
     ( 492369.6, 3626447.5,     132.9,     132.9,       0.0);         (
492379.6, 3626447.5,     132.6,     132.6,       0.0);
     ( 492389.6, 3626447.5,     132.2,     132.2,       0.0);         (
492399.6, 3626447.5,     131.9,     131.9,       0.0);
     ( 492409.6, 3626447.5,     130.9,     132.0,       0.0);         (
492419.6, 3626447.5,     129.8,     132.0,       0.0);
     ( 492429.6, 3626447.5,     128.8,     132.0,       0.0);         (
492439.6, 3626447.5,     127.8,     132.0,       0.0);
     ( 492449.6, 3626447.5,     126.8,     132.0,       0.0);         (
492459.6, 3626447.5,     125.8,     133.0,       0.0);
     ( 492469.6, 3626447.5,     124.2,     133.0,       0.0);         (
492479.6, 3626447.5,     122.6,     134.0,       0.0);
     ( 492571.1, 3626449.4,     118.7,     134.0,       0.0);         (
492579.6, 3626447.5,     122.7,     134.0,       0.0);
     ( 492585.4, 3626447.6,     123.5,     134.0,       0.0);         (
492269.6, 3626457.5,     132.7,     132.7,       0.0);
     ( 492279.6, 3626457.5,     132.6,     132.6,       0.0);         (
492289.6, 3626457.5,     132.8,     132.8,       0.0);
     ( 492299.6, 3626457.5,     132.9,     132.9,       0.0);         (
492309.6, 3626457.5,     133.0,     133.0,       0.0);
     ( 492319.6, 3626457.5,     133.0,     133.0,       0.0);         (
492329.6, 3626457.5,     133.0,     133.0,       0.0);
     ( 492339.6, 3626457.5,     133.0,     133.0,       0.0);         (
492349.6, 3626457.5,     132.9,     132.9,       0.0);
     ( 492359.6, 3626457.5,     132.7,     132.7,       0.0);         (
492369.6, 3626457.5,     132.6,     132.6,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492379.6, 3626457.5, 132.1, 132.1, 0.0); (492389.6, 3626457.5, 131.7, 131.7, 0.0);
(492399.6, 3626457.5, 131.2, 131.2, 0.0); (492409.6, 3626457.5, 130.1, 132.0, 0.0);
(492419.6, 3626457.5, 128.9, 132.0, 0.0); (492429.6, 3626457.5, 127.8, 132.0, 0.0);
(492439.6, 3626457.5, 127.0, 132.0, 0.0); (492449.6, 3626457.5, 126.1, 132.0, 0.0);
(492459.6, 3626457.5, 125.2, 133.0, 0.0); (492469.6, 3626457.5, 123.8, 133.0, 0.0);
(492479.6, 3626457.5, 122.4, 134.0, 0.0); (492580.9, 3626454.7, 121.5, 134.0, 0.0);
(492269.6, 3626467.5, 132.5, 132.5, 0.0); (492279.6, 3626467.5, 132.3, 132.3, 0.0);
(492289.6, 3626467.5, 132.5, 132.5, 0.0); (492299.6, 3626467.5, 132.8, 132.8, 0.0);
(492309.6, 3626467.5, 133.0, 133.0, 0.0); (492319.6, 3626467.5, 133.0, 133.0, 0.0);
(492329.6, 3626467.5, 133.0, 133.0, 0.0); (492339.6, 3626467.5, 133.0, 133.0, 0.0);
(492349.6, 3626467.5, 132.8, 132.8, 0.0); (492359.6, 3626467.5, 132.5, 132.5, 0.0);
(492369.6, 3626467.5, 132.3, 132.3, 0.0); (492379.6, 3626467.5, 131.7, 131.7, 0.0);
(492389.6, 3626467.5, 131.1, 131.1, 0.0); (492399.6, 3626467.5, 130.5, 130.5, 0.0);
(492409.6, 3626467.5, 129.3, 132.0, 0.0); (492419.6, 3626467.5, 128.1, 132.0, 0.0);
(492429.6, 3626467.5, 126.8, 132.0, 0.0); (492439.6, 3626467.5, 126.1, 132.0, 0.0);
(492449.6, 3626467.5, 125.3, 132.0, 0.0); (492459.6, 3626467.5, 124.5, 132.0, 0.0);
(492469.6, 3626467.5, 123.3, 133.0, 0.0); (492479.6, 3626467.5, 122.1, 133.0, 0.0);
(492499.6, 3626467.5, 117.6, 134.0, 0.0); (492269.6, 3626477.5, 132.3, 132.3, 0.0);
(492279.6, 3626477.5, 132.0, 132.0, 0.0); (492289.6, 3626477.5, 132.3, 132.3, 0.0);
(492299.6, 3626477.5, 132.6, 132.6, 0.0); (492309.6, 3626477.5, 133.0, 133.0, 0.0);

```
     ( 492319.6, 3626477.5,     133.0,     133.0,       0.0);         (
492329.6, 3626477.5,     133.0,     133.0,       0.0);
     ( 492339.6, 3626477.5,     132.9,     132.9,       0.0);         (
492349.6, 3626477.5,     132.6,     132.6,       0.0);
     ( 492359.6, 3626477.5,     132.2,     132.2,       0.0);         (
492369.6, 3626477.5,     131.9,     131.9,       0.0);
     ( 492379.6, 3626477.5,     131.2,     131.2,       0.0);         (
492389.6, 3626477.5,     130.4,     130.4,       0.0);
     ( 492399.6, 3626477.5,     129.7,     130.0,       0.0);         (
492409.6, 3626477.5,     128.3,     132.0,       0.0);
     ( 492419.6, 3626477.5,     126.9,     133.0,       0.0);         (
492429.6, 3626477.5,     125.5,     133.0,       0.0);
     ( 492439.6, 3626477.5,     124.9,     133.0,       0.0);         (
492449.6, 3626477.5,     124.3,     133.0,       0.0);
     ( 492459.6, 3626477.5,     123.8,     132.0,       0.0);         (
492469.6, 3626477.5,     122.8,     133.0,       0.0);
     ( 492479.6, 3626477.5,     121.8,     133.0,       0.0);         (
492489.6, 3626477.5,     120.8,     133.0,       0.0);
     ( 492499.6, 3626477.5,     117.9,     134.0,       0.0);         (
492506.7, 3626477.9,     115.9,     134.0,       0.0);
     ( 492269.6, 3626487.5,     132.2,     132.2,       0.0);         (
492279.6, 3626487.5,     132.0,     132.0,       0.0);
     ( 492289.6, 3626487.5,     132.2,     132.2,       0.0);         (
492299.6, 3626487.5,     132.4,     132.4,       0.0);
     ( 492309.6, 3626487.5,     132.6,     132.6,       0.0);         (
492319.6, 3626487.5,     132.6,     132.6,       0.0);
     ( 492329.6, 3626487.5,     132.6,     132.6,       0.0);         (
492339.6, 3626487.5,     132.6,     132.6,       0.0);
     ( 492349.6, 3626487.5,     132.1,     132.1,       0.0);         (
492359.6, 3626487.5,     131.7,     131.7,       0.0);
     ( 492369.6, 3626487.5,     131.2,     131.2,       0.0);         (
492379.6, 3626487.5,     130.2,     132.0,       0.0);
     ( 492389.6, 3626487.5,     129.1,     132.0,       0.0);         (
492399.6, 3626487.5,     128.0,     132.0,       0.0);
     ( 492409.6, 3626487.5,     126.2,     133.0,       0.0);         (
492419.6, 3626487.5,     124.3,     134.0,       0.0);
     ( 492429.6, 3626487.5,     122.5,     134.0,       0.0);         (
492439.6, 3626487.5,     122.5,     134.0,       0.0);
     ( 492449.6, 3626487.5,     122.5,     134.0,       0.0);         (
492459.6, 3626487.5,     122.4,     134.0,       0.0);
     ( 492469.6, 3626487.5,     121.7,     133.0,       0.0);         (
492479.6, 3626487.5,     121.0,     133.0,       0.0);
     ( 492489.6, 3626487.5,     120.2,     133.0,       0.0);         (
492499.6, 3626487.5,     117.8,     134.0,       0.0);
     ( 492509.6, 3626487.5,     115.5,     134.0,       0.0);         (
492269.6, 3626497.5,     132.1,     132.1,       0.0);
     ( 492279.6, 3626497.5,     132.0,     132.0,       0.0);         (
492289.6, 3626497.5,     132.1,     132.1,       0.0);
     ( 492299.6, 3626497.5,     132.2,     132.2,       0.0);         (
492309.6, 3626497.5,     132.3,     132.3,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492319.6, 3626497.5, 132.3, 132.3, 0.0); (492329.6, 3626497.5, 132.3, 132.3, 0.0);
(492339.6, 3626497.5, 132.3, 132.3, 0.0); (492349.6, 3626497.5, 131.7, 131.7, 0.0);
(492359.6, 3626497.5, 131.1, 131.1, 0.0); (492369.6, 3626497.5, 130.5, 130.5, 0.0);
(492379.6, 3626497.5, 129.1, 132.0, 0.0); (492389.6, 3626497.5, 127.8, 132.0, 0.0);
(492399.6, 3626497.5, 126.3, 133.0, 0.0); (492409.6, 3626497.5, 124.0, 134.0, 0.0);
(492419.6, 3626497.5, 121.8, 134.0, 0.0); (492429.6, 3626497.5, 119.5, 134.0, 0.0);
(492439.6, 3626497.5, 120.1, 134.0, 0.0); (492449.6, 3626497.5, 120.6, 134.0, 0.0);
(492459.6, 3626497.5, 121.1, 134.0, 0.0); (492469.6, 3626497.5, 120.6, 134.0, 0.0);
(492479.6, 3626497.5, 120.1, 134.0, 0.0); (492489.6, 3626497.5, 119.5, 133.0, 0.0);
(492499.6, 3626497.5, 117.7, 134.0, 0.0); (492509.6, 3626497.5, 115.9, 134.0, 0.0);
(492519.6, 3626497.5, 114.0, 134.0, 0.0); (492269.6, 3626507.5, 131.9, 131.9, 0.0);
(492279.6, 3626507.5, 132.0, 132.0, 0.0); (492289.6, 3626507.5, 132.0, 132.0, 0.0);
(492299.6, 3626507.5, 132.0, 132.0, 0.0); (492309.6, 3626507.5, 132.0, 132.0, 0.0);
(492319.6, 3626507.5, 131.9, 131.9, 0.0); (492329.6, 3626507.5, 131.9, 131.9, 0.0);
(492339.6, 3626507.5, 131.9, 131.9, 0.0); (492349.6, 3626507.5, 131.2, 131.2, 0.0);
(492359.6, 3626507.5, 130.5, 130.5, 0.0); (492369.6, 3626507.5, 129.7, 130.0, 0.0);
(492379.6, 3626507.5, 128.0, 132.0, 0.0); (492389.6, 3626507.5, 126.3, 133.0, 0.0);
(492399.6, 3626507.5, 124.6, 133.0, 0.0); (492409.6, 3626507.5, 121.9, 134.0, 0.0);
(492419.6, 3626507.5, 119.2, 134.0, 0.0); (492429.6, 3626507.5, 116.7, 134.0, 0.0);
(492439.6, 3626507.5, 117.7, 134.0, 0.0); (492449.6, 3626507.5, 118.8, 134.0, 0.0);

```
     ( 492459.6, 3626507.5,     119.8,     134.0,       0.0);         (
492469.6, 3626507.5,     119.5,     134.0,       0.0);
     ( 492479.6, 3626507.5,     119.3,     134.0,       0.0);         (
492489.6, 3626507.5,     119.0,     133.0,       0.0);
     ( 492499.6, 3626507.5,     117.7,     134.0,       0.0);         (
492509.6, 3626507.5,     116.4,     134.0,       0.0);
     ( 492519.6, 3626507.5,     115.0,     134.0,       0.0);         (
492269.6, 3626517.5,     131.4,     131.4,       0.0);
     ( 492279.6, 3626517.5,     131.6,     131.6,       0.0);         (
492289.6, 3626517.5,     131.6,     131.6,       0.0);
     ( 492299.6, 3626517.5,     131.6,     131.6,       0.0);         (
492309.6, 3626517.5,     131.6,     131.6,       0.0);
     ( 492319.6, 3626517.5,     131.5,     131.5,       0.0);         (
492329.6, 3626517.5,     131.4,     131.4,       0.0);
     ( 492339.6, 3626517.5,     131.2,     131.2,       0.0);         (
492349.6, 3626517.5,     130.3,     132.0,       0.0);
     ( 492359.6, 3626517.5,     129.4,     132.0,       0.0);         (
492369.6, 3626517.5,     128.4,     132.0,       0.0);
     ( 492379.6, 3626517.5,     126.5,     133.0,       0.0);         (
492389.6, 3626517.5,     124.6,     133.0,       0.0);
     ( 492399.6, 3626517.5,     122.6,     134.0,       0.0);         (
492409.6, 3626517.5,     119.8,     134.0,       0.0);
     ( 492419.6, 3626517.5,     117.0,     134.0,       0.0);         (
492429.6, 3626517.5,     114.3,     134.0,       0.0);
     ( 492439.6, 3626517.5,     115.7,     134.0,       0.0);         (
492449.6, 3626517.5,     117.1,     134.0,       0.0);
     ( 492459.6, 3626517.5,     118.5,     134.0,       0.0);         (
492469.6, 3626517.5,     118.8,     134.0,       0.0);
     ( 492479.6, 3626517.5,     119.1,     133.0,       0.0);         (
492489.6, 3626517.5,     119.3,     132.0,       0.0);
     ( 492499.6, 3626517.5,     118.1,     132.0,       0.0);         (
492509.6, 3626517.5,     116.9,     134.0,       0.0);
     ( 492519.6, 3626517.5,     115.6,     134.0,       0.0);         (
492529.6, 3626517.5,     110.4,     134.0,       0.0);
     ( 492269.6, 3626527.5,     130.8,     130.8,       0.0);         (
492279.6, 3626527.5,     131.3,     131.3,       0.0);
     ( 492289.6, 3626527.5,     131.3,     131.3,       0.0);         (
492299.6, 3626527.5,     131.3,     131.3,       0.0);
     ( 492309.6, 3626527.5,     131.3,     131.3,       0.0);         (
492319.6, 3626527.5,     131.0,     131.0,       0.0);
     ( 492329.6, 3626527.5,     130.8,     130.8,       0.0);         (
492339.6, 3626527.5,     130.5,     130.5,       0.0);
     ( 492349.6, 3626527.5,     129.4,     132.0,       0.0);         (
492359.6, 3626527.5,     128.2,     132.0,       0.0);
     ( 492369.6, 3626527.5,     127.1,     132.0,       0.0);         (
492459.6, 3626527.5,     117.1,     134.0,       0.0);
     ( 492469.6, 3626527.5,     118.0,     134.0,       0.0);         (
492479.6, 3626527.5,     118.9,     133.0,       0.0);
     ( 492489.6, 3626527.5,     119.7,     132.0,       0.0);         (
492499.6, 3626527.5,     118.6,     132.0,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492509.6, 3626527.5, 117.5, 132.0, 0.0); (492519.6, 3626527.5, 116.3, 134.0, 0.0);
(492529.6, 3626527.5, 111.8, 134.0, 0.0); (492269.6, 3626537.5, 130.2, 130.2, 0.0);
(492279.6, 3626537.5, 131.0, 131.0, 0.0); (492289.6, 3626537.5, 130.9, 130.9, 0.0);
(492299.6, 3626537.5, 130.9, 130.9, 0.0); (492309.6, 3626537.5, 130.9, 130.9, 0.0);
(492319.6, 3626537.5, 130.6, 130.6, 0.0); (492329.6, 3626537.5, 130.2, 130.2, 0.0);
(492339.6, 3626537.5, 129.9, 129.9, 0.0); (492349.6, 3626537.5, 128.5, 132.0, 0.0);
(492359.6, 3626537.5, 127.0, 132.0, 0.0); (492369.6, 3626537.5, 125.6, 133.0, 0.0);
(492459.6, 3626537.5, 115.9, 134.0, 0.0); (492469.6, 3626537.5, 117.3, 134.0, 0.0);
(492479.6, 3626537.5, 118.6, 133.0, 0.0); (492489.6, 3626537.5, 120.0, 120.0, 0.0);
(492499.6, 3626537.5, 119.0, 119.0, 0.0); (492509.6, 3626537.5, 118.0, 118.0, 0.0);
(492519.6, 3626537.5, 117.0, 120.0, 0.0); (492529.6, 3626537.5, 113.0, 134.0, 0.0);
(492269.6, 3626547.5, 129.3, 131.0, 0.0); (492279.6, 3626547.5, 130.6, 130.6, 0.0);
(492289.6, 3626547.5, 130.5, 130.5, 0.0); (492299.6, 3626547.5, 130.4, 130.4, 0.0);
(492309.6, 3626547.5, 130.2, 130.2, 0.0); (492319.6, 3626547.5, 129.9, 129.9, 0.0);
(492329.6, 3626547.5, 129.6, 129.6, 0.0); (492339.6, 3626547.5, 129.2, 129.2, 0.0);
(492349.6, 3626547.5, 127.3, 132.0, 0.0); (492359.6, 3626547.5, 125.5, 133.0, 0.0);
(492369.6, 3626547.5, 123.6, 133.0, 0.0); (492459.6, 3626547.5, 114.9, 134.0, 0.0);
(492469.6, 3626547.5, 116.6, 134.0, 0.0); (492479.6, 3626547.5, 118.3, 132.0, 0.0);
(492489.6, 3626547.5, 120.0, 120.0, 0.0); (492499.6, 3626547.5, 119.1, 119.1, 0.0);
(492509.6, 3626547.5, 118.2, 118.2, 0.0); (492519.6, 3626547.5, 117.3, 117.3, 0.0);

```
     ( 492529.6, 3626547.5,     113.5,     134.0,       0.0);         (
492269.6, 3626557.5,     128.5,     131.0,       0.0);
     ( 492279.6, 3626557.5,     130.3,     130.3,       0.0);         (
492289.6, 3626557.5,     130.0,     130.0,       0.0);
     ( 492299.6, 3626557.5,     129.8,     129.8,       0.0);         (
492309.6, 3626557.5,     129.6,     129.6,       0.0);
     ( 492319.6, 3626557.5,     129.2,     129.2,       0.0);         (
492329.6, 3626557.5,     128.9,     128.9,       0.0);
     ( 492339.6, 3626557.5,     128.5,     128.5,       0.0);         (
492349.6, 3626557.5,     126.2,     132.0,       0.0);
     ( 492359.6, 3626557.5,     123.9,     133.0,       0.0);         (
492369.6, 3626557.5,     121.6,     133.0,       0.0);
     ( 492459.6, 3626557.5,     113.9,     134.0,       0.0);         (
492469.6, 3626557.5,     116.0,     134.0,       0.0);
     ( 492479.6, 3626557.5,     118.0,     132.0,       0.0);         (
492489.6, 3626557.5,     120.0,     120.0,       0.0);
     ( 492499.6, 3626557.5,     119.2,     119.2,       0.0);         (
492509.6, 3626557.5,     118.5,     118.5,       0.0);
     ( 492519.6, 3626557.5,     117.6,     117.6,       0.0);         (
492529.6, 3626557.5,     114.1,     134.0,       0.0);
     ( 492269.6, 3626567.5,     127.6,     131.0,       0.0);         (
492279.6, 3626567.5,     129.8,     130.0,       0.0);
     ( 492289.6, 3626567.5,     129.5,     129.5,       0.0);         (
492299.6, 3626567.5,     129.2,     129.2,       0.0);
     ( 492309.6, 3626567.5,     128.9,     128.9,       0.0);         (
492319.6, 3626567.5,     128.5,     128.5,       0.0);
     ( 492329.6, 3626567.5,     128.2,     128.2,       0.0);         (
492339.6, 3626567.5,     127.7,     128.0,       0.0);
     ( 492349.6, 3626567.5,     125.0,     132.0,       0.0);         (
492359.6, 3626567.5,     122.2,     133.0,       0.0);
     ( 492369.6, 3626567.5,     119.5,     133.0,       0.0);         (
492459.6, 3626567.5,     113.0,     134.0,       0.0);
     ( 492469.6, 3626567.5,     115.3,     134.0,       0.0);         (
492479.6, 3626567.5,     117.7,     130.0,       0.0);
     ( 492489.6, 3626567.5,     119.9,     119.9,       0.0);         (
492499.6, 3626567.5,     119.3,     119.3,       0.0);
     ( 492509.6, 3626567.5,     118.6,     118.6,       0.0);         (
492519.6, 3626567.5,     117.9,     117.9,       0.0);
     ( 492529.6, 3626567.5,     114.6,     120.0,       0.0);         (
492269.6, 3626577.5,     126.7,     131.0,       0.0);
     ( 492279.6, 3626577.5,     128.8,     130.0,       0.0);         (
492289.6, 3626577.5,     128.6,     128.6,       0.0);
     ( 492299.6, 3626577.5,     128.4,     128.4,       0.0);         (
492309.6, 3626577.5,     128.2,     128.2,       0.0);
     ( 492319.6, 3626577.5,     127.6,     127.6,       0.0);         (
492329.6, 3626577.5,     127.0,     127.0,       0.0);
     ( 492339.6, 3626577.5,     126.4,     128.0,       0.0);         (
492469.6, 3626577.5,     115.0,     133.0,       0.0);
     ( 492479.6, 3626577.5,     117.3,     120.0,       0.0);         (
492489.6, 3626577.5,     119.6,     119.6,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492499.6, 3626577.5, 119.1, 119.1, 0.0); (492509.6, 3626577.5, 118.5, 118.5, 0.0);
(492519.6, 3626577.5, 117.9, 117.9, 0.0); (492529.6, 3626577.5, 114.6, 120.0, 0.0);
(492269.6, 3626587.5, 125.8, 130.0, 0.0); (492279.6, 3626587.5, 127.8, 130.0, 0.0);
(492289.6, 3626587.5, 127.8, 127.8, 0.0); (492299.6, 3626587.5, 127.6, 127.6, 0.0);
(492309.6, 3626587.5, 127.5, 127.5, 0.0); (492319.6, 3626587.5, 126.7, 126.7, 0.0);
(492329.6, 3626587.5, 125.9, 129.0, 0.0); (492339.6, 3626587.5, 125.0, 131.0, 0.0);
(492469.6, 3626587.5, 114.7, 133.0, 0.0); (492479.6, 3626587.5, 117.0, 120.0, 0.0);
(492489.6, 3626587.5, 119.3, 119.3, 0.0); (492499.6, 3626587.5, 118.8, 118.8, 0.0);
(492509.6, 3626587.5, 118.4, 118.4, 0.0); (492519.6, 3626587.5, 117.9, 117.9, 0.0);
(492529.6, 3626587.5, 114.6, 120.0, 0.0); (492269.6, 3626597.5, 124.9, 130.0, 0.0);
(492279.6, 3626597.5, 126.8, 126.8, 0.0); (492289.6, 3626597.5, 126.9, 126.9, 0.0);
(492299.6, 3626597.5, 126.9, 126.9, 0.0); (492309.6, 3626597.5, 126.9, 126.9, 0.0);
(492319.6, 3626597.5, 125.9, 127.0, 0.0); (492329.6, 3626597.5, 124.9, 129.0, 0.0);
(492339.6, 3626597.5, 123.8, 131.0, 0.0); (492469.6, 3626597.5, 114.3, 133.0, 0.0);
(492479.6, 3626597.5, 116.7, 120.0, 0.0); (492489.6, 3626597.5, 118.9, 118.9, 0.0);
(492499.6, 3626597.5, 118.6, 118.6, 0.0); (492509.6, 3626597.5, 118.2, 118.2, 0.0);
(492519.6, 3626597.5, 117.8, 118.0, 0.0); (492529.6, 3626597.5, 114.4, 120.0, 0.0);
(492269.6, 3626607.5, 124.0, 130.0, 0.0); (492279.6, 3626607.5, 125.8, 125.8, 0.0);
(492289.6, 3626607.5, 126.0, 126.0, 0.0); (492299.6, 3626607.5, 126.1, 126.1, 0.0);
(492309.6, 3626607.5, 126.2, 126.2, 0.0); (492319.6, 3626607.5, 125.3, 127.0, 0.0);

```
     ( 492329.6, 3626607.5,     124.5,     127.0,       0.0);         (
492339.6, 3626607.5,     123.5,     129.0,       0.0);
     ( 492469.6, 3626607.5,     113.8,     133.0,       0.0);         (
492479.6, 3626607.5,     116.2,     119.0,       0.0);
     ( 492489.6, 3626607.5,     118.6,     118.6,       0.0);         (
492499.6, 3626607.5,     118.0,     118.0,       0.0);
     ( 492509.6, 3626607.5,     117.4,     117.4,       0.0);         (
492519.6, 3626607.5,     116.8,     118.0,       0.0);
     ( 492529.6, 3626607.5,     113.3,     120.0,       0.0);         (
492269.6, 3626617.5,     123.1,     130.0,       0.0);
     ( 492279.6, 3626617.5,     124.8,     124.8,       0.0);         (
492289.6, 3626617.5,     125.1,     125.1,       0.0);
     ( 492299.6, 3626617.5,     125.3,     125.3,       0.0);         (
492309.6, 3626617.5,     125.5,     125.5,       0.0);
     ( 492319.6, 3626617.5,     124.8,     124.8,       0.0);         (
492329.6, 3626617.5,     124.0,     127.0,       0.0);
     ( 492339.6, 3626617.5,     123.2,     127.0,       0.0);         (
492469.6, 3626617.5,     113.2,     133.0,       0.0);
     ( 492479.6, 3626617.5,     115.8,     119.0,       0.0);         (
492489.6, 3626617.5,     118.3,     118.3,       0.0);
     ( 492499.6, 3626617.5,     117.5,     117.5,       0.0);         (
492509.6, 3626617.5,     116.6,     116.6,       0.0);
     ( 492519.6, 3626617.5,     115.8,     118.0,       0.0);         (
492529.6, 3626617.5,     112.2,     120.0,       0.0);
     ( 492269.6, 3626627.5,     122.3,     130.0,       0.0);         (
492279.6, 3626627.5,     123.9,     123.9,       0.0);
     ( 492289.6, 3626627.5,     124.2,     124.2,       0.0);         (
492299.6, 3626627.5,     124.6,     124.6,       0.0);
     ( 492309.6, 3626627.5,     124.9,     124.9,       0.0);         (
492319.6, 3626627.5,     124.2,     124.2,       0.0);
     ( 492329.6, 3626627.5,     123.5,     123.5,       0.0);         (
492339.6, 3626627.5,     122.7,     123.0,       0.0);
     ( 492469.6, 3626627.5,     112.5,     133.0,       0.0);         (
492479.6, 3626627.5,     115.2,     119.0,       0.0);
     ( 492489.6, 3626627.5,     117.7,     118.0,       0.0);         (
492499.6, 3626627.5,     116.6,     118.0,       0.0);
     ( 492509.6, 3626627.5,     115.6,     118.0,       0.0);         (
492519.6, 3626627.5,     114.4,     119.0,       0.0);
     ( 492269.6, 3626637.5,     121.7,     130.0,       0.0);         (
492279.6, 3626637.5,     123.2,     123.2,       0.0);
     ( 492289.6, 3626637.5,     123.6,     123.6,       0.0);         (
492299.6, 3626637.5,     123.9,     123.9,       0.0);
     ( 492309.6, 3626637.5,     124.2,     124.2,       0.0);         (
492319.6, 3626637.5,     123.4,     125.0,       0.0);
     ( 492329.6, 3626637.5,     122.6,     125.0,       0.0);         (
492339.6, 3626637.5,     121.7,     127.0,       0.0);
     ( 492469.6, 3626637.5,     111.1,     133.0,       0.0);         (
492479.6, 3626637.5,     113.6,     119.0,       0.0);
     ( 492489.6, 3626637.5,     116.0,     118.0,       0.0);         (
492499.6, 3626637.5,     114.5,     119.0,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492509.6, 3626637.5, 113.0, 119.0, 0.0); (492519.6, 3626637.5, 111.4, 120.0, 0.0);
(492269.6, 3626647.5, 121.2, 130.0, 0.0); (492279.6, 3626647.5, 122.6, 122.6, 0.0);
(492289.6, 3626647.5, 122.9, 122.9, 0.0); (492299.6, 3626647.5, 123.2, 123.2, 0.0);
(492309.6, 3626647.5, 123.5, 123.5, 0.0); (492319.6, 3626647.5, 122.6, 122.6, 0.0);
(492329.6, 3626647.5, 121.7, 125.0, 0.0); (492339.6, 3626647.5, 120.7, 127.0, 0.0);
(492479.6, 3626647.5, 112.0, 132.0, 0.0); (492489.6, 3626647.5, 114.3, 118.0, 0.0);
(492499.6, 3626647.5, 112.4, 119.0, 0.0); (492509.6, 3626647.5, 110.4, 120.0, 0.0);
(492269.6, 3626657.5, 120.6, 130.0, 0.0); (492279.6, 3626657.5, 121.9, 121.9, 0.0);
(492289.6, 3626657.5, 122.2, 122.2, 0.0); (492299.6, 3626657.5, 122.5, 122.5, 0.0);
(492309.6, 3626657.5, 122.8, 123.0, 0.0); (492319.6, 3626657.5, 121.8, 123.0, 0.0);
(492329.6, 3626657.5, 120.8, 125.0, 0.0); (492339.6, 3626657.5, 119.7, 127.0, 0.0);
(492489.6, 3626657.5, 112.6, 119.0, 0.0); (492499.6, 3626657.5, 110.2, 120.0, 0.0);
(492269.6, 3626667.5, 120.1, 122.0, 0.0); (492279.6, 3626667.5, 121.2, 121.2, 0.0);
(492289.6, 3626667.5, 121.4, 121.4, 0.0); (492299.6, 3626667.5, 121.6, 121.6, 0.0);
(492309.6, 3626667.5, 121.8, 123.0, 0.0); (492319.6, 3626667.5, 120.7, 125.0, 0.0);
(492329.6, 3626667.5, 119.5, 127.0, 0.0); (492339.6, 3626667.5, 118.3, 129.0, 0.0);
(492269.6, 3626677.5, 119.5, 122.0, 0.0); (492279.6, 3626677.5, 120.6, 120.6, 0.0);
(492289.6, 3626677.5, 120.7, 120.7, 0.0); (492299.6, 3626677.5, 120.8, 120.8, 0.0);
(492309.6, 3626677.5, 120.8, 123.0, 0.0); (492319.6, 3626677.5, 119.6, 125.0, 0.0);
(492329.6, 3626677.5, 118.3, 127.0, 0.0); (492339.6, 3626677.5, 117.0, 130.0, 0.0);

```
     ( 492269.6, 3626687.5,     119.0,     120.0,       0.0);         (
492279.6, 3626687.5,     120.0,     120.0,       0.0);
     ( 492289.6, 3626687.5,     120.0,     120.0,       0.0);         (
492299.6, 3626687.5,     120.0,     120.0,       0.0);
     ( 492309.6, 3626687.5,     119.9,     119.9,       0.0);         (
492319.6, 3626687.5,     118.5,     125.0,       0.0);
     ( 492329.6, 3626687.5,     117.2,     127.0,       0.0);         (
492339.6, 3626687.5,     115.7,     130.0,       0.0);
     ( 492269.6, 3626697.5,     118.8,     118.8,       0.0);         (
492279.6, 3626697.5,     119.6,     119.6,       0.0);
     ( 492289.6, 3626697.5,     119.6,     119.6,       0.0);         (
492299.6, 3626697.5,     119.6,     119.6,       0.0);
     ( 492309.6, 3626697.5,     119.6,     119.6,       0.0);         (
492319.6, 3626697.5,     118.0,     123.0,       0.0);
     ( 492329.6, 3626697.5,     116.4,     127.0,       0.0);         (
492339.6, 3626697.5,     114.7,     130.0,       0.0);
     ( 492269.6, 3626707.5,     118.5,     118.5,       0.0);         (
492279.6, 3626707.5,     119.3,     119.3,       0.0);
     ( 492289.6, 3626707.5,     119.3,     119.3,       0.0);         (
492299.6, 3626707.5,     119.3,     119.3,       0.0);
     ( 492309.6, 3626707.5,     119.2,     119.2,       0.0);         (
492319.6, 3626707.5,     117.4,     123.0,       0.0);
     ( 492329.6, 3626707.5,     115.6,     127.0,       0.0);         (
492339.6, 3626707.5,     113.7,     130.0,       0.0);
     ( 492269.6, 3626717.5,     118.2,     118.2,       0.0);         (
492279.6, 3626717.5,     118.8,     118.8,       0.0);
     ( 492289.6, 3626717.5,     118.9,     118.9,       0.0);         (
492299.6, 3626717.5,     118.9,     118.9,       0.0);
     ( 492309.6, 3626717.5,     118.9,     118.9,       0.0);         (
492319.6, 3626717.5,     116.9,     119.0,       0.0);
     ( 492329.6, 3626717.5,     114.9,     125.0,       0.0);         (
492339.6, 3626717.5,     112.8,     130.0,       0.0);
     ( 492669.1, 3626644.4,     122.5,     122.5,       0.0);         (
492665.1, 3626656.0,     120.9,     123.0,       0.0);
     ( 492665.7, 3626664.3,     120.9,     123.0,       0.0);         (
492664.1, 3626675.3,     119.6,     124.0,       0.0);
     ( 492599.4, 3626422.0,     129.1,     134.0,       0.0);         (
492613.5, 3626422.0,     130.3,     134.0,       0.0);
     ( 492613.8, 3626427.9,     129.5,     134.0,       0.0);         (
492613.5, 3626435.9,     128.4,     134.0,       0.0);
     ( 492573.3, 3626443.0,     120.9,     134.0,       0.0);         (
492576.1, 3626437.0,     123.2,     134.0,       0.0);
     ( 492578.8, 3626431.7,     125.2,     134.0,       0.0);         (
492589.2, 3626442.0,     124.9,     134.0,       0.0);
     ( 492486.9, 3626457.9,     121.3,     134.0,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: SDAPCD Kearny MetData\KMA2010_2012v15181.SFC Met Version: 15181
Profile file: SDAPCD Kearny MetData\KMA2010_2012v15181.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93107 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-2.3	0.055	-9.000	-9.000	-999.	31.	6.6	0.40	1.30	1.00	0.89	52.	10.0	283.8	10.0
10	01	01	1	02	-2.5	0.055	-9.000	-9.000	-999.	31.	6.2	0.40	1.30	1.00	0.89	43.	10.0	283.1	10.0
10	01	01	1	03	-2.5	0.055	-9.000	-9.000	-999.	31.	6.2	0.40	1.30	1.00	0.89	39.	10.0	283.1	10.0
10	01	01	1	04	-2.4	0.055	-9.000	-9.000	-999.	31.	6.2	0.40	1.30	1.00	0.89	55.	10.0	283.1	10.0
10	01	01	1	05	-2.5	0.055	-9.000	-9.000	-999.	31.	6.2	0.40	1.30	1.00	0.89	32.	10.0	282.5	10.0
10	01	01	1	06	-2.8	0.060	-9.000	-9.000	-999.	35.	7.0	0.51	1.30	1.00	0.89	67.	10.0	282.5	10.0
10	01	01	1	07	-2.4	0.055	-9.000	-9.000	-999.	31.	6.3	0.40	1.30	1.00	0.89	53.	10.0	282.0	10.0
10	01	01	1	08	-2.0	0.055	-9.000	-9.000	-999.	31.	7.6	0.40	1.30	0.49	0.89	50.	10.0	283.1	10.0
10	01	01	1	09	46.8	0.115	0.467	0.011	78.	93.	-2.9	0.51	1.30	0.29	0.45	88.	10.0	286.4	10.0
10	01	01	1	10	105.2	0.192	0.906	0.008	254.	202.	-6.1	0.50	1.30	0.22	0.89	174.	10.0	289.9	10.0
10	01	01	1	11	141.7	0.210	1.213	0.008	452.	232.	-5.9	0.60	1.30	0.20	0.89	263.	10.0	290.9	10.0
10	01	01	1	12	180.9	0.323	1.462	0.008	619.	440.	-16.7	0.51	1.30	0.19	1.79	327.	10.0	292.5	10.0
10	01	01	1	13	177.9	0.241	1.553	0.007	754.	287.	-7.0	0.34	1.30	0.19	1.34	344.	10.0	293.8	10.0

```
 10 01 01   1 14  141.0  0.315  1.500  0.007  856.  424.    -19.8  0.51
1.30   0.20    1.79  326.   10.0  294.9   10.0
 10 01 01   1 15   95.6  0.463  1.346  0.007  913.  757.    -92.9  0.51
1.30   0.23    3.13  303.   10.0  292.5   10.0
 10 01 01   1 16   16.5  0.264  0.751  0.007  919.  360.    -99.4  0.51
1.30   0.32    1.79  307.   10.0  290.4   10.0
 10 01 01   1 17   -4.6  0.090 -9.000 -9.000 -999.  114.     14.0  0.51
1.30   0.60    1.34  324.   10.0  289.2   10.0
 10 01 01   1 18   -5.1  0.080 -9.000 -9.000 -999.   54.      8.8  0.34
1.30   1.00    1.34  341.   10.0  288.8   10.0
 10 01 01   1 19   -4.8  0.090 -9.000 -9.000 -999.   65.     13.6  0.51
1.30   1.00    1.34  304.   10.0  287.5   10.0
 10 01 01   1 20   -2.1  0.053 -9.000 -9.000 -999.   29.      6.2  0.34
1.30   1.00    0.89  341.   10.0  287.0   10.0
 10 01 01   1 21   -0.6  0.027 -9.000 -9.000 -999.   10.      3.0  0.34
1.30   1.00    0.45   13.   10.0  286.4   10.0
 10 01 01   1 22   -0.7  0.031 -9.000 -9.000 -999.   13.      3.8  0.56
1.30   1.00    0.45   92.   10.0  286.4   10.0
 10 01 01   1 23   -6.7  0.095 -9.000 -9.000 -999.   70.     11.4  0.59
1.30   1.00    1.34  293.   10.0  285.4   10.0
 10 01 01   1 24   -2.4  0.055 -9.000 -9.000 -999.   31.      6.3  0.40
1.30   1.00    0.89   33.   10.0  284.9   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.0 1   52.    0.89   283.8   12.0  -99.00    0.20

 F indicates top of profile (=1) or below (=0)
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	492248.31	492298.31	492348.31	492398.31	492448.31
3626779.15	0.18022	0.19024	0.19568	0.20031	0.20501
3626729.15	0.20885	0.22734	0.23835	0.24674	0.26219
3626679.15	0.23973	0.26834	0.28912	0.30683	0.34117
3626629.15	0.28215	0.32305	0.35232	0.38374	0.44668
3626579.15	0.35263	0.41781	0.44093	0.48648	0.58308
3626529.15	0.50823	0.57912	0.62661	0.65680	0.78796
3626479.15	0.66774	0.76505	0.88845	1.01675	1.15677
3626429.15	0.83879	0.98622	1.18132	1.48306	1.79000
3626379.15	0.99191	1.17966	1.43988	1.82636	2.45542
3626329.15	1.03901	1.22380	1.47843	1.85952	2.50547
3626279.15	0.97950	1.16172	1.43014	1.84824	2.46579
3626229.15	0.94715	1.15909	1.45710	1.85431	2.30825
3626179.15	0.92488	1.13555	1.42902	1.70363	1.98868
3626129.15	0.86359	1.02680	1.24403	1.43823	1.38943

Y-COORD (METERS)	X-COORD (METERS)				
	492498.31	492548.31	492598.31	492648.31	
3626779.15	0.21873	0.25089	0.29957	0.34339	
3626729.15	0.28682	0.30748	0.37154	0.45718	
3626679.15	0.39341	0.41992	0.48120	0.61813	
3626629.15	0.54334	0.61239	0.68012	0.88793	
3626579.15	0.74899	0.90143	1.04841	1.32419	
3626529.15	1.04227	1.33489	1.87652	2.50724	
3626479.15	1.52655	2.17806	4.30669	7.33186	
3626429.15	2.31910	4.04969	14.79525	41.51758	
3626379.15	3.10036	5.82761	21.46485	34.91119	
3626329.15	3.49535	5.29394	7.04128	8.98420	
3626279.15	3.24591	3.98727	4.36304	4.48553	
3626229.15	2.73672	3.00193	2.96500	2.73367	
3626179.15	2.12806	2.25938	2.09308	1.84244	
3626129.15	1.38542	1.36521	1.31391	1.26788	

```
  3626079.15 |       0.82117      0.93760      1.05589      1.15079
1.12308      1.11033      1.22455      1.12462      0.97361
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)					
	492698.31	492748.31	492798.31	492848.31	492898.31	492948.31
3626779.15	0.37741	0.39517	0.39023	0.35996	0.33396	0.31394
3626729.15	0.50780	0.53407	0.53127	0.48063	0.42919	0.39943
3626679.15	0.71157	0.74935	0.74319	0.66166	0.57128	0.51780
3626629.15	1.07085	1.12785	1.10048	0.98239	0.77926	0.67130
3626579.15	1.77182	1.86118	1.75581	1.50940	1.11459	0.91747
3626529.15	2.98549	3.45570	3.06273	2.38735	1.62971	1.19596
3626479.15	7.27700	7.07748	6.12490	3.99581	2.31493	1.44600
3626429.15	33.79287	26.55282	17.67741	7.03499	3.28264	1.81701
3626379.15	45.37636	50.82187	32.96428	9.25996	4.05771	2.23897
3626329.15	10.39757	10.28655	8.87419	6.30976	3.81636	2.37657
3626279.15	4.42694	4.12309	3.78197	3.36120	2.72448	2.07403
3626229.15	2.48227	2.21773	2.05349	1.93486	1.74603	1.54249
3626179.15	1.61249	1.41999	1.23081	1.17103	1.15921	1.07942
3626129.15	1.13765	0.99006	0.84226	0.82849	0.82294	0.77016

3626079.15 | 0.84641 0.67307 0.63026 0.64431
0.61392 0.57029

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492780.64	3626444.25	13.57302	492790.64	3626444.25	12.77327
492798.50	3626444.09	11.86231	492839.32	3626444.25	6.78047
492849.32	3626444.25	5.84542	492859.32	3626444.25	5.04344
492869.32	3626444.25	4.38048	492879.32	3626444.25	3.83050
492779.32	3626454.25	10.84183	492789.32	3626454.25	10.31587
492799.32	3626454.25	9.47195	492839.32	3626454.25	5.94647
492849.32	3626454.25	5.22069	492859.32	3626454.25	4.57429
492869.32	3626454.25	4.02312	492879.32	3626454.25	3.55381
492779.32	3626464.25	8.86745	492789.32	3626464.25	8.44293
492799.32	3626464.25	7.83553	492829.32	3626464.25	5.85674
492839.32	3626464.25	5.23454	492849.32	3626464.25	4.66531
492859.32	3626464.25	4.14423	492869.32	3626464.25	3.68727
492879.32	3626464.25	3.28905	492769.32	3626474.25	7.66550
492779.32	3626474.25	7.38426	492789.32	3626474.25	7.03935
492799.32	3626474.25	6.58975	492829.32	3626474.25	5.10864
492839.32	3626474.25	4.62607	492849.32	3626474.25	4.17576

492859.32 3626474.25 3.75430
492869.32 3626474.25 3.37590
492879.32 3626474.25 3.03906
492769.32 3626484.25 6.45804
492779.32 3626484.25 6.22897
492789.32 3626484.25 5.95490
492799.32 3626484.25 5.61535
492809.32 3626484.25 5.25284
492819.32 3626484.25 4.87547
492829.32 3626484.25 4.48210
492839.32 3626484.25 4.10166
492849.32 3626484.25 3.74132
492859.32 3626484.25 3.39891
492769.32 3626494.25 5.49764
492779.32 3626494.25 5.31332
492789.32 3626494.25 5.09615
492799.32 3626494.25 4.83590
492809.32 3626494.25 4.55749
492819.32 3626494.25 4.26627
492829.32 3626494.25 3.95545
492839.32 3626494.25 3.65106
492849.32 3626494.25 3.35890
492859.32 3626494.25 3.07919
492769.32 3626504.25 4.72259
492779.32 3626504.25 4.57479
492789.32 3626504.25 4.40267
492799.32 3626504.25 4.20121
492809.32 3626504.25 3.98479
492819.32 3626504.25 3.75717
492829.32 3626504.25 3.50903
492749.32 3626514.25 4.22592
492759.32 3626514.25 4.19253
492769.32 3626514.25 4.09479
492779.32 3626514.25 3.97616
492789.32 3626514.25 3.83856
492799.32 3626514.25 3.67814
492809.32 3626514.25 3.50577
492819.32 3626514.25 3.32471
492829.32 3626514.25 3.12854
492749.32 3626524.25 3.68707
492759.32 3626524.25 3.64997
492769.32 3626524.25 3.57217
492779.32 3626524.25 3.47788
492789.32 3626524.25 3.36813
492799.32 3626524.25 3.23998
492809.32 3626524.25 3.10200
492819.32 3626524.25 2.95667
492829.32 3626524.25 2.80085

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492739.32	3626534.25	3.24362	492749.32	3626534.25	3.22848
492759.32	3626534.25	3.19340	492769.32	3626534.25	3.13281
492779.32	3626534.25	3.05838	492789.32	3626534.25	2.97139
492799.32	3626534.25	2.86926	492809.32	3626534.25	2.75854
492819.32	3626534.25	2.64119	492719.32	3626544.25	2.76004
492729.32	3626544.25	2.83479	492739.32	3626544.25	2.84009
492749.32	3626544.25	2.82935	492759.32	3626544.25	2.80306
492769.32	3626544.25	2.75777	492779.32	3626544.25	2.70083
492789.32	3626544.25	2.63303	492799.32	3626544.25	2.55260
492809.32	3626544.25	2.46447	492819.32	3626544.25	2.37020
492719.32	3626554.25	2.45171	492729.32	3626554.25	2.49174
492739.32	3626554.25	2.49828	492749.32	3626554.25	2.49210
492759.32	3626554.25	2.47342	492769.32	3626554.25	2.44015
492779.32	3626554.25	2.39686	492789.32	3626554.25	2.34414
492799.32	3626554.25	2.28080	492809.32	3626554.25	2.21055
492819.32	3626554.25	2.13468	492709.32	3626564.25	2.15160

492719.32 3626564.25 2.18244
492729.32 3626564.25 2.20238
492739.32 3626564.25 2.20999
492749.32 3626564.25 2.20717
492759.32 3626564.25 2.19429
492769.32 3626564.25 2.17005
492779.32 3626564.25 2.13723
492789.32 3626564.25 2.09621
492799.32 3626564.25 2.04621
492809.32 3626564.25 1.99004
492819.32 3626564.25 1.92874
492709.32 3626574.25 1.91444
492719.32 3626574.25 1.94008
492729.32 3626574.25 1.95721
492739.32 3626574.25 1.96589
492749.32 3626574.25 1.96599
492759.32 3626574.25 1.95756
492769.32 3626574.25 1.93938
492779.32 3626574.25 1.91393
492789.32 3626574.25 1.88168
492799.32 3626574.25 1.84207
492809.32 3626574.25 1.79703
492819.32 3626574.25 1.74729
492699.32 3626584.25 1.67897
492709.32 3626584.25 1.70894
492719.32 3626584.25 1.73218
492729.32 3626584.25 1.74846
492739.32 3626584.25 1.75762
492749.32 3626584.25 1.75968
492759.32 3626584.25 1.75462
492769.32 3626584.25 1.74100
492779.32 3626584.25 1.72124
492789.32 3626584.25 1.69570
492799.32 3626584.25 1.66425
492809.32 3626584.25 1.62795
492819.32 3626584.25 1.58749
492689.32 3626594.25 1.46764
492699.32 3626594.25 1.50711
492709.32 3626594.25 1.53361
492719.32 3626594.25 1.55451
492729.32 3626594.25 1.56971
492739.32 3626594.25 1.57900
492749.32 3626594.25 1.58229
492759.32 3626594.25 1.57962
492769.32 3626594.25 1.56953
492779.32 3626594.25 1.55421
492789.32 3626594.25 1.53389
492799.32 3626594.25 1.50879

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492809.32	3626594.25	1.47946	492819.32	3626594.25	1.44640
492689.32	3626604.25	1.32811	492699.32	3626604.25	1.35959
492709.32	3626604.25	1.38309	492719.32	3626604.25	1.40195
492729.32	3626604.25	1.41595	492739.32	3626604.25	1.42482
492749.32	3626604.25	1.42873	492759.32	3626604.25	1.42770
492769.32	3626604.25	1.42044	492779.32	3626604.25	1.40865
492789.32	3626604.25	1.39252	492799.32	3626604.25	1.37244
492809.32	3626604.25	1.34862	492819.32	3626604.25	1.32145
492679.32	3626614.25	1.17630	492689.32	3626614.25	1.20623
492699.32	3626614.25	1.23235	492709.32	3626614.25	1.25321
492719.32	3626614.25	1.27015	492729.32	3626614.25	1.28303
492739.32	3626614.25	1.29135	492749.32	3626614.25	1.29560
492759.32	3626614.25	1.29568	492769.32	3626614.25	1.29050
492779.32	3626614.25	1.28144	492789.32	3626614.25	1.26856
492799.32	3626614.25	1.25242	492809.32	3626614.25	1.23295
492819.32	3626614.25	1.21055	492679.32	3626624.25	1.07486

492689.32 3626624.25 1.09994
492699.32 3626624.25 1.12193
492709.32 3626624.25 1.14055
492719.32 3626624.25 1.15578
492729.32 3626624.25 1.16756
492739.32 3626624.25 1.17535
492749.32 3626624.25 1.17968
492759.32 3626624.25 1.18053
492769.32 3626624.25 1.17688
492809.32 3626624.25 1.13045
492679.32 3626634.25 0.98388
492689.32 3626634.25 1.00574
492699.32 3626634.25 1.02504
492709.32 3626634.25 1.04157
492719.32 3626634.25 1.05527
492729.32 3626634.25 1.06601
492739.32 3626634.25 1.07346
492749.32 3626634.25 1.07793
492759.32 3626634.25 1.07941
492769.32 3626634.25 1.07703
492679.32 3626644.25 0.90369
492689.32 3626644.25 0.92304
492699.32 3626644.25 0.94014
492709.32 3626644.25 0.95489
492719.32 3626644.25 0.96721
492729.32 3626644.25 0.97699
492739.32 3626644.25 0.98406
492749.32 3626644.25 0.98857
492759.32 3626644.25 0.99044
492769.32 3626644.25 0.98901
492779.32 3626644.25 0.98504
492789.32 3626644.25 0.97858
492799.32 3626644.25 0.96962
492679.32 3626654.25 0.83299
492689.32 3626654.25 0.85021
492699.32 3626654.25 0.86548
492709.32 3626654.25 0.87870
492719.32 3626654.25 0.88979
492729.32 3626654.25 0.89872
492739.32 3626654.25 0.90538
492749.32 3626654.25 0.90979
492759.32 3626654.25 0.91191
492769.32 3626654.25 0.91118
492779.32 3626654.25 0.90822
492789.32 3626654.25 0.90308
492799.32 3626654.25 0.89555
492679.32 3626664.25 0.76951
492689.32 3626664.25 0.78497

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492699.32	3626664.25	0.79873	492709.32	3626664.25	0.81080
492719.32	3626664.25	0.82099	492729.32	3626664.25	0.82926
492739.32	3626664.25	0.83554	492749.32	3626664.25	0.83982
492759.32	3626664.25	0.84210	492769.32	3626664.25	0.84188
492779.32	3626664.25	0.83969	492789.32	3626664.25	0.83556
492799.32	3626664.25	0.82907	492679.32	3626674.25	0.71301
492689.32	3626674.25	0.72697	492699.32	3626674.25	0.73940
492709.32	3626674.25	0.75049	492719.32	3626674.25	0.75990
492729.32	3626674.25	0.76758	492739.32	3626674.25	0.77349
492749.32	3626674.25	0.77763	492759.32	3626674.25	0.77996
492769.32	3626674.25	0.78010	492779.32	3626674.25	0.77851
492789.32	3626674.25	0.77519	492799.32	3626674.25	0.76948
492679.32	3626684.25	0.66266	492689.32	3626684.25	0.67530
492699.32	3626684.25	0.68657	492709.32	3626684.25	0.69680
492719.32	3626684.25	0.70550	492729.32	3626684.25	0.71265
492739.32	3626684.25	0.71822	492749.32	3626684.25	0.72216

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         492759.32    3626684.25        0.72448
492769.32    3626684.25        0.72492
         492779.32    3626684.25        0.72378
492789.32    3626684.25        0.72109
         492269.61    3626327.54        1.10937
492279.61    3626327.54        1.14632
         492289.61    3626327.54        1.18562
492299.61    3626327.54        1.22752
         492309.61    3626327.54        1.27230
492319.61    3626327.54        1.32024
         492329.61    3626327.54        1.37172
492339.61    3626327.54        1.42726
         492349.61    3626327.54        1.48457
492359.61    3626327.54        1.54668
         492369.61    3626327.54        1.61419
492379.61    3626327.54        1.69166
         492389.61    3626327.54        1.77667
492399.61    3626327.54        1.87027
         492409.61    3626327.54        1.97361
492419.61    3626327.54        2.08829
         492269.61    3626337.54        1.11719
492279.61    3626337.54        1.15486
         492289.61    3626337.54        1.19487
492299.61    3626337.54        1.23746
         492309.61    3626337.54        1.28288
492319.61    3626337.54        1.33053
         492329.61    3626337.54        1.38157
492339.61    3626337.54        1.43639
         492349.61    3626337.54        1.49483
492359.61    3626337.54        1.55812
         492369.61    3626337.54        1.62682
492379.61    3626337.54        1.70426
         492389.61    3626337.54        1.78896
492399.61    3626337.54        1.88220
         492409.61    3626337.54        1.98349
492419.61    3626337.54        2.09610
         492269.61    3626347.54        1.11858
492279.61    3626347.54        1.15701
         492289.61    3626347.54        1.19776
492299.61    3626347.54        1.24113
         492309.61    3626347.54        1.28732
492319.61    3626347.54        1.33488
         492329.61    3626347.54        1.38557
492339.61    3626347.54        1.44010
         492349.61    3626347.54        1.50009
492359.61    3626347.54        1.56501
         492369.61    3626347.54        1.63544
492379.61    3626347.54        1.71310
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492389.61	3626347.54	1.79808	492399.61	3626347.54	1.89118
492409.61	3626347.54	1.99097	492419.61	3626347.54	2.10172
492269.61	3626357.54	1.11155	492279.61	3626357.54	1.15038
492289.61	3626357.54	1.19162	492299.61	3626357.54	1.23553
492309.61	3626357.54	1.28231	492319.61	3626357.54	1.32977
492329.61	3626357.54	1.38049	492339.61	3626357.54	1.43478
492349.61	3626357.54	1.49642	492359.61	3626357.54	1.56293
492369.61	3626357.54	1.63500	492379.61	3626357.54	1.71331
492389.61	3626357.54	1.79868	492399.61	3626357.54	1.89214
492409.61	3626357.54	1.99145	492419.61	3626357.54	2.10126
492269.61	3626367.54	1.09401	492279.61	3626367.54	1.13268
492289.61	3626367.54	1.17384	492299.61	3626367.54	1.21767
492309.61	3626367.54	1.26446	492319.61	3626367.54	1.31274
492329.61	3626367.54	1.36453	492339.61	3626367.54	1.42003
492349.61	3626367.54	1.48180	492359.61	3626367.54	1.54852
492369.61	3626367.54	1.62074	492379.61	3626367.54	1.69921

492389.61 3626367.54 1.78482
492399.61 3626367.54 1.87837
492409.61 3626367.54 1.97928
492419.61 3626367.54 2.09097
492269.61 3626377.54 1.06925
492279.61 3626377.54 1.10722
492289.61 3626377.54 1.14763
492299.61 3626377.54 1.19071
492309.61 3626377.54 1.23668
492319.61 3626377.54 1.28499
492329.61 3626377.54 1.33690
492339.61 3626377.54 1.39268
492349.61 3626377.54 1.45368
492359.61 3626377.54 1.51960
492369.61 3626377.54 1.59102
492379.61 3626377.54 1.66865
492389.61 3626377.54 1.75324
492399.61 3626377.54 1.84590
492409.61 3626377.54 1.94679
492419.61 3626377.54 2.05852
492269.61 3626387.54 1.03937
492279.61 3626387.54 1.07608
492289.61 3626387.54 1.11518
492299.61 3626387.54 1.15691
492309.61 3626387.54 1.20148
492319.61 3626387.54 1.24898
492329.61 3626387.54 1.29992
492339.61 3626387.54 1.35478
492349.61 3626387.54 1.41397
492359.61 3626387.54 1.47801
492369.61 3626387.54 1.54741
492379.61 3626387.54 1.62311
492389.61 3626387.54 1.70574
492399.61 3626387.54 1.79609
492409.61 3626387.54 1.89517
492419.61 3626387.54 2.00472
492429.61 3626387.54 2.12653
492269.61 3626397.54 1.00799
492279.61 3626397.54 1.04329
492289.61 3626397.54 1.08080
492299.61 3626397.54 1.12077
492309.61 3626397.54 1.16348
492319.61 3626397.54 1.20802
492329.61 3626397.54 1.25576
492339.61 3626397.54 1.30706
492349.61 3626397.54 1.36370
492359.61 3626397.54 1.42491
492369.61 3626397.54 1.49140

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492379.61	3626397.54	1.56620	492389.61	3626397.54	1.64734
492399.61	3626397.54	1.73579	492409.61	3626397.54	1.83046
492419.61	3626397.54	1.93495	492429.61	3626397.54	2.05109
492439.61	3626397.54	2.18469	492569.61	3626397.54	9.89362
492269.61	3626407.54	0.97400	492279.61	3626407.54	1.00760
492289.61	3626407.54	1.04329	492299.61	3626407.54	1.08131
492309.61	3626407.54	1.12185	492319.61	3626407.54	1.16320
492329.61	3626407.54	1.20738	492339.61	3626407.54	1.25480
492349.61	3626407.54	1.30843	492359.61	3626407.54	1.36632
492369.61	3626407.54	1.42912	492379.61	3626407.54	1.50240
492389.61	3626407.54	1.58119	492399.61	3626407.54	1.66658
492409.61	3626407.54	1.75577	492419.61	3626407.54	1.85410
492429.61	3626407.54	1.96313	492439.61	3626407.54	2.09062
492449.61	3626407.54	2.22901	492561.65	3626406.52	7.07981
492569.61	3626407.54	9.01864	492579.61	3626407.54	13.46079
492269.61	3626417.54	0.93859	492279.61	3626417.54	0.97040

492289.61 3626417.54 1.00419
492299.61 3626417.54 1.04012
492309.61 3626417.54 1.07831
492319.61 3626417.54 1.11656
492329.61 3626417.54 1.15720
492339.61 3626417.54 1.20066
492349.61 3626417.54 1.25092
492359.61 3626417.54 1.30512
492369.61 3626417.54 1.36389
492379.61 3626417.54 1.43451
492389.61 3626417.54 1.50961
492399.61 3626417.54 1.59067
492409.61 3626417.54 1.67394
492419.61 3626417.54 1.76563
492429.61 3626417.54 1.86705
492439.61 3626417.54 1.98256
492449.61 3626417.54 2.05141
492459.61 3626417.54 2.11583
492569.61 3626417.54 7.79949
492579.61 3626417.54 11.13098
492587.89 3626417.54 14.89106
492269.61 3626427.54 0.90240
492279.61 3626427.54 0.93229
492289.61 3626427.54 0.96399
492299.61 3626427.54 0.99762
492309.61 3626427.54 1.03334
492319.61 3626427.54 1.06984
492329.61 3626427.54 1.10874
492339.61 3626427.54 1.15032
492349.61 3626427.54 1.19694
492359.61 3626427.54 1.24702
492369.61 3626427.54 1.30110
492379.61 3626427.54 1.36486
492389.61 3626427.54 1.43317
492399.61 3626427.54 1.50714
492409.61 3626427.54 1.58669
492419.61 3626427.54 1.67079
492429.61 3626427.54 1.74714
492439.61 3626427.54 1.78184
492449.61 3626427.54 1.83097
492459.61 3626427.54 1.89758
492469.61 3626427.54 1.94805
492577.71 3626427.45 8.37070
492589.61 3626427.54 11.91352
492599.61 3626427.54 16.18640
492609.61 3626427.54 21.93671
492269.61 3626437.54 0.86522
492279.61 3626437.54 0.89301

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492289.61	3626437.54	0.92242	492299.61	3626437.54	0.95363
492309.61	3626437.54	0.98674	492319.61	3626437.54	1.02110
492329.61	3626437.54	1.05777	492339.61	3626437.54	1.09694
492349.61	3626437.54	1.13972	492359.61	3626437.54	1.18558
492369.61	3626437.54	1.23491	492379.61	3626437.54	1.29202
492389.61	3626437.54	1.35336	492399.61	3626437.54	1.42007
492409.61	3626437.54	1.49330	492419.61	3626437.54	1.53770
492429.61	3626437.54	1.56946	492439.61	3626437.54	1.60219
492449.61	3626437.54	1.65357	492459.61	3626437.54	1.72518
492469.61	3626437.54	1.80497	492479.61	3626437.54	1.91314
492579.61	3626437.54	7.14227	492589.61	3626437.54	9.14511
492599.61	3626437.54	11.90801	492606.62	3626436.27	15.04498
492269.61	3626447.54	0.82728	492279.61	3626447.54	0.85297
492289.61	3626447.54	0.87985	492299.61	3626447.54	0.90836
492309.61	3626447.54	0.93851	492319.61	3626447.54	0.97066
492329.61	3626447.54	1.00483	492339.61	3626447.54	1.04124

492349.61 3626447.54 1.08028
492359.61 3626447.54 1.12205
492369.61 3626447.54 1.16682
492379.61 3626447.54 1.21794
492389.61 3626447.54 1.27295
492399.61 3626447.54 1.33271
492409.61 3626447.54 1.38892
492419.61 3626447.54 1.39755
492429.61 3626447.54 1.41733
492439.61 3626447.54 1.45413
492449.61 3626447.54 1.50971
492459.61 3626447.54 1.58513
492469.61 3626447.54 1.66658
492479.61 3626447.54 1.76828
492571.06 3626449.44 4.65739
492579.61 3626447.54 5.82233
492585.44 3626447.63 6.55782
492269.61 3626457.54 0.78970
492279.61 3626457.54 0.81394
492289.61 3626457.54 0.83785
492299.61 3626457.54 0.86314
492309.61 3626457.54 0.88979
492319.61 3626457.54 0.91899
492329.61 3626457.54 0.94995
492339.61 3626457.54 0.98287
492349.61 3626457.54 1.01900
492359.61 3626457.54 1.05752
492369.61 3626457.54 1.09883
492379.61 3626457.54 1.14591
492389.61 3626457.54 1.19660
492399.61 3626457.54 1.24877
492409.61 3626457.54 1.25824
492419.61 3626457.54 1.26591
492429.61 3626457.54 1.28844
492439.61 3626457.54 1.33249
492449.61 3626457.54 1.39239
492459.61 3626457.54 1.46096
492469.61 3626457.54 1.53746
492479.61 3626457.54 1.62975
492580.88 3626454.73 5.17916
492269.61 3626467.54 0.75205
492279.61 3626467.54 0.77481
492289.61 3626467.54 0.79596
492299.61 3626467.54 0.81814
492309.61 3626467.54 0.84150
492319.61 3626467.54 0.86788
492329.61 3626467.54 0.89585
492339.61 3626467.54 0.92559

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492349.61	3626467.54	0.95898	492359.61	3626467.54	0.99445
492369.61	3626467.54	1.03231	492379.61	3626467.54	1.07576
492389.61	3626467.54	1.11913	492399.61	3626467.54	1.14506
492409.61	3626467.54	1.14306	492419.61	3626467.54	1.15308
492429.61	3626467.54	1.17913	492439.61	3626467.54	1.22732
492449.61	3626467.54	1.28204	492459.61	3626467.54	1.34618
492469.61	3626467.54	1.41738	492479.61	3626467.54	1.50118
492499.61	3626467.54	1.69675	492269.61	3626477.54	0.71509
492279.61	3626477.54	0.73632	492289.61	3626477.54	0.75507
492299.61	3626477.54	0.77459	492309.61	3626477.54	0.79511
492319.61	3626477.54	0.81891	492329.61	3626477.54	0.84401
492339.61	3626477.54	0.87058	492349.61	3626477.54	0.90140
492359.61	3626477.54	0.93413	492369.61	3626477.54	0.96909
492379.61	3626477.54	1.00678	492389.61	3626477.54	1.02516
492399.61	3626477.54	1.03942	492409.61	3626477.54	1.03756
492419.61	3626477.54	1.05187	492429.61	3626477.54	1.08229

492439.61 3626477.54 1.12817
492449.61 3626477.54 1.18066
492459.61 3626477.54 1.24059
492469.61 3626477.54 1.30655
492479.61 3626477.54 1.38289
492489.61 3626477.54 1.47090
492499.61 3626477.54 1.55945
492506.66 3626477.89 1.62472
492269.61 3626487.54 0.67890
492279.61 3626487.54 0.69767
492289.61 3626487.54 0.71515
492299.61 3626487.54 0.73344
492309.61 3626487.54 0.75258
492319.61 3626487.54 0.77400
492329.61 3626487.54 0.79654
492339.61 3626487.54 0.82040
492349.61 3626487.54 0.84893
492359.61 3626487.54 0.87919
492369.61 3626487.54 0.90940
492379.61 3626487.54 0.91603
492389.61 3626487.54 0.91875
492399.61 3626487.54 0.92706
492409.61 3626487.54 0.93480
492419.61 3626487.54 0.95531
492429.61 3626487.54 0.98581
492439.61 3626487.54 1.03211
492449.61 3626487.54 1.08369
492459.61 3626487.54 1.14150
492469.61 3626487.54 1.20258
492479.61 3626487.54 1.27255
492489.61 3626487.54 1.35248
492499.61 3626487.54 1.43418
492509.61 3626487.54 1.52675
492269.61 3626497.54 0.64444
492279.61 3626497.54 0.66094
492289.61 3626497.54 0.67715
492299.61 3626497.54 0.69416
492309.61 3626497.54 0.71194
492319.61 3626497.54 0.73117
492329.61 3626497.54 0.75138
492339.61 3626497.54 0.77271
492349.61 3626497.54 0.79919
492359.61 3626497.54 0.82467
492369.61 3626497.54 0.83905
492379.61 3626497.54 0.83257
492389.61 3626497.54 0.83252
492399.61 3626497.54 0.84348
492409.61 3626497.54 0.85513

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492419.61	3626497.54	0.87731	492429.61	3626497.54	0.90642
492439.61	3626497.54	0.95007	492449.61	3626497.54	0.99880
492459.61	3626497.54	1.05350	492469.61	3626497.54	1.11010
492479.61	3626497.54	1.17433	492489.61	3626497.54	1.24718
492499.61	3626497.54	1.32279	492509.61	3626497.54	1.40786
492519.61	3626497.54	1.50231	492269.61	3626507.54	0.61182
492279.61	3626507.54	0.62604	492289.61	3626507.54	0.64108
492299.61	3626507.54	0.65679	492309.61	3626507.54	0.67318
492319.61	3626507.54	0.69045	492329.61	3626507.54	0.70861
492339.61	3626507.54	0.72779	492349.61	3626507.54	0.75042
492359.61	3626507.54	0.76138	492369.61	3626507.54	0.76887
492379.61	3626507.54	0.75959	492389.61	3626507.54	0.76302
492399.61	3626507.54	0.77476	492409.61	3626507.54	0.78914
492419.61	3626507.54	0.81087	492429.61	3626507.54	0.83799
492439.61	3626507.54	0.87873	492449.61	3626507.54	0.92443
492459.61	3626507.54	0.97582	492469.61	3626507.54	1.02845

492479.61 3626507.54 1.08766
492489.61 3626507.54 1.15440
492499.61 3626507.54 1.22414
492509.61 3626507.54 1.30232
492519.61 3626507.54 1.38850
492269.61 3626517.54 0.58148
492279.61 3626517.54 0.59386
492289.61 3626517.54 0.60729
492299.61 3626517.54 0.62129
492309.61 3626517.54 0.63593
492319.61 3626517.54 0.65181
492329.61 3626517.54 0.66804
492339.61 3626517.54 0.68514
492349.61 3626517.54 0.69080
492359.61 3626517.54 0.69310
492369.61 3626517.54 0.69703
492379.61 3626517.54 0.69456
492389.61 3626517.54 0.70202
492399.61 3626517.54 0.71607
492409.61 3626517.54 0.73240
492419.61 3626517.54 0.75375
492429.61 3626517.54 0.77927
492439.61 3626517.54 0.81709
492449.61 3626517.54 0.85949
492459.61 3626517.54 0.90710
492469.61 3626517.54 0.95692
492479.61 3626517.54 1.01279
492489.61 3626517.54 1.07539
492499.61 3626517.54 1.13844
492509.61 3626517.54 1.20858
492519.61 3626517.54 1.28546
492529.61 3626517.54 1.34226
492269.61 3626527.54 0.54808
492279.61 3626527.54 0.56179
492289.61 3626527.54 0.57378
492299.61 3626527.54 0.58630
492309.61 3626527.54 0.59938
492319.61 3626527.54 0.61316
492329.61 3626527.54 0.62473
492339.61 3626527.54 0.63628
492349.61 3626527.54 0.63463
492359.61 3626527.54 0.63505
492369.61 3626527.54 0.63878
492459.61 3626527.54 0.84607
492469.61 3626527.54 0.89308
492479.61 3626527.54 0.94579
492489.61 3626527.54 1.00464
492499.61 3626527.54 1.06158

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492509.61	3626527.54	1.12444	492519.61	3626527.54	1.19289
492529.61	3626527.54	1.24547	492269.61	3626537.54	0.51196
492279.61	3626537.54	0.53007	492289.61	3626537.54	0.54059
492299.61	3626537.54	0.55160	492309.61	3626537.54	0.56317
492319.61	3626537.54	0.57158	492329.61	3626537.54	0.58052
492339.61	3626537.54	0.58962	492349.61	3626537.54	0.58548
492359.61	3626537.54	0.58564	492369.61	3626537.54	0.59187
492459.61	3626537.54	0.79167	492469.61	3626537.54	0.83596
492479.61	3626537.54	0.88547	492489.61	3626537.54	0.94054
492499.61	3626537.54	0.99176	492509.61	3626537.54	1.04796
492519.61	3626537.54	1.10871	492529.61	3626537.54	1.15728
492269.61	3626547.54	0.47567	492279.61	3626547.54	0.49755
492289.61	3626547.54	0.50592	492299.61	3626547.54	0.51473
492309.61	3626547.54	0.52401	492319.61	3626547.54	0.53166
492329.61	3626547.54	0.53975	492339.61	3626547.54	0.54820
492349.61	3626547.54	0.54174	492359.61	3626547.54	0.54337

492369.61 3626547.54 0.54950
492459.61 3626547.54 0.74355
492469.61 3626547.54 0.78469
492479.61 3626547.54 0.83043
492489.61 3626547.54 0.88113
492499.61 3626547.54 0.92706
492509.61 3626547.54 0.97696
492519.61 3626547.54 1.03056
492529.61 3626547.54 1.07344
492269.61 3626557.54 0.44298
492279.61 3626557.54 0.46765
492289.61 3626557.54 0.47431
492299.61 3626557.54 0.48135
492309.61 3626557.54 0.48886
492319.61 3626557.54 0.49605
492329.61 3626557.54 0.50390
492339.61 3626557.54 0.51195
492349.61 3626557.54 0.50612
492359.61 3626557.54 0.50776
492369.61 3626557.54 0.51458
492459.61 3626557.54 0.69992
492469.61 3626557.54 0.73796
492479.61 3626557.54 0.78011
492489.61 3626557.54 0.82668
492499.61 3626557.54 0.86771
492509.61 3626557.54 0.91198
492519.61 3626557.54 0.95918
492529.61 3626557.54 0.99698
492269.61 3626567.54 0.41400
492279.61 3626567.54 0.43966
492289.61 3626567.54 0.44528
492299.61 3626567.54 0.45124
492309.61 3626567.54 0.45771
492319.61 3626567.54 0.46442
492329.61 3626567.54 0.47177
492339.61 3626567.54 0.47941
492349.61 3626567.54 0.47446
492359.61 3626567.54 0.47723
492369.61 3626567.54 0.48433
492459.61 3626567.54 0.66020
492469.61 3626567.54 0.69520
492479.61 3626567.54 0.73383
492489.61 3626567.54 0.77628
492499.61 3626567.54 0.81282
492509.61 3626567.54 0.85198
492519.61 3626567.54 0.89350
492529.61 3626567.54 0.92675
492269.61 3626577.54 0.38856

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492279.61	3626577.54	0.41030	492289.61	3626577.54	0.41643
492299.61	3626577.54	0.42314	492309.61	3626577.54	0.43021
492319.61	3626577.54	0.43524	492329.61	3626577.54	0.44123
492339.61	3626577.54	0.44787	492469.61	3626577.54	0.65622
492479.61	3626577.54	0.69089	492489.61	3626577.54	0.72872
492499.61	3626577.54	0.76116	492509.61	3626577.54	0.79571
492519.61	3626577.54	0.83216	492529.61	3626577.54	0.86065
492269.61	3626587.54	0.36636	492279.61	3626587.54	0.38443
492289.61	3626587.54	0.39120	492299.61	3626587.54	0.39836
492309.61	3626587.54	0.40597	492319.61	3626587.54	0.41007
492329.61	3626587.54	0.41528	492339.61	3626587.54	0.42153
492469.61	3626587.54	0.61988	492479.61	3626587.54	0.65089
492489.61	3626587.54	0.68454	492499.61	3626587.54	0.71332
492509.61	3626587.54	0.74383	492519.61	3626587.54	0.77584
492529.61	3626587.54	0.80030	492269.61	3626597.54	0.34686
492279.61	3626597.54	0.36201	492289.61	3626597.54	0.36913

492299.61 3626597.54 0.37672
492309.61 3626597.54 0.38467
492319.61 3626597.54 0.38844
492329.61 3626597.54 0.39355
492339.61 3626597.54 0.39971
492469.61 3626597.54 0.58575
492479.61 3626597.54 0.61348
492489.61 3626597.54 0.64339
492499.61 3626597.54 0.66880
492509.61 3626597.54 0.69560
492519.61 3626597.54 0.72364
492529.61 3626597.54 0.74461
492269.61 3626607.54 0.32980
492279.61 3626607.54 0.34265
492289.61 3626607.54 0.34992
492299.61 3626607.54 0.35772
492309.61 3626607.54 0.36586
492319.61 3626607.54 0.37058
492329.61 3626607.54 0.37634
492339.61 3626607.54 0.38286
492469.61 3626607.54 0.55338
492479.61 3626607.54 0.57826
492489.61 3626607.54 0.60502
492499.61 3626607.54 0.62684
492509.61 3626607.54 0.64974
492519.61 3626607.54 0.67362
492529.61 3626607.54 0.69130
492269.61 3626617.54 0.31472
492279.61 3626617.54 0.32580
492289.61 3626617.54 0.33318
492299.61 3626617.54 0.34104
492309.61 3626617.54 0.34926
492319.61 3626617.54 0.35461
492329.61 3626617.54 0.36078
492339.61 3626617.54 0.36752
492469.61 3626617.54 0.52292
492479.61 3626617.54 0.54529
492489.61 3626617.54 0.56926
492499.61 3626617.54 0.58795
492509.61 3626617.54 0.60754
492519.61 3626617.54 0.62796
492529.61 3626617.54 0.64281
492269.61 3626627.54 0.30144
492279.61 3626627.54 0.31121
492289.61 3626627.54 0.31855
492299.61 3626627.54 0.32630
492309.61 3626627.54 0.33445
492319.61 3626627.54 0.34009

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492329.61	3626627.54	0.34643	492339.61	3626627.54	0.35317
492469.61	3626627.54	0.49412	492479.61	3626627.54	0.51414
492489.61	3626627.54	0.53552	492499.61	3626627.54	0.55146
492509.61	3626627.54	0.56821	492519.61	3626627.54	0.58554
492269.61	3626637.54	0.29006	492279.61	3626637.54	0.29900
492289.61	3626637.54	0.30597	492299.61	3626637.54	0.31335
492309.61	3626637.54	0.32109	492319.61	3626637.54	0.32645
492329.61	3626637.54	0.33242	492339.61	3626637.54	0.33878
492469.61	3626637.54	0.46608	492479.61	3626637.54	0.48367
492489.61	3626637.54	0.50231	492499.61	3626637.54	0.51562
492509.61	3626637.54	0.52951	492519.61	3626637.54	0.54376
492269.61	3626647.54	0.27976	492279.61	3626647.54	0.28793
492289.61	3626647.54	0.29458	492299.61	3626647.54	0.30162
492309.61	3626647.54	0.30892	492319.61	3626647.54	0.31396
492329.61	3626647.54	0.31953	492339.61	3626647.54	0.32546
492479.61	3626647.54	0.45537	492489.61	3626647.54	0.47170

492499.61 3626647.54 0.48277
492509.61 3626647.54 0.49419
492269.61 3626657.54 0.27032
492279.61 3626657.54 0.27784
492289.61 3626657.54 0.28415
492299.61 3626657.54 0.29074
492309.61 3626657.54 0.29758
492319.61 3626657.54 0.30228
492329.61 3626657.54 0.30743
492339.61 3626657.54 0.31287
492489.61 3626657.54 0.44333
492499.61 3626657.54 0.45252
492269.61 3626667.54 0.26162
492279.61 3626667.54 0.26852
492289.61 3626667.54 0.27433
492299.61 3626667.54 0.28033
492309.61 3626667.54 0.28650
492319.61 3626667.54 0.29088
492329.61 3626667.54 0.29561
492339.61 3626667.54 0.30059
492269.61 3626677.54 0.25348
492279.61 3626677.54 0.25981
492289.61 3626677.54 0.26510
492299.61 3626677.54 0.27056
492309.61 3626677.54 0.27612
492319.61 3626677.54 0.28013
492329.61 3626677.54 0.28444
492339.61 3626677.54 0.28894
492269.61 3626687.54 0.24582
492279.61 3626687.54 0.25161
492289.61 3626687.54 0.25644
492299.61 3626687.54 0.26138
492309.61 3626687.54 0.26640
492319.61 3626687.54 0.26998
492329.61 3626687.54 0.27383
492339.61 3626687.54 0.27783
492269.61 3626697.54 0.23878
492279.61 3626697.54 0.24406
492289.61 3626697.54 0.24854
492299.61 3626697.54 0.25309
492309.61 3626697.54 0.25770
492319.61 3626697.54 0.26069
492329.61 3626697.54 0.26394
492339.61 3626697.54 0.26740
492269.61 3626707.54 0.23194
492279.61 3626707.54 0.23674
492289.61 3626707.54 0.24085
492299.61 3626707.54 0.24501

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492309.61	3626707.54	0.24918	492319.61	3626707.54	0.25164
492329.61	3626707.54	0.25437	492339.61	3626707.54	0.25732
492269.61	3626717.54	0.22515	492279.61	3626717.54	0.22947
492289.61	3626717.54	0.23324	492299.61	3626717.54	0.23706
492309.61	3626717.54	0.24087	492319.61	3626717.54	0.24285
492329.61	3626717.54	0.24512	492339.61	3626717.54	0.24764
492669.07	3626644.38	0.88047	492665.07	3626656.03	0.79030
492665.74	3626664.35	0.74239	492664.07	3626675.33	0.67938
492599.44	3626421.99	19.21256	492613.55	3626421.99	29.18288
492613.75	3626427.92	24.11839	492613.55	3626435.89	18.37311
492573.34	3626443.01	5.48142	492576.15	3626437.02	6.57667
492578.78	3626431.67	7.90849	492589.21	3626442.01	8.11273
492486.91	3626457.88	1.70259			

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	492248.31	492298.31	492348.31	492398.31	492448.31
3626779.1	619.12587 (11011908)	498.16312 (11011908)	348.40139 (11011908)	277.74737 (12121708)	232.32471 (12121708)
3626729.1	810.64287 (11011908)	749.65951 (11011908)	607.52576 (11011908)	418.59933 (11011908)	317.94469 (12121708)
3626679.1	897.75100 (11011908)	965.29244 (11011908)	917.52667 (11011908)	751.94257 (11011908)	508.90516 (11011908)
3626629.1	801.84645 (11011908)	1031.86583 (11011908)	1142.46757 (11011908)	1136.77159 (11011908)	945.06670 (11011908)
3626579.1	809.18516 (10011308)	916.10007 (11011908)	1093.53731 (11011908)	1342.10655 (11011908)	1416.49782 (11011908)
3626529.1	1471.43848 (10011308)	1638.31533 (10011308)	1495.01102 (10011308)	1102.64403 (10011308)	1517.18012 (11011908)
3626479.1	1564.43072 (12011208)	1706.43084 (10011308)	2047.94306 (10011308)	2169.83597 (10011308)	1949.81988 (10011308)
3626429.1	1576.69543 (12011208)	1774.61892 (12011208)	2001.02095 (12011208)	2250.24595 (12011208)	2071.01545 (11120208)
3626379.1	1577.08433 (12012008)	1775.68197 (10021008)	2072.85473 (10021008)	2446.90918 (10021008)	2905.96013 (10021008)
3626329.1	1514.52449 (10012808)	1807.51549 (10012808)	2119.57498 (10012808)	2397.80647 (10012808)	2607.73250 (10020308)
3626279.1	1600.77848 (10012808)	1695.88123 (10020308)	1880.91688 (10020308)	1954.60233 (10113008)	2267.41572 (10122808)
3626229.1	1374.89018 (10020308)	1458.91790 (11122108)	1726.53037 (10122808)	1959.12425 (11011008)	2139.40220 (11011008)
3626179.1	1227.07292 (10122808)	1386.58633 (10122808)	1705.12737 (11011008)	1783.60623 (10123008)	1814.28088 (10010708)
3626129.1	1085.49295 (11011008)	1251.65329 (11011008)	1362.35455 (10010608)	1423.29848 (10010708)	1221.95736 (11120508)

3626079.1 | 1100.80000 (11011008) 1148.34198 (10010608) 1147.18496 (10010708) 1077.63247 (11120508) 1156.30482 (11020408)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	492498.31	492548.31	492598.31	492648.31	492698.31
3626779.1	221.59969 (11123008)	198.24676 (11123008)	326.39284 (12010308)	690.99413 (12010308)	1006.19380 (12010308)
3626729.1	271.67395 (11123008)	254.45912 (11123008)	341.97399 (12010308)	754.62744 (12010308)	1079.17916 (12010308)
3626679.1	363.35610 (12121708)	328.55498 (11123008)	352.79108 (12010308)	816.83987 (12010308)	1132.93641 (12010308)
3626629.1	625.40705 (11011908)	425.03724 (11123008)	394.51261 (11123008)	865.01774 (12010308)	1140.79782 (12010308)
3626579.1	1200.47690 (11011908)	772.07536 (11011908)	554.78277 (11123008)	869.33346 (12010308)	1057.88496 (12010308)
3626529.1	1739.53985 (11011908)	1509.75766 (11011908)	937.54328 (11011908)	765.71574 (12010308)	828.70077 (12010308)
3626479.1	1835.65036 (10011308)	1919.45914 (11011908)	1704.24616 (11011908)	1062.04557 (11011908)	894.35966 (12012308)
3626429.1	2269.89888 (10020508)	2802.14442 (10020508)	2758.71657 (10020508)	1950.93028 (10020508)	1100.96244 (11010308)
3626379.1	2531.91001 (10021008)	2722.21864 (10120108)	3240.84836 (10120108)	3071.49722 (10120108)	2472.03557 (10121008)
3626329.1	2637.66440 (10113008)	2597.88085 (10122808)	2241.04713 (10122808)	1927.02699 (10120208)	1849.26643 (11121508)
3626279.1	2304.68967 (10120808)	2191.39365 (10120208)	1900.44099 (11021108)	1703.74012 (11021108)	1672.87939 (12010208)
3626229.1	2049.97379 (10010708)	1939.77216 (11120508)	1736.61128 (11021108)	1578.26982 (12011808)	1618.39563 (12012708)
3626179.1	1703.43574 (11120508)	1757.80949 (11020408)	1696.35604 (12010508)	1586.75042 (12011808)	1523.12287 (12012708)
3626129.1	1271.80909 (12011908)	1273.02986 (12010508)	1267.89288 (12011808)	1361.43455 (12011808)	1357.87319 (12012708)

3626079.1 | 1163.91215 (12011908) 1380.94445 (12010508) 1478.55967 (12011808) 1320.07528 (12011808) 1178.37482 (12012708)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	492748.31	492798.31	492848.31	492898.31	492948.31
3626779.1	1090.78640 (12010308)	923.10724 (12010308)	601.71369 (12010308)	289.30629 (12010308)	125.87745 (12012308)
3626729.1	1126.23647 (12010308)	911.64574 (12010308)	548.61508 (12010308)	227.98587 (12010308)	129.44785 (12012308)
3626679.1	1131.99035 (12010308)	877.85413 (12010308)	476.82612 (12010308)	181.63241 (12012308)	129.29524 (12012308)
3626629.1	1092.85227 (12010308)	815.49920 (12010308)	382.86261 (12010308)	188.01501 (12012308)	122.34267 (12012308)
3626579.1	984.68268 (12010308)	713.10150 (12010308)	293.47590 (12012308)	183.52142 (12012308)	104.52884 (12012308)
3626529.1	787.19308 (12010308)	550.43426 (12010308)	301.69129 (12012308)	157.27052 (12012308)	120.08456 (12121416)
3626479.1	778.60666 (12012308)	525.26099 (12012308)	312.10490 (12121416)	216.33230 (12121416)	157.45610 (12121416)
3626429.1	797.84456 (12121416)	800.46933 (12121416)	536.90367 (12121416)	301.19314 (12121416)	186.33993 (12121416)
3626379.1	3175.84092 (10121008)	3138.32520 (10121008)	1673.23580 (10121008)	911.43369 (10121008)	398.12032 (10121008)
3626329.1	2343.92997 (12011608)	3053.35380 (12011608)	2637.34894 (12011608)	2019.82587 (10121008)	1185.13982 (10121008)
3626279.1	1951.95565 (11121508)	2038.25767 (12011608)	2604.67160 (12011608)	2441.14792 (12011608)	1809.06586 (10121008)
3626229.1	1892.25881 (11121508)	2030.80563 (10011208)	1625.27674 (12011608)	2150.27441 (12011608)	2215.57965 (12011608)
3626179.1	1784.73742 (12010208)	1920.05257 (10011208)	1686.79635 (10011208)	1352.03321 (12011608)	1857.66019 (12011608)
3626129.1	1631.17489 (12012708)	1557.36931 (10011208)	1694.92301 (10011208)	1378.40548 (10011208)	1161.02430 (12011608)

3626079.1 | 1438.51340 (12012708) 1374.44042 (12010208) 1596.49164 (10011208) 1531.00085 (10011208) 993.51337 (10011208)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492780.64	3626444.25	573.04712	(12121416)	492790.64	3626444.25	587.83962	(12121416)
492798.50	3626444.09	591.78819	(12121416)	492839.32	3626444.25	509.72545	(12121416)
492849.32	3626444.25	466.92953	(12121416)	492859.32	3626444.25	421.07471	(12121416)
492869.32	3626444.25	380.86762	(12121416)	492879.32	3626444.25	345.80486	(12121416)
492779.32	3626454.25	614.07779	(12012308)	492789.32	3626454.25	550.18906	(12012308)
492799.32	3626454.25	493.24946	(12121416)	492839.32	3626454.25	451.42478	(12121416)
492849.32	3626454.25	421.03410	(12121416)	492859.32	3626454.25	385.78173	(12121416)
492869.32	3626454.25	353.28531	(12121416)	492879.32	3626454.25	324.06350	(12121416)
492779.32	3626464.25	629.45370	(12012308)	492789.32	3626464.25	568.93899	(12012308)
492799.32	3626464.25	505.36268	(12012308)	492829.32	3626464.25	412.36612	(12121416)
492839.32	3626464.25	396.31244	(12121416)	492849.32	3626464.25	375.34633	(12121416)
492859.32	3626464.25	349.05058	(12121416)	492869.32	3626464.25	323.61730	(12121416)
492879.32	3626464.25	299.93100	(12121416)	492769.32	3626474.25	685.55599	(12012308)
492779.32	3626474.25	631.02207	(12012308)	492789.32	3626474.25	575.37628	(12012308)
492799.32	3626474.25	516.74029	(12012308)	492829.32	3626474.25	354.88516	(12121416)
492839.32	3626474.25	345.44006	(12121416)	492849.32	3626474.25	331.56402	(12121416)

492859.32 3626474.25 312.66110 (12121416)
492869.32 3626474.25 293.46467 (12121416)
492879.32 3626474.25 274.71845 (12121416)
492769.32 3626484.25 674.61832 (12012308)
492779.32 3626484.25 624.66511 (12012308)
492789.32 3626484.25 574.55558 (12012308)
492799.32 3626484.25 521.06947 (12012308)
492809.32 3626484.25 468.09396 (12012308)
492819.32 3626484.25 416.52834 (12012308)
492829.32 3626484.25 361.12542 (12012308)
492839.32 3626484.25 310.06979 (12012308)
492849.32 3626484.25 290.20962 (12121416)
492859.32 3626484.25 277.12790 (12121416)
492769.32 3626494.25 658.60933 (12012308)
492779.32 3626494.25 613.82618 (12012308)
492789.32 3626494.25 569.13027 (12012308)
492799.32 3626494.25 520.76991 (12012308)
492809.32 3626494.25 472.72699 (12012308)
492819.32 3626494.25 425.64619 (12012308)
492829.32 3626494.25 370.00161 (12012308)
492839.32 3626494.25 319.85644 (12012308)
492849.32 3626494.25 275.08772 (12012308)
492859.32 3626494.25 243.99186 (12121416)
492769.32 3626504.25 640.14142 (12012308)
492779.32 3626504.25 600.46531 (12012308)
492789.32 3626504.25 560.69853 (12012308)
492799.32 3626504.25 517.20374 (12012308)
492809.32 3626504.25 473.81734 (12012308)
492819.32 3626504.25 430.96699 (12012308)
492829.32 3626504.25 374.74053 (12012308)
492749.32 3626514.25 704.75779 (12010308)
492759.32 3626514.25 689.60438 (12010308)
492769.32 3626514.25 662.20686 (12010308)
492779.32 3626514.25 618.57505 (12010308)
492789.32 3626514.25 556.88582 (12010308)
492799.32 3626514.25 512.66921 (12012308)
492809.32 3626514.25 470.71370 (12012308)
492819.32 3626514.25 429.12539 (12012308)
492829.32 3626514.25 376.96798 (12012308)
492749.32 3626524.25 760.37939 (12010308)
492759.32 3626524.25 742.17858 (12010308)
492769.32 3626524.25 711.61199 (12010308)
492779.32 3626524.25 665.17705 (12010308)
492789.32 3626524.25 601.35854 (12010308)
492799.32 3626524.25 521.85025 (12010308)
492809.32 3626524.25 465.23972 (12012308)
492819.32 3626524.25 424.19420 (12012308)
492829.32 3626524.25 376.90669 (12012308)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492739.32	3626534.25	823.83418	(12010308)	492749.32	3626534.25	810.84685	(12010308)
492759.32	3626534.25	789.71136	(12010308)	492769.32	3626534.25	756.33645	(12010308)
492779.32	3626534.25	707.57693	(12010308)	492789.32	3626534.25	642.21388	(12010308)
492799.32	3626534.25	561.70387	(12010308)	492809.32	3626534.25	470.85287	(12010308)
492819.32	3626534.25	417.48442	(12012308)	492719.32	3626544.25	893.66618	(12010308)
492729.32	3626544.25	883.62086	(12010308)	492739.32	3626544.25	872.29769	(12010308)
492749.32	3626544.25	856.44055	(12010308)	492759.32	3626544.25	832.48669	(12010308)
492769.32	3626544.25	796.65417	(12010308)	492779.32	3626544.25	745.98980	(12010308)
492789.32	3626544.25	679.52514	(12010308)	492799.32	3626544.25	598.50245	(12010308)
492809.32	3626544.25	507.31791	(12010308)	492819.32	3626544.25	412.70313	(12012308)
492719.32	3626554.25	942.05836	(12010308)	492729.32	3626554.25	930.00058	(12010308)
492739.32	3626554.25	916.02257	(12010308)	492749.32	3626554.25	897.49390	(12010308)
492759.32	3626554.25	870.87546	(12010308)	492769.32	3626554.25	832.82488	(12010308)
492779.32	3626554.25	780.65403	(12010308)	492789.32	3626554.25	713.49714	(12010308)
492799.32	3626554.25	632.32994	(12010308)	492809.32	3626554.25	541.25700	(12010308)
492819.32	3626554.25	445.90730	(12010308)	492709.32	3626564.25	997.23184	(12010308)

492719.32 3626564.25 985.25769 (12010308)
492729.32 3626564.25 971.59842 (12010308)
492739.32 3626564.25 955.34340 (12010308)
492749.32 3626564.25 934.29968 (12010308)
492759.32 3626564.25 905.26681 (12010308)
492769.32 3626564.25 865.26740 (12010308)
492779.32 3626564.25 811.87689 (12010308)
492789.32 3626564.25 744.36951 (12010308)
492799.32 3626564.25 663.36256 (12010308)
492809.32 3626564.25 572.71294 (12010308)
492819.32 3626564.25 477.53204 (12010308)
492709.32 3626574.25 1035.03625 (12010308)
492719.32 3626574.25 1023.31300 (12010308)
492729.32 3626574.25 1008.54448 (12010308)
492739.32 3626574.25 990.47905 (12010308)
492749.32 3626574.25 967.14773 (12010308)
492759.32 3626574.25 936.15225 (12010308)
492769.32 3626574.25 894.38155 (12010308)
492779.32 3626574.25 839.94312 (12010308)
492789.32 3626574.25 772.05805 (12010308)
492799.32 3626574.25 691.61277 (12010308)
492809.32 3626574.25 601.74033 (12010308)
492819.32 3626574.25 507.11841 (12010308)
492699.32 3626584.25 1072.12989 (12010308)
492709.32 3626584.25 1067.18066 (12010308)
492719.32 3626584.25 1056.28516 (12010308)
492729.32 3626584.25 1041.01481 (12010308)
492739.32 3626584.25 1021.49671 (12010308)
492749.32 3626584.25 996.42760 (12010308)
492759.32 3626584.25 963.77672 (12010308)
492769.32 3626584.25 920.54018 (12010308)
492779.32 3626584.25 865.14505 (12010308)
492789.32 3626584.25 797.11731 (12010308)
492799.32 3626584.25 717.35631 (12010308)
492809.32 3626584.25 628.51707 (12010308)
492819.32 3626584.25 534.71524 (12010308)
492689.32 3626594.25 1087.89061 (12010308)
492699.32 3626594.25 1096.25069 (12010308)
492709.32 3626594.25 1093.99037 (12010308)
492719.32 3626594.25 1084.40164 (12010308)
492729.32 3626594.25 1069.20256 (12010308)
492739.32 3626594.25 1048.77784 (12010308)
492749.32 3626594.25 1022.43348 (12010308)
492759.32 3626594.25 988.87255 (12010308)
492769.32 3626594.25 943.95476 (12010308)
492779.32 3626594.25 887.74168 (12010308)
492789.32 3626594.25 819.75323 (12010308)
492799.32 3626594.25 740.82752 (12010308)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492809.32	3626594.25	653.15398	(12010308)	492819.32	3626594.25	560.41850	(12010308)
492689.32	3626604.25	1102.80044	(12010308)	492699.32	3626604.25	1115.06879	(12010308)
492709.32	3626604.25	1115.81511	(12010308)	492719.32	3626604.25	1107.88605	(12010308)
492729.32	3626604.25	1093.26993	(12010308)	492739.32	3626604.25	1072.46105	(12010308)
492749.32	3626604.25	1045.28653	(12010308)	492759.32	3626604.25	1010.98513	(12010308)
492769.32	3626604.25	964.60939	(12010308)	492779.32	3626604.25	907.97320	(12010308)
492789.32	3626604.25	840.19149	(12010308)	492799.32	3626604.25	762.21078	(12010308)
492809.32	3626604.25	675.81283	(12010308)	492819.32	3626604.25	584.29878	(12010308)
492679.32	3626614.25	1081.71790	(12010308)	492689.32	3626614.25	1112.95771	(12010308)
492699.32	3626614.25	1129.11552	(12010308)	492709.32	3626614.25	1133.00439	(12010308)
492719.32	3626614.25	1127.12864	(12010308)	492729.32	3626614.25	1113.49467	(12010308)
492739.32	3626614.25	1092.87509	(12010308)	492749.32	3626614.25	1065.30131	(12010308)
492759.32	3626614.25	1030.30188	(12010308)	492769.32	3626614.25	982.84632	(12010308)
492779.32	3626614.25	925.92528	(12010308)	492789.32	3626614.25	858.70291	(12010308)
492799.32	3626614.25	781.67860	(12010308)	492809.32	3626614.25	696.60936	(12010308)
492819.32	3626614.25	606.42944	(12010308)	492679.32	3626624.25	1083.98374	(12010308)

492689.32 3626624.25 1119.06562 (12010308)
492699.32 3626624.25 1138.97299 (12010308)
492709.32 3626624.25 1145.99664 (12010308)
492719.32 3626624.25 1142.42019 (12010308)
492729.32 3626624.25 1130.18114 (12010308)
492739.32 3626624.25 1110.22777 (12010308)
492749.32 3626624.25 1082.63943 (12010308)
492759.32 3626624.25 1047.27585 (12010308)
492769.32 3626624.25 998.98102 (12010308)
492809.32 3626624.25 715.73677 (12010308)
492679.32 3626634.25 1083.07732 (12010308)
492689.32 3626634.25 1121.61852 (12010308)
492699.32 3626634.25 1145.00900 (12010308)
492709.32 3626634.25 1155.05707 (12010308)
492719.32 3626634.25 1153.87834 (12010308)
492729.32 3626634.25 1143.13462 (12010308)
492739.32 3626634.25 1123.88791 (12010308)
492749.32 3626634.25 1096.36703 (12010308)
492759.32 3626634.25 1060.57390 (12010308)
492769.32 3626634.25 1012.82994 (12010308)
492679.32 3626644.25 1079.29604 (12010308)
492689.32 3626644.25 1120.92620 (12010308)
492699.32 3626644.25 1147.56764 (12010308)
492709.32 3626644.25 1160.66682 (12010308)
492719.32 3626644.25 1161.96631 (12010308)
492729.32 3626644.25 1152.92595 (12010308)
492739.32 3626644.25 1134.56022 (12010308)
492749.32 3626644.25 1107.49900 (12010308)
492759.32 3626644.25 1071.65402 (12010308)
492769.32 3626644.25 1024.77794 (12010308)
492779.32 3626644.25 968.83026 (12010308)
492789.32 3626644.25 903.69561 (12010308)
492799.32 3626644.25 830.07864 (12010308)
492679.32 3626654.25 1073.31934 (12010308)
492689.32 3626654.25 1117.71045 (12010308)
492699.32 3626654.25 1147.30159 (12010308)
492709.32 3626654.25 1163.28858 (12010308)
492719.32 3626654.25 1167.02516 (12010308)
492729.32 3626654.25 1159.84590 (12010308)
492739.32 3626654.25 1142.66061 (12010308)
492749.32 3626654.25 1116.34738 (12010308)
492759.32 3626654.25 1080.91865 (12010308)
492769.32 3626654.25 1034.93906 (12010308)
492779.32 3626654.25 979.78261 (12010308)
492789.32 3626654.25 915.68699 (12010308)
492799.32 3626654.25 843.26713 (12010308)
492679.32 3626664.25 1065.22877 (12010308)
492689.32 3626664.25 1111.98446 (12010308)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492699.32	3626664.25	1144.33264	(12010308)	492709.32	3626664.25	1163.01605	(12010308)
492719.32	3626664.25	1169.13418	(12010308)	492729.32	3626664.25	1164.00040	(12010308)
492739.32	3626664.25	1148.33934	(12010308)	492749.32	3626664.25	1122.86687	(12010308)
492759.32	3626664.25	1088.01038	(12010308)	492769.32	3626664.25	1043.15137	(12010308)
492779.32	3626664.25	989.11384	(12010308)	492789.32	3626664.25	926.17333	(12010308)
492799.32	3626664.25	855.15293	(12010308)	492679.32	3626674.25	1055.59206	(12010308)
492689.32	3626674.25	1104.44080	(12010308)	492699.32	3626674.25	1139.21636	(12010308)
492709.32	3626674.25	1160.46461	(12010308)	492719.32	3626674.25	1168.95857	(12010308)
492729.32	3626674.25	1165.77307	(12010308)	492739.32	3626674.25	1151.78923	(12010308)
492749.32	3626674.25	1127.53519	(12010308)	492759.32	3626674.25	1093.62395	(12010308)
492769.32	3626674.25	1049.93772	(12010308)	492779.32	3626674.25	997.03116	(12010308)
492789.32	3626674.25	935.37073	(12010308)	492799.32	3626674.25	865.81428	(12010308)
492679.32	3626684.25	1044.55704	(12010308)	492689.32	3626684.25	1095.12366	(12010308)
492699.32	3626684.25	1132.08745	(12010308)	492709.32	3626684.25	1155.62992	(12010308)
492719.32	3626684.25	1166.56530	(12010308)	492729.32	3626684.25	1165.54353	(12010308)
492739.32	3626684.25	1153.24290	(12010308)	492749.32	3626684.25	1130.44262	(12010308)

492759.32 3626684.25 1097.75268 (12010308)
492769.32 3626684.25 1055.36273 (12010308)
492779.32 3626684.25 1003.63226 (12010308)
492789.32 3626684.25 943.36731 (12010308)
492269.61 3626327.54 1648.60792 (10012808)
492279.61 3626327.54 1706.86101 (10012808)
492289.61 3626327.54 1766.59353 (10012808)
492299.61 3626327.54 1827.12229 (10012808)
492309.61 3626327.54 1888.41229 (10012808)
492319.61 3626327.54 1950.21035 (10012808)
492329.61 3626327.54 2012.26325 (10012808)
492339.61 3626327.54 2074.25978 (10012808)
492349.61 3626327.54 2131.40963 (10012808)
492359.61 3626327.54 2186.39745 (10012808)
492369.61 3626327.54 2238.12384 (10012808)
492379.61 3626327.54 2293.40726 (10012808)
492389.61 3626327.54 2345.02386 (10012808)
492399.61 3626327.54 2391.65084 (10012808)
492409.61 3626327.54 2431.86822 (10012808)
492419.61 3626327.54 2464.81857 (10012808)
492269.61 3626337.54 1598.94774 (10021008)
492279.61 3626337.54 1627.44392 (10021008)
492289.61 3626337.54 1675.68567 (10120108)
492299.61 3626337.54 1737.39630 (10012808)
492309.61 3626337.54 1804.49468 (10012808)
492319.61 3626337.54 1872.22635 (10012808)
492329.61 3626337.54 1941.06901 (10012808)
492339.61 3626337.54 2011.40378 (10012808)
492349.61 3626337.54 2080.81212 (10012808)
492359.61 3626337.54 2150.68540 (10012808)
492369.61 3626337.54 2220.30714 (10012808)
492379.61 3626337.54 2293.44891 (10012808)
492389.61 3626337.54 2365.30433 (10012808)
492399.61 3626337.54 2434.79472 (10012808)
492409.61 3626337.54 2498.76846 (10012808)
492419.61 3626337.54 2558.10859 (10012808)
492269.61 3626347.54 1669.40220 (10021008)
492279.61 3626347.54 1706.05928 (10021008)
492289.61 3626347.54 1743.17221 (10021008)
492299.61 3626347.54 1780.60065 (10021008)
492309.61 3626347.54 1818.41649 (10021008)
492319.61 3626347.54 1853.96707 (10021008)
492329.61 3626347.54 1888.91503 (10021008)
492339.61 3626347.54 1922.87210 (10021008)
492349.61 3626347.54 1984.84967 (10120108)
492359.61 3626347.54 2050.38859 (10012808)
492369.61 3626347.54 2132.76684 (10012808)
492379.61 3626347.54 2218.22070 (10012808)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492389.61	3626347.54	2305.35426	(10012808)	492399.61	3626347.54	2392.82066	(10012808)
492409.61	3626347.54	2475.70410	(10012808)	492419.61	3626347.54	2557.32228	(10012808)
492269.61	3626357.54	1702.81246	(10021008)	492279.61	3626357.54	1745.88090	(10021008)
492289.61	3626357.54	1789.94700	(10021008)	492299.61	3626357.54	1835.38450	(10021008)
492309.61	3626357.54	1881.99464	(10021008)	492319.61	3626357.54	1925.87551	(10021008)
492329.61	3626357.54	1969.69932	(10021008)	492339.61	3626357.54	2013.27459	(10021008)
492349.61	3626357.54	2063.36220	(10021008)	492359.61	3626357.54	2114.03548	(10021008)
492369.61	3626357.54	2165.26836	(10021008)	492379.61	3626357.54	2216.63019	(10021008)
492389.61	3626357.54	2267.68006	(10021008)	492399.61	3626357.54	2320.81248	(10120108)
492409.61	3626357.54	2399.66972	(10120108)	492419.61	3626357.54	2477.49360	(10120108)
492269.61	3626367.54	1693.31717	(10021008)	492279.61	3626367.54	1740.40715	(10021008)
492289.61	3626367.54	1789.30273	(10021008)	492299.61	3626367.54	1840.06238	(10021008)
492309.61	3626367.54	1892.70141	(10021008)	492319.61	3626367.54	1943.99879	(10021008)
492329.61	3626367.54	1996.83220	(10021008)	492339.61	3626367.54	2051.00945	(10021008)
492349.61	3626367.54	2111.01047	(10021008)	492359.61	3626367.54	2172.73981	(10021008)
492369.61	3626367.54	2236.56508	(10021008)	492379.61	3626367.54	2302.00261	(10021008)

492389.61 3626367.54 2369.00907 (10021008)
492399.61 3626367.54 2437.17676 (10021008)
492409.61 3626367.54 2501.77246 (10021008)
492419.61 3626367.54 2566.41969 (10021008)
492269.61 3626377.54 1642.56172 (10021008)
492279.61 3626377.54 1691.20945 (10021008)
492289.61 3626377.54 1741.95221 (10021008)
492299.61 3626377.54 1794.91296 (10021008)
492309.61 3626377.54 1850.18021 (10021008)
492319.61 3626377.54 1906.21605 (10021008)
492329.61 3626377.54 1964.73443 (10021008)
492339.61 3626377.54 2025.71900 (10021008)
492349.61 3626377.54 2091.24562 (10021008)
492359.61 3626377.54 2159.58945 (10021008)
492369.61 3626377.54 2230.90692 (10021008)
492379.61 3626377.54 2305.28337 (10021008)
492389.61 3626377.54 2382.57409 (10021008)
492399.61 3626377.54 2463.09570 (10021008)
492409.61 3626377.54 2544.17850 (10021008)
492419.61 3626377.54 2628.23432 (10021008)
492269.61 3626387.54 1628.98329 (10020108)
492279.61 3626387.54 1674.39487 (10020108)
492289.61 3626387.54 1721.87274 (10020108)
492299.61 3626387.54 1771.54529 (10020108)
492309.61 3626387.54 1823.50827 (10020108)
492319.61 3626387.54 1877.57720 (10020108)
492329.61 3626387.54 1934.17574 (10020108)
492339.61 3626387.54 1993.75770 (10020108)
492349.61 3626387.54 2056.51966 (10020108)
492359.61 3626387.54 2122.38020 (10020108)
492369.61 3626387.54 2191.40541 (10020108)
492379.61 3626387.54 2264.65624 (10020108)
492389.61 3626387.54 2341.77445 (10020108)
492399.61 3626387.54 2422.54410 (10020108)
492409.61 3626387.54 2506.37703 (10020108)
492419.61 3626387.54 2594.26310 (10020108)
492429.61 3626387.54 2686.59566 (10020108)
492269.61 3626397.54 1605.88268 (11121908)
492279.61 3626397.54 1646.66301 (11121908)
492289.61 3626397.54 1689.13826 (11121908)
492299.61 3626397.54 1733.42450 (11121908)
492309.61 3626397.54 1779.60484 (11121908)
492319.61 3626397.54 1830.84284 (10020108)
492329.61 3626397.54 1885.05955 (10020108)
492339.61 3626397.54 1941.78369 (10020108)
492349.61 3626397.54 2004.48018 (10020108)
492359.61 3626397.54 2070.49155 (10020108)
492369.61 3626397.54 2140.30191 (10020108)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492379.61	3626397.54	2220.31827	(10020108)	492389.61	3626397.54	2303.83639	(10020108)
492399.61	3626397.54	2390.85258	(10020108)	492409.61	3626397.54	2477.26612	(10020108)
492419.61	3626397.54	2568.31006	(10020108)	492429.61	3626397.54	2664.32229	(10020108)
492439.61	3626397.54	2772.03200	(10020108)	492569.61	3626397.54	2800.32196	(10020108)
492269.61	3626407.54	1604.96548	(11121908)	492279.61	3626407.54	1645.72121	(11121908)
492289.61	3626407.54	1688.18339	(11121908)	492299.61	3626407.54	1732.44511	(11121908)
492309.61	3626407.54	1778.40306	(11121908)	492319.61	3626407.54	1821.48185	(11121908)
492329.61	3626407.54	1865.75096	(11121908)	492339.61	3626407.54	1911.59458	(11121908)
492349.61	3626407.54	1965.98418	(11121908)	492359.61	3626407.54	2022.88488	(11121908)
492369.61	3626407.54	2082.79870	(11121908)	492379.61	3626407.54	2158.01474	(11121908)
492389.61	3626407.54	2232.92690	(11121908)	492399.61	3626407.54	2307.36371	(11121908)
492409.61	3626407.54	2377.84454	(11121908)	492419.61	3626407.54	2450.75941	(11121908)
492429.61	3626407.54	2525.85897	(11121908)	492439.61	3626407.54	2610.61262	(10020108)
492449.61	3626407.54	2708.52512	(10020108)	492561.65	3626406.52	2672.67884	(10020108)
492569.61	3626407.54	2598.57245	(10020108)	492579.61	3626407.54	2570.40594	(10020108)
492269.61	3626417.54	1573.27446	(11121908)	492279.61	3626417.54	1611.88264	(11121908)

492289.61 3626417.54 1651.97380 (11121908)
492299.61 3626417.54 1693.67245 (11121908)
492309.61 3626417.54 1736.98036 (11121908)
492319.61 3626417.54 1775.90294 (11121908)
492329.61 3626417.54 1815.18912 (11121908)
492339.61 3626417.54 1860.23221 (12011208)
492349.61 3626417.54 1911.56930 (12011208)
492359.61 3626417.54 1965.01028 (12011208)
492369.61 3626417.54 2020.69941 (12011208)
492379.61 3626417.54 2090.63689 (11121908)
492389.61 3626417.54 2162.48019 (11121908)
492399.61 3626417.54 2231.25205 (11121908)
492409.61 3626417.54 2295.15002 (11121908)
492419.61 3626417.54 2360.99543 (11121908)
492429.61 3626417.54 2427.66741 (11121908)
492439.61 3626417.54 2495.67086 (11121908)
492449.61 3626417.54 2431.02083 (11121908)
492459.61 3626417.54 2320.76083 (11121908)
492569.61 3626417.54 2721.42035 (10020508)
492579.61 3626417.54 2774.32576 (10020508)
492587.89 3626417.54 2804.81936 (10020508)
492269.61 3626427.54 1647.05270 (12011208)
492279.61 3626427.54 1686.75741 (12011208)
492289.61 3626427.54 1727.70585 (12011208)
492299.61 3626427.54 1769.96317 (12011208)
492309.61 3626427.54 1813.44627 (12011208)
492319.61 3626427.54 1856.44247 (12011208)
492329.61 3626427.54 1901.13447 (12011208)
492339.61 3626427.54 1947.74818 (12011208)
492349.61 3626427.54 1998.26163 (12011208)
492359.61 3626427.54 2050.42374 (12011208)
492369.61 3626427.54 2104.28326 (12011208)
492379.61 3626427.54 2156.71654 (12011208)
492389.61 3626427.54 2204.25278 (12011208)
492399.61 3626427.54 2248.58933 (12011208)
492409.61 3626427.54 2293.30959 (12011208)
492419.61 3626427.54 2337.75788 (12011208)
492429.61 3626427.54 2321.04548 (12011208)
492439.61 3626427.54 2158.88173 (11120208)
492449.61 3626427.54 2106.82354 (11120208)
492459.61 3626427.54 2057.07720 (11120208)
492469.61 3626427.54 1956.92311 (11120208)
492577.71 3626427.45 2855.02865 (10020508)
492589.61 3626427.54 2823.30661 (10020508)
492599.61 3626427.54 2785.13430 (10020508)
492609.61 3626427.54 2799.50890 (10020508)
492269.61 3626437.54 1698.75212 (12011208)
492279.61 3626437.54 1737.82429 (12011208)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492289.61	3626437.54	1778.03232	(12011208)	492299.61	3626437.54	1819.37418	(12011208)
492309.61	3626437.54	1861.77369	(12011208)	492319.61	3626437.54	1904.08873	(12011208)
492329.61	3626437.54	1947.51395	(12011208)	492339.61	3626437.54	1992.11625	(12011208)
492349.61	3626437.54	2038.55732	(12011208)	492359.61	3626437.54	2085.92790	(12011208)
492369.61	3626437.54	2134.12521	(12011208)	492379.61	3626437.54	2180.29524	(12011208)
492389.61	3626437.54	2222.87883	(12011208)	492399.61	3626437.54	2262.05725	(12011208)
492409.61	3626437.54	2297.16520	(12011208)	492419.61	3626437.54	2200.37472	(12011208)
492429.61	3626437.54	2069.01507	(10011308)	492439.61	3626437.54	2045.69328	(10020508)
492449.61	3626437.54	2056.22618	(10020508)	492459.61	3626437.54	2079.83282	(10020508)
492469.61	3626437.54	2118.28684	(10011308)	492479.61	3626437.54	2209.64980	(10011308)
492579.61	3626437.54	2690.45499	(10020508)	492589.61	3626437.54	2615.70771	(10020508)
492599.61	3626437.54	2500.28509	(10020508)	492606.62	3626436.27	2453.58862	(10020508)
492269.61	3626447.54	1722.55386	(12011208)	492279.61	3626447.54	1759.35563	(12011208)
492289.61	3626447.54	1796.43939	(12011208)	492299.61	3626447.54	1834.06042	(12011208)
492309.61	3626447.54	1872.06787	(12011208)	492319.61	3626447.54	1910.97961	(12011208)
492329.61	3626447.54	1950.46221	(12011208)	492339.61	3626447.54	1990.29328	(12011208)

492349.61 3626447.54 2030.46086 (12011208)
492359.61 3626447.54 2070.63180 (12011208)
492369.61 3626447.54 2110.38506 (12011208)
492379.61 3626447.54 2146.81437 (12011208)
492389.61 3626447.54 2179.86769 (12011208)
492399.61 3626447.54 2209.22859 (12011208)
492409.61 3626447.54 2246.69478 (10011308)
492419.61 3626447.54 2182.03608 (10011308)
492429.61 3626447.54 2121.08170 (10011308)
492439.61 3626447.54 2094.35701 (10011308)
492449.61 3626447.54 2113.01342 (10011308)
492459.61 3626447.54 2177.49065 (10011308)
492469.61 3626447.54 2238.75054 (10011308)
492479.61 3626447.54 2312.97234 (10011308)
492571.06 3626449.44 2314.08288 (10020508)
492579.61 3626447.54 2314.32171 (10020508)
492585.44 3626447.63 2239.02485 (10020508)
492269.61 3626457.54 1719.38112 (12011208)
492279.61 3626457.54 1752.75744 (12011208)
492289.61 3626457.54 1783.54991 (12011208)
492299.61 3626457.54 1814.73975 (12011208)
492309.61 3626457.54 1846.02113 (12011208)
492319.61 3626457.54 1878.72959 (12011208)
492329.61 3626457.54 1911.32103 (12011208)
492339.61 3626457.54 1943.56196 (12011208)
492349.61 3626457.54 1975.52519 (12011208)
492359.61 3626457.54 2005.74423 (12011208)
492369.61 3626457.54 2034.08214 (12011208)
492379.61 3626457.54 2120.97759 (10011308)
492389.61 3626457.54 2223.42532 (10011308)
492399.61 3626457.54 2325.95775 (10011308)
492409.61 3626457.54 2269.54489 (10011308)
492419.61 3626457.54 2174.62167 (10011308)
492429.61 3626457.54 2113.87249 (10011308)
492439.61 3626457.54 2116.28383 (10011308)
492449.61 3626457.54 2161.94293 (10011308)
492459.61 3626457.54 2203.69609 (10011308)
492469.61 3626457.54 2247.66533 (10011308)
492479.61 3626457.54 2292.92010 (10011308)
492580.88 3626454.73 1945.39189 (10020508)
492269.61 3626467.54 1685.89341 (12011208)
492279.61 3626467.54 1714.34161 (12011208)
492289.61 3626467.54 1738.57651 (12011208)
492299.61 3626467.54 1762.13431 (12011208)
492309.61 3626467.54 1785.20744 (12011208)
492319.61 3626467.54 1810.19719 (12011208)
492329.61 3626467.54 1834.31360 (12011208)
492339.61 3626467.54 1884.02644 (10011308)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492349.61	3626467.54	1969.14229	(10011308)	492359.61	3626467.54	2055.97856	(10011308)
492369.61	3626467.54	2144.10034	(10011308)	492379.61	3626467.54	2235.79738	(10011308)
492389.61	3626467.54	2324.21819	(10011308)	492399.61	3626467.54	2336.50899	(10011308)
492409.61	3626467.54	2208.27741	(10011308)	492419.61	3626467.54	2105.59017	(10011308)
492429.61	3626467.54	2060.41799	(10011308)	492439.61	3626467.54	2087.35970	(10011308)
492449.61	3626467.54	2109.09038	(10011308)	492459.61	3626467.54	2132.92399	(10011308)
492469.61	3626467.54	2151.62463	(10011308)	492479.61	3626467.54	2164.05928	(10011308)
492499.61	3626467.54	2149.79217	(10011308)	492269.61	3626477.54	1625.66234	(12011208)
492279.61	3626477.54	1647.64373	(12011208)	492289.61	3626477.54	1664.47725	(12011208)
492299.61	3626477.54	1700.18291	(10011308)	492309.61	3626477.54	1762.41795	(10011308)
492319.61	3626477.54	1831.06408	(10011308)	492329.61	3626477.54	1900.88461	(10011308)
492339.61	3626477.54	1971.99268	(10011308)	492349.61	3626477.54	2050.05255	(10011308)
492359.61	3626477.54	2127.10324	(10011308)	492369.61	3626477.54	2202.50482	(10011308)
492379.61	3626477.54	2276.23517	(10011308)	492389.61	3626477.54	2263.93167	(10011308)
492399.61	3626477.54	2211.45484	(10011308)	492409.61	3626477.54	2058.37958	(10011308)
492419.61	3626477.54	1972.71433	(10011308)	492429.61	3626477.54	1958.90360	(10011308)

492439.61 3626477.54 1970.18512 (10011308)
492449.61 3626477.54 1978.49230 (10011308)
492459.61 3626477.54 1980.30332 (10011308)
492469.61 3626477.54 1972.09521 (10011308)
492479.61 3626477.54 1953.65044 (10011308)
492489.61 3626477.54 1922.17601 (10011308)
492499.61 3626477.54 1876.34611 (10011308)
492506.66 3626477.89 1824.16105 (10011308)
492269.61 3626487.54 1600.14630 (10011308)
492279.61 3626487.54 1659.71925 (10011308)
492289.61 3626487.54 1716.94102 (10011308)
492299.61 3626487.54 1774.30520 (10011308)
492309.61 3626487.54 1831.68660 (10011308)
492319.61 3626487.54 1891.96434 (10011308)
492329.61 3626487.54 1951.87226 (10011308)
492339.61 3626487.54 2011.40109 (10011308)
492349.61 3626487.54 2076.12832 (10011308)
492359.61 3626487.54 2136.50822 (10011308)
492369.61 3626487.54 2192.05252 (10011308)
492379.61 3626487.54 2128.02325 (10011308)
492389.61 3626487.54 2022.21031 (10011308)
492399.61 3626487.54 1925.92108 (10011308)
492409.61 3626487.54 1832.75646 (10011308)
492419.61 3626487.54 1800.80216 (10011308)
492429.61 3626487.54 1797.46665 (10011308)
492439.61 3626487.54 1797.95996 (10011308)
492449.61 3626487.54 1788.77079 (10011308)
492459.61 3626487.54 1769.11345 (10011308)
492469.61 3626487.54 1737.17487 (10011308)
492479.61 3626487.54 1693.73402 (10011308)
492489.61 3626487.54 1638.03842 (10011308)
492499.61 3626487.54 1642.47110 (11011908)
492509.61 3626487.54 1739.07490 (11011908)
492269.61 3626497.54 1654.15350 (10011308)
492279.61 3626497.54 1706.02080 (10011308)
492289.61 3626497.54 1756.28868 (10011308)
492299.61 3626497.54 1806.18008 (10011308)
492309.61 3626497.54 1854.76565 (10011308)
492319.61 3626497.54 1903.29060 (10011308)
492329.61 3626497.54 1950.07414 (10011308)
492339.61 3626497.54 1994.45705 (10011308)
492349.61 3626497.54 2041.71621 (10011308)
492359.61 3626497.54 2081.52374 (10011308)
492369.61 3626497.54 2058.92697 (10011308)
492379.61 3626497.54 1910.00996 (10011308)
492389.61 3626497.54 1778.89262 (10011308)
492399.61 3626497.54 1705.48681 (10011308)
492409.61 3626497.54 1649.43751 (10011308)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492419.61	3626497.54	1632.72266	(10011308)	492429.61	3626497.54	1618.77228	(10011308)
492439.61	3626497.54	1597.66888	(10011308)	492449.61	3626497.54	1567.19531	(10011308)
492459.61	3626497.54	1526.94748	(10011308)	492469.61	3626497.54	1476.08207	(10011308)
492479.61	3626497.54	1550.66149	(11011908)	492489.61	3626497.54	1649.99311	(11011908)
492499.61	3626497.54	1738.50128	(11011908)	492509.61	3626497.54	1811.97810	(11011908)
492519.61	3626497.54	1867.17138	(11011908)	492269.61	3626507.54	1672.98948	(10011308)
492279.61	3626507.54	1714.76119	(10011308)	492289.61	3626507.54	1755.48984	(10011308)
492299.61	3626507.54	1794.75180	(10011308)	492309.61	3626507.54	1831.99575	(10011308)
492319.61	3626507.54	1866.68860	(10011308)	492329.61	3626507.54	1898.29537	(10011308)
492339.61	3626507.54	1926.11880	(10011308)	492349.61	3626507.54	1953.05456	(10011308)
492359.61	3626507.54	1916.82426	(10011308)	492369.61	3626507.54	1847.33785	(10011308)
492379.61	3626507.54	1669.90078	(10011308)	492389.61	3626507.54	1564.66412	(10011308)
492399.61	3626507.54	1505.27120	(10011308)	492409.61	3626507.54	1469.69971	(10011308)
492419.61	3626507.54	1445.05789	(10011308)	492429.61	3626507.54	1414.87908	(10011308)
492439.61	3626507.54	1376.68611	(10011308)	492449.61	3626507.54	1352.13389	(11011908)
492459.61	3626507.54	1453.60059	(11011908)	492469.61	3626507.54	1550.98594	(11011908)

492479.61 3626507.54 1641.15961 (11011908)
492489.61 3626507.54 1720.86714 (11011908)
492499.61 3626507.54 1785.97117 (11011908)
492509.61 3626507.54 1833.68509 (11011908)
492519.61 3626507.54 1860.81428 (11011908)
492269.61 3626517.54 1657.68992 (10011308)
492279.61 3626517.54 1688.03101 (10011308)
492289.61 3626517.54 1717.07982 (10011308)
492299.61 3626517.54 1743.48580 (10011308)
492309.61 3626517.54 1766.82567 (10011308)
492319.61 3626517.54 1787.10104 (10011308)
492329.61 3626517.54 1803.11107 (10011308)
492339.61 3626517.54 1814.27282 (10011308)
492349.61 3626517.54 1752.39852 (10011308)
492359.61 3626517.54 1657.89478 (10011308)
492369.61 3626517.54 1559.75075 (10011308)
492379.61 3626517.54 1426.41676 (10011308)
492389.61 3626517.54 1355.10619 (10011308)
492399.61 3626517.54 1313.99137 (10011308)
492409.61 3626517.54 1280.10730 (10011308)
492419.61 3626517.54 1243.71957 (10011308)
492429.61 3626517.54 1262.22394 (11011908)
492439.61 3626517.54 1357.81009 (11011908)
492449.61 3626517.54 1450.88299 (11011908)
492459.61 3626517.54 1539.25781 (11011908)
492469.61 3626517.54 1620.57117 (11011908)
492479.61 3626517.54 1691.05979 (11011908)
492489.61 3626517.54 1747.75255 (11011908)
492499.61 3626517.54 1787.80944 (11011908)
492509.61 3626517.54 1808.84708 (11011908)
492519.61 3626517.54 1808.45063 (11011908)
492529.61 3626517.54 1785.53842 (11011908)
492269.61 3626527.54 1595.24407 (10011308)
492279.61 3626527.54 1626.50246 (10011308)
492289.61 3626527.54 1643.20680 (10011308)
492299.61 3626527.54 1656.41505 (10011308)
492309.61 3626527.54 1665.76069 (10011308)
492319.61 3626527.54 1671.06176 (10011308)
492329.61 3626527.54 1655.07899 (10011308)
492339.61 3626527.54 1629.18565 (10011308)
492349.61 3626527.54 1516.94346 (10011308)
492359.61 3626527.54 1405.90051 (10011308)
492369.61 3626527.54 1307.48916 (10011308)
492459.61 3626527.54 1591.23215 (11011908)
492469.61 3626527.54 1652.67002 (11011908)
492479.61 3626527.54 1701.18881 (11011908)
492489.61 3626527.54 1734.26933 (11011908)
492499.61 3626527.54 1749.40169 (11011908)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492509.61	3626527.54	1744.73044	(11011908)	492519.61	3626527.54	1719.77541	(11011908)
492529.61	3626527.54	1673.54142	(11011908)	492269.61	3626537.54	1480.05808	(10011308)
492279.61	3626537.54	1532.14705	(10011308)	492289.61	3626537.54	1535.24064	(10011308)
492299.61	3626537.54	1534.38705	(10011308)	492309.61	3626537.54	1529.23309	(10011308)
492319.61	3626537.54	1497.93896	(10011308)	492329.61	3626537.54	1460.64371	(10011308)
492339.61	3626537.54	1414.61063	(10011308)	492349.61	3626537.54	1283.43675	(10011308)
492359.61	3626537.54	1173.13504	(10011308)	492369.61	3626537.54	1099.17506	(10011308)
492459.61	3626537.54	1608.72055	(11011908)	492469.61	3626537.54	1649.67371	(11011908)
492479.61	3626537.54	1676.07323	(11011908)	492489.61	3626537.54	1685.70154	(11011908)
492499.61	3626537.54	1677.55043	(11011908)	492509.61	3626537.54	1650.61069	(11011908)
492519.61	3626537.54	1604.72149	(11011908)	492529.61	3626537.54	1540.67984	(11011908)
492269.61	3626547.54	1328.73154	(10011308)	492279.61	3626547.54	1400.15256	(10011308)
492289.61	3626547.54	1385.27668	(10011308)	492299.61	3626547.54	1366.10766	(10011308)
492309.61	3626547.54	1342.26289	(10011308)	492319.61	3626547.54	1301.09015	(10011308)
492329.61	3626547.54	1254.19572	(10011308)	492339.61	3626547.54	1201.15305	(10011308)
492349.61	3626547.54	1060.11127	(10011308)	492359.61	3626547.54	977.07167	(11011908)

492369.61 3626547.54 1033.05943 (11011908)
492459.61 3626547.54 1595.08681 (11011908)
492469.61 3626547.54 1615.31775 (11011908)
492479.61 3626547.54 1620.38970 (11011908)
492489.61 3626547.54 1609.14808 (11011908)
492499.61 3626547.54 1580.56649 (11011908)
492509.61 3626547.54 1535.01365 (11011908)
492519.61 3626547.54 1473.09117 (11011908)
492529.61 3626547.54 1396.02812 (11011908)
492269.61 3626557.54 1170.31112 (10011308)
492279.61 3626557.54 1255.12028 (10011308)
492289.61 3626557.54 1225.27041 (10011308)
492299.61 3626557.54 1191.32243 (10011308)
492309.61 3626557.54 1153.21234 (10011308)
492319.61 3626557.54 1106.49646 (10011308)
492329.61 3626557.54 1056.36790 (10011308)
492339.61 3626557.54 1028.03341 (11011908)
492349.61 3626557.54 1004.46657 (11011908)
492359.61 3626557.54 1039.83736 (11011908)
492369.61 3626557.54 1102.86804 (11011908)
492459.61 3626557.54 1553.89620 (11011908)
492469.61 3626557.54 1554.91115 (11011908)
492479.61 3626557.54 1540.74687 (11011908)
492489.61 3626557.54 1511.09797 (11011908)
492499.61 3626557.54 1466.13484 (11011908)
492509.61 3626557.54 1406.21497 (11011908)
492519.61 3626557.54 1333.12218 (11011908)
492529.61 3626557.54 1248.32824 (11011908)
492269.61 3626567.54 1014.24049 (10011308)
492279.61 3626567.54 1100.09639 (10011308)
492289.61 3626567.54 1060.97480 (10011308)
492299.61 3626567.54 1017.97397 (10011308)
492309.61 3626567.54 972.54162 (10011308)
492319.61 3626567.54 973.69964 (11011908)
492329.61 3626567.54 1023.41567 (11011908)
492339.61 3626567.54 1069.88737 (11011908)
492349.61 3626567.54 1052.37174 (11011908)
492359.61 3626567.54 1098.30672 (11011908)
492369.61 3626567.54 1160.42382 (11011908)
492459.61 3626567.54 1490.11103 (11011908)
492469.61 3626567.54 1473.65465 (11011908)
492479.61 3626567.54 1443.28601 (11011908)
492489.61 3626567.54 1398.90928 (11011908)
492499.61 3626567.54 1341.23476 (11011908)
492509.61 3626567.54 1271.65709 (11011908)
492519.61 3626567.54 1191.27038 (11011908)
492529.61 3626567.54 1102.96476 (11011908)
492269.61 3626577.54 867.70560 (10011308)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492279.61	3626577.54	924.26641	(10011308)	492289.61	3626577.54	886.93371	(10011308)
492299.61	3626577.54	918.05171	(11011908)	492309.61	3626577.54	971.46414	(11011908)
492319.61	3626577.54	1007.44357	(11011908)	492329.61	3626577.54	1045.50956	(11011908)
492339.61	3626577.54	1083.88634	(11011908)	492469.61	3626577.54	1377.62031	(11011908)
492479.61	3626577.54	1334.01218	(11011908)	492489.61	3626577.54	1278.47108	(11011908)
492499.61	3626577.54	1212.07643	(11011908)	492509.61	3626577.54	1136.32378	(11011908)
492519.61	3626577.54	1053.04845	(11011908)	492529.61	3626577.54	964.34905	(11011908)
492269.61	3626587.54	734.66839	(10011308)	492279.61	3626587.54	846.11808	(11011908)
492289.61	3626587.54	900.44496	(11011908)	492299.61	3626587.54	955.05698	(11011908)
492309.61	3626587.54	1009.91960	(11011908)	492319.61	3626587.54	1035.91428	(11011908)
492329.61	3626587.54	1066.95154	(11011908)	492339.61	3626587.54	1102.47385	(11011908)
492469.61	3626587.54	1271.83284	(11011908)	492479.61	3626587.54	1218.27102	(11011908)
492489.61	3626587.54	1155.16609	(11011908)	492499.61	3626587.54	1083.49295	(11011908)
492509.61	3626587.54	1004.81475	(11011908)	492519.61	3626587.54	921.48453	(11011908)
492529.61	3626587.54	835.19498	(11011908)	492269.61	3626597.54	778.79354	(11011908)
492279.61	3626597.54	875.69275	(11011908)	492289.61	3626597.54	930.35776	(11011908)

492299.61 3626597.54 985.65365 (11011908)
492309.61 3626597.54 1039.64666 (11011908)
492319.61 3626597.54 1060.14842 (11011908)
492329.61 3626597.54 1088.53169 (11011908)
492339.61 3626597.54 1122.62894 (11011908)
492469.61 3626597.54 1161.02336 (11011908)
492479.61 3626597.54 1100.85914 (11011908)
492489.61 3626597.54 1032.92276 (11011908)
492499.61 3626597.54 958.68135 (11011908)
492509.61 3626597.54 880.48012 (11011908)
492519.61 3626597.54 799.25191 (11011908)
492529.61 3626597.54 717.08061 (11011908)
492269.61 3626607.54 821.88439 (11011908)
492279.61 3626607.54 902.93071 (11011908)
492289.61 3626607.54 955.79297 (11011908)
492299.61 3626607.54 1009.15809 (11011908)
492309.61 3626607.54 1060.86753 (11011908)
492319.61 3626607.54 1083.80208 (11011908)
492329.61 3626607.54 1111.18822 (11011908)
492339.61 3626607.54 1140.96355 (11011908)
492469.61 3626607.54 1049.10692 (11011908)
492479.61 3626607.54 984.74470 (11011908)
492489.61 3626607.54 914.88699 (11011908)
492499.61 3626607.54 841.16608 (11011908)
492509.61 3626607.54 764.67345 (11011908)
492519.61 3626607.54 687.25111 (11011908)
492529.61 3626607.54 611.10957 (11011908)
492269.61 3626617.54 860.42141 (11011908)
492279.61 3626617.54 927.09832 (11011908)
492289.61 3626617.54 976.82761 (11011908)
492299.61 3626617.54 1026.28272 (11011908)
492309.61 3626617.54 1073.76620 (11011908)
492319.61 3626617.54 1096.67958 (11011908)
492329.61 3626617.54 1121.45209 (11011908)
492339.61 3626617.54 1145.60934 (11011908)
492469.61 3626617.54 939.12673 (11011908)
492479.61 3626617.54 873.20136 (11011908)
492489.61 3626617.54 803.64896 (11011908)
492499.61 3626617.54 731.66351 (11011908)
492509.61 3626617.54 658.89582 (11011908)
492519.61 3626617.54 587.07855 (11011908)
492529.61 3626617.54 516.65297 (11011908)
492269.61 3626627.54 893.23054 (11011908)
492279.61 3626627.54 948.13125 (11011908)
492289.61 3626627.54 992.86985 (11011908)
492299.61 3626627.54 1036.47615 (11011908)
492309.61 3626627.54 1077.79652 (11011908)
492319.61 3626627.54 1098.28502 (11011908)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492329.61	3626627.54	1118.60851	(11011908)	492339.61	3626627.54	1136.67879	(11011908)
492469.61	3626627.54	833.65081	(11011908)	492479.61	3626627.54	767.95120	(11011908)
492489.61	3626627.54	700.13915	(11011908)	492499.61	3626627.54	631.74019	(11011908)
492509.61	3626627.54	563.96189	(11011908)	492519.61	3626627.54	497.47764	(11011908)
492269.61	3626637.54	919.85911	(11011908)	492279.61	3626637.54	966.18612	(11011908)
492289.61	3626637.54	1004.03063	(11011908)	492299.61	3626637.54	1040.04195	(11011908)
492309.61	3626637.54	1072.97752	(11011908)	492319.61	3626637.54	1087.84710	(11011908)
492329.61	3626637.54	1102.11472	(11011908)	492339.61	3626637.54	1113.92382	(11011908)
492469.61	3626637.54	734.13817	(11011908)	492479.61	3626637.54	670.21591	(11011908)
492489.61	3626637.54	605.80382	(11011908)	492499.61	3626637.54	541.76700	(11011908)
492509.61	3626637.54	479.02096	(11011908)	492519.61	3626637.54	443.82368	(12121708)
492269.61	3626647.54	937.74886	(11011908)	492279.61	3626647.54	975.84028	(11011908)
492289.61	3626647.54	1006.69807	(11011908)	492299.61	3626647.54	1035.07214	(11011908)
492309.61	3626647.54	1059.78641	(11011908)	492319.61	3626647.54	1069.08389	(11011908)
492329.61	3626647.54	1077.13744	(11011908)	492339.61	3626647.54	1082.32645	(11011908)
492479.61	3626647.54	581.06176	(11011908)	492489.61	3626647.54	520.59884	(11011908)

492499.61 3626647.54 461.35387 (11011908)
492509.61 3626647.54 429.85269 (12121708)
492269.61 3626657.54 946.84048 (11011908)
492279.61 3626657.54 976.97002 (11011908)
492289.61 3626657.54 1000.92101 (11011908)
492299.61 3626657.54 1021.48716 (11011908)
492309.61 3626657.54 1037.90493 (11011908)
492319.61 3626657.54 1042.07814 (11011908)
492329.61 3626657.54 1044.13097 (11011908)
492339.61 3626657.54 1042.47745 (11011908)
492489.61 3626657.54 444.48979 (11011908)
492499.61 3626657.54 416.25902 (12121708)
492269.61 3626667.54 947.25682 (11011908)
492279.61 3626667.54 969.94032 (11011908)
492289.61 3626667.54 986.63823 (11011908)
492299.61 3626667.54 999.38601 (11011908)
492309.61 3626667.54 1007.67332 (11011908)
492319.61 3626667.54 1007.22642 (11011908)
492329.61 3626667.54 1003.54943 (11011908)
492339.61 3626667.54 995.59465 (11011908)
492269.61 3626677.54 939.48397 (11011908)
492279.61 3626677.54 955.02364 (11011908)
492289.61 3626677.54 965.05540 (11011908)
492299.61 3626677.54 970.83248 (11011908)
492309.61 3626677.54 971.99889 (11011908)
492319.61 3626677.54 966.45618 (11011908)
492329.61 3626677.54 957.16468 (11011908)
492339.61 3626677.54 943.20880 (11011908)
492269.61 3626687.54 924.07140 (11011908)
492279.61 3626687.54 933.09215 (11011908)
492289.61 3626687.54 936.88558 (11011908)
492299.61 3626687.54 936.29117 (11011908)
492309.61 3626687.54 931.22338 (11011908)
492319.61 3626687.54 920.61540 (11011908)
492329.61 3626687.54 905.88521 (11011908)
492339.61 3626687.54 886.76619 (11011908)
492269.61 3626697.54 901.95690 (11011908)
492279.61 3626697.54 905.01563 (11011908)
492289.61 3626697.54 903.03506 (11011908)
492299.61 3626697.54 896.87296 (11011908)
492309.61 3626697.54 886.31468 (11011908)
492319.61 3626697.54 870.63506 (11011908)
492329.61 3626697.54 851.13799 (11011908)
492339.61 3626697.54 827.61505 (11011908)
492269.61 3626707.54 873.59328 (11011908)
492279.61 3626707.54 871.16877 (11011908)
492289.61 3626707.54 863.98623 (11011908)
492299.61 3626707.54 852.72678 (11011908)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492309.61	3626707.54	837.48766	(11011908)	492319.61	3626707.54	817.53967	(11011908)
492329.61	3626707.54	794.04258	(11011908)	492339.61	3626707.54	767.12393	(11011908)
492269.61	3626717.54	839.94042	(11011908)	492279.61	3626717.54	832.48231	(11011908)
492289.61	3626717.54	820.65292	(11011908)	492299.61	3626717.54	805.18039	(11011908)
492309.61	3626717.54	785.94611	(11011908)	492319.61	3626717.54	762.47261	(11011908)
492329.61	3626717.54	735.94203	(11011908)	492339.61	3626717.54	706.34508	(11011908)
492669.07	3626644.38	1020.11171	(12010308)	492665.07	3626656.03	982.20940	(12010308)
492665.74	3626664.35	978.55707	(12010308)	492664.07	3626675.33	953.52375	(12010308)
492599.44	3626421.99	2876.55045	(10020508)	492613.55	3626421.99	3006.09534	(10020508)
492613.75	3626427.92	2724.33619	(10020508)	492613.55	3626435.89	2350.76139	(10020508)
492573.34	3626443.01	2552.45380	(10020508)	492576.15	3626437.02	2719.23303	(10020508)
492578.78	3626431.67	2818.14046	(10020508)	492589.21	3626442.01	2448.85041	(10020508)
492486.91	3626457.88	2316.76942	(10011308)				

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE SUMMARY OF MAXIMUM PERIOD (26304 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	50.82187 AT (492748.31, 3626379.15, 134.10, 134.10, 0.00)	GC	UCART1
	2ND HIGHEST VALUE IS	45.37636 AT (492698.31, 3626379.15, 134.00, 134.00, 0.00)	GC	UCART1
	3RD HIGHEST VALUE IS	41.51758 AT (492648.31, 3626429.15, 129.40, 134.00, 0.00)	GC	UCART1
	4TH HIGHEST VALUE IS	34.91119 AT (492648.31, 3626379.15, 134.00, 134.00, 0.00)	GC	UCART1
	5TH HIGHEST VALUE IS	33.79287 AT (492698.31, 3626429.15, 127.90, 134.00, 0.00)	GC	UCART1
	6TH HIGHEST VALUE IS	32.96428 AT (492798.31, 3626379.15, 134.20, 134.20, 0.00)	GC	UCART1
	7TH HIGHEST VALUE IS	29.18288 AT (492613.55, 3626421.99, 130.31, 134.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	26.55282 AT (492748.31, 3626429.15, 126.60, 135.00, 0.00)	GC	UCART1
	9TH HIGHEST VALUE IS	24.11839 AT (492613.75, 3626427.92, 129.49, 134.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	21.93671 AT (492609.61, 3626427.54, 129.46, 134.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	3240.84836	ON 10120108: AT (492598.31, 3626379.15, 132.70, 134.00, 0.00)	GC	UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

 *** MODELOPTs: RegDFAULT CONC ELEV RURAL

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   36 Warning Message(s)
 A Total of   697 Informational Message(s)

 A Total of   26304 Hours Were Processed

 A Total of   348 Calm Hours Identified

 A Total of   349 Missing Hours Identified (1.33 Percent)

    ******** FATAL ERROR MESSAGES ********
               *** NONE ***

    ********   WARNING MESSAGES   ********
 MX W441   14167   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081407
 MX W441   14168   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081408
 MX W441   14169   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081409
 MX W441   14170   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081410
 MX W441   14171   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081411
 MX W441   14172   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081412
 MX W441   14173   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081413
 MX W441   14174   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081414
 MX W441   14175   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081415
 MX W441   14176   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081416
 MX W441   14177   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081417
 MX W441   14178   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081418
 MX W441   14191   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081507

```
 MX W441   14192        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081508
 MX W441   14193        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081509
 MX W441   14194        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081510
 MX W441   14195        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081511
 MX W441   14196        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081512
 MX W441   14197        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081513
 MX W441   14198        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081514
 MX W441   14199        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081515
 MX W441   14200        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081516
 MX W441   14201        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081517
 MX W441   14202        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081518
 MX W441   14215        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081607
 MX W441   14216        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081608
 MX W441   14217        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081609
 MX W441   14218        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081610
 MX W441   14219        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081611
 MX W441   14220        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081612
 MX W441   14221        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081613
 MX W441   14222        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081614
 MX W441   14223        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081615
 MX W441   14224        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081616
 MX W441   14225        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081617
 MX W441   14226        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081618

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
```

ATTACHMENT 4

AERMOD Emergency Generator Output

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.4.0
** Lakes Environmental Software Inc.
** Date: 7/12/2017
** File: C:\Lakes\AERMOD View\SDSU_NCH_EmergGens-
Phase1\SDSU_NCH_EmergGens.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\SDSU_NCH_Const\SDSU_NCH_Const.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   POLLUTID OTHER
   RUNORNOT RUN
   ERRORFIL SDSU_NCH_EmergGens.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      492627.818  3626423.365      130.480
** DESCRSRC Gen1
** Source Parameters **
   SRCPARAM STCK1              1.0     3.840   798.160 160.56000
0.170

** Building Downwash **
   BUILDHGT STCK1           41.00    41.00    41.00    41.00    41.00
41.00
   BUILDHGT STCK1           41.00    41.00    41.00    41.00    41.00
41.00
   BUILDHGT STCK1           41.00    41.00    41.00    41.00    41.00
41.00
   BUILDHGT STCK1           41.00    41.00    41.00    41.00    41.00
41.00
   BUILDHGT STCK1           41.00    41.00    41.00    41.00    41.00
41.00
   BUILDHGT STCK1           41.00    41.00    41.00    41.00    41.00
41.00
```

```
   BUILDWID STCK1           49.38    50.87    52.08    51.71    49.77
46.31
   BUILDWID STCK1           51.19    55.85    58.82    60.00    59.35
56.90
   BUILDWID STCK1           58.80    59.66    60.68    59.87    57.23
52.85
   BUILDWID STCK1           49.38    50.87    52.08    51.71    49.77
46.31
   BUILDWID STCK1           51.19    55.85    58.82    60.00    59.35
56.90
   BUILDWID STCK1           58.80    59.66    60.68    59.87    57.23
52.85

   BUILDLEN STCK1           60.00    59.35    56.90    58.80    59.66
60.68
   BUILDLEN STCK1           59.87    57.23    52.85    49.38    50.87
52.08
   BUILDLEN STCK1           51.71    49.77    46.31    51.19    55.85
58.82
   BUILDLEN STCK1           60.00    59.35    56.90    58.80    59.66
60.68
   BUILDLEN STCK1           59.87    57.23    52.85    49.38    50.87
52.08
   BUILDLEN STCK1           51.71    49.77    46.31    51.19    55.85
58.82

   XBADJ    STCK1          -36.27   -44.93   -52.23   -57.94   -62.07   -
66.29
   XBADJ    STCK1          -68.50   -68.62   -66.66   -62.67   -63.24   -
63.15
   XBADJ    STCK1          -61.15   -57.28   -51.67   -46.32   -39.93   -
32.32
   XBADJ    STCK1          -23.73   -14.42    -4.67    -0.86     2.41
5.60
   XBADJ    STCK1            8.63    11.39    13.81    13.29    12.37
11.07
   XBADJ    STCK1            9.43     7.51     5.36    -4.87   -15.93   -
26.50

   YBADJ    STCK1           37.98    37.81    37.11    35.29    32.40
28.52
   YBADJ    STCK1           20.72    12.00     2.91    -6.27   -15.25   -
23.78
   YBADJ    STCK1          -28.54   -32.24   -35.95   -38.56   -40.01   -
40.24
   YBADJ    STCK1          -37.98   -37.81   -37.11   -35.29   -32.40   -
28.52
   YBADJ    STCK1          -20.72   -12.00    -2.91     6.27    15.25
23.78
   YBADJ    STCK1           28.54    32.24    35.95    38.56    40.01
40.24

   SRCGROUP STCK1    STCK1
```

```
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED SDSU_NCH_EmergGens.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "SDAPCD Kearny MetData\KMA2010_2012v15181.SFC"
   PROFFILE "SDAPCD Kearny MetData\KMA2010_2012v15181.PFL"
   SURFDATA 93107 2010
   UAIRDATA 3190 2010
   SITEDATA 6 2010
   PROFBASE 128.9 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST SDSU_NCH_EMERGGENS.AD\01H1GALL.PLT 31
   PLOTFILE 1 STCK1 1ST SDSU_NCH_EMERGGENS.AD\01H1G001.PLT 32
   PLOTFILE PERIOD ALL SDSU_NCH_EMERGGENS.AD\PE00GALL.PLT 33
   PLOTFILE PERIOD STCK1 SDSU_NCH_EMERGGENS.AD\PE00G000.PLT 34
   SUMMFILE SDSU_NCH_EmergGens.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***
```

```
    ********   WARNING MESSAGES   ********
 SO W320      38         PPARM: Input Parameter May Be Out-of-Range for
Parameter             VS

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: OTHER

**Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates PERIOD Averages

**This Run Includes: 1 Source(s);   2 Source Group(s); and 1686 Receptor(s)

with: 1 POINT(s), including
0 POINTCAP(s) and   0 POINTHOR(s)
and: 0 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with   0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

```
 **The AERMET Input Meteorological Data Version Date:  15181

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor
(RECTABLE Keyword)
          Model Outputs External File(s) of High Values for Plotting
(PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked Values
(SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for
Calm Hours
                                                                  m for
Missing Hours
                                                                  b for
Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   128.90 ;
Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC
;  Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.8 MB of RAM.

 **Detailed Error/Message File:   SDSU_NCH_EmergGens.err
 **File for Summary of Results:   SDSU_NCH_EmergGens.sum
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER EMISSION RATE PART. CATS.	EMISSION RATE (GRAMS/SEC)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
STCK1	0	0.10000E+01	492627.8	3626423.4	130.5	3.84	798.16	160.56	0.17	YES	NO	NO

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
STCK1	STCK1 ,
ALL	STCK1 ,

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK1

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	41.0,	49.4,	60.0,	-36.3,	38.0,	2	41.0,	50.9,	59.3,	-44.9,	37.8,
3	41.0,	52.1,	56.9,	-52.2,	37.1,	4	41.0,	51.7,	58.8,	-57.9,	35.3,
5	41.0,	49.8,	59.7,	-62.1,	32.4,	6	41.0,	46.3,	60.7,	-66.3,	28.5,
7	41.0,	51.2,	59.9,	-68.5,	20.7,	8	41.0,	55.8,	57.2,	-68.6,	12.0,
9	41.0,	58.8,	52.8,	-66.7,	2.9,	10	41.0,	60.0,	49.4,	-62.7,	-6.3,
11	41.0,	59.3,	50.9,	-63.2,	-15.2,	12	41.0,	56.9,	52.1,	-63.1,	-23.8,
13	41.0,	58.8,	51.7,	-61.1,	-28.5,	14	41.0,	59.7,	49.8,	-57.3,	-32.2,
15	41.0,	60.7,	46.3,	-51.7,	-35.9,	16	41.0,	59.9,	51.2,	-46.3,	-38.6,
17	41.0,	57.2,	55.8,	-39.9,	-40.0,	18	41.0,	52.8,	58.8,	-32.3,	-40.2,
19	41.0,	49.4,	60.0,	-23.7,	-38.0,	20	41.0,	50.9,	59.3,	-14.4,	-37.8,
21	41.0,	52.1,	56.9,	-4.7,	-37.1,	22	41.0,	51.7,	58.8,	-0.9,	-35.3,
23	41.0,	49.8,	59.7,	2.4,	-32.4,	24	41.0,	46.3,	60.7,	5.6,	-28.5,
25	41.0,	51.2,	59.9,	8.6,	-20.7,	26	41.0,	55.8,	57.2,	11.4,	-12.0,
27	41.0,	58.8,	52.8,	13.8,	-2.9,	28	41.0,	60.0,	49.4,	13.3,	6.3,
29	41.0,	59.3,	50.9,	12.4,	15.2,	30	41.0,	56.9,	52.1,	11.1,	23.8,
31	41.0,	58.8,	51.7,	9.4,	28.5,	32	41.0,	59.7,	49.8,	7.5,	32.2,
33	41.0,	60.7,	46.3,	5.4,	35.9,	34	41.0,	59.9,	51.2,	-4.9,	38.6,
35	41.0,	57.2,	55.8,	-15.9,	40.0,	36	41.0,	52.8,	58.8,	-26.5,	40.2,

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

492248.3, 492298.3, 492348.3, 492398.3, 492448.3, 492498.3, 492548.3, 492598.3, 492648.3, 492698.3,
492748.3, 492798.3, 492848.3, 492898.3, 492948.3,

*** Y-COORDINATES OF GRID ***
(METERS)

3626079.1, 3626129.1, 3626179.1, 3626229.1, 3626279.1, 3626329.1, 3626379.1, 3626429.1, 3626479.1, 3626529.1,
3626579.1, 3626629.1, 3626679.1, 3626729.1, 3626779.1,

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)				
	492248.31	492298.31	492348.31	492398.31	492448.31
3626779.15	113.60	114.40	104.20	85.80	67.90
3626729.15	115.80	118.20	109.10	88.00	81.90
3626679.15	117.00	120.60	113.20	91.10	93.40
3626629.15	118.70	124.40	119.10	98.20	102.10
3626579.15	121.80	128.30	123.20	108.40	107.50
3626529.15	129.70	131.20	129.40	120.60	115.00
3626479.15	132.90	132.60	132.60	129.50	124.10
3626429.15	133.00	133.00	133.60	132.10	129.10
3626379.15	132.70	132.80	133.00	133.00	132.60
3626329.15	132.00	132.00	132.40	133.00	132.50
3626279.15	132.00	132.00	132.10	131.90	132.20
3626229.15	130.80	131.00	131.00	131.70	131.90
3626179.15	129.00	129.20	130.10	130.10	130.50
3626129.15	124.00	124.60	127.20	128.40	122.60
3626079.15	117.50	120.10	123.30	125.00	118.10

Y-COORD (METERS)	X-COORD (METERS)				
	492498.31	492548.31	492598.31	492648.31	
3626779.15	65.80	84.10	105.00	110.20	
3626729.15	84.40	73.20	93.60	116.90	
3626679.15	105.00	87.10	86.00	111.20	
3626629.15	116.40	103.50	87.30	108.50	
3626579.15	119.10	108.30	91.20	98.40	
3626529.15	118.80	103.60	103.90	102.80	
3626479.15	118.30	102.70	119.40	119.60	
3626429.15	117.40	113.80	128.00	129.40	
3626379.15	125.50	126.30	132.70	134.00	
3626329.15	130.40	131.90	132.70	133.40	
3626279.15	132.30	133.00	132.60	133.00	
3626229.15	131.80	132.00	131.60	132.80	
3626179.15	130.10	131.10	131.10	132.00	
3626129.15	113.80	120.30	126.40	130.00	
3626079.15	114.80	128.90	130.00	130.50	

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)				
	492698.31	492748.31	492798.31	492848.31	492898.31	492948.31
3626779.15	109.00	107.30	101.80	87.70	82.10	81.80
3626729.15	119.10	120.00	117.40	97.30	84.50	84.70
3626679.15	122.40	124.10	123.20	102.70	88.30	88.10
3626629.15	123.90	126.50	124.70	113.80	91.70	89.90
3626579.15	122.10	125.70	126.30	121.80	100.30	102.90
3626529.15	108.30	124.20	126.60	124.10	110.10	109.90
3626479.15	111.30	118.90	126.30	126.70	116.40	109.60
3626429.15	127.90	126.60	127.60	130.10	126.50	116.50
3626379.15	134.00	134.10	134.20	133.50	131.80	122.60
3626329.15	134.00	134.10	135.00	135.00	135.50	128.10
3626279.15	133.40	134.00	135.60	136.00	135.50	131.50
3626229.15	133.00	134.10	135.50	136.00	135.90	133.80
3626179.15	133.00	134.60	136.30	136.90	135.40	134.00
3626129.15	132.90	136.00	137.40	137.00	135.70	133.90
3626079.15	132.90	136.90	138.00	137.00	136.20	136.00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)				
	492248.31	492298.31	492348.31	492398.31	492448.31
3626779.15	114.00	118.00	132.00	134.00	136.00
3626729.15	115.80	118.20	132.00	134.00	135.00
3626679.15	130.00	120.60	132.00	134.00	134.00
3626629.15	132.00	124.40	132.00	134.00	134.00
3626579.15	133.00	128.30	132.00	134.00	134.00
3626529.15	129.70	131.20	132.00	134.00	134.00
3626479.15	132.90	132.60	132.60	130.00	133.00
3626429.15	133.00	133.00	133.60	132.10	132.00
3626379.15	132.70	132.80	133.00	133.00	132.60
3626329.15	132.00	132.00	132.40	133.00	132.50
3626279.15	132.00	132.00	132.10	131.90	132.20
3626229.15	130.80	131.00	131.00	131.70	131.90
3626179.15	129.00	129.20	130.10	130.10	130.50
3626129.15	129.00	128.00	127.20	128.40	132.00
3626079.15	131.00	128.00	123.30	126.00	132.00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)				
	492698.31	492748.31	492798.31	492848.31	492898.31	492948.31
3626779.15	127.00	127.00	127.00	136.00	136.00	136.00
3626729.15	119.10	122.00	126.00	135.00	137.00	136.00
3626679.15	122.40	124.10	123.20	134.00	137.00	137.00
3626629.15	123.90	126.50	124.70	127.00	137.00	137.00
3626579.15	122.10	125.70	126.30	126.00	136.00	136.00
3626529.15	136.00	126.00	126.60	124.10	136.00	136.00
3626479.15	136.00	135.00	126.30	126.70	136.00	136.00
3626429.15	134.00	135.00	135.00	130.10	135.00	136.00
3626379.15	134.00	134.10	134.20	133.50	135.00	136.00
3626329.15	134.00	134.10	135.00	135.00	135.50	136.00
3626279.15	133.40	134.00	135.60	136.00	135.50	136.00
3626229.15	133.00	134.10	135.50	136.00	135.90	133.80
3626179.15	133.00	134.60	136.30	136.90	135.40	134.00
3626129.15	132.90	138.00	137.40	137.00	135.70	133.90
3626079.15	132.90	136.90	138.00	137.00	136.20	136.00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492779.3, 3626444.2, 124.6, 135.0, 0.0); (492789.3, 3626444.2, 126.1, 135.0, 0.0);
(492799.3, 3626444.2, 126.5, 134.0, 0.0); (492839.3, 3626444.2, 128.5, 128.5, 0.0);
(492849.3, 3626444.2, 129.1, 129.1, 0.0); (492859.3, 3626444.2, 128.8, 128.8, 0.0);
(492869.3, 3626444.2, 128.4, 128.4, 0.0); (492879.3, 3626444.2, 128.1, 128.1, 0.0);
(492779.3, 3626454.2, 124.5, 135.0, 0.0); (492789.3, 3626454.2, 126.0, 134.0, 0.0);
(492799.3, 3626454.2, 126.3, 134.0, 0.0); (492839.3, 3626454.2, 128.0, 128.0, 0.0);
(492849.3, 3626454.2, 128.5, 128.5, 0.0); (492859.3, 3626454.2, 128.0, 128.0, 0.0);
(492869.3, 3626454.2, 127.6, 127.6, 0.0); (492879.3, 3626454.2, 127.2, 127.2, 0.0);
(492779.3, 3626464.2, 124.7, 134.0, 0.0); (492789.3, 3626464.2, 126.0, 134.0, 0.0);
(492799.3, 3626464.2, 126.3, 126.3, 0.0); (492829.3, 3626464.2, 127.3, 127.3, 0.0);
(492839.3, 3626464.2, 127.5, 127.5, 0.0); (492849.3, 3626464.2, 127.8, 127.8, 0.0);
(492859.3, 3626464.2, 127.2, 127.2, 0.0); (492869.3, 3626464.2, 126.7, 126.7, 0.0);
(492879.3, 3626464.2, 126.2, 126.2, 0.0); (492769.3, 3626474.2, 123.9, 134.0, 0.0);
(492779.3, 3626474.2, 125.0, 134.0, 0.0); (492789.3, 3626474.2, 126.0, 126.0, 0.0);
(492799.3, 3626474.2, 126.3, 126.3, 0.0); (492829.3, 3626474.2, 127.0, 127.0, 0.0);
(492839.3, 3626474.2, 127.1, 127.1, 0.0); (492849.3, 3626474.2, 127.1, 127.1, 0.0);
(492859.3, 3626474.2, 126.5, 126.5, 0.0); (492869.3, 3626474.2, 125.8, 125.8, 0.0);
(492879.3, 3626474.2, 125.2, 125.2, 0.0); (492769.3, 3626484.2, 124.2, 124.2, 0.0);
(492779.3, 3626484.2, 125.1, 125.1, 0.0); (492789.3, 3626484.2, 126.0, 126.0, 0.0);
(492799.3, 3626484.2, 126.3, 126.3, 0.0); (492809.3, 3626484.2, 126.7, 126.7, 0.0);

```
     ( 492819.3, 3626484.2,     127.0,     127.0,       0.0);         (
492829.3, 3626484.2,     126.7,     126.7,       0.0);
     ( 492839.3, 3626484.2,     126.5,     126.5,       0.0);         (
492849.3, 3626484.2,     126.2,     126.2,       0.0);
     ( 492859.3, 3626484.2,     125.4,     127.0,       0.0);         (
492769.3, 3626494.2,     124.4,     124.4,       0.0);
     ( 492779.3, 3626494.2,     125.2,     125.2,       0.0);         (
492789.3, 3626494.2,     126.0,     126.0,       0.0);
     ( 492799.3, 3626494.2,     126.3,     126.3,       0.0);         (
492809.3, 3626494.2,     126.7,     126.7,       0.0);
     ( 492819.3, 3626494.2,     127.0,     127.0,       0.0);         (
492829.3, 3626494.2,     126.4,     126.4,       0.0);
     ( 492839.3, 3626494.2,     125.8,     125.8,       0.0);         (
492849.3, 3626494.2,     125.2,     125.2,       0.0);
     ( 492859.3, 3626494.2,     124.3,     127.0,       0.0);         (
492769.3, 3626504.2,     124.6,     124.6,       0.0);
     ( 492779.3, 3626504.2,     125.3,     125.3,       0.0);         (
492789.3, 3626504.2,     126.0,     126.0,       0.0);
     ( 492799.3, 3626504.2,     126.3,     126.3,       0.0);         (
492809.3, 3626504.2,     126.7,     126.7,       0.0);
     ( 492819.3, 3626504.2,     127.0,     127.0,       0.0);         (
492829.3, 3626504.2,     126.1,     126.1,       0.0);
     ( 492749.3, 3626514.2,     122.8,     126.0,       0.0);         (
492759.3, 3626514.2,     124.5,     124.5,       0.0);
     ( 492769.3, 3626514.2,     125.1,     125.1,       0.0);         (
492779.3, 3626514.2,     125.7,     125.7,       0.0);
     ( 492789.3, 3626514.2,     126.3,     126.3,       0.0);         (
492799.3, 3626514.2,     126.4,     126.4,       0.0);
     ( 492809.3, 3626514.2,     126.6,     126.6,       0.0);         (
492819.3, 3626514.2,     126.7,     126.7,       0.0);
     ( 492829.3, 3626514.2,     125.8,     125.8,       0.0);         (
492749.3, 3626524.2,     123.8,     126.0,       0.0);
     ( 492759.3, 3626524.2,     125.2,     125.2,       0.0);         (
492769.3, 3626524.2,     125.7,     125.7,       0.0);
     ( 492779.3, 3626524.2,     126.1,     126.1,       0.0);         (
492789.3, 3626524.2,     126.6,     126.6,       0.0);
     ( 492799.3, 3626524.2,     126.5,     126.5,       0.0);         (
492809.3, 3626524.2,     126.5,     126.5,       0.0);
     ( 492819.3, 3626524.2,     126.4,     126.4,       0.0);         (
492829.3, 3626524.2,     125.6,     125.6,       0.0);
     ( 492739.3, 3626534.2,     123.8,     126.0,       0.0);         (
492749.3, 3626534.2,     124.8,     126.0,       0.0);
     ( 492759.3, 3626534.2,     125.9,     125.9,       0.0);         (
492769.3, 3626534.2,     126.2,     126.2,       0.0);
     ( 492779.3, 3626534.2,     126.6,     126.6,       0.0);         (
492789.3, 3626534.2,     126.9,     126.9,       0.0);
     ( 492799.3, 3626534.2,     126.6,     126.6,       0.0);         (
492809.3, 3626534.2,     126.3,     126.3,       0.0);
     ( 492819.3, 3626534.2,     126.1,     126.1,       0.0);         (
492719.3, 3626544.2,     120.0,     127.0,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492729.3, 3626544.2, 123.3, 123.3, 0.0); (492739.3, 3626544.2, 124.2, 124.2, 0.0);
(492749.3, 3626544.2, 125.1, 125.1, 0.0); (492759.3, 3626544.2, 126.0, 126.0, 0.0);
(492769.3, 3626544.2, 126.3, 126.3, 0.0); (492779.3, 3626544.2, 126.7, 126.7, 0.0);
(492789.3, 3626544.2, 127.0, 127.0, 0.0); (492799.3, 3626544.2, 126.7, 126.7, 0.0);
(492809.3, 3626544.2, 126.3, 126.3, 0.0); (492819.3, 3626544.2, 126.0, 126.0, 0.0);
(492719.3, 3626554.2, 121.5, 126.0, 0.0); (492729.3, 3626554.2, 123.6, 123.6, 0.0);
(492739.3, 3626554.2, 124.4, 124.4, 0.0); (492749.3, 3626554.2, 125.2, 125.2, 0.0);
(492759.3, 3626554.2, 126.0, 126.0, 0.0); (492769.3, 3626554.2, 126.3, 126.3, 0.0);
(492779.3, 3626554.2, 126.7, 126.7, 0.0); (492789.3, 3626554.2, 127.0, 127.0, 0.0);
(492799.3, 3626554.2, 126.7, 126.7, 0.0); (492809.3, 3626554.2, 126.3, 126.3, 0.0);
(492819.3, 3626554.2, 126.0, 126.0, 0.0); (492709.3, 3626564.2, 122.2, 122.2, 0.0);
(492719.3, 3626564.2, 123.1, 123.1, 0.0); (492729.3, 3626564.2, 123.9, 123.9, 0.0);
(492739.3, 3626564.2, 124.6, 124.6, 0.0); (492749.3, 3626564.2, 125.3, 125.3, 0.0);
(492759.3, 3626564.2, 126.0, 126.0, 0.0); (492769.3, 3626564.2, 126.3, 126.3, 0.0);
(492779.3, 3626564.2, 126.7, 126.7, 0.0); (492789.3, 3626564.2, 127.0, 127.0, 0.0);
(492799.3, 3626564.2, 126.7, 126.7, 0.0); (492809.3, 3626564.2, 126.3, 126.3, 0.0);
(492819.3, 3626564.2, 126.0, 126.0, 0.0); (492709.3, 3626574.2, 122.9, 122.9, 0.0);
(492719.3, 3626574.2, 123.6, 123.6, 0.0); (492729.3, 3626574.2, 124.3, 124.3, 0.0);
(492739.3, 3626574.2, 124.9, 124.9, 0.0); (492749.3, 3626574.2, 125.6, 125.6, 0.0);
(492759.3, 3626574.2, 126.3, 126.3, 0.0); (492769.3, 3626574.2, 126.4, 126.4, 0.0);

```
     ( 492779.3, 3626574.2,     126.6,     126.6,       0.0);         (
492789.3, 3626574.2,     126.7,     126.7,       0.0);
     ( 492799.3, 3626574.2,     126.4,     126.4,       0.0);         (
492809.3, 3626574.2,     126.1,     126.1,       0.0);
     ( 492819.3, 3626574.2,     125.7,     125.7,       0.0);         (
492699.3, 3626584.2,     122.6,     122.6,       0.0);
     ( 492709.3, 3626584.2,     123.3,     123.3,       0.0);         (
492719.3, 3626584.2,     123.9,     123.9,       0.0);
     ( 492729.3, 3626584.2,     124.6,     124.6,       0.0);         (
492739.3, 3626584.2,     125.3,     125.3,       0.0);
     ( 492749.3, 3626584.2,     125.9,     125.9,       0.0);         (
492759.3, 3626584.2,     126.6,     126.6,       0.0);
     ( 492769.3, 3626584.2,     126.5,     126.5,       0.0);         (
492779.3, 3626584.2,     126.5,     126.5,       0.0);
     ( 492789.3, 3626584.2,     126.4,     126.4,       0.0);         (
492799.3, 3626584.2,     126.1,     126.1,       0.0);
     ( 492809.3, 3626584.2,     125.7,     125.7,       0.0);         (
492819.3, 3626584.2,     125.4,     125.4,       0.0);
     ( 492689.3, 3626594.2,     121.1,     123.0,       0.0);         (
492699.3, 3626594.2,     122.9,     122.9,       0.0);
     ( 492709.3, 3626594.2,     123.6,     123.6,       0.0);         (
492719.3, 3626594.2,     124.3,     124.3,       0.0);
     ( 492729.3, 3626594.2,     124.9,     124.9,       0.0);         (
492739.3, 3626594.2,     125.6,     125.6,       0.0);
     ( 492749.3, 3626594.2,     126.3,     126.3,       0.0);         (
492759.3, 3626594.2,     126.9,     126.9,       0.0);
     ( 492769.3, 3626594.2,     126.6,     126.6,       0.0);         (
492779.3, 3626594.2,     126.3,     126.3,       0.0);
     ( 492789.3, 3626594.2,     126.1,     126.1,       0.0);         (
492799.3, 3626594.2,     125.7,     125.7,       0.0);
     ( 492809.3, 3626594.2,     125.4,     125.4,       0.0);         (
492819.3, 3626594.2,     125.1,     125.1,       0.0);
     ( 492689.3, 3626604.2,     121.9,     121.9,       0.0);         (
492699.3, 3626604.2,     123.3,     123.3,       0.0);
     ( 492709.3, 3626604.2,     123.9,     123.9,       0.0);         (
492719.3, 3626604.2,     124.6,     124.6,       0.0);
     ( 492729.3, 3626604.2,     125.3,     125.3,       0.0);         (
492739.3, 3626604.2,     125.8,     125.8,       0.0);
     ( 492749.3, 3626604.2,     126.4,     126.4,       0.0);         (
492759.3, 3626604.2,     127.0,     127.0,       0.0);
     ( 492769.3, 3626604.2,     126.6,     126.6,       0.0);         (
492779.3, 3626604.2,     126.1,     126.1,       0.0);
     ( 492789.3, 3626604.2,     125.7,     125.7,       0.0);         (
492799.3, 3626604.2,     125.4,     125.4,       0.0);
     ( 492809.3, 3626604.2,     125.1,     125.1,       0.0);         (
492819.3, 3626604.2,     124.7,     124.7,       0.0);
     ( 492679.3, 3626614.2,     121.5,     124.0,       0.0);         (
492689.3, 3626614.2,     122.5,     122.5,       0.0);
     ( 492699.3, 3626614.2,     123.6,     123.6,       0.0);         (
492709.3, 3626614.2,     124.3,     124.3,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492719.3, 3626614.2, 124.9, 124.9, 0.0); (492729.3, 3626614.2, 125.6, 125.6, 0.0);
(492739.3, 3626614.2, 126.1, 126.1, 0.0); (492749.3, 3626614.2, 126.5, 126.5, 0.0);
(492759.3, 3626614.2, 127.0, 127.0, 0.0); (492769.3, 3626614.2, 126.5, 126.5, 0.0);
(492779.3, 3626614.2, 125.9, 125.9, 0.0); (492789.3, 3626614.2, 125.4, 125.4, 0.0);
(492799.3, 3626614.2, 125.1, 125.1, 0.0); (492809.3, 3626614.2, 124.7, 124.7, 0.0);
(492819.3, 3626614.2, 124.4, 124.4, 0.0); (492679.3, 3626624.2, 122.5, 122.5, 0.0);
(492689.3, 3626624.2, 123.2, 123.2, 0.0); (492699.3, 3626624.2, 123.9, 123.9, 0.0);
(492709.3, 3626624.2, 124.6, 124.6, 0.0); (492719.3, 3626624.2, 125.3, 125.3, 0.0);
(492729.3, 3626624.2, 125.9, 125.9, 0.0); (492739.3, 3626624.2, 126.3, 126.3, 0.0);
(492749.3, 3626624.2, 126.6, 126.6, 0.0); (492759.3, 3626624.2, 127.0, 127.0, 0.0);
(492769.3, 3626624.2, 126.3, 126.3, 0.0); (492809.3, 3626624.2, 124.4, 124.4, 0.0);
(492679.3, 3626634.2, 122.8, 122.8, 0.0); (492689.3, 3626634.2, 123.4, 123.4, 0.0);
(492699.3, 3626634.2, 124.0, 124.0, 0.0); (492709.3, 3626634.2, 124.6, 124.6, 0.0);
(492719.3, 3626634.2, 125.1, 125.1, 0.0); (492729.3, 3626634.2, 125.7, 125.7, 0.0);
(492739.3, 3626634.2, 126.1, 126.1, 0.0); (492749.3, 3626634.2, 126.4, 126.4, 0.0);
(492759.3, 3626634.2, 126.7, 126.7, 0.0); (492769.3, 3626634.2, 126.1, 126.1, 0.0);
(492679.3, 3626644.2, 123.1, 123.1, 0.0); (492689.3, 3626644.2, 123.5, 123.5, 0.0);
(492699.3, 3626644.2, 124.0, 124.0, 0.0); (492709.3, 3626644.2, 124.5, 124.5, 0.0);
(492719.3, 3626644.2, 124.9, 124.9, 0.0); (492729.3, 3626644.2, 125.4, 125.4, 0.0);
(492739.3, 3626644.2, 125.7, 125.7, 0.0); (492749.3, 3626644.2, 126.1, 126.1, 0.0);

```
     ( 492759.3, 3626644.2,     126.4,     126.4,       0.0);         (
492769.3, 3626644.2,     125.9,     125.9,       0.0);
     ( 492779.3, 3626644.2,     125.5,     125.5,       0.0);         (
492789.3, 3626644.2,     125.0,     125.0,       0.0);
     ( 492799.3, 3626644.2,     124.5,     124.5,       0.0);         (
492679.3, 3626654.2,     123.3,     123.3,       0.0);
     ( 492689.3, 3626654.2,     123.6,     123.6,       0.0);         (
492699.3, 3626654.2,     124.0,     124.0,       0.0);
     ( 492709.3, 3626654.2,     124.3,     124.3,       0.0);         (
492719.3, 3626654.2,     124.7,     124.7,       0.0);
     ( 492729.3, 3626654.2,     125.1,     125.1,       0.0);         (
492739.3, 3626654.2,     125.4,     125.4,       0.0);
     ( 492749.3, 3626654.2,     125.7,     125.7,       0.0);         (
492759.3, 3626654.2,     126.1,     126.1,       0.0);
     ( 492769.3, 3626654.2,     125.7,     125.7,       0.0);         (
492779.3, 3626654.2,     125.3,     125.3,       0.0);
     ( 492789.3, 3626654.2,     125.0,     125.0,       0.0);         (
492799.3, 3626654.2,     124.3,     124.3,       0.0);
     ( 492679.3, 3626664.2,     123.0,     123.0,       0.0);         (
492689.3, 3626664.2,     123.2,     123.2,       0.0);
     ( 492699.3, 3626664.2,     123.5,     123.5,       0.0);         (
492709.3, 3626664.2,     123.8,     123.8,       0.0);
     ( 492719.3, 3626664.2,     124.1,     124.1,       0.0);         (
492729.3, 3626664.2,     124.5,     124.5,       0.0);
     ( 492739.3, 3626664.2,     124.8,     124.8,       0.0);         (
492749.3, 3626664.2,     125.1,     125.1,       0.0);
     ( 492759.3, 3626664.2,     125.5,     125.5,       0.0);         (
492769.3, 3626664.2,     125.2,     125.2,       0.0);
     ( 492779.3, 3626664.2,     125.0,     125.0,       0.0);         (
492789.3, 3626664.2,     124.7,     124.7,       0.0);
     ( 492799.3, 3626664.2,     123.9,     123.9,       0.0);         (
492679.3, 3626674.2,     122.5,     122.5,       0.0);
     ( 492689.3, 3626674.2,     122.6,     122.6,       0.0);         (
492699.3, 3626674.2,     122.8,     122.8,       0.0);
     ( 492709.3, 3626674.2,     123.1,     123.1,       0.0);         (
492719.3, 3626674.2,     123.5,     123.5,       0.0);
     ( 492729.3, 3626674.2,     123.8,     123.8,       0.0);         (
492739.3, 3626674.2,     124.1,     124.1,       0.0);
     ( 492749.3, 3626674.2,     124.5,     124.5,       0.0);         (
492759.3, 3626674.2,     124.8,     124.8,       0.0);
     ( 492769.3, 3626674.2,     124.6,     124.6,       0.0);         (
492779.3, 3626674.2,     124.5,     124.5,       0.0);
     ( 492789.3, 3626674.2,     124.4,     124.4,       0.0);         (
492799.3, 3626674.2,     123.3,     123.3,       0.0);
     ( 492679.3, 3626684.2,     122.1,     122.1,       0.0);         (
492689.3, 3626684.2,     122.1,     122.1,       0.0);
     ( 492699.3, 3626684.2,     122.1,     122.1,       0.0);         (
492709.3, 3626684.2,     122.5,     122.5,       0.0);
     ( 492719.3, 3626684.2,     122.8,     122.8,       0.0);         (
492729.3, 3626684.2,     123.1,     123.1,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492739.3, 3626684.2, 123.5, 123.5, 0.0); (492749.3, 3626684.2, 123.8, 123.8, 0.0);
(492759.3, 3626684.2, 124.1, 124.1, 0.0); (492769.3, 3626684.2, 124.1, 124.1, 0.0);
(492779.3, 3626684.2, 124.1, 124.1, 0.0); (492789.3, 3626684.2, 124.1, 124.1, 0.0);
(492269.6, 3626327.5, 132.0, 132.0, 0.0); (492279.6, 3626327.5, 132.0, 132.0, 0.0);
(492289.6, 3626327.5, 132.0, 132.0, 0.0); (492299.6, 3626327.5, 132.0, 132.0, 0.0);
(492309.6, 3626327.5, 132.0, 132.0, 0.0); (492319.6, 3626327.5, 132.0, 132.0, 0.0);
(492329.6, 3626327.5, 132.0, 132.0, 0.0); (492339.6, 3626327.5, 132.1, 132.1, 0.0);
(492349.6, 3626327.5, 132.4, 132.4, 0.0); (492359.6, 3626327.5, 132.7, 132.7, 0.0);
(492369.6, 3626327.5, 133.0, 133.0, 0.0); (492379.6, 3626327.5, 133.0, 133.0, 0.0);
(492389.6, 3626327.5, 133.0, 133.0, 0.0); (492399.6, 3626327.5, 133.0, 133.0, 0.0);
(492409.6, 3626327.5, 133.0, 133.0, 0.0); (492419.6, 3626327.5, 133.0, 133.0, 0.0);
(492269.6, 3626337.5, 132.0, 132.0, 0.0); (492279.6, 3626337.5, 132.0, 132.0, 0.0);
(492289.6, 3626337.5, 132.0, 132.0, 0.0); (492299.6, 3626337.5, 132.0, 132.0, 0.0);
(492309.6, 3626337.5, 132.0, 132.0, 0.0); (492319.6, 3626337.5, 132.1, 132.1, 0.0);
(492329.6, 3626337.5, 132.3, 132.3, 0.0); (492339.6, 3626337.5, 132.4, 132.4, 0.0);
(492349.6, 3626337.5, 132.6, 132.6, 0.0); (492359.6, 3626337.5, 132.8, 132.8, 0.0);
(492369.6, 3626337.5, 133.0, 133.0, 0.0); (492379.6, 3626337.5, 133.0, 133.0, 0.0);
(492389.6, 3626337.5, 133.0, 133.0, 0.0); (492399.6, 3626337.5, 133.0, 133.0, 0.0);
(492409.6, 3626337.5, 133.1, 133.1, 0.0); (492419.6, 3626337.5, 133.3, 133.3, 0.0);
(492269.6, 3626347.5, 132.0, 132.0, 0.0); (492279.6, 3626347.5, 132.0, 132.0, 0.0);

```
     ( 492289.6, 3626347.5,     132.0,     132.0,       0.0);         (
492299.6, 3626347.5,     132.0,     132.0,       0.0);
     ( 492309.6, 3626347.5,     132.0,     132.0,       0.0);         (
492319.6, 3626347.5,     132.2,     132.2,       0.0);
     ( 492329.6, 3626347.5,     132.5,     132.5,       0.0);         (
492339.6, 3626347.5,     132.7,     132.7,       0.0);
     ( 492349.6, 3626347.5,     132.8,     132.8,       0.0);         (
492359.6, 3626347.5,     132.9,     132.9,       0.0);
     ( 492369.6, 3626347.5,     133.0,     133.0,       0.0);         (
492379.6, 3626347.5,     133.0,     133.0,       0.0);
     ( 492389.6, 3626347.5,     133.0,     133.0,       0.0);         (
492399.6, 3626347.5,     133.0,     133.0,       0.0);
     ( 492409.6, 3626347.5,     133.2,     133.2,       0.0);         (
492419.6, 3626347.5,     133.5,     133.5,       0.0);
     ( 492269.6, 3626357.5,     132.1,     132.1,       0.0);         (
492279.6, 3626357.5,     132.1,     132.1,       0.0);
     ( 492289.6, 3626357.5,     132.1,     132.1,       0.0);         (
492299.6, 3626357.5,     132.1,     132.1,       0.0);
     ( 492309.6, 3626357.5,     132.1,     132.1,       0.0);         (
492319.6, 3626357.5,     132.4,     132.4,       0.0);
     ( 492329.6, 3626357.5,     132.7,     132.7,       0.0);         (
492339.6, 3626357.5,     133.0,     133.0,       0.0);
     ( 492349.6, 3626357.5,     133.0,     133.0,       0.0);         (
492359.6, 3626357.5,     133.0,     133.0,       0.0);
     ( 492369.6, 3626357.5,     133.0,     133.0,       0.0);         (
492379.6, 3626357.5,     133.0,     133.0,       0.0);
     ( 492389.6, 3626357.5,     133.0,     133.0,       0.0);         (
492399.6, 3626357.5,     133.0,     133.0,       0.0);
     ( 492409.6, 3626357.5,     133.3,     133.3,       0.0);         (
492419.6, 3626357.5,     133.6,     133.6,       0.0);
     ( 492269.6, 3626367.5,     132.4,     132.4,       0.0);         (
492279.6, 3626367.5,     132.4,     132.4,       0.0);
     ( 492289.6, 3626367.5,     132.4,     132.4,       0.0);         (
492299.6, 3626367.5,     132.4,     132.4,       0.0);
     ( 492309.6, 3626367.5,     132.4,     132.4,       0.0);         (
492319.6, 3626367.5,     132.6,     132.6,       0.0);
     ( 492329.6, 3626367.5,     132.8,     132.8,       0.0);         (
492339.6, 3626367.5,     133.0,     133.0,       0.0);
     ( 492349.6, 3626367.5,     133.0,     133.0,       0.0);         (
492359.6, 3626367.5,     133.0,     133.0,       0.0);
     ( 492369.6, 3626367.5,     133.0,     133.0,       0.0);         (
492379.6, 3626367.5,     133.0,     133.0,       0.0);
     ( 492389.6, 3626367.5,     133.0,     133.0,       0.0);         (
492399.6, 3626367.5,     133.0,     133.0,       0.0);
     ( 492409.6, 3626367.5,     133.2,     133.2,       0.0);         (
492419.6, 3626367.5,     133.4,     133.4,       0.0);
     ( 492269.6, 3626377.5,     132.7,     132.7,       0.0);         (
492279.6, 3626377.5,     132.7,     132.7,       0.0);
     ( 492289.6, 3626377.5,     132.7,     132.7,       0.0);         (
492299.6, 3626377.5,     132.7,     132.7,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492309.6, 3626377.5, 132.7, 132.7, 0.0); (492319.6, 3626377.5, 132.8, 132.8, 0.0);
(492329.6, 3626377.5, 132.9, 132.9, 0.0); (492339.6, 3626377.5, 133.0, 133.0, 0.0);
(492349.6, 3626377.5, 133.0, 133.0, 0.0); (492359.6, 3626377.5, 133.0, 133.0, 0.0);
(492369.6, 3626377.5, 133.0, 133.0, 0.0); (492379.6, 3626377.5, 133.0, 133.0, 0.0);
(492389.6, 3626377.5, 133.0, 133.0, 0.0); (492399.6, 3626377.5, 133.0, 133.0, 0.0);
(492409.6, 3626377.5, 133.1, 133.1, 0.0); (492419.6, 3626377.5, 133.2, 133.2, 0.0);
(492269.6, 3626387.5, 133.0, 133.0, 0.0); (492279.6, 3626387.5, 133.0, 133.0, 0.0);
(492289.6, 3626387.5, 133.0, 133.0, 0.0); (492299.6, 3626387.5, 133.0, 133.0, 0.0);
(492309.6, 3626387.5, 133.0, 133.0, 0.0); (492319.6, 3626387.5, 133.0, 133.0, 0.0);
(492329.6, 3626387.5, 133.0, 133.0, 0.0); (492339.6, 3626387.5, 133.1, 133.1, 0.0);
(492349.6, 3626387.5, 133.1, 133.1, 0.0); (492359.6, 3626387.5, 133.1, 133.1, 0.0);
(492369.6, 3626387.5, 133.1, 133.1, 0.0); (492379.6, 3626387.5, 133.0, 133.0, 0.0);
(492389.6, 3626387.5, 133.0, 133.0, 0.0); (492399.6, 3626387.5, 133.0, 133.0, 0.0);
(492409.6, 3626387.5, 133.0, 133.0, 0.0); (492419.6, 3626387.5, 133.0, 133.0, 0.0);
(492429.6, 3626387.5, 132.9, 132.9, 0.0); (492269.6, 3626397.5, 133.0, 133.0, 0.0);
(492279.6, 3626397.5, 133.0, 133.0, 0.0); (492289.6, 3626397.5, 133.0, 133.0, 0.0);
(492299.6, 3626397.5, 133.0, 133.0, 0.0); (492309.6, 3626397.5, 133.0, 133.0, 0.0);
(492319.6, 3626397.5, 133.1, 133.1, 0.0); (492329.6, 3626397.5, 133.3, 133.3, 0.0);
(492339.6, 3626397.5, 133.4, 133.4, 0.0); (492349.6, 3626397.5, 133.4, 133.4, 0.0);
(492359.6, 3626397.5, 133.4, 133.4, 0.0); (492369.6, 3626397.5, 133.4, 133.4, 0.0);

```
     ( 492379.6, 3626397.5,     133.1,     133.1,       0.0);         (
492389.6, 3626397.5,     132.9,     132.9,       0.0);
     ( 492399.6, 3626397.5,     132.6,     132.6,       0.0);         (
492409.6, 3626397.5,     132.6,     132.6,       0.0);
     ( 492419.6, 3626397.5,     132.6,     132.6,       0.0);         (
492429.6, 3626397.5,     132.6,     132.6,       0.0);
     ( 492439.6, 3626397.5,     132.1,     132.1,       0.0);         (
492569.6, 3626397.5,     126.8,     134.0,       0.0);
     ( 492269.6, 3626407.5,     133.0,     133.0,       0.0);         (
492279.6, 3626407.5,     133.0,     133.0,       0.0);
     ( 492289.6, 3626407.5,     133.0,     133.0,       0.0);         (
492299.6, 3626407.5,     133.0,     133.0,       0.0);
     ( 492309.6, 3626407.5,     133.0,     133.0,       0.0);         (
492319.6, 3626407.5,     133.2,     133.2,       0.0);
     ( 492329.6, 3626407.5,     133.5,     133.5,       0.0);         (
492339.6, 3626407.5,     133.7,     133.7,       0.0);
     ( 492349.6, 3626407.5,     133.7,     133.7,       0.0);         (
492359.6, 3626407.5,     133.7,     133.7,       0.0);
     ( 492369.6, 3626407.5,     133.7,     133.7,       0.0);         (
492379.6, 3626407.5,     133.2,     133.2,       0.0);
     ( 492389.6, 3626407.5,     132.8,     132.8,       0.0);         (
492399.6, 3626407.5,     132.3,     132.3,       0.0);
     ( 492409.6, 3626407.5,     132.3,     132.3,       0.0);         (
492419.6, 3626407.5,     132.3,     132.3,       0.0);
     ( 492429.6, 3626407.5,     132.3,     132.3,       0.0);         (
492439.6, 3626407.5,     131.7,     131.7,       0.0);
     ( 492449.6, 3626407.5,     131.1,     131.1,       0.0);         (
492561.6, 3626406.5,     123.3,     134.0,       0.0);
     ( 492569.6, 3626407.5,     125.5,     134.0,       0.0);         (
492579.6, 3626407.5,     128.6,     134.0,       0.0);
     ( 492269.6, 3626417.5,     133.0,     133.0,       0.0);         (
492279.6, 3626417.5,     133.0,     133.0,       0.0);
     ( 492289.6, 3626417.5,     133.0,     133.0,       0.0);         (
492299.6, 3626417.5,     133.0,     133.0,       0.0);
     ( 492309.6, 3626417.5,     133.0,     133.0,       0.0);         (
492319.6, 3626417.5,     133.3,     133.3,       0.0);
     ( 492329.6, 3626417.5,     133.6,     133.6,       0.0);         (
492339.6, 3626417.5,     134.0,     134.0,       0.0);
     ( 492349.6, 3626417.5,     134.0,     134.0,       0.0);         (
492359.6, 3626417.5,     134.0,     134.0,       0.0);
     ( 492369.6, 3626417.5,     133.9,     133.9,       0.0);         (
492379.6, 3626417.5,     133.3,     133.3,       0.0);
     ( 492389.6, 3626417.5,     132.6,     132.6,       0.0);         (
492399.6, 3626417.5,     132.0,     132.0,       0.0);
     ( 492409.6, 3626417.5,     132.0,     132.0,       0.0);         (
492419.6, 3626417.5,     131.9,     131.9,       0.0);
     ( 492429.6, 3626417.5,     131.8,     132.0,       0.0);         (
492439.6, 3626417.5,     131.1,     131.1,       0.0);
     ( 492449.6, 3626417.5,     130.5,     130.5,       0.0);         (
492459.6, 3626417.5,     129.7,     130.0,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492569.6, 3626417.5, 124.1, 134.0, 0.0); (492579.6, 3626417.5, 127.8, 134.0, 0.0);
(492587.9, 3626417.5, 128.6, 134.0, 0.0); (492269.6, 3626427.5, 133.0, 133.0, 0.0);
(492279.6, 3626427.5, 133.0, 133.0, 0.0); (492289.6, 3626427.5, 133.0, 133.0, 0.0);
(492299.6, 3626427.5, 133.0, 133.0, 0.0); (492309.6, 3626427.5, 133.0, 133.0, 0.0);
(492319.6, 3626427.5, 133.2, 133.2, 0.0); (492329.6, 3626427.5, 133.4, 133.4, 0.0);
(492339.6, 3626427.5, 133.6, 133.6, 0.0); (492349.6, 3626427.5, 133.6, 133.6, 0.0);
(492359.6, 3626427.5, 133.6, 133.6, 0.0); (492369.6, 3626427.5, 133.6, 133.6, 0.0);
(492379.6, 3626427.5, 133.1, 133.1, 0.0); (492389.6, 3626427.5, 132.5, 132.5, 0.0);
(492399.6, 3626427.5, 132.0, 132.0, 0.0); (492409.6, 3626427.5, 131.6, 131.6, 0.0);
(492419.6, 3626427.5, 131.2, 131.2, 0.0); (492429.6, 3626427.5, 130.8, 132.0, 0.0);
(492439.6, 3626427.5, 130.0, 132.0, 0.0); (492449.6, 3626427.5, 129.2, 132.0, 0.0);
(492459.6, 3626427.5, 128.4, 132.0, 0.0); (492469.6, 3626427.5, 125.7, 134.0, 0.0);
(492577.7, 3626427.4, 125.5, 134.0, 0.0); (492589.6, 3626427.5, 127.2, 134.0, 0.0);
(492599.6, 3626427.5, 128.4, 134.0, 0.0); (492609.6, 3626427.5, 129.5, 134.0, 0.0);
(492269.6, 3626437.5, 133.0, 133.0, 0.0); (492279.6, 3626437.5, 133.0, 133.0, 0.0);
(492289.6, 3626437.5, 133.0, 133.0, 0.0); (492299.6, 3626437.5, 133.0, 133.0, 0.0);
(492309.6, 3626437.5, 133.0, 133.0, 0.0); (492319.6, 3626437.5, 133.1, 133.1, 0.0);
(492329.6, 3626437.5, 133.2, 133.2, 0.0); (492339.6, 3626437.5, 133.3, 133.3, 0.0);
(492349.6, 3626437.5, 133.3, 133.3, 0.0); (492359.6, 3626437.5, 133.3, 133.3, 0.0);
(492369.6, 3626437.5, 133.3, 133.3, 0.0); (492379.6, 3626437.5, 132.8, 132.8, 0.0);

```
     ( 492389.6, 3626437.5,     132.4,     132.4,       0.0);         (
492399.6, 3626437.5,     132.0,     132.0,       0.0);
     ( 492409.6, 3626437.5,     131.3,     131.3,       0.0);         (
492419.6, 3626437.5,     130.5,     130.5,       0.0);
     ( 492429.6, 3626437.5,     129.8,     132.0,       0.0);         (
492439.6, 3626437.5,     128.9,     132.0,       0.0);
     ( 492449.6, 3626437.5,     128.0,     132.0,       0.0);         (
492459.6, 3626437.5,     127.1,     132.0,       0.0);
     ( 492469.6, 3626437.5,     124.9,     133.0,       0.0);         (
492479.6, 3626437.5,     122.8,     134.0,       0.0);
     ( 492579.6, 3626437.5,     124.4,     134.0,       0.0);         (
492589.6, 3626437.5,     125.7,     134.0,       0.0);
     ( 492599.6, 3626437.5,     126.9,     134.0,       0.0);         (
492606.6, 3626436.3,     128.0,     134.0,       0.0);
     ( 492269.6, 3626447.5,     133.0,     133.0,       0.0);         (
492279.6, 3626447.5,     133.0,     133.0,       0.0);
     ( 492289.6, 3626447.5,     133.0,     133.0,       0.0);         (
492299.6, 3626447.5,     133.0,     133.0,       0.0);
     ( 492309.6, 3626447.5,     133.0,     133.0,       0.0);         (
492319.6, 3626447.5,     133.0,     133.0,       0.0);
     ( 492329.6, 3626447.5,     133.0,     133.0,       0.0);         (
492339.6, 3626447.5,     133.0,     133.0,       0.0);
     ( 492349.6, 3626447.5,     133.0,     133.0,       0.0);         (
492359.6, 3626447.5,     133.0,     133.0,       0.0);
     ( 492369.6, 3626447.5,     132.9,     132.9,       0.0);         (
492379.6, 3626447.5,     132.6,     132.6,       0.0);
     ( 492389.6, 3626447.5,     132.2,     132.2,       0.0);         (
492399.6, 3626447.5,     131.9,     131.9,       0.0);
     ( 492409.6, 3626447.5,     130.9,     132.0,       0.0);         (
492419.6, 3626447.5,     129.8,     132.0,       0.0);
     ( 492429.6, 3626447.5,     128.8,     132.0,       0.0);         (
492439.6, 3626447.5,     127.8,     132.0,       0.0);
     ( 492449.6, 3626447.5,     126.8,     132.0,       0.0);         (
492459.6, 3626447.5,     125.8,     133.0,       0.0);
     ( 492469.6, 3626447.5,     124.2,     133.0,       0.0);         (
492479.6, 3626447.5,     122.6,     134.0,       0.0);
     ( 492571.1, 3626449.4,     118.7,     134.0,       0.0);         (
492579.6, 3626447.5,     122.7,     134.0,       0.0);
     ( 492585.4, 3626447.6,     123.5,     134.0,       0.0);         (
492269.6, 3626457.5,     132.7,     132.7,       0.0);
     ( 492279.6, 3626457.5,     132.6,     132.6,       0.0);         (
492289.6, 3626457.5,     132.8,     132.8,       0.0);
     ( 492299.6, 3626457.5,     132.9,     132.9,       0.0);         (
492309.6, 3626457.5,     133.0,     133.0,       0.0);
     ( 492319.6, 3626457.5,     133.0,     133.0,       0.0);         (
492329.6, 3626457.5,     133.0,     133.0,       0.0);
     ( 492339.6, 3626457.5,     133.0,     133.0,       0.0);         (
492349.6, 3626457.5,     132.9,     132.9,       0.0);
     ( 492359.6, 3626457.5,     132.7,     132.7,       0.0);         (
492369.6, 3626457.5,     132.6,     132.6,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492379.6, 3626457.5, 132.1, 132.1, 0.0); (492389.6, 3626457.5, 131.7, 131.7, 0.0);
(492399.6, 3626457.5, 131.2, 131.2, 0.0); (492409.6, 3626457.5, 130.1, 132.0, 0.0);
(492419.6, 3626457.5, 128.9, 132.0, 0.0); (492429.6, 3626457.5, 127.8, 132.0, 0.0);
(492439.6, 3626457.5, 127.0, 132.0, 0.0); (492449.6, 3626457.5, 126.1, 132.0, 0.0);
(492459.6, 3626457.5, 125.2, 133.0, 0.0); (492469.6, 3626457.5, 123.8, 133.0, 0.0);
(492479.6, 3626457.5, 122.4, 134.0, 0.0); (492580.9, 3626454.7, 121.5, 134.0, 0.0);
(492269.6, 3626467.5, 132.5, 132.5, 0.0); (492279.6, 3626467.5, 132.3, 132.3, 0.0);
(492289.6, 3626467.5, 132.5, 132.5, 0.0); (492299.6, 3626467.5, 132.8, 132.8, 0.0);
(492309.6, 3626467.5, 133.0, 133.0, 0.0); (492319.6, 3626467.5, 133.0, 133.0, 0.0);
(492329.6, 3626467.5, 133.0, 133.0, 0.0); (492339.6, 3626467.5, 133.0, 133.0, 0.0);
(492349.6, 3626467.5, 132.8, 132.8, 0.0); (492359.6, 3626467.5, 132.5, 132.5, 0.0);
(492369.6, 3626467.5, 132.3, 132.3, 0.0); (492379.6, 3626467.5, 131.7, 131.7, 0.0);
(492389.6, 3626467.5, 131.1, 131.1, 0.0); (492399.6, 3626467.5, 130.5, 130.5, 0.0);
(492409.6, 3626467.5, 129.3, 132.0, 0.0); (492419.6, 3626467.5, 128.1, 132.0, 0.0);
(492429.6, 3626467.5, 126.8, 132.0, 0.0); (492439.6, 3626467.5, 126.1, 132.0, 0.0);
(492449.6, 3626467.5, 125.3, 132.0, 0.0); (492459.6, 3626467.5, 124.5, 132.0, 0.0);
(492469.6, 3626467.5, 123.3, 133.0, 0.0); (492479.6, 3626467.5, 122.1, 133.0, 0.0);
(492499.6, 3626467.5, 117.6, 134.0, 0.0); (492269.6, 3626477.5, 132.3, 132.3, 0.0);
(492279.6, 3626477.5, 132.0, 132.0, 0.0); (492289.6, 3626477.5, 132.3, 132.3, 0.0);
(492299.6, 3626477.5, 132.6, 132.6, 0.0); (492309.6, 3626477.5, 133.0, 133.0, 0.0);

```
     ( 492319.6, 3626477.5,     133.0,     133.0,       0.0);         (
492329.6, 3626477.5,     133.0,     133.0,       0.0);
     ( 492339.6, 3626477.5,     132.9,     132.9,       0.0);         (
492349.6, 3626477.5,     132.6,     132.6,       0.0);
     ( 492359.6, 3626477.5,     132.2,     132.2,       0.0);         (
492369.6, 3626477.5,     131.9,     131.9,       0.0);
     ( 492379.6, 3626477.5,     131.2,     131.2,       0.0);         (
492389.6, 3626477.5,     130.4,     130.4,       0.0);
     ( 492399.6, 3626477.5,     129.7,     130.0,       0.0);         (
492409.6, 3626477.5,     128.3,     132.0,       0.0);
     ( 492419.6, 3626477.5,     126.9,     133.0,       0.0);         (
492429.6, 3626477.5,     125.5,     133.0,       0.0);
     ( 492439.6, 3626477.5,     124.9,     133.0,       0.0);         (
492449.6, 3626477.5,     124.3,     133.0,       0.0);
     ( 492459.6, 3626477.5,     123.8,     132.0,       0.0);         (
492469.6, 3626477.5,     122.8,     133.0,       0.0);
     ( 492479.6, 3626477.5,     121.8,     133.0,       0.0);         (
492489.6, 3626477.5,     120.8,     133.0,       0.0);
     ( 492499.6, 3626477.5,     117.9,     134.0,       0.0);         (
492506.7, 3626477.9,     115.9,     134.0,       0.0);
     ( 492269.6, 3626487.5,     132.2,     132.2,       0.0);         (
492279.6, 3626487.5,     132.0,     132.0,       0.0);
     ( 492289.6, 3626487.5,     132.2,     132.2,       0.0);         (
492299.6, 3626487.5,     132.4,     132.4,       0.0);
     ( 492309.6, 3626487.5,     132.6,     132.6,       0.0);         (
492319.6, 3626487.5,     132.6,     132.6,       0.0);
     ( 492329.6, 3626487.5,     132.6,     132.6,       0.0);         (
492339.6, 3626487.5,     132.6,     132.6,       0.0);
     ( 492349.6, 3626487.5,     132.1,     132.1,       0.0);         (
492359.6, 3626487.5,     131.7,     131.7,       0.0);
     ( 492369.6, 3626487.5,     131.2,     131.2,       0.0);         (
492379.6, 3626487.5,     130.2,     132.0,       0.0);
     ( 492389.6, 3626487.5,     129.1,     132.0,       0.0);         (
492399.6, 3626487.5,     128.0,     132.0,       0.0);
     ( 492409.6, 3626487.5,     126.2,     133.0,       0.0);         (
492419.6, 3626487.5,     124.3,     134.0,       0.0);
     ( 492429.6, 3626487.5,     122.5,     134.0,       0.0);         (
492439.6, 3626487.5,     122.5,     134.0,       0.0);
     ( 492449.6, 3626487.5,     122.5,     134.0,       0.0);         (
492459.6, 3626487.5,     122.4,     134.0,       0.0);
     ( 492469.6, 3626487.5,     121.7,     133.0,       0.0);         (
492479.6, 3626487.5,     121.0,     133.0,       0.0);
     ( 492489.6, 3626487.5,     120.2,     133.0,       0.0);         (
492499.6, 3626487.5,     117.8,     134.0,       0.0);
     ( 492509.6, 3626487.5,     115.5,     134.0,       0.0);         (
492269.6, 3626497.5,     132.1,     132.1,       0.0);
     ( 492279.6, 3626497.5,     132.0,     132.0,       0.0);         (
492289.6, 3626497.5,     132.1,     132.1,       0.0);
     ( 492299.6, 3626497.5,     132.2,     132.2,       0.0);         (
492309.6, 3626497.5,     132.3,     132.3,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492319.6, 3626497.5, 132.3, 132.3, 0.0); (492329.6, 3626497.5, 132.3, 132.3, 0.0);
(492339.6, 3626497.5, 132.3, 132.3, 0.0); (492349.6, 3626497.5, 131.7, 131.7, 0.0);
(492359.6, 3626497.5, 131.1, 131.1, 0.0); (492369.6, 3626497.5, 130.5, 130.5, 0.0);
(492379.6, 3626497.5, 129.1, 132.0, 0.0); (492389.6, 3626497.5, 127.8, 132.0, 0.0);
(492399.6, 3626497.5, 126.3, 133.0, 0.0); (492409.6, 3626497.5, 124.0, 134.0, 0.0);
(492419.6, 3626497.5, 121.8, 134.0, 0.0); (492429.6, 3626497.5, 119.5, 134.0, 0.0);
(492439.6, 3626497.5, 120.1, 134.0, 0.0); (492449.6, 3626497.5, 120.6, 134.0, 0.0);
(492459.6, 3626497.5, 121.1, 134.0, 0.0); (492469.6, 3626497.5, 120.6, 134.0, 0.0);
(492479.6, 3626497.5, 120.1, 134.0, 0.0); (492489.6, 3626497.5, 119.5, 133.0, 0.0);
(492499.6, 3626497.5, 117.7, 134.0, 0.0); (492509.6, 3626497.5, 115.9, 134.0, 0.0);
(492519.6, 3626497.5, 114.0, 134.0, 0.0); (492269.6, 3626507.5, 131.9, 131.9, 0.0);
(492279.6, 3626507.5, 132.0, 132.0, 0.0); (492289.6, 3626507.5, 132.0, 132.0, 0.0);
(492299.6, 3626507.5, 132.0, 132.0, 0.0); (492309.6, 3626507.5, 132.0, 132.0, 0.0);
(492319.6, 3626507.5, 131.9, 131.9, 0.0); (492329.6, 3626507.5, 131.9, 131.9, 0.0);
(492339.6, 3626507.5, 131.9, 131.9, 0.0); (492349.6, 3626507.5, 131.2, 131.2, 0.0);
(492359.6, 3626507.5, 130.5, 130.5, 0.0); (492369.6, 3626507.5, 129.7, 130.0, 0.0);
(492379.6, 3626507.5, 128.0, 132.0, 0.0); (492389.6, 3626507.5, 126.3, 133.0, 0.0);
(492399.6, 3626507.5, 124.6, 133.0, 0.0); (492409.6, 3626507.5, 121.9, 134.0, 0.0);
(492419.6, 3626507.5, 119.2, 134.0, 0.0); (492429.6, 3626507.5, 116.7, 134.0, 0.0);
(492439.6, 3626507.5, 117.7, 134.0, 0.0); (492449.6, 3626507.5, 118.8, 134.0, 0.0);

```
     ( 492459.6, 3626507.5,     119.8,     134.0,       0.0);         (
492469.6, 3626507.5,     119.5,     134.0,       0.0);
     ( 492479.6, 3626507.5,     119.3,     134.0,       0.0);         (
492489.6, 3626507.5,     119.0,     133.0,       0.0);
     ( 492499.6, 3626507.5,     117.7,     134.0,       0.0);         (
492509.6, 3626507.5,     116.4,     134.0,       0.0);
     ( 492519.6, 3626507.5,     115.0,     134.0,       0.0);         (
492269.6, 3626517.5,     131.4,     131.4,       0.0);
     ( 492279.6, 3626517.5,     131.6,     131.6,       0.0);         (
492289.6, 3626517.5,     131.6,     131.6,       0.0);
     ( 492299.6, 3626517.5,     131.6,     131.6,       0.0);         (
492309.6, 3626517.5,     131.6,     131.6,       0.0);
     ( 492319.6, 3626517.5,     131.5,     131.5,       0.0);         (
492329.6, 3626517.5,     131.4,     131.4,       0.0);
     ( 492339.6, 3626517.5,     131.2,     131.2,       0.0);         (
492349.6, 3626517.5,     130.3,     132.0,       0.0);
     ( 492359.6, 3626517.5,     129.4,     132.0,       0.0);         (
492369.6, 3626517.5,     128.4,     132.0,       0.0);
     ( 492379.6, 3626517.5,     126.5,     133.0,       0.0);         (
492389.6, 3626517.5,     124.6,     133.0,       0.0);
     ( 492399.6, 3626517.5,     122.6,     134.0,       0.0);         (
492409.6, 3626517.5,     119.8,     134.0,       0.0);
     ( 492419.6, 3626517.5,     117.0,     134.0,       0.0);         (
492429.6, 3626517.5,     114.3,     134.0,       0.0);
     ( 492439.6, 3626517.5,     115.7,     134.0,       0.0);         (
492449.6, 3626517.5,     117.1,     134.0,       0.0);
     ( 492459.6, 3626517.5,     118.5,     134.0,       0.0);         (
492469.6, 3626517.5,     118.8,     134.0,       0.0);
     ( 492479.6, 3626517.5,     119.1,     133.0,       0.0);         (
492489.6, 3626517.5,     119.3,     132.0,       0.0);
     ( 492499.6, 3626517.5,     118.1,     132.0,       0.0);         (
492509.6, 3626517.5,     116.9,     134.0,       0.0);
     ( 492519.6, 3626517.5,     115.6,     134.0,       0.0);         (
492529.6, 3626517.5,     110.4,     134.0,       0.0);
     ( 492269.6, 3626527.5,     130.8,     130.8,       0.0);         (
492279.6, 3626527.5,     131.3,     131.3,       0.0);
     ( 492289.6, 3626527.5,     131.3,     131.3,       0.0);         (
492299.6, 3626527.5,     131.3,     131.3,       0.0);
     ( 492309.6, 3626527.5,     131.3,     131.3,       0.0);         (
492319.6, 3626527.5,     131.0,     131.0,       0.0);
     ( 492329.6, 3626527.5,     130.8,     130.8,       0.0);         (
492339.6, 3626527.5,     130.5,     130.5,       0.0);
     ( 492349.6, 3626527.5,     129.4,     132.0,       0.0);         (
492359.6, 3626527.5,     128.2,     132.0,       0.0);
     ( 492369.6, 3626527.5,     127.1,     132.0,       0.0);         (
492459.6, 3626527.5,     117.1,     134.0,       0.0);
     ( 492469.6, 3626527.5,     118.0,     134.0,       0.0);         (
492479.6, 3626527.5,     118.9,     133.0,       0.0);
     ( 492489.6, 3626527.5,     119.7,     132.0,       0.0);         (
492499.6, 3626527.5,     118.6,     132.0,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492509.6, 3626527.5, 117.5, 132.0, 0.0); (492519.6, 3626527.5, 116.3, 134.0, 0.0);
(492529.6, 3626527.5, 111.8, 134.0, 0.0); (492269.6, 3626537.5, 130.2, 130.2, 0.0);
(492279.6, 3626537.5, 131.0, 131.0, 0.0); (492289.6, 3626537.5, 130.9, 130.9, 0.0);
(492299.6, 3626537.5, 130.9, 130.9, 0.0); (492309.6, 3626537.5, 130.9, 130.9, 0.0);
(492319.6, 3626537.5, 130.6, 130.6, 0.0); (492329.6, 3626537.5, 130.2, 130.2, 0.0);
(492339.6, 3626537.5, 129.9, 129.9, 0.0); (492349.6, 3626537.5, 128.5, 132.0, 0.0);
(492359.6, 3626537.5, 127.0, 132.0, 0.0); (492369.6, 3626537.5, 125.6, 133.0, 0.0);
(492459.6, 3626537.5, 115.9, 134.0, 0.0); (492469.6, 3626537.5, 117.3, 134.0, 0.0);
(492479.6, 3626537.5, 118.6, 133.0, 0.0); (492489.6, 3626537.5, 120.0, 120.0, 0.0);
(492499.6, 3626537.5, 119.0, 119.0, 0.0); (492509.6, 3626537.5, 118.0, 118.0, 0.0);
(492519.6, 3626537.5, 117.0, 120.0, 0.0); (492529.6, 3626537.5, 113.0, 134.0, 0.0);
(492269.6, 3626547.5, 129.3, 131.0, 0.0); (492279.6, 3626547.5, 130.6, 130.6, 0.0);
(492289.6, 3626547.5, 130.5, 130.5, 0.0); (492299.6, 3626547.5, 130.4, 130.4, 0.0);
(492309.6, 3626547.5, 130.2, 130.2, 0.0); (492319.6, 3626547.5, 129.9, 129.9, 0.0);
(492329.6, 3626547.5, 129.6, 129.6, 0.0); (492339.6, 3626547.5, 129.2, 129.2, 0.0);
(492349.6, 3626547.5, 127.3, 132.0, 0.0); (492359.6, 3626547.5, 125.5, 133.0, 0.0);
(492369.6, 3626547.5, 123.6, 133.0, 0.0); (492459.6, 3626547.5, 114.9, 134.0, 0.0);
(492469.6, 3626547.5, 116.6, 134.0, 0.0); (492479.6, 3626547.5, 118.3, 132.0, 0.0);
(492489.6, 3626547.5, 120.0, 120.0, 0.0); (492499.6, 3626547.5, 119.1, 119.1, 0.0);
(492509.6, 3626547.5, 118.2, 118.2, 0.0); (492519.6, 3626547.5, 117.3, 117.3, 0.0);

```
     ( 492529.6, 3626547.5,     113.5,     134.0,       0.0);         (
492269.6, 3626557.5,     128.5,     131.0,       0.0);
     ( 492279.6, 3626557.5,     130.3,     130.3,       0.0);         (
492289.6, 3626557.5,     130.0,     130.0,       0.0);
     ( 492299.6, 3626557.5,     129.8,     129.8,       0.0);         (
492309.6, 3626557.5,     129.6,     129.6,       0.0);
     ( 492319.6, 3626557.5,     129.2,     129.2,       0.0);         (
492329.6, 3626557.5,     128.9,     128.9,       0.0);
     ( 492339.6, 3626557.5,     128.5,     128.5,       0.0);         (
492349.6, 3626557.5,     126.2,     132.0,       0.0);
     ( 492359.6, 3626557.5,     123.9,     133.0,       0.0);         (
492369.6, 3626557.5,     121.6,     133.0,       0.0);
     ( 492459.6, 3626557.5,     113.9,     134.0,       0.0);         (
492469.6, 3626557.5,     116.0,     134.0,       0.0);
     ( 492479.6, 3626557.5,     118.0,     132.0,       0.0);         (
492489.6, 3626557.5,     120.0,     120.0,       0.0);
     ( 492499.6, 3626557.5,     119.2,     119.2,       0.0);         (
492509.6, 3626557.5,     118.5,     118.5,       0.0);
     ( 492519.6, 3626557.5,     117.6,     117.6,       0.0);         (
492529.6, 3626557.5,     114.1,     134.0,       0.0);
     ( 492269.6, 3626567.5,     127.6,     131.0,       0.0);         (
492279.6, 3626567.5,     129.8,     130.0,       0.0);
     ( 492289.6, 3626567.5,     129.5,     129.5,       0.0);         (
492299.6, 3626567.5,     129.2,     129.2,       0.0);
     ( 492309.6, 3626567.5,     128.9,     128.9,       0.0);         (
492319.6, 3626567.5,     128.5,     128.5,       0.0);
     ( 492329.6, 3626567.5,     128.2,     128.2,       0.0);         (
492339.6, 3626567.5,     127.7,     128.0,       0.0);
     ( 492349.6, 3626567.5,     125.0,     132.0,       0.0);         (
492359.6, 3626567.5,     122.2,     133.0,       0.0);
     ( 492369.6, 3626567.5,     119.5,     133.0,       0.0);         (
492459.6, 3626567.5,     113.0,     134.0,       0.0);
     ( 492469.6, 3626567.5,     115.3,     134.0,       0.0);         (
492479.6, 3626567.5,     117.7,     130.0,       0.0);
     ( 492489.6, 3626567.5,     119.9,     119.9,       0.0);         (
492499.6, 3626567.5,     119.3,     119.3,       0.0);
     ( 492509.6, 3626567.5,     118.6,     118.6,       0.0);         (
492519.6, 3626567.5,     117.9,     117.9,       0.0);
     ( 492529.6, 3626567.5,     114.6,     120.0,       0.0);         (
492269.6, 3626577.5,     126.7,     131.0,       0.0);
     ( 492279.6, 3626577.5,     128.8,     130.0,       0.0);         (
492289.6, 3626577.5,     128.6,     128.6,       0.0);
     ( 492299.6, 3626577.5,     128.4,     128.4,       0.0);         (
492309.6, 3626577.5,     128.2,     128.2,       0.0);
     ( 492319.6, 3626577.5,     127.6,     127.6,       0.0);         (
492329.6, 3626577.5,     127.0,     127.0,       0.0);
     ( 492339.6, 3626577.5,     126.4,     128.0,       0.0);         (
492469.6, 3626577.5,     115.0,     133.0,       0.0);
     ( 492479.6, 3626577.5,     117.3,     120.0,       0.0);         (
492489.6, 3626577.5,     119.6,     119.6,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492499.6, 3626577.5, 119.1, 119.1, 0.0); (492509.6, 3626577.5, 118.5, 118.5, 0.0);
(492519.6, 3626577.5, 117.9, 117.9, 0.0); (492529.6, 3626577.5, 114.6, 120.0, 0.0);
(492269.6, 3626587.5, 125.8, 130.0, 0.0); (492279.6, 3626587.5, 127.8, 130.0, 0.0);
(492289.6, 3626587.5, 127.8, 127.8, 0.0); (492299.6, 3626587.5, 127.6, 127.6, 0.0);
(492309.6, 3626587.5, 127.5, 127.5, 0.0); (492319.6, 3626587.5, 126.7, 126.7, 0.0);
(492329.6, 3626587.5, 125.9, 129.0, 0.0); (492339.6, 3626587.5, 125.0, 131.0, 0.0);
(492469.6, 3626587.5, 114.7, 133.0, 0.0); (492479.6, 3626587.5, 117.0, 120.0, 0.0);
(492489.6, 3626587.5, 119.3, 119.3, 0.0); (492499.6, 3626587.5, 118.8, 118.8, 0.0);
(492509.6, 3626587.5, 118.4, 118.4, 0.0); (492519.6, 3626587.5, 117.9, 117.9, 0.0);
(492529.6, 3626587.5, 114.6, 120.0, 0.0); (492269.6, 3626597.5, 124.9, 130.0, 0.0);
(492279.6, 3626597.5, 126.8, 126.8, 0.0); (492289.6, 3626597.5, 126.9, 126.9, 0.0);
(492299.6, 3626597.5, 126.9, 126.9, 0.0); (492309.6, 3626597.5, 126.9, 126.9, 0.0);
(492319.6, 3626597.5, 125.9, 127.0, 0.0); (492329.6, 3626597.5, 124.9, 129.0, 0.0);
(492339.6, 3626597.5, 123.8, 131.0, 0.0); (492469.6, 3626597.5, 114.3, 133.0, 0.0);
(492479.6, 3626597.5, 116.7, 120.0, 0.0); (492489.6, 3626597.5, 118.9, 118.9, 0.0);
(492499.6, 3626597.5, 118.6, 118.6, 0.0); (492509.6, 3626597.5, 118.2, 118.2, 0.0);
(492519.6, 3626597.5, 117.8, 118.0, 0.0); (492529.6, 3626597.5, 114.4, 120.0, 0.0);
(492269.6, 3626607.5, 124.0, 130.0, 0.0); (492279.6, 3626607.5, 125.8, 125.8, 0.0);
(492289.6, 3626607.5, 126.0, 126.0, 0.0); (492299.6, 3626607.5, 126.1, 126.1, 0.0);
(492309.6, 3626607.5, 126.2, 126.2, 0.0); (492319.6, 3626607.5, 125.3, 127.0, 0.0);

```
     ( 492329.6, 3626607.5,     124.5,     127.0,       0.0);         (
492339.6, 3626607.5,     123.5,     129.0,       0.0);
     ( 492469.6, 3626607.5,     113.8,     133.0,       0.0);         (
492479.6, 3626607.5,     116.2,     119.0,       0.0);
     ( 492489.6, 3626607.5,     118.6,     118.6,       0.0);         (
492499.6, 3626607.5,     118.0,     118.0,       0.0);
     ( 492509.6, 3626607.5,     117.4,     117.4,       0.0);         (
492519.6, 3626607.5,     116.8,     118.0,       0.0);
     ( 492529.6, 3626607.5,     113.3,     120.0,       0.0);         (
492269.6, 3626617.5,     123.1,     130.0,       0.0);
     ( 492279.6, 3626617.5,     124.8,     124.8,       0.0);         (
492289.6, 3626617.5,     125.1,     125.1,       0.0);
     ( 492299.6, 3626617.5,     125.3,     125.3,       0.0);         (
492309.6, 3626617.5,     125.5,     125.5,       0.0);
     ( 492319.6, 3626617.5,     124.8,     124.8,       0.0);         (
492329.6, 3626617.5,     124.0,     127.0,       0.0);
     ( 492339.6, 3626617.5,     123.2,     127.0,       0.0);         (
492469.6, 3626617.5,     113.2,     133.0,       0.0);
     ( 492479.6, 3626617.5,     115.8,     119.0,       0.0);         (
492489.6, 3626617.5,     118.3,     118.3,       0.0);
     ( 492499.6, 3626617.5,     117.5,     117.5,       0.0);         (
492509.6, 3626617.5,     116.6,     116.6,       0.0);
     ( 492519.6, 3626617.5,     115.8,     118.0,       0.0);         (
492529.6, 3626617.5,     112.2,     120.0,       0.0);
     ( 492269.6, 3626627.5,     122.3,     130.0,       0.0);         (
492279.6, 3626627.5,     123.9,     123.9,       0.0);
     ( 492289.6, 3626627.5,     124.2,     124.2,       0.0);         (
492299.6, 3626627.5,     124.6,     124.6,       0.0);
     ( 492309.6, 3626627.5,     124.9,     124.9,       0.0);         (
492319.6, 3626627.5,     124.2,     124.2,       0.0);
     ( 492329.6, 3626627.5,     123.5,     123.5,       0.0);         (
492339.6, 3626627.5,     122.7,     123.0,       0.0);
     ( 492469.6, 3626627.5,     112.5,     133.0,       0.0);         (
492479.6, 3626627.5,     115.2,     119.0,       0.0);
     ( 492489.6, 3626627.5,     117.7,     118.0,       0.0);         (
492499.6, 3626627.5,     116.6,     118.0,       0.0);
     ( 492509.6, 3626627.5,     115.6,     118.0,       0.0);         (
492519.6, 3626627.5,     114.4,     119.0,       0.0);
     ( 492269.6, 3626637.5,     121.7,     130.0,       0.0);         (
492279.6, 3626637.5,     123.2,     123.2,       0.0);
     ( 492289.6, 3626637.5,     123.6,     123.6,       0.0);         (
492299.6, 3626637.5,     123.9,     123.9,       0.0);
     ( 492309.6, 3626637.5,     124.2,     124.2,       0.0);         (
492319.6, 3626637.5,     123.4,     125.0,       0.0);
     ( 492329.6, 3626637.5,     122.6,     125.0,       0.0);         (
492339.6, 3626637.5,     121.7,     127.0,       0.0);
     ( 492469.6, 3626637.5,     111.1,     133.0,       0.0);         (
492479.6, 3626637.5,     113.6,     119.0,       0.0);
     ( 492489.6, 3626637.5,     116.0,     118.0,       0.0);         (
492499.6, 3626637.5,     114.5,     119.0,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492509.6, 3626637.5, 113.0, 119.0, 0.0); (492519.6, 3626637.5, 111.4, 120.0, 0.0);
(492269.6, 3626647.5, 121.2, 130.0, 0.0); (492279.6, 3626647.5, 122.6, 122.6, 0.0);
(492289.6, 3626647.5, 122.9, 122.9, 0.0); (492299.6, 3626647.5, 123.2, 123.2, 0.0);
(492309.6, 3626647.5, 123.5, 123.5, 0.0); (492319.6, 3626647.5, 122.6, 122.6, 0.0);
(492329.6, 3626647.5, 121.7, 125.0, 0.0); (492339.6, 3626647.5, 120.7, 127.0, 0.0);
(492479.6, 3626647.5, 112.0, 132.0, 0.0); (492489.6, 3626647.5, 114.3, 118.0, 0.0);
(492499.6, 3626647.5, 112.4, 119.0, 0.0); (492509.6, 3626647.5, 110.4, 120.0, 0.0);
(492269.6, 3626657.5, 120.6, 130.0, 0.0); (492279.6, 3626657.5, 121.9, 121.9, 0.0);
(492289.6, 3626657.5, 122.2, 122.2, 0.0); (492299.6, 3626657.5, 122.5, 122.5, 0.0);
(492309.6, 3626657.5, 122.8, 123.0, 0.0); (492319.6, 3626657.5, 121.8, 123.0, 0.0);
(492329.6, 3626657.5, 120.8, 125.0, 0.0); (492339.6, 3626657.5, 119.7, 127.0, 0.0);
(492489.6, 3626657.5, 112.6, 119.0, 0.0); (492499.6, 3626657.5, 110.2, 120.0, 0.0);
(492269.6, 3626667.5, 120.1, 122.0, 0.0); (492279.6, 3626667.5, 121.2, 121.2, 0.0);
(492289.6, 3626667.5, 121.4, 121.4, 0.0); (492299.6, 3626667.5, 121.6, 121.6, 0.0);
(492309.6, 3626667.5, 121.8, 123.0, 0.0); (492319.6, 3626667.5, 120.7, 125.0, 0.0);
(492329.6, 3626667.5, 119.5, 127.0, 0.0); (492339.6, 3626667.5, 118.3, 129.0, 0.0);
(492269.6, 3626677.5, 119.5, 122.0, 0.0); (492279.6, 3626677.5, 120.6, 120.6, 0.0);
(492289.6, 3626677.5, 120.7, 120.7, 0.0); (492299.6, 3626677.5, 120.8, 120.8, 0.0);
(492309.6, 3626677.5, 120.8, 123.0, 0.0); (492319.6, 3626677.5, 119.6, 125.0, 0.0);
(492329.6, 3626677.5, 118.3, 127.0, 0.0); (492339.6, 3626677.5, 117.0, 130.0, 0.0);

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     ( 492269.6, 3626687.5,     119.0,     120.0,       0.0);         (
492279.6, 3626687.5,     120.0,     120.0,       0.0);
     ( 492289.6, 3626687.5,     120.0,     120.0,       0.0);         (
492299.6, 3626687.5,     120.0,     120.0,       0.0);
     ( 492309.6, 3626687.5,     119.9,     119.9,       0.0);         (
492319.6, 3626687.5,     118.5,     125.0,       0.0);
     ( 492329.6, 3626687.5,     117.2,     127.0,       0.0);         (
492339.6, 3626687.5,     115.7,     130.0,       0.0);
     ( 492269.6, 3626697.5,     118.8,     118.8,       0.0);         (
492279.6, 3626697.5,     119.6,     119.6,       0.0);
     ( 492289.6, 3626697.5,     119.6,     119.6,       0.0);         (
492299.6, 3626697.5,     119.6,     119.6,       0.0);
     ( 492309.6, 3626697.5,     119.6,     119.6,       0.0);         (
492319.6, 3626697.5,     118.0,     123.0,       0.0);
     ( 492329.6, 3626697.5,     116.4,     127.0,       0.0);         (
492339.6, 3626697.5,     114.7,     130.0,       0.0);
     ( 492269.6, 3626707.5,     118.5,     118.5,       0.0);         (
492279.6, 3626707.5,     119.3,     119.3,       0.0);
     ( 492289.6, 3626707.5,     119.3,     119.3,       0.0);         (
492299.6, 3626707.5,     119.3,     119.3,       0.0);
     ( 492309.6, 3626707.5,     119.2,     119.2,       0.0);         (
492319.6, 3626707.5,     117.4,     123.0,       0.0);
     ( 492329.6, 3626707.5,     115.6,     127.0,       0.0);         (
492339.6, 3626707.5,     113.7,     130.0,       0.0);
     ( 492269.6, 3626717.5,     118.2,     118.2,       0.0);         (
492279.6, 3626717.5,     118.8,     118.8,       0.0);
     ( 492289.6, 3626717.5,     118.9,     118.9,       0.0);         (
492299.6, 3626717.5,     118.9,     118.9,       0.0);
     ( 492309.6, 3626717.5,     118.9,     118.9,       0.0);         (
492319.6, 3626717.5,     116.9,     119.0,       0.0);
     ( 492329.6, 3626717.5,     114.9,     125.0,       0.0);         (
492339.6, 3626717.5,     112.8,     130.0,       0.0);
     ( 492669.1, 3626644.4,     122.5,     122.5,       0.0);         (
492665.1, 3626656.0,     120.9,     123.0,       0.0);
     ( 492665.7, 3626664.3,     120.9,     123.0,       0.0);         (
492664.1, 3626675.3,     119.6,     124.0,       0.0);
     ( 492599.4, 3626422.0,     129.1,     134.0,       0.0);         (
492613.5, 3626422.0,     130.3,     134.0,       0.0);
     ( 492613.8, 3626427.9,     129.5,     134.0,       0.0);         (
492613.5, 3626435.9,     128.4,     134.0,       0.0);
     ( 492573.3, 3626443.0,     120.9,     134.0,       0.0);         (
492576.1, 3626437.0,     123.2,     134.0,       0.0);
     ( 492578.8, 3626431.7,     125.2,     134.0,       0.0);         (
492589.2, 3626442.0,     124.9,     134.0,       0.0);
     ( 492486.9, 3626457.9,     121.3,     134.0,       0.0);         (
492754.5, 3626422.0,     128.4,     134.0,       0.0);
     ( 492769.8, 3626421.1,     128.2,     135.0,       0.0);         (
492785.9, 3626420.3,     127.8,     135.0,       0.0);
     ( 492738.6, 3626423.5,     128.6,     134.0,       0.0);         (
492706.6, 3626426.4,     128.5,     134.0,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492712.0, 3626405.8, 132.0, 132.0, 0.0); (492768.8, 3626400.8, 131.7, 134.0, 0.0);
(492785.6, 3626408.8, 129.6, 135.0, 0.0); (492738.0, 3626391.1, 133.4, 133.4, 0.0);
(492723.5, 3626404.3, 132.2, 132.2, 0.0); (492719.5, 3626425.3, 128.6, 134.0, 0.0);
(492703.1, 3626394.7, 133.1, 133.1, 0.0); (492754.4, 3626388.5, 133.7, 133.7, 0.0);
(492658.2, 3626430.5, 128.7, 134.0, 0.0); (492688.2, 3626427.7, 128.5, 134.0, 0.0);
(492657.0, 3626417.1, 131.7, 131.7, 0.0); (492706.5, 3626414.8, 131.1, 131.1, 0.0);
(492668.4, 3626429.1, 128.5, 134.0, 0.0); (492669.3, 3626416.1, 132.0, 132.0, 0.0);
(492656.3, 3626403.4, 132.8, 132.8, 0.0); (492648.7, 3626393.7, 133.5, 133.5, 0.0);
(492687.9, 3626416.3, 131.3, 131.3, 0.0); (492685.9, 3626396.1, 133.1, 133.1, 0.0);
(492667.7, 3626402.1, 132.9, 132.9, 0.0); (492667.3, 3626385.3, 134.0, 134.0, 0.0);
(492269.8, 3626186.8, 129.6, 129.6, 0.0); (492277.3, 3626186.8, 129.7, 129.7, 0.0);
(492284.8, 3626186.8, 129.7, 129.7, 0.0); (492292.3, 3626186.8, 129.7, 129.7, 0.0);
(492299.8, 3626186.8, 129.7, 129.7, 0.0); (492307.2, 3626186.8, 129.7, 129.7, 0.0);
(492314.7, 3626186.8, 129.8, 129.8, 0.0); (492322.2, 3626186.8, 130.0, 130.0, 0.0);
(492329.7, 3626186.8, 130.2, 130.2, 0.0); (492337.2, 3626186.8, 130.3, 130.3, 0.0);
(492344.7, 3626186.8, 130.4, 130.4, 0.0); (492352.2, 3626186.8, 130.4, 130.4, 0.0);
(492359.7, 3626186.8, 130.4, 130.4, 0.0); (492367.2, 3626186.8, 130.4, 130.4, 0.0);
(492374.6, 3626186.8, 130.4, 130.4, 0.0); (492382.1, 3626186.8, 130.4, 130.4, 0.0);
(492389.6, 3626186.8, 130.4, 130.4, 0.0); (492397.1, 3626186.8, 130.4, 130.4, 0.0);
(492404.6, 3626186.8, 130.5, 130.5, 0.0); (492412.1, 3626186.8, 130.6, 130.6, 0.0);

```
     ( 492419.6, 3626186.8,     130.8,     130.8,       0.0);         (
492269.8, 3626193.4,     130.0,     130.0,       0.0);
     ( 492277.3, 3626193.4,     130.1,     130.1,       0.0);         (
492284.8, 3626193.4,     130.2,     130.2,       0.0);
     ( 492292.3, 3626193.4,     130.2,     130.2,       0.0);         (
492299.8, 3626193.4,     130.2,     130.2,       0.0);
     ( 492307.2, 3626193.4,     130.2,     130.2,       0.0);         (
492314.7, 3626193.4,     130.2,     130.2,       0.0);
     ( 492322.2, 3626193.4,     130.3,     130.3,       0.0);         (
492329.7, 3626193.4,     130.5,     130.5,       0.0);
     ( 492337.2, 3626193.4,     130.6,     130.6,       0.0);         (
492344.7, 3626193.4,     130.6,     130.6,       0.0);
     ( 492352.2, 3626193.4,     130.6,     130.6,       0.0);         (
492359.7, 3626193.4,     130.6,     130.6,       0.0);
     ( 492367.2, 3626193.4,     130.6,     130.6,       0.0);         (
492374.6, 3626193.4,     130.6,     130.6,       0.0);
     ( 492382.1, 3626193.4,     130.6,     130.6,       0.0);         (
492389.6, 3626193.4,     130.6,     130.6,       0.0);
     ( 492397.1, 3626193.4,     130.6,     130.6,       0.0);         (
492404.6, 3626193.4,     130.7,     130.7,       0.0);
     ( 492412.1, 3626193.4,     130.8,     130.8,       0.0);         (
492419.6, 3626193.4,     130.9,     130.9,       0.0);
     ( 492269.8, 3626200.0,     130.4,     130.4,       0.0);         (
492277.3, 3626200.0,     130.6,     130.6,       0.0);
     ( 492284.8, 3626200.0,     130.6,     130.6,       0.0);         (
492292.3, 3626200.0,     130.6,     130.6,       0.0);
     ( 492299.8, 3626200.0,     130.6,     130.6,       0.0);         (
492307.2, 3626200.0,     130.6,     130.6,       0.0);
     ( 492314.7, 3626200.0,     130.6,     130.6,       0.0);         (
492322.2, 3626200.0,     130.7,     130.7,       0.0);
     ( 492329.7, 3626200.0,     130.7,     130.7,       0.0);         (
492337.2, 3626200.0,     130.8,     130.8,       0.0);
     ( 492344.7, 3626200.0,     130.8,     130.8,       0.0);         (
492352.2, 3626200.0,     130.8,     130.8,       0.0);
     ( 492359.7, 3626200.0,     130.8,     130.8,       0.0);         (
492367.2, 3626200.0,     130.8,     130.8,       0.0);
     ( 492374.6, 3626200.0,     130.8,     130.8,       0.0);         (
492382.1, 3626200.0,     130.8,     130.8,       0.0);
     ( 492389.6, 3626200.0,     130.8,     130.8,       0.0);         (
492397.1, 3626200.0,     130.8,     130.8,       0.0);
     ( 492404.6, 3626200.0,     130.8,     130.8,       0.0);         (
492412.1, 3626200.0,     130.9,     130.9,       0.0);
     ( 492419.6, 3626200.0,     130.9,     130.9,       0.0);         (
492269.8, 3626206.6,     130.7,     130.7,       0.0);
     ( 492277.3, 3626206.6,     130.9,     130.9,       0.0);         (
492284.8, 3626206.6,     131.0,     131.0,       0.0);
     ( 492292.3, 3626206.6,     131.0,     131.0,       0.0);         (
492299.8, 3626206.6,     131.0,     131.0,       0.0);
     ( 492307.2, 3626206.6,     131.0,     131.0,       0.0);         (
492314.7, 3626206.6,     131.0,     131.0,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492322.2, 3626206.6, 131.0, 131.0, 0.0); (492329.7, 3626206.6, 131.0, 131.0, 0.0);
(492337.2, 3626206.6, 131.0, 131.0, 0.0); (492344.7, 3626206.6, 131.0, 131.0, 0.0);
(492352.2, 3626206.6, 131.0, 131.0, 0.0); (492359.7, 3626206.6, 131.0, 131.0, 0.0);
(492367.2, 3626206.6, 131.0, 131.0, 0.0); (492374.6, 3626206.6, 131.0, 131.0, 0.0);
(492382.1, 3626206.6, 131.0, 131.0, 0.0); (492389.6, 3626206.6, 131.0, 131.0, 0.0);
(492397.1, 3626206.6, 131.0, 131.0, 0.0); (492404.6, 3626206.6, 131.0, 131.0, 0.0);
(492412.1, 3626206.6, 131.0, 131.0, 0.0); (492419.6, 3626206.6, 131.0, 131.0, 0.0);
(492269.8, 3626213.2, 130.8, 130.8, 0.0); (492277.3, 3626213.2, 131.0, 131.0, 0.0);
(492284.8, 3626213.2, 131.0, 131.0, 0.0); (492292.3, 3626213.2, 131.0, 131.0, 0.0);
(492299.8, 3626213.2, 131.0, 131.0, 0.0); (492307.2, 3626213.2, 131.0, 131.0, 0.0);
(492314.7, 3626213.2, 131.0, 131.0, 0.0); (492322.2, 3626213.2, 131.0, 131.0, 0.0);
(492329.7, 3626213.2, 131.0, 131.0, 0.0); (492337.2, 3626213.2, 131.0, 131.0, 0.0);
(492344.7, 3626213.2, 131.0, 131.0, 0.0); (492352.2, 3626213.2, 131.0, 131.0, 0.0);
(492359.7, 3626213.2, 131.0, 131.0, 0.0); (492367.2, 3626213.2, 131.0, 131.0, 0.0);
(492374.6, 3626213.2, 131.0, 131.0, 0.0); (492382.1, 3626213.2, 131.1, 131.1, 0.0);
(492389.6, 3626213.2, 131.2, 131.2, 0.0); (492397.1, 3626213.2, 131.2, 131.2, 0.0);
(492404.6, 3626213.2, 131.2, 131.2, 0.0); (492412.1, 3626213.2, 131.2, 131.2, 0.0);
(492419.6, 3626213.2, 131.2, 131.2, 0.0); (492269.8, 3626219.8, 130.8, 130.8, 0.0);
(492277.3, 3626219.8, 131.0, 131.0, 0.0); (492284.8, 3626219.8, 131.0, 131.0, 0.0);
(492292.3, 3626219.8, 131.0, 131.0, 0.0); (492299.8, 3626219.8, 131.0, 131.0, 0.0);

```
     ( 492307.2, 3626219.8,     131.0,     131.0,       0.0);         (
492314.7, 3626219.8,     131.0,     131.0,       0.0);
     ( 492322.2, 3626219.8,     131.0,     131.0,       0.0);         (
492329.7, 3626219.8,     131.0,     131.0,       0.0);
     ( 492337.2, 3626219.8,     131.0,     131.0,       0.0);         (
492344.7, 3626219.8,     131.0,     131.0,       0.0);
     ( 492352.2, 3626219.8,     131.0,     131.0,       0.0);         (
492359.7, 3626219.8,     131.0,     131.0,       0.0);
     ( 492367.2, 3626219.8,     131.0,     131.0,       0.0);         (
492374.6, 3626219.8,     131.1,     131.1,       0.0);
     ( 492382.1, 3626219.8,     131.2,     131.2,       0.0);         (
492389.6, 3626219.8,     131.3,     131.3,       0.0);
     ( 492397.1, 3626219.8,     131.4,     131.4,       0.0);         (
492404.6, 3626219.8,     131.5,     131.5,       0.0);
     ( 492412.1, 3626219.8,     131.5,     131.5,       0.0);         (
492419.6, 3626219.8,     131.5,     131.5,       0.0);
     ( 492269.8, 3626226.4,     130.9,     130.9,       0.0);         (
492277.3, 3626226.4,     131.0,     131.0,       0.0);
     ( 492284.8, 3626226.4,     131.0,     131.0,       0.0);         (
492292.3, 3626226.4,     131.0,     131.0,       0.0);
     ( 492299.8, 3626226.4,     131.0,     131.0,       0.0);         (
492307.2, 3626226.4,     131.0,     131.0,       0.0);
     ( 492314.7, 3626226.4,     131.0,     131.0,       0.0);         (
492322.2, 3626226.4,     131.0,     131.0,       0.0);
     ( 492329.7, 3626226.4,     131.0,     131.0,       0.0);         (
492337.2, 3626226.4,     131.0,     131.0,       0.0);
     ( 492344.7, 3626226.4,     131.0,     131.0,       0.0);         (
492352.2, 3626226.4,     131.0,     131.0,       0.0);
     ( 492359.7, 3626226.4,     131.0,     131.0,       0.0);         (
492367.2, 3626226.4,     131.0,     131.0,       0.0);
     ( 492374.6, 3626226.4,     131.1,     131.1,       0.0);         (
492382.1, 3626226.4,     131.3,     131.3,       0.0);
     ( 492389.6, 3626226.4,     131.5,     131.5,       0.0);         (
492397.1, 3626226.4,     131.6,     131.6,       0.0);
     ( 492404.6, 3626226.4,     131.7,     131.7,       0.0);         (
492412.1, 3626226.4,     131.7,     131.7,       0.0);
     ( 492419.6, 3626226.4,     131.7,     131.7,       0.0);         (
492269.8, 3626233.0,     131.0,     131.0,       0.0);
     ( 492277.3, 3626233.0,     131.0,     131.0,       0.0);         (
492284.8, 3626233.0,     131.0,     131.0,       0.0);
     ( 492292.3, 3626233.0,     131.0,     131.0,       0.0);         (
492299.8, 3626233.0,     131.0,     131.0,       0.0);
     ( 492307.2, 3626233.0,     131.0,     131.0,       0.0);         (
492314.7, 3626233.0,     131.0,     131.0,       0.0);
     ( 492322.2, 3626233.0,     131.0,     131.0,       0.0);         (
492329.7, 3626233.0,     131.0,     131.0,       0.0);
     ( 492337.2, 3626233.0,     131.0,     131.0,       0.0);         (
492344.7, 3626233.0,     131.0,     131.0,       0.0);
     ( 492352.2, 3626233.0,     131.0,     131.0,       0.0);         (
492359.7, 3626233.0,     131.0,     131.0,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492367.2, 3626233.0, 131.0, 131.0, 0.0); (492374.6, 3626233.0, 131.2, 131.2, 0.0);
(492382.1, 3626233.0, 131.4, 131.4, 0.0); (492389.6, 3626233.0, 131.6, 131.6, 0.0);
(492397.1, 3626233.0, 131.8, 131.8, 0.0); (492404.6, 3626233.0, 131.9, 131.9, 0.0);
(492412.1, 3626233.0, 131.9, 131.9, 0.0); (492419.6, 3626233.0, 131.9, 131.9, 0.0);
(492269.8, 3626239.5, 131.1, 131.1, 0.0); (492277.3, 3626239.5, 131.1, 131.1, 0.0);
(492284.8, 3626239.5, 131.1, 131.1, 0.0); (492292.3, 3626239.5, 131.1, 131.1, 0.0);
(492299.8, 3626239.5, 131.1, 131.1, 0.0); (492307.2, 3626239.5, 131.1, 131.1, 0.0);
(492314.7, 3626239.5, 131.1, 131.1, 0.0); (492322.2, 3626239.5, 131.1, 131.1, 0.0);
(492329.7, 3626239.5, 131.1, 131.1, 0.0); (492337.2, 3626239.5, 131.1, 131.1, 0.0);
(492344.7, 3626239.5, 131.1, 131.1, 0.0); (492352.2, 3626239.5, 131.1, 131.1, 0.0);
(492359.7, 3626239.5, 131.1, 131.1, 0.0); (492367.2, 3626239.5, 131.1, 131.1, 0.0);
(492374.6, 3626239.5, 131.2, 131.2, 0.0); (492382.1, 3626239.5, 131.4, 131.4, 0.0);
(492389.6, 3626239.5, 131.6, 131.6, 0.0); (492397.1, 3626239.5, 131.8, 131.8, 0.0);
(492404.6, 3626239.5, 131.9, 131.9, 0.0); (492412.1, 3626239.5, 132.0, 132.0, 0.0);
(492419.6, 3626239.5, 132.0, 132.0, 0.0); (492269.8, 3626246.1, 131.3, 131.3, 0.0);
(492277.3, 3626246.1, 131.3, 131.3, 0.0); (492284.8, 3626246.1, 131.3, 131.3, 0.0);
(492292.3, 3626246.1, 131.3, 131.3, 0.0); (492299.8, 3626246.1, 131.3, 131.3, 0.0);
(492307.2, 3626246.1, 131.3, 131.3, 0.0); (492314.7, 3626246.1, 131.3, 131.3, 0.0);
(492322.2, 3626246.1, 131.3, 131.3, 0.0); (492329.7, 3626246.1, 131.3, 131.3, 0.0);
(492337.2, 3626246.1, 131.3, 131.3, 0.0); (492344.7, 3626246.1, 131.3, 131.3, 0.0);

```
     ( 492352.2, 3626246.1,     131.3,     131.3,       0.0);         (
492359.7, 3626246.1,     131.3,     131.3,       0.0);
     ( 492367.2, 3626246.1,     131.3,     131.3,       0.0);         (
492374.6, 3626246.1,     131.4,     131.4,       0.0);
     ( 492382.1, 3626246.1,     131.5,     131.5,       0.0);         (
492389.6, 3626246.1,     131.6,     131.6,       0.0);
     ( 492397.1, 3626246.1,     131.6,     131.6,       0.0);         (
492404.6, 3626246.1,     131.8,     131.8,       0.0);
     ( 492412.1, 3626246.1,     132.0,     132.0,       0.0);         (
492419.6, 3626246.1,     132.1,     132.1,       0.0);
     ( 492269.8, 3626252.7,     131.6,     131.6,       0.0);         (
492277.3, 3626252.7,     131.6,     131.6,       0.0);
     ( 492284.8, 3626252.7,     131.6,     131.6,       0.0);         (
492292.3, 3626252.7,     131.6,     131.6,       0.0);
     ( 492299.8, 3626252.7,     131.6,     131.6,       0.0);         (
492307.2, 3626252.7,     131.6,     131.6,       0.0);
     ( 492314.7, 3626252.7,     131.6,     131.6,       0.0);         (
492322.2, 3626252.7,     131.6,     131.6,       0.0);
     ( 492329.7, 3626252.7,     131.6,     131.6,       0.0);         (
492337.2, 3626252.7,     131.6,     131.6,       0.0);
     ( 492344.7, 3626252.7,     131.6,     131.6,       0.0);         (
492352.2, 3626252.7,     131.6,     131.6,       0.0);
     ( 492359.7, 3626252.7,     131.6,     131.6,       0.0);         (
492367.2, 3626252.7,     131.6,     131.6,       0.0);
     ( 492374.6, 3626252.7,     131.5,     131.5,       0.0);         (
492382.1, 3626252.7,     131.5,     131.5,       0.0);
     ( 492389.6, 3626252.7,     131.5,     131.5,       0.0);         (
492397.1, 3626252.7,     131.5,     131.5,       0.0);
     ( 492404.6, 3626252.7,     131.6,     131.6,       0.0);         (
492412.1, 3626252.7,     131.9,     131.9,       0.0);
     ( 492419.6, 3626252.7,     132.2,     132.2,       0.0);         (
492269.8, 3626259.3,     131.8,     131.8,       0.0);
     ( 492277.3, 3626259.3,     131.8,     131.8,       0.0);         (
492284.8, 3626259.3,     131.8,     131.8,       0.0);
     ( 492292.3, 3626259.3,     131.8,     131.8,       0.0);         (
492299.8, 3626259.3,     131.8,     131.8,       0.0);
     ( 492307.2, 3626259.3,     131.8,     131.8,       0.0);         (
492314.7, 3626259.3,     131.8,     131.8,       0.0);
     ( 492322.2, 3626259.3,     131.8,     131.8,       0.0);         (
492329.7, 3626259.3,     131.8,     131.8,       0.0);
     ( 492337.2, 3626259.3,     131.8,     131.8,       0.0);         (
492344.7, 3626259.3,     131.8,     131.8,       0.0);
     ( 492352.2, 3626259.3,     131.8,     131.8,       0.0);         (
492359.7, 3626259.3,     131.8,     131.8,       0.0);
     ( 492367.2, 3626259.3,     131.8,     131.8,       0.0);         (
492374.6, 3626259.3,     131.7,     131.7,       0.0);
     ( 492382.1, 3626259.3,     131.5,     131.5,       0.0);         (
492389.6, 3626259.3,     131.4,     131.4,       0.0);
     ( 492397.1, 3626259.3,     131.3,     131.3,       0.0);         (
492404.6, 3626259.3,     131.5,     131.5,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492412.1, 3626259.3, 131.9, 131.9, 0.0); (492419.6, 3626259.3, 132.3, 132.3, 0.0);
(492269.8, 3626265.9, 132.0, 132.0, 0.0); (492277.3, 3626265.9, 132.0, 132.0, 0.0);
(492284.8, 3626265.9, 132.0, 132.0, 0.0); (492292.3, 3626265.9, 132.0, 132.0, 0.0);
(492299.8, 3626265.9, 132.0, 132.0, 0.0); (492307.2, 3626265.9, 132.0, 132.0, 0.0);
(492314.7, 3626265.9, 132.0, 132.0, 0.0); (492322.2, 3626265.9, 132.0, 132.0, 0.0);
(492329.7, 3626265.9, 132.0, 132.0, 0.0); (492337.2, 3626265.9, 132.0, 132.0, 0.0);
(492344.7, 3626265.9, 132.0, 132.0, 0.0); (492352.2, 3626265.9, 132.0, 132.0, 0.0);
(492359.7, 3626265.9, 132.0, 132.0, 0.0); (492367.2, 3626265.9, 132.0, 132.0, 0.0);
(492374.6, 3626265.9, 131.8, 131.8, 0.0); (492382.1, 3626265.9, 131.6, 131.6, 0.0);
(492389.6, 3626265.9, 131.3, 131.3, 0.0); (492397.1, 3626265.9, 131.1, 131.1, 0.0);
(492404.6, 3626265.9, 131.4, 131.4, 0.0); (492412.1, 3626265.9, 131.9, 131.9, 0.0);
(492419.6, 3626265.9, 132.4, 132.4, 0.0); (492269.8, 3626272.5, 132.0, 132.0, 0.0);
(492277.3, 3626272.5, 132.0, 132.0, 0.0); (492284.8, 3626272.5, 132.0, 132.0, 0.0);
(492292.3, 3626272.5, 132.0, 132.0, 0.0); (492299.8, 3626272.5, 132.0, 132.0, 0.0);
(492307.2, 3626272.5, 132.0, 132.0, 0.0); (492314.7, 3626272.5, 132.0, 132.0, 0.0);
(492322.2, 3626272.5, 132.0, 132.0, 0.0); (492329.7, 3626272.5, 132.0, 132.0, 0.0);
(492337.2, 3626272.5, 132.0, 132.0, 0.0); (492344.7, 3626272.5, 132.0, 132.0, 0.0);
(492352.2, 3626272.5, 132.1, 132.1, 0.0); (492359.7, 3626272.5, 132.2, 132.2, 0.0);
(492367.2, 3626272.5, 132.2, 132.2, 0.0); (492374.6, 3626272.5, 132.1, 132.1, 0.0);
(492382.1, 3626272.5, 131.9, 131.9, 0.0); (492389.6, 3626272.5, 131.7, 131.7, 0.0);

```
     ( 492397.1, 3626272.5,     131.5,     131.5,       0.0);         (
492404.6, 3626272.5,     131.7,     131.7,       0.0);
     ( 492412.1, 3626272.5,     132.0,     132.0,       0.0);         (
492419.6, 3626272.5,     132.3,     132.3,       0.0);
     ( 492269.8, 3626279.1,     132.0,     132.0,       0.0);         (
492277.3, 3626279.1,     132.0,     132.0,       0.0);
     ( 492284.8, 3626279.1,     132.0,     132.0,       0.0);         (
492292.3, 3626279.1,     132.0,     132.0,       0.0);
     ( 492299.8, 3626279.1,     132.0,     132.0,       0.0);         (
492307.2, 3626279.1,     132.0,     132.0,       0.0);
     ( 492314.7, 3626279.1,     132.0,     132.0,       0.0);         (
492322.2, 3626279.1,     132.0,     132.0,       0.0);
     ( 492329.7, 3626279.1,     132.0,     132.0,       0.0);         (
492337.2, 3626279.1,     132.0,     132.0,       0.0);
     ( 492344.7, 3626279.1,     132.1,     132.1,       0.0);         (
492352.2, 3626279.1,     132.2,     132.2,       0.0);
     ( 492359.7, 3626279.1,     132.3,     132.3,       0.0);         (
492367.2, 3626279.1,     132.4,     132.4,       0.0);
     ( 492374.6, 3626279.1,     132.3,     132.3,       0.0);         (
492382.1, 3626279.1,     132.2,     132.2,       0.0);
     ( 492389.6, 3626279.1,     132.1,     132.1,       0.0);         (
492397.1, 3626279.1,     131.9,     131.9,       0.0);
     ( 492404.6, 3626279.1,     132.0,     132.0,       0.0);         (
492412.1, 3626279.1,     132.2,     132.2,       0.0);
     ( 492419.6, 3626279.1,     132.3,     132.3,       0.0);         (
492269.8, 3626285.7,     132.0,     132.0,       0.0);
     ( 492277.3, 3626285.7,     132.0,     132.0,       0.0);         (
492284.8, 3626285.7,     132.0,     132.0,       0.0);
     ( 492292.3, 3626285.7,     132.0,     132.0,       0.0);         (
492299.8, 3626285.7,     132.0,     132.0,       0.0);
     ( 492307.2, 3626285.7,     132.0,     132.0,       0.0);         (
492314.7, 3626285.7,     132.0,     132.0,       0.0);
     ( 492322.2, 3626285.7,     132.0,     132.0,       0.0);         (
492329.7, 3626285.7,     132.0,     132.0,       0.0);
     ( 492337.2, 3626285.7,     132.0,     132.0,       0.0);         (
492344.7, 3626285.7,     132.1,     132.1,       0.0);
     ( 492352.2, 3626285.7,     132.3,     132.3,       0.0);         (
492359.7, 3626285.7,     132.5,     132.5,       0.0);
     ( 492367.2, 3626285.7,     132.6,     132.6,       0.0);         (
492374.6, 3626285.7,     132.6,     132.6,       0.0);
     ( 492382.1, 3626285.7,     132.5,     132.5,       0.0);         (
492389.6, 3626285.7,     132.4,     132.4,       0.0);
     ( 492397.1, 3626285.7,     132.3,     132.3,       0.0);         (
492404.6, 3626285.7,     132.3,     132.3,       0.0);
     ( 492412.1, 3626285.7,     132.3,     132.3,       0.0);         (
492419.6, 3626285.7,     132.3,     132.3,       0.0);
     ( 492269.8, 3626292.3,     132.0,     132.0,       0.0);         (
492277.3, 3626292.3,     132.0,     132.0,       0.0);
     ( 492284.8, 3626292.3,     132.0,     132.0,       0.0);         (
492292.3, 3626292.3,     132.0,     132.0,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492299.8, 3626292.3, 132.0, 132.0, 0.0); (492307.2, 3626292.3, 132.0, 132.0, 0.0);
(492314.7, 3626292.3, 132.0, 132.0, 0.0); (492322.2, 3626292.3, 132.0, 132.0, 0.0);
(492329.7, 3626292.3, 132.0, 132.0, 0.0); (492337.2, 3626292.3, 132.0, 132.0, 0.0);
(492344.7, 3626292.3, 132.2, 132.2, 0.0); (492352.2, 3626292.3, 132.4, 132.4, 0.0);
(492359.7, 3626292.3, 132.6, 132.6, 0.0); (492367.2, 3626292.3, 132.8, 132.8, 0.0);
(492374.6, 3626292.3, 132.9, 132.9, 0.0); (492382.1, 3626292.3, 132.8, 132.8, 0.0);
(492389.6, 3626292.3, 132.8, 132.8, 0.0); (492397.1, 3626292.3, 132.8, 132.8, 0.0);
(492404.6, 3626292.3, 132.6, 132.6, 0.0); (492412.1, 3626292.3, 132.5, 132.5, 0.0);
(492419.6, 3626292.3, 132.3, 132.3, 0.0); (492269.8, 3626298.9, 132.0, 132.0, 0.0);
(492277.3, 3626298.9, 132.0, 132.0, 0.0); (492284.8, 3626298.9, 132.0, 132.0, 0.0);
(492292.3, 3626298.9, 132.0, 132.0, 0.0); (492299.8, 3626298.9, 132.0, 132.0, 0.0);
(492307.2, 3626298.9, 132.0, 132.0, 0.0); (492314.7, 3626298.9, 132.0, 132.0, 0.0);
(492322.2, 3626298.9, 132.0, 132.0, 0.0); (492329.7, 3626298.9, 132.0, 132.0, 0.0);
(492337.2, 3626298.9, 132.0, 132.0, 0.0); (492344.7, 3626298.9, 132.2, 132.2, 0.0);
(492352.2, 3626298.9, 132.4, 132.4, 0.0); (492359.7, 3626298.9, 132.7, 132.7, 0.0);
(492367.2, 3626298.9, 132.9, 132.9, 0.0); (492374.6, 3626298.9, 133.0, 133.0, 0.0);
(492382.1, 3626298.9, 133.0, 133.0, 0.0); (492389.6, 3626298.9, 133.0, 133.0, 0.0);
(492397.1, 3626298.9, 133.0, 133.0, 0.0); (492404.6, 3626298.9, 132.8, 132.8, 0.0);
(492412.1, 3626298.9, 132.6, 132.6, 0.0); (492419.6, 3626298.9, 132.4, 132.4, 0.0);
(492269.8, 3626305.4, 132.0, 132.0, 0.0); (492277.3, 3626305.4, 132.0, 132.0, 0.0);

```
     ( 492284.8, 3626305.4,     132.0,     132.0,       0.0);         (
492292.3, 3626305.4,     132.0,     132.0,       0.0);
     ( 492299.8, 3626305.4,     132.0,     132.0,       0.0);         (
492307.2, 3626305.4,     132.0,     132.0,       0.0);
     ( 492314.7, 3626305.4,     132.0,     132.0,       0.0);         (
492322.2, 3626305.4,     132.0,     132.0,       0.0);
     ( 492329.7, 3626305.4,     132.0,     132.0,       0.0);         (
492337.2, 3626305.4,     132.0,     132.0,       0.0);
     ( 492344.7, 3626305.4,     132.2,     132.2,       0.0);         (
492352.2, 3626305.4,     132.4,     132.4,       0.0);
     ( 492359.7, 3626305.4,     132.7,     132.7,       0.0);         (
492367.2, 3626305.4,     132.9,     132.9,       0.0);
     ( 492374.6, 3626305.4,     133.0,     133.0,       0.0);         (
492382.1, 3626305.4,     133.0,     133.0,       0.0);
     ( 492389.6, 3626305.4,     133.0,     133.0,       0.0);         (
492397.1, 3626305.4,     133.0,     133.0,       0.0);
     ( 492404.6, 3626305.4,     132.9,     132.9,       0.0);         (
492412.1, 3626305.4,     132.7,     132.7,       0.0);
     ( 492419.6, 3626305.4,     132.5,     132.5,       0.0);         (
492269.8, 3626312.0,     132.0,     132.0,       0.0);
     ( 492277.3, 3626312.0,     132.0,     132.0,       0.0);         (
492284.8, 3626312.0,     132.0,     132.0,       0.0);
     ( 492292.3, 3626312.0,     132.0,     132.0,       0.0);         (
492299.8, 3626312.0,     132.0,     132.0,       0.0);
     ( 492307.2, 3626312.0,     132.0,     132.0,       0.0);         (
492314.7, 3626312.0,     132.0,     132.0,       0.0);
     ( 492322.2, 3626312.0,     132.0,     132.0,       0.0);         (
492329.7, 3626312.0,     132.0,     132.0,       0.0);
     ( 492337.2, 3626312.0,     132.0,     132.0,       0.0);         (
492344.7, 3626312.0,     132.2,     132.2,       0.0);
     ( 492352.2, 3626312.0,     132.4,     132.4,       0.0);         (
492359.7, 3626312.0,     132.7,     132.7,       0.0);
     ( 492367.2, 3626312.0,     132.9,     132.9,       0.0);         (
492374.6, 3626312.0,     133.0,     133.0,       0.0);
     ( 492382.1, 3626312.0,     133.0,     133.0,       0.0);         (
492389.6, 3626312.0,     133.0,     133.0,       0.0);
     ( 492397.1, 3626312.0,     133.0,     133.0,       0.0);         (
492404.6, 3626312.0,     132.9,     132.9,       0.0);
     ( 492412.1, 3626312.0,     132.8,     132.8,       0.0);         (
492419.6, 3626312.0,     132.7,     132.7,       0.0);
     ( 492269.8, 3626318.6,     132.0,     132.0,       0.0);         (
492277.3, 3626318.6,     132.0,     132.0,       0.0);
     ( 492284.8, 3626318.6,     132.0,     132.0,       0.0);         (
492292.3, 3626318.6,     132.0,     132.0,       0.0);
     ( 492299.8, 3626318.6,     132.0,     132.0,       0.0);         (
492307.2, 3626318.6,     132.0,     132.0,       0.0);
     ( 492314.7, 3626318.6,     132.0,     132.0,       0.0);         (
492322.2, 3626318.6,     132.0,     132.0,       0.0);
     ( 492329.7, 3626318.6,     132.0,     132.0,       0.0);         (
492337.2, 3626318.6,     132.0,     132.0,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492344.7, 3626318.6, 132.2, 132.2, 0.0); (492352.2, 3626318.6, 132.4, 132.4, 0.0);
(492359.7, 3626318.6, 132.7, 132.7, 0.0); (492367.2, 3626318.6, 132.9, 132.9, 0.0);
(492374.6, 3626318.6, 133.0, 133.0, 0.0); (492382.1, 3626318.6, 133.0, 133.0, 0.0);
(492389.6, 3626318.6, 133.0, 133.0, 0.0); (492397.1, 3626318.6, 133.0, 133.0, 0.0);
(492404.6, 3626318.6, 133.0, 133.0, 0.0); (492412.1, 3626318.6, 132.9, 132.9, 0.0);
(492419.6, 3626318.6, 132.8, 132.8, 0.0); (492654.4, 3626387.6, 133.9, 133.9, 0.0);
(492685.0, 3626384.1, 134.0, 134.0, 0.0); (492702.2, 3626382.6, 134.0, 134.0, 0.0);
(492715.6, 3626381.1, 134.0, 134.0, 0.0); (492733.5, 3626379.9, 134.0, 134.0, 0.0);
(492755.3, 3626378.0, 134.2, 134.2, 0.0); (492776.3, 3626378.0, 134.3, 134.3, 0.0);
(492780.9, 3626393.3, 132.7, 134.0, 0.0); (492740.0, 3626412.4, 131.0, 134.0, 0.0);
(492758.4, 3626410.9, 130.7, 134.0, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: SDAPCD Kearny MetData\KMA2010_2012v15181.SFC Met Version: 15181
Profile file: SDAPCD Kearny MetData\KMA2010_2012v15181.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93107 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-2.3	0.055	-9.000	-9.000	-999.	31.	6.6	0.40	1.30	1.00	0.89	52.	10.0	283.8	10.0
10	01	01	1	02	-2.5	0.055	-9.000	-9.000	-999.	31.	6.2	0.40	1.30	1.00	0.89	43.	10.0	283.1	10.0
10	01	01	1	03	-2.5	0.055	-9.000	-9.000	-999.	31.	6.2	0.40	1.30	1.00	0.89	39.	10.0	283.1	10.0
10	01	01	1	04	-2.4	0.055	-9.000	-9.000	-999.	31.	6.2	0.40	1.30	1.00	0.89	55.	10.0	283.1	10.0
10	01	01	1	05	-2.5	0.055	-9.000	-9.000	-999.	31.	6.2	0.40	1.30	1.00	0.89	32.	10.0	282.5	10.0
10	01	01	1	06	-2.8	0.060	-9.000	-9.000	-999.	35.	7.0	0.51	1.30	1.00	0.89	67.	10.0	282.5	10.0
10	01	01	1	07	-2.4	0.055	-9.000	-9.000	-999.	31.	6.3	0.40	1.30	1.00	0.89	53.	10.0	282.0	10.0
10	01	01	1	08	-2.0	0.055	-9.000	-9.000	-999.	31.	7.6	0.40	1.30	0.49	0.89	50.	10.0	283.1	10.0
10	01	01	1	09	46.8	0.115	0.467	0.011	78.	93.	-2.9	0.51	1.30	0.29	0.45	88.	10.0	286.4	10.0
10	01	01	1	10	105.2	0.192	0.906	0.008	254.	202.	-6.1	0.50	1.30	0.22	0.89	174.	10.0	289.9	10.0
10	01	01	1	11	141.7	0.210	1.213	0.008	452.	232.	-5.9	0.60	1.30	0.20	0.89	263.	10.0	290.9	10.0
10	01	01	1	12	180.9	0.323	1.462	0.008	619.	440.	-16.7	0.51	1.30	0.19	1.79	327.	10.0	292.5	10.0
10	01	01	1	13	177.9	0.241	1.553	0.007	754.	287.	-7.0	0.34	1.30	0.19	1.34	344.	10.0	293.8	10.0

```
 10 01 01   1 14  141.0  0.315  1.500  0.007  856.  424.    -19.8  0.51
1.30   0.20    1.79  326.   10.0  294.9   10.0
 10 01 01   1 15   95.6  0.463  1.346  0.007  913.  757.    -92.9  0.51
1.30   0.23    3.13  303.   10.0  292.5   10.0
 10 01 01   1 16   16.5  0.264  0.751  0.007  919.  360.    -99.4  0.51
1.30   0.32    1.79  307.   10.0  290.4   10.0
 10 01 01   1 17   -4.6  0.090 -9.000 -9.000 -999.  114.     14.0  0.51
1.30   0.60    1.34  324.   10.0  289.2   10.0
 10 01 01   1 18   -5.1  0.080 -9.000 -9.000 -999.   54.      8.8  0.34
1.30   1.00    1.34  341.   10.0  288.8   10.0
 10 01 01   1 19   -4.8  0.090 -9.000 -9.000 -999.   65.     13.6  0.51
1.30   1.00    1.34  304.   10.0  287.5   10.0
 10 01 01   1 20   -2.1  0.053 -9.000 -9.000 -999.   29.      6.2  0.34
1.30   1.00    0.89  341.   10.0  287.0   10.0
 10 01 01   1 21   -0.6  0.027 -9.000 -9.000 -999.   10.      3.0  0.34
1.30   1.00    0.45   13.   10.0  286.4   10.0
 10 01 01   1 22   -0.7  0.031 -9.000 -9.000 -999.   13.      3.8  0.56
1.30   1.00    0.45   92.   10.0  286.4   10.0
 10 01 01   1 23   -6.7  0.095 -9.000 -9.000 -999.   70.     11.4  0.59
1.30   1.00    1.34  293.   10.0  285.4   10.0
 10 01 01   1 24   -2.4  0.055 -9.000 -9.000 -999.   31.      6.3  0.40
1.30   1.00    0.89   33.   10.0  284.9   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.0 1   52.    0.89   283.8   12.0  -99.00    0.20

 F indicates top of profile (=1) or below (=0)
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 492248.31	492298.31	492348.31	492398.31	492448.31	492498.31	492548.31	492598.31	492648.31
3626779.15	2.72757	2.90285	2.78422	2.52392	2.44095	2.45147	2.51683	2.60520	2.52253
3626729.15	3.09240	3.38987	3.35561	3.11061	3.00967	3.03107	2.98188	2.98770	3.16216
3626679.15	3.42709	3.87528	3.98675	3.80267	3.82235	3.96357	3.73722	3.63045	3.67641
3626629.15	3.87983	4.44385	4.77311	4.57365	4.93915	5.37866	4.91852	4.62024	4.47604
3626579.15	4.29263	5.10802	5.57730	5.57350	6.18173	7.05043	6.53798	6.13490	5.46291
3626529.15	4.95284	5.72821	6.61689	7.04715	7.66836	8.58404	8.70812	8.70350	7.14999
3626479.15	5.75326	6.63119	7.71958	8.96560	9.88922	11.56848	10.59998	13.90063	9.34926
3626429.15	6.74743	7.98240	9.53915	11.80432	14.44476	18.18355	38.95117	51.43203	11.37265
3626379.15	7.89444	9.60425	11.97175	15.32834	20.43805	27.42562	30.82672	29.23662	21.14648
3626329.15	9.05967	11.10140	13.75126	17.06139	20.84942	23.79323	24.19961	20.06333	15.16114
3626279.15	9.58612	11.37671	13.41352	15.66443	17.62643	17.94196	15.90278	12.94936	11.92707
3626229.15	9.33025	10.64335	12.08694	13.15307	13.65800	12.82007	11.04474	9.51682	9.46124
3626179.15	8.56572	9.39686	10.21633	10.61393	10.36599	9.35194	8.20057	7.38682	7.52281
3626129.15	7.41309	7.86991	8.33852	8.40423	7.45597	6.14018	5.80975	5.67788	6.08763

3626079.15 | 6.17994 6.55242 6.71428 6.49757
5.64678 4.93978 5.08943 4.90639 5.10101

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	492698.31	492748.31	492798.31	492848.31	492898.31	492948.31
3626779.15	2.25595	1.96822	1.69245	1.45815	1.34275	1.30457
3626729.15	2.78644	2.39322	2.05466	1.70576	1.60312	1.52050
3626679.15	3.35740	2.82234	2.45639	2.05625	1.85600	1.66361
3626629.15	3.94385	3.33589	2.96772	2.48011	2.01903	1.73097
3626579.15	4.43328	3.84259	3.47138	2.84275	2.14903	1.88140
3626529.15	4.53820	4.12590	3.70055	3.14103	2.48000	2.23704
3626479.15	4.32674	4.14029	4.32163	4.00999	3.20427	2.73226
3626429.15	7.95762	7.51754	7.02752	6.16809	4.90369	3.73952
3626379.15	20.58335	19.11051	14.29877	10.61499	7.98886	5.72450
3626329.15	18.73326	21.42770	19.88055	15.99178	12.12078	9.02942
3626279.15	13.21838	15.98339	17.16069	16.58115	14.34074	11.75668
3626229.15	10.45191	11.81788	12.77651	13.32221	13.10613	12.08820
3626179.15	8.37514	9.32770	10.00476	10.19639	10.44483	10.43811
3626129.15	6.81625	7.55564	8.12689	8.34548	8.26836	8.32774

3626079.15 | 5.60664 6.20948 6.72860 6.98720 6.96814 6.87406

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492779.32	3626444.25	5.69909	492789.32	3626444.25	5.75995
492799.32	3626444.25	5.65490	492839.32	3626444.25	5.33191
492849.32	3626444.25	5.25511	492859.32	3626444.25	5.05951
492869.32	3626444.25	4.90172	492879.32	3626444.25	4.74774
492779.32	3626454.25	5.14265	492789.32	3626454.25	5.17852
492799.32	3626454.25	5.12867	492839.32	3626454.25	4.85661
492849.32	3626454.25	4.78967	492859.32	3626454.25	4.64160
492869.32	3626454.25	4.50518	492879.32	3626454.25	4.36348
492779.32	3626464.25	4.78075	492789.32	3626464.25	4.83461
492799.32	3626464.25	4.79242	492829.32	3626464.25	4.62565
492839.32	3626464.25	4.55390	492849.32	3626464.25	4.47224
492859.32	3626464.25	4.32422	492869.32	3626464.25	4.18793
492879.32	3626464.25	4.05817	492769.32	3626474.25	4.43868
492779.32	3626474.25	4.45693	492789.32	3626474.25	4.48277
492799.32	3626474.25	4.46079	492829.32	3626474.25	4.31316
492839.32	3626474.25	4.23327	492849.32	3626474.25	4.14980

492859.32 3626474.25 4.01916
492869.32 3626474.25 3.89783
492879.32 3626474.25 3.77610
492769.32 3626484.25 4.19830
492779.32 3626484.25 4.20574
492789.32 3626484.25 4.23796
492799.32 3626484.25 4.19096
492809.32 3626484.25 4.15293
492819.32 3626484.25 4.11763
492829.32 3626484.25 4.03467
492839.32 3626484.25 3.94955
492849.32 3626484.25 3.85063
492859.32 3626484.25 3.74556
492769.32 3626494.25 4.07032
492779.32 3626494.25 4.04189
492789.32 3626494.25 4.03117
492799.32 3626494.25 4.00356
492809.32 3626494.25 3.96202
492819.32 3626494.25 3.91752
492829.32 3626494.25 3.79863
492839.32 3626494.25 3.71071
492849.32 3626494.25 3.61358
492859.32 3626494.25 3.50568
492769.32 3626504.25 3.96786
492779.32 3626504.25 3.95091
492789.32 3626504.25 3.93400
492799.32 3626504.25 3.89152
492809.32 3626504.25 3.83823
492819.32 3626504.25 3.78037
492829.32 3626504.25 3.65106
492749.32 3626514.25 4.06504
492759.32 3626514.25 4.04079
492769.32 3626514.25 3.97428
492779.32 3626514.25 3.88514
492789.32 3626514.25 3.84891
492799.32 3626514.25 3.79016
492809.32 3626514.25 3.70986
492819.32 3626514.25 3.64641
492829.32 3626514.25 3.50775
492749.32 3626524.25 4.08839
492759.32 3626524.25 4.03594
492769.32 3626524.25 3.96642
492779.32 3626524.25 3.88785
492789.32 3626524.25 3.80926
492799.32 3626524.25 3.69871
492809.32 3626524.25 3.60428
492819.32 3626524.25 3.53447
492829.32 3626524.25 3.40723

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492739.32	3626534.25	4.21833	492749.32	3626534.25	4.13065
492759.32	3626534.25	4.07092	492769.32	3626534.25	3.97650
492779.32	3626534.25	3.88622	492789.32	3626534.25	3.78297
492799.32	3626534.25	3.68226	492809.32	3626534.25	3.54272
492819.32	3626534.25	3.42837	492719.32	3626544.25	4.26512
492729.32	3626544.25	4.23670	492739.32	3626544.25	4.16633
492749.32	3626544.25	4.10759	492759.32	3626544.25	4.03940
492769.32	3626544.25	3.94811	492779.32	3626544.25	3.86878
492789.32	3626544.25	3.78766	492799.32	3626544.25	3.65308
492809.32	3626544.25	3.51440	492819.32	3626544.25	3.39242
492719.32	3626554.25	4.27212	492729.32	3626554.25	4.22026
492739.32	3626554.25	4.10272	492749.32	3626554.25	4.04567
492759.32	3626554.25	3.98724	492769.32	3626554.25	3.90369
492779.32	3626554.25	3.80977	492789.32	3626554.25	3.73116
492799.32	3626554.25	3.61404	492809.32	3626554.25	3.48287
492819.32	3626554.25	3.37803	492709.32	3626564.25	4.37981

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         492719.32    3626564.25        4.22125
492729.32    3626564.25        4.11236
         492739.32    3626564.25        4.02868
492749.32    3626564.25        3.98791
         492759.32    3626564.25        3.90691
492769.32    3626564.25        3.84335
         492779.32    3626564.25        3.75869
492789.32    3626564.25        3.66736
         492799.32    3626564.25        3.55724
492809.32    3626564.25        3.43864
         492819.32    3626564.25        3.33962
492709.32    3626574.25        4.30464
         492719.32    3626574.25        4.15209
492729.32    3626574.25        4.02546
         492739.32    3626574.25        3.96792
492749.32    3626574.25        3.88518
         492759.32    3626574.25        3.83133
492769.32    3626574.25        3.77782
         492779.32    3626574.25        3.69654
492789.32    3626574.25        3.60863
         492799.32    3626574.25        3.48690
492809.32    3626574.25        3.37717
         492819.32    3626574.25        3.28993
492699.32    3626584.25        4.37698
         492709.32    3626584.25        4.23843
492719.32    3626584.25        4.07375
         492729.32    3626584.25        3.96170
492739.32    3626584.25        3.84989
         492749.32    3626584.25        3.81286
492759.32    3626584.25        3.76550
         492769.32    3626584.25        3.68322
492779.32    3626584.25        3.59736
         492789.32    3626584.25        3.53958
492799.32    3626584.25        3.42203
         492809.32    3626584.25        3.31058
492819.32    3626584.25        3.20888
         492689.32    3626594.25        4.45678
492699.32    3626594.25        4.29210
         492709.32    3626594.25        4.09208
492719.32    3626594.25        3.96080
         492729.32    3626594.25        3.88404
492739.32    3626594.25        3.77361
         492749.32    3626594.25        3.70625
492759.32    3626594.25        3.65276
         492769.32    3626594.25        3.57772
492779.32    3626594.25        3.49505
         492789.32    3626594.25        3.42598
492799.32    3626594.25        3.35451
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492809.32	3626594.25	3.25566	492819.32	3626594.25	3.14110
492689.32	3626604.25	4.37136	492699.32	3626604.25	4.18186
492709.32	3626604.25	4.00530	492719.32	3626604.25	3.87515
492729.32	3626604.25	3.76405	492739.32	3626604.25	3.68314
492749.32	3626604.25	3.61293	492759.32	3626604.25	3.56000
492769.32	3626604.25	3.45932	492779.32	3626604.25	3.39540
492789.32	3626604.25	3.31061	492799.32	3626604.25	3.23245
492809.32	3626604.25	3.17506	492819.32	3626604.25	3.08867
492679.32	3626614.25	4.46812	492689.32	3626614.25	4.25596
492699.32	3626614.25	4.11659	492709.32	3626614.25	3.89235
492719.32	3626614.25	3.75865	492729.32	3626614.25	3.63556
492739.32	3626614.25	3.55659	492749.32	3626614.25	3.50121
492759.32	3626614.25	3.45197	492769.32	3626614.25	3.34148
492779.32	3626614.25	3.26047	492789.32	3626614.25	3.20264
492799.32	3626614.25	3.14052	492809.32	3626614.25	3.07415
492819.32	3626614.25	3.01726	492679.32	3626624.25	4.37830

492689.32 3626624.25 4.16314
492699.32 3626624.25 3.99725
492709.32 3626624.25 3.84000
492719.32 3626624.25 3.68307
492729.32 3626624.25 3.55379
492739.32 3626624.25 3.44734
492749.32 3626624.25 3.38157
492759.32 3626624.25 3.31048
492769.32 3626624.25 3.24852
492809.32 3626624.25 2.96826
492679.32 3626634.25 4.23172
492689.32 3626634.25 4.05778
492699.32 3626634.25 3.85557
492709.32 3626634.25 3.73747
492719.32 3626634.25 3.59909
492729.32 3626634.25 3.44371
492739.32 3626634.25 3.33706
492749.32 3626634.25 3.25804
492759.32 3626634.25 3.16354
492769.32 3626634.25 3.10424
492679.32 3626644.25 4.10709
492689.32 3626644.25 3.93601
492699.32 3626644.25 3.76510
492709.32 3626644.25 3.62383
492719.32 3626644.25 3.50131
492729.32 3626644.25 3.35807
492739.32 3626644.25 3.24358
492749.32 3626644.25 3.14047
492759.32 3626644.25 3.10061
492769.32 3626644.25 2.98866
492779.32 3626644.25 2.94181
492789.32 3626644.25 2.87774
492799.32 3626644.25 2.81423
492679.32 3626654.25 3.97112
492689.32 3626654.25 3.82206
492699.32 3626654.25 3.66668
492709.32 3626654.25 3.51589
492719.32 3626654.25 3.36296
492729.32 3626654.25 3.25703
492739.32 3626654.25 3.15708
492749.32 3626654.25 3.04660
492759.32 3626654.25 2.98759
492769.32 3626654.25 2.89311
492779.32 3626654.25 2.81682
492789.32 3626654.25 2.75724
492799.32 3626654.25 2.71147
492679.32 3626664.25 3.84540
492689.32 3626664.25 3.67673

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492699.32	3626664.25	3.52873	492709.32	3626664.25	3.39268
492719.32	3626664.25	3.26371	492729.32	3626664.25	3.13307
492739.32	3626664.25	3.04794	492749.32	3626664.25	2.97120
492759.32	3626664.25	2.86220	492769.32	3626664.25	2.80084
492779.32	3626664.25	2.71004	492789.32	3626664.25	2.65798
492799.32	3626664.25	2.60848	492679.32	3626674.25	3.68508
492689.32	3626674.25	3.55244	492699.32	3626674.25	3.40359
492709.32	3626674.25	3.27418	492719.32	3626674.25	3.15753
492729.32	3626674.25	3.04601	492739.32	3626674.25	2.95463
492749.32	3626674.25	2.86186	492759.32	3626674.25	2.78593
492769.32	3626674.25	2.70307	492779.32	3626674.25	2.63281
492789.32	3626674.25	2.55781	492799.32	3626674.25	2.49091
492679.32	3626684.25	3.53239	492689.32	3626684.25	3.40995
492699.32	3626684.25	3.28857	492709.32	3626684.25	3.15375
492719.32	3626684.25	3.06957	492729.32	3626684.25	2.94870
492739.32	3626684.25	2.84545	492749.32	3626684.25	2.77154

492759.32 3626684.25 2.69795
492769.32 3626684.25 2.61073
492779.32 3626684.25 2.54739
492789.32 3626684.25 2.47706
492269.61 3626327.54 9.94276
492279.61 3626327.54 10.31697
492289.61 3626327.54 10.70854
492299.61 3626327.54 11.18465
492309.61 3626327.54 11.68670
492319.61 3626327.54 12.16219
492329.61 3626327.54 12.69798
492339.61 3626327.54 13.18630
492349.61 3626327.54 13.84338
492359.61 3626327.54 14.47178
492369.61 3626327.54 15.16035
492379.61 3626327.54 15.84644
492389.61 3626327.54 16.48020
492399.61 3626327.54 17.12981
492409.61 3626327.54 17.78148
492419.61 3626327.54 18.52208
492269.61 3626337.54 9.72416
492279.61 3626337.54 10.09345
492289.61 3626337.54 10.54949
492299.61 3626337.54 10.96212
492309.61 3626337.54 11.46150
492319.61 3626337.54 11.92133
492329.61 3626337.54 12.47578
492339.61 3626337.54 13.01067
492349.61 3626337.54 13.60581
492359.61 3626337.54 14.28354
492369.61 3626337.54 14.97886
492379.61 3626337.54 15.69073
492389.61 3626337.54 16.37507
492399.61 3626337.54 17.22560
492409.61 3626337.54 17.97490
492419.61 3626337.54 18.81357
492269.61 3626347.54 9.43001
492279.61 3626347.54 9.91179
492289.61 3626347.54 10.25730
492299.61 3626347.54 10.72633
492309.61 3626347.54 11.22359
492319.61 3626347.54 11.72507
492329.61 3626347.54 12.22990
492339.61 3626347.54 12.69864
492349.61 3626347.54 13.31350
492359.61 3626347.54 13.95933
492369.61 3626347.54 14.62679
492379.61 3626347.54 15.41325

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492389.61	3626347.54	16.18153	492399.61	3626347.54	17.02074
492409.61	3626347.54	17.86179	492419.61	3626347.54	18.75699
492269.61	3626357.54	9.23326	492279.61	3626357.54	9.57451
492289.61	3626357.54	9.99880	492299.61	3626357.54	10.51186
492309.61	3626357.54	10.92827	492319.61	3626357.54	11.43487
492329.61	3626357.54	11.93601	492339.61	3626357.54	12.48664
492349.61	3626357.54	13.08955	492359.61	3626357.54	13.73296
492369.61	3626357.54	14.37672	492379.61	3626357.54	15.08453
492389.61	3626357.54	15.75972	492399.61	3626357.54	16.73111
492409.61	3626357.54	17.54740	492419.61	3626357.54	18.54865
492269.61	3626367.54	8.91800	492279.61	3626367.54	9.31717
492289.61	3626367.54	9.74394	492299.61	3626367.54	10.08468
492309.61	3626367.54	10.54075	492319.61	3626367.54	10.95555
492329.61	3626367.54	11.54304	492339.61	3626367.54	12.09454
492349.61	3626367.54	12.68545	492359.61	3626367.54	13.29228
492369.61	3626367.54	13.95530	492379.61	3626367.54	14.66468

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         492389.61    3626367.54       15.41658
492399.61    3626367.54       16.19957
         492409.61    3626367.54       17.12139
492419.61    3626367.54       18.13050
         492269.61    3626377.54        8.62159
492279.61    3626377.54        8.93929
         492289.61    3626377.54        9.34742
492299.61    3626377.54        9.70312
         492309.61    3626377.54       10.15112
492319.61    3626377.54       10.63153
         492329.61    3626377.54       11.05688
492339.61    3626377.54       11.57513
         492349.61    3626377.54       12.20187
492359.61    3626377.54       12.79897
         492369.61    3626377.54       13.43988
492379.61    3626377.54       14.10171
         492389.61    3626377.54       14.82523
492399.61    3626377.54       15.60113
         492409.61    3626377.54       16.42512
492419.61    3626377.54       17.34090
         492269.61    3626387.54        8.31143
492279.61    3626387.54        8.66186
         492289.61    3626387.54        8.98058
492299.61    3626387.54        9.38738
         492309.61    3626387.54        9.74569
492319.61    3626387.54       10.19972
         492329.61    3626387.54       10.67357
492339.61    3626387.54       11.10365
         492349.61    3626387.54       11.64481
492359.61    3626387.54       12.19674
         492369.61    3626387.54       12.81758
492379.61    3626387.54       13.53399
         492389.61    3626387.54       14.27011
492399.61    3626387.54       14.98562
         492409.61    3626387.54       15.76987
492419.61    3626387.54       16.65301
         492429.61    3626387.54       17.62415
492269.61    3626397.54        8.06102
         492279.61    3626397.54        8.37900
492289.61    3626397.54        8.73091
         492299.61    3626397.54        9.05027
492309.61    3626397.54        9.47355
         492319.61    3626397.54        9.83263
492329.61    3626397.54       10.28469
         492339.61    3626397.54       10.68847
492349.61    3626397.54       11.19580
         492359.61    3626397.54       11.77002
492369.61    3626397.54       12.25692
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492379.61	3626397.54	12.86572	492389.61	3626397.54	13.49014
492399.61	3626397.54	14.27152	492409.61	3626397.54	15.00035
492419.61	3626397.54	15.83929	492429.61	3626397.54	16.71494
492439.61	3626397.54	17.61458	492569.61	3626397.54	52.88290
492269.61	3626407.54	7.75264	492279.61	3626407.54	8.14080
492289.61	3626407.54	8.42364	492299.61	3626407.54	8.72050
492309.61	3626407.54	9.09019	492319.61	3626407.54	9.44674
492329.61	3626407.54	9.85509	492339.61	3626407.54	10.22777
492349.61	3626407.54	10.67938	492359.61	3626407.54	11.21012
492369.61	3626407.54	11.65882	492379.61	3626407.54	12.21595
492389.61	3626407.54	12.82833	492399.61	3626407.54	13.45786
492409.61	3626407.54	14.05316	492419.61	3626407.54	14.81339
492429.61	3626407.54	15.68129	492439.61	3626407.54	16.51217
492449.61	3626407.54	17.51659	492561.65	3626406.52	57.11797
492569.61	3626407.54	60.53823	492579.61	3626407.54	61.16063
492269.61	3626417.54	7.51572	492279.61	3626417.54	7.75897

492289.61 3626417.54 8.04597
492299.61 3626417.54 8.37742
492309.61 3626417.54 8.66199
492319.61 3626417.54 8.98130
492329.61 3626417.54 9.44037
492339.61 3626417.54 9.78035
492349.61 3626417.54 10.22661
492359.61 3626417.54 10.60871
492369.61 3626417.54 11.07211
492379.61 3626417.54 11.59231
492389.61 3626417.54 12.04587
492399.61 3626417.54 12.66233
492409.61 3626417.54 13.29371
492419.61 3626417.54 13.95479
492429.61 3626417.54 14.64790
492439.61 3626417.54 15.35804
492449.61 3626417.54 16.29517
492459.61 3626417.54 16.96857
492569.61 3626417.54 63.26868
492579.61 3626417.54 65.68730
492587.89 3626417.54 62.69179
492269.61 3626427.54 7.27650
492279.61 3626427.54 7.50415
492289.61 3626427.54 7.78080
492299.61 3626427.54 8.05643
492309.61 3626427.54 8.31904
492319.61 3626427.54 8.59103
492329.61 3626427.54 8.97125
492339.61 3626427.54 9.27326
492349.61 3626427.54 9.68932
492359.61 3626427.54 10.04323
492369.61 3626427.54 10.54106
492379.61 3626427.54 11.00720
492389.61 3626427.54 11.50493
492399.61 3626427.54 11.99606
492409.61 3626427.54 12.46997
492419.61 3626427.54 13.03435
492429.61 3626427.54 13.63299
492439.61 3626427.54 14.18594
492449.61 3626427.54 14.74147
492459.61 3626427.54 15.34335
492469.61 3626427.54 15.65911
492577.71 3626427.45 62.79719
492589.61 3626427.54 59.76672
492599.61 3626427.54 50.84337
492609.61 3626427.54 38.83629
492269.61 3626437.54 6.99477
492279.61 3626437.54 7.28526

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492289.61	3626437.54	7.50828	492299.61	3626437.54	7.74006
492309.61	3626437.54	8.01229	492319.61	3626437.54	8.33516
492329.61	3626437.54	8.63603	492339.61	3626437.54	8.95318
492349.61	3626437.54	9.24713	492359.61	3626437.54	9.62363
492369.61	3626437.54	9.96698	492379.61	3626437.54	10.36756
492389.61	3626437.54	10.74892	492399.61	3626437.54	11.13496
492409.61	3626437.54	11.69653	492419.61	3626437.54	12.21413
492429.61	3626437.54	12.68023	492439.61	3626437.54	13.11539
492449.61	3626437.54	13.54023	492459.61	3626437.54	13.92474
492469.61	3626437.54	14.17286	492479.61	3626437.54	14.90587
492579.61	3626437.54	53.65879	492589.61	3626437.54	51.62368
492599.61	3626437.54	43.88333	492606.62	3626436.27	37.12644
492269.61	3626447.54	6.80082	492279.61	3626447.54	7.01417
492289.61	3626447.54	7.25238	492299.61	3626447.54	7.50274
492309.61	3626447.54	7.77605	492319.61	3626447.54	8.03731
492329.61	3626447.54	8.28608	492339.61	3626447.54	8.56586

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         492349.61    3626447.54        8.83322
492359.61    3626447.54        9.19749
         492369.61    3626447.54        9.51257
492379.61    3626447.54        9.84105
         492389.61    3626447.54       10.21115
492399.61    3626447.54       10.56905
         492409.61    3626447.54       10.97999
492419.61    3626447.54       11.40349
         492429.61    3626447.54       11.64970
492439.61    3626447.54       11.95221
         492449.61    3626447.54       12.21261
492459.61    3626447.54       12.66136
         492469.61    3626447.54       13.01017
492479.61    3626447.54       13.40506
         492571.06    3626449.44       35.04089
492579.61    3626447.54       40.86840
         492585.44    3626447.63       40.74389
492269.61    3626457.54        6.59497
         492279.61    3626457.54        6.78173
492289.61    3626457.54        6.99687
         492299.61    3626457.54        7.23847
492309.61    3626457.54        7.47013
         492319.61    3626457.54        7.71554
492329.61    3626457.54        7.94428
         492339.61    3626457.54        8.20304
492349.61    3626457.54        8.44769
         492359.61    3626457.54        8.77690
492369.61    3626457.54        9.07470
         492379.61    3626457.54        9.41719
492389.61    3626457.54        9.77421
         492399.61    3626457.54       10.10627
492409.61    3626457.54       10.45428
         492419.61    3626457.54       10.65606
492429.61    3626457.54       10.89142
         492439.61    3626457.54       11.15379
492449.61    3626457.54       11.47882
         492459.61    3626457.54       11.67940
492469.61    3626457.54       11.86072
         492479.61    3626457.54       12.01819
492580.88    3626454.73       31.97393
         492269.61    3626467.54        6.33141
492279.61    3626467.54        6.50612
         492289.61    3626467.54        6.71007
492299.61    3626467.54        6.94216
         492309.61    3626467.54        7.15792
492319.61    3626467.54        7.35978
         492329.61    3626467.54        7.59379
492339.61    3626467.54        7.84188
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492349.61	3626467.54	8.06630	492359.61	3626467.54	8.36569
492369.61	3626467.54	8.67844	492379.61	3626467.54	9.00721
492389.61	3626467.54	9.30653	492399.61	3626467.54	9.60236
492409.61	3626467.54	9.78537	492419.61	3626467.54	9.98220
492429.61	3626467.54	10.17649	492439.61	3626467.54	10.44130
492449.61	3626467.54	10.70856	492459.61	3626467.54	10.89633
492469.61	3626467.54	11.04201	492479.61	3626467.54	11.18311
492499.61	3626467.54	11.97520	492269.61	3626477.54	6.13669
492279.61	3626477.54	6.32221	492289.61	3626477.54	6.49125
492299.61	3626477.54	6.68909	492309.61	3626477.54	6.86993
492319.61	3626477.54	7.08995	492329.61	3626477.54	7.31432
492339.61	3626477.54	7.59189	492349.61	3626477.54	7.83414
492359.61	3626477.54	8.09025	492369.61	3626477.54	8.35454
492379.61	3626477.54	8.62330	492389.61	3626477.54	8.89689
492399.61	3626477.54	9.06651	492409.61	3626477.54	9.22887
492419.61	3626477.54	9.45213	492429.61	3626477.54	9.56744

492439.61 3626477.54 9.79356
492449.61 3626477.54 9.99983
492459.61 3626477.54 10.26505
492469.61 3626477.54 10.44319
492479.61 3626477.54 10.55107
492489.61 3626477.54 10.81544
492499.61 3626477.54 11.92192
492506.66 3626477.89 11.08876
492269.61 3626487.54 5.92610
492279.61 3626487.54 6.08198
492289.61 3626487.54 6.27130
492299.61 3626487.54 6.43614
492309.61 3626487.54 6.63570
492319.61 3626487.54 6.88862
492329.61 3626487.54 7.10311
492339.61 3626487.54 7.33061
492349.61 3626487.54 7.56806
492359.61 3626487.54 7.80782
492369.61 3626487.54 8.01737
492379.61 3626487.54 8.25552
492389.61 3626487.54 8.41920
492399.61 3626487.54 8.62430
492409.61 3626487.54 8.76290
492419.61 3626487.54 8.86919
492429.61 3626487.54 8.92276
492439.61 3626487.54 9.16978
492449.61 3626487.54 9.46035
492459.61 3626487.54 9.74175
492469.61 3626487.54 9.79825
492479.61 3626487.54 9.96059
492489.61 3626487.54 10.03194
492499.61 3626487.54 10.62053
492509.61 3626487.54 10.54459
492269.61 3626497.54 5.74805
492279.61 3626497.54 5.92223
492289.61 3626497.54 6.02966
492299.61 3626497.54 6.26188
492309.61 3626497.54 6.45441
492319.61 3626497.54 6.65971
492329.61 3626497.54 6.87170
492339.61 3626497.54 7.08559
492349.61 3626497.54 7.28322
492359.61 3626497.54 7.51813
492369.61 3626497.54 7.75069
492379.61 3626497.54 7.89200
492389.61 3626497.54 8.08145
492399.61 3626497.54 8.20104
492409.61 3626497.54 8.20879

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492419.61	3626497.54	8.28573	492429.61	3626497.54	8.31121
492439.61	3626497.54	8.59410	492449.61	3626497.54	8.83072
492459.61	3626497.54	9.14509	492469.61	3626497.54	9.31018
492479.61	3626497.54	9.46729	492489.61	3626497.54	9.60740
492499.61	3626497.54	9.77399	492509.61	3626497.54	10.52928
492519.61	3626497.54	9.95884	492269.61	3626507.54	5.61165
492279.61	3626507.54	5.75869	492289.61	3626507.54	5.93273
492299.61	3626507.54	6.11839	492309.61	3626507.54	6.27146
492319.61	3626507.54	6.44229	492329.61	3626507.54	6.61099
492339.61	3626507.54	6.82318	492349.61	3626507.54	7.05146
492359.61	3626507.54	7.22976	492369.61	3626507.54	7.41346
492379.61	3626507.54	7.57549	492389.61	3626507.54	7.67628
492399.61	3626507.54	7.76377	492409.61	3626507.54	7.78540
492419.61	3626507.54	7.79626	492429.61	3626507.54	7.89724
492439.61	3626507.54	8.16341	492449.61	3626507.54	8.47493
492459.61	3626507.54	8.76353	492469.61	3626507.54	8.96675

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         492479.61    3626507.54        9.11153
492489.61    3626507.54        9.20094
         492499.61    3626507.54        9.23606
492509.61    3626507.54        9.54317
         492519.61    3626507.54       10.18082
492269.61    3626517.54        5.44233
         492279.61    3626517.54        5.57783
492289.61    3626517.54        5.75331
         492299.61    3626517.54        5.87452
492309.61    3626517.54        6.05786
         492319.61    3626517.54        6.25229
492329.61    3626517.54        6.45808
         492339.61    3626517.54        6.61624
492349.61    3626517.54        6.81294
         492359.61    3626517.54        7.02431
492369.61    3626517.54        7.18379
         492379.61    3626517.54        7.28167
492389.61    3626517.54        7.33021
         492399.61    3626517.54        7.43461
492409.61    3626517.54        7.41262
         492419.61    3626517.54        7.49945
492429.61    3626517.54        7.54108
         492439.61    3626517.54        7.81621
492449.61    3626517.54        8.08615
         492459.61    3626517.54        8.39902
492469.61    3626517.54        8.56238
         492479.61    3626517.54        8.73971
492489.61    3626517.54        8.97163
         492499.61    3626517.54        8.98679
492509.61    3626517.54        8.92034
         492519.61    3626517.54        9.22714
492529.61    3626517.54        9.56401
         492269.61    3626527.54        5.29624
492279.61    3626527.54        5.42440
         492289.61    3626527.54        5.59094
492299.61    3626527.54        5.76702
         492309.61    3626527.54        5.95388
492319.61    3626527.54        6.11238
         492329.61    3626527.54        6.30067
492339.61    3626527.54        6.50947
         492349.61    3626527.54        6.66182
492359.61    3626527.54        6.79763
         492369.61    3626527.54        6.91356
492459.61    3626527.54        8.02042
         492469.61    3626527.54        8.28239
492479.61    3626527.54        8.47016
         492489.61    3626527.54        8.62174
492499.61    3626527.54        8.60816
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492509.61	3626527.54	8.65512	492519.61	3626527.54	8.64640
492529.61	3626527.54	8.54552	492269.61	3626537.54	5.17472
492279.61	3626537.54	5.34368	492289.61	3626537.54	5.48114
492299.61	3626537.54	5.62806	492309.61	3626537.54	5.79633
492319.61	3626537.54	5.94922	492329.61	3626537.54	6.17096
492339.61	3626537.54	6.35006	492349.61	3626537.54	6.44180
492359.61	3626537.54	6.59170	492369.61	3626537.54	6.67787
492459.61	3626537.54	7.71123	492469.61	3626537.54	7.91494
492479.61	3626537.54	8.13731	492489.61	3626537.54	8.33839
492499.61	3626537.54	8.33050	492509.61	3626537.54	8.38662
492519.61	3626537.54	8.33645	492529.61	3626537.54	8.16010
492269.61	3626547.54	5.04239	492279.61	3626547.54	5.21969
492289.61	3626547.54	5.37395	492299.61	3626547.54	5.53020
492309.61	3626547.54	5.71346	492319.61	3626547.54	5.88023
492329.61	3626547.54	6.01081	492339.61	3626547.54	6.18189
492349.61	3626547.54	6.24715	492359.61	3626547.54	6.32223

492369.61 3626547.54 6.35682
492459.61 3626547.54 7.34805
492469.61 3626547.54 7.58209
492479.61 3626547.54 7.82115
492489.61 3626547.54 8.03378
492499.61 3626547.54 8.01711
492509.61 3626547.54 8.03971
492519.61 3626547.54 8.04064
492529.61 3626547.54 7.82843
492269.61 3626557.54 4.92900
492279.61 3626557.54 5.10988
492289.61 3626557.54 5.22572
492299.61 3626557.54 5.42197
492309.61 3626557.54 5.58200
492319.61 3626557.54 5.68802
492329.61 3626557.54 5.85091
492339.61 3626557.54 5.94615
492349.61 3626557.54 6.01873
492359.61 3626557.54 6.07555
492369.61 3626557.54 6.10198
492459.61 3626557.54 7.07245
492469.61 3626557.54 7.30116
492479.61 3626557.54 7.52336
492489.61 3626557.54 7.68656
492499.61 3626557.54 7.76027
492509.61 3626557.54 7.74685
492519.61 3626557.54 7.72188
492529.61 3626557.54 7.49920
492269.61 3626567.54 4.80994
492279.61 3626567.54 5.03760
492289.61 3626567.54 5.14268
492299.61 3626567.54 5.26149
492309.61 3626567.54 5.37190
492319.61 3626567.54 5.52585
492329.61 3626567.54 5.68364
492339.61 3626567.54 5.82901
492349.61 3626567.54 5.84296
492359.61 3626567.54 5.84053
492369.61 3626567.54 5.89720
492459.61 3626567.54 6.77475
492469.61 3626567.54 7.00749
492479.61 3626567.54 7.17518
492489.61 3626567.54 7.39488
492499.61 3626567.54 7.45449
492509.61 3626567.54 7.43964
492519.61 3626567.54 7.33532
492529.61 3626567.54 7.16648
492269.61 3626577.54 4.69918

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492279.61	3626577.54	4.88097	492289.61	3626577.54	5.01677
492299.61	3626577.54	5.14246	492309.61	3626577.54	5.28750
492319.61	3626577.54	5.40257	492329.61	3626577.54	5.53004
492339.61	3626577.54	5.62724	492469.61	3626577.54	6.67412
492479.61	3626577.54	6.88089	492489.61	3626577.54	7.07467
492499.61	3626577.54	7.09287	492509.61	3626577.54	7.07785
492519.61	3626577.54	7.01483	492529.61	3626577.54	6.84780
492269.61	3626587.54	4.60184	492279.61	3626587.54	4.77392
492289.61	3626587.54	4.89337	492299.61	3626587.54	5.03167
492309.61	3626587.54	5.14861	492319.61	3626587.54	5.25959
492329.61	3626587.54	5.34598	492339.61	3626587.54	5.42626
492469.61	3626587.54	6.40062	492479.61	3626587.54	6.56781
492489.61	3626587.54	6.75360	492499.61	3626587.54	6.76804
492509.61	3626587.54	6.71792	492519.61	3626587.54	6.65014
492529.61	3626587.54	6.51180	492269.61	3626597.54	4.48228
492279.61	3626597.54	4.67079	492289.61	3626597.54	4.77840

492299.61 3626597.54 4.89352
492309.61 3626597.54 5.02411
492319.61 3626597.54 5.09582
492329.61 3626597.54 5.18918
492339.61 3626597.54 5.28576
492469.61 3626597.54 6.11702
492479.61 3626597.54 6.26534
492489.61 3626597.54 6.44489
492499.61 3626597.54 6.40232
492509.61 3626597.54 6.38854
492519.61 3626597.54 6.37639
492529.61 3626597.54 6.15541
492269.61 3626607.54 4.38318
492279.61 3626607.54 4.53762
492289.61 3626607.54 4.66651
492299.61 3626607.54 4.76909
492309.61 3626607.54 4.86377
492319.61 3626607.54 4.98632
492329.61 3626607.54 5.02868
492339.61 3626607.54 5.11656
492469.61 3626607.54 5.85683
492479.61 3626607.54 5.97205
492489.61 3626607.54 6.09167
492499.61 3626607.54 6.06955
492509.61 3626607.54 6.01684
492519.61 3626607.54 5.98948
492529.61 3626607.54 5.83903
492269.61 3626617.54 4.30805
492279.61 3626617.54 4.44772
492289.61 3626617.54 4.53859
492299.61 3626617.54 4.66147
492309.61 3626617.54 4.72995
492319.61 3626617.54 4.79736
492329.61 3626617.54 4.90486
492339.61 3626617.54 4.97536
492469.61 3626617.54 5.57053
492479.61 3626617.54 5.67924
492489.61 3626617.54 5.82497
492499.61 3626617.54 5.75225
492509.61 3626617.54 5.73005
492519.61 3626617.54 5.65623
492529.61 3626617.54 5.51844
492269.61 3626627.54 4.17573
492279.61 3626627.54 4.32428
492289.61 3626627.54 4.41579
492299.61 3626627.54 4.47518
492309.61 3626627.54 4.58681
492319.61 3626627.54 4.68328

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492329.61	3626627.54	4.78166	492339.61	3626627.54	4.85165
492469.61	3626627.54	5.25806	492479.61	3626627.54	5.40027
492489.61	3626627.54	5.48765	492499.61	3626627.54	5.45555
492509.61	3626627.54	5.37324	492519.61	3626627.54	5.31654
492269.61	3626637.54	4.07252	492279.61	3626637.54	4.15458
492289.61	3626637.54	4.25106	492299.61	3626637.54	4.37347
492309.61	3626637.54	4.46916	492319.61	3626637.54	4.55748
492329.61	3626637.54	4.62657	492339.61	3626637.54	4.67299
492469.61	3626637.54	4.97321	492479.61	3626637.54	5.08791
492489.61	3626637.54	5.19103	492499.61	3626637.54	5.10556
492509.61	3626637.54	5.03462	492519.61	3626637.54	4.92665
492269.61	3626647.54	3.92333	492279.61	3626647.54	4.05960
492289.61	3626647.54	4.14869	492299.61	3626647.54	4.23622
492309.61	3626647.54	4.34852	492319.61	3626647.54	4.43923
492329.61	3626647.54	4.48289	492339.61	3626647.54	4.51582
492479.61	3626647.54	4.79744	492489.61	3626647.54	4.88783

492499.61 3626647.54 4.78997
492509.61 3626647.54 4.71674
492269.61 3626657.54 3.83041
492279.61 3626657.54 3.96132
492289.61 3626657.54 4.04260
492299.61 3626657.54 4.12676
492309.61 3626657.54 4.21003
492319.61 3626657.54 4.30574
492329.61 3626657.54 4.33658
492339.61 3626657.54 4.38025
492489.61 3626657.54 4.59073
492499.61 3626657.54 4.51154
492269.61 3626667.54 3.74126
492279.61 3626667.54 3.84117
492289.61 3626667.54 3.93685
492299.61 3626667.54 4.01293
492309.61 3626667.54 4.08756
492319.61 3626667.54 4.14388
492329.61 3626667.54 4.17996
492339.61 3626667.54 4.23111
492269.61 3626677.54 3.65453
492279.61 3626677.54 3.74080
492289.61 3626677.54 3.83329
492299.61 3626677.54 3.90163
492309.61 3626677.54 3.96712
492319.61 3626677.54 4.01989
492329.61 3626677.54 4.03828
492339.61 3626677.54 4.06379
492269.61 3626687.54 3.56457
492279.61 3626687.54 3.64412
492289.61 3626687.54 3.71570
492299.61 3626687.54 3.79435
492309.61 3626687.54 3.84913
492319.61 3626687.54 3.83471
492329.61 3626687.54 3.90327
492339.61 3626687.54 3.90398
492269.61 3626697.54 3.48360
492279.61 3626697.54 3.57095
492289.61 3626697.54 3.62382
492299.61 3626697.54 3.69894
492309.61 3626697.54 3.72152
492319.61 3626697.54 3.73532
492329.61 3626697.54 3.76389
492339.61 3626697.54 3.78788
492269.61 3626707.54 3.41798
492279.61 3626707.54 3.48536
492289.61 3626707.54 3.52901
492299.61 3626707.54 3.58044

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492309.61	3626707.54	3.63242	492319.61	3626707.54	3.65459
492329.61	3626707.54	3.65016	492339.61	3626707.54	3.64357
492269.61	3626717.54	3.33850	492279.61	3626717.54	3.39440
492289.61	3626717.54	3.44450	492299.61	3626717.54	3.49586
492309.61	3626717.54	3.54781	492319.61	3626717.54	3.55191
492329.61	3626717.54	3.54267	492339.61	3626717.54	3.52630
492669.07	3626644.38	4.29256	492665.07	3626656.03	4.10871
492665.74	3626664.35	3.96973	492664.07	3626675.33	3.78108
492599.44	3626421.99	52.79045	492613.55	3626421.99	36.32632
492613.75	3626427.92	33.56023	492613.55	3626435.89	29.08125
492573.34	3626443.01	44.34663	492576.15	3626437.02	53.18419
492578.78	3626431.67	59.70736	492589.21	3626442.01	46.75048
492486.91	3626457.88	13.00370	492754.50	3626421.99	8.80733
492769.80	3626421.07	8.55596	492785.88	3626420.30	8.09638
492738.65	3626423.47	8.92952	492706.56	3626426.42	8.66088
492711.95	3626405.79	14.20332	492768.79	3626400.83	12.77481

492785.62 3626408.85 9.93890
492738.00 3626391.14 17.03622
492723.48 3626404.28 14.19381
492719.55 3626425.32 8.74934
492703.08 3626394.66 17.52337
492754.36 3626388.55 16.38443
492658.16 3626430.53 9.40355
492688.16 3626427.66 8.44193
492657.04 3626417.15 13.49393
492706.48 3626414.85 11.40963
492668.44 3626429.07 8.61692
492669.26 3626416.07 12.52408
492656.31 3626403.36 17.47846
492648.73 3626393.67 20.54402
492687.87 3626416.29 11.54497
492685.94 3626396.06 17.88760
492667.70 3626402.11 16.67768
492667.29 3626385.32 19.55194
492269.79 3626186.83 9.06943
492277.28 3626186.83 9.25938
492284.77 3626186.83 9.38242
492292.26 3626186.83 9.56578
492299.75 3626186.83 9.63219
492307.24 3626186.83 9.80350
492314.73 3626186.83 9.94901
492322.22 3626186.83 10.06733
492329.71 3626186.83 10.17733
492337.20 3626186.83 10.35439
492344.69 3626186.83 10.46120
492352.18 3626186.83 10.53783
492359.67 3626186.83 10.68936
492367.16 3626186.83 10.77012
492374.65 3626186.83 10.83316
492382.14 3626186.83 10.88458
492389.63 3626186.83 10.91997
492397.12 3626186.83 10.97572
492404.61 3626186.83 11.09930
492412.10 3626186.83 11.11433
492419.59 3626186.83 11.05369
492269.79 3626193.42 9.28180
492277.28 3626193.42 9.42148
492284.77 3626193.42 9.55558
492292.26 3626193.42 9.74774
492299.75 3626193.42 9.87871
492307.24 3626193.42 10.00476
492314.73 3626193.42 10.13574
492322.22 3626193.42 10.28766
492329.71 3626193.42 10.40882

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492337.20	3626193.42	10.58172	492344.69	3626193.42	10.68939
492352.18	3626193.42	10.79895	492359.67	3626193.42	10.87780
492367.16	3626193.42	11.03477	492374.65	3626193.42	11.11891
492382.14	3626193.42	11.18333	492389.63	3626193.42	11.28061
492397.12	3626193.42	11.32629	492404.61	3626193.42	11.36451
492412.10	3626193.42	11.38755	492419.59	3626193.42	11.38642
492269.79	3626200.01	9.38094	492277.28	3626200.01	9.57572
492284.77	3626200.01	9.77739	492292.26	3626200.01	9.85649
492299.75	3626200.01	10.06063	492307.24	3626200.01	10.19889
492314.73	3626200.01	10.38869	492322.22	3626200.01	10.53254
492329.71	3626200.01	10.61787	492337.20	3626200.01	10.80052
492344.69	3626200.01	10.91549	492352.18	3626200.01	11.02789
492359.67	3626200.01	11.18180	492367.16	3626200.01	11.27834
492374.65	3626200.01	11.44406	492382.14	3626200.01	11.52460
492389.63	3626200.01	11.58268	492397.12	3626200.01	11.64107
492404.61	3626200.01	11.68596	492412.10	3626200.01	11.76248

492419.59 3626200.01 11.78718
492269.79 3626206.60 9.54163
492277.28 3626206.60 9.71207
492284.77 3626206.60 9.91332
492292.26 3626206.60 10.06625
492299.75 3626206.60 10.21549
492307.24 3626206.60 10.36644
492314.73 3626206.60 10.51180
492322.22 3626206.60 10.71295
492329.71 3626206.60 10.86422
492337.20 3626206.60 11.01327
492344.69 3626206.60 11.20058
492352.18 3626206.60 11.32426
492359.67 3626206.60 11.45400
492367.16 3626206.60 11.54532
492374.65 3626206.60 11.71724
492382.14 3626206.60 11.81794
492389.63 3626206.60 11.90044
492397.12 3626206.60 11.95795
492404.61 3626206.60 12.07321
492412.10 3626206.60 12.10057
492419.59 3626206.60 12.13612
492269.79 3626213.19 9.64831
492277.28 3626213.19 9.81094
492284.77 3626213.19 10.03210
492292.26 3626213.19 10.20573
492299.75 3626213.19 10.36684
492307.24 3626213.19 10.59046
492314.73 3626213.19 10.68571
492322.22 3626213.19 10.90628
492329.71 3626213.19 11.05187
492337.20 3626213.19 11.21146
492344.69 3626213.19 11.41570
492352.18 3626213.19 11.56512
492359.67 3626213.19 11.69502
492367.16 3626213.19 11.83132
492374.65 3626213.19 11.92560
492382.14 3626213.19 12.15990
492389.63 3626213.19 12.25813
492397.12 3626213.19 12.33486
492404.61 3626213.19 12.40053
492412.10 3626213.19 12.46964
492419.59 3626213.19 12.53638
492269.79 3626219.78 9.67831
492277.28 3626219.78 9.91819
492284.77 3626219.78 10.08918
492292.26 3626219.78 10.32498
492299.75 3626219.78 10.50916

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492307.24	3626219.78	10.74253	492314.73	3626219.78	10.91764
492322.22	3626219.78	11.08404	492329.71	3626219.78	11.25277
492337.20	3626219.78	11.40597	492344.69	3626219.78	11.63270
492352.18	3626219.78	11.79027	492359.67	3626219.78	11.94695
492367.16	3626219.78	12.08292	492374.65	3626219.78	12.26708
492382.14	3626219.78	12.45697	492389.63	3626219.78	12.57057
492397.12	3626219.78	12.67136	492404.61	3626219.78	12.74871
492412.10	3626219.78	12.87201	492419.59	3626219.78	12.92409
492269.79	3626226.37	9.86519	492277.28	3626226.37	10.00331
492284.77	3626226.37	10.19667	492292.26	3626226.37	10.44079
492299.75	3626226.37	10.62810	492307.24	3626226.37	10.86695
492314.73	3626226.37	11.07301	492322.22	3626226.37	11.25823
492329.71	3626226.37	11.50421	492337.20	3626226.37	11.67211
492344.69	3626226.37	11.77597	492352.18	3626226.37	12.01664
492359.67	3626226.37	12.18205	492367.16	3626226.37	12.34671
492374.65	3626226.37	12.62870	492382.14	3626226.37	12.75386

492389.63 3626226.37 12.88204
492397.12 3626226.37 12.99986
492404.61 3626226.37 13.14592
492412.10 3626226.37 13.23296
492419.59 3626226.37 13.31049
492269.79 3626232.96 9.97940
492277.28 3626232.96 10.19397
492284.77 3626232.96 10.34578
492292.26 3626232.96 10.54318
492299.75 3626232.96 10.74419
492307.24 3626232.96 10.94169
492314.73 3626232.96 11.19716
492322.22 3626232.96 11.41676
492329.71 3626232.96 11.67756
492337.20 3626232.96 11.87497
492344.69 3626232.96 12.05300
492352.18 3626232.96 12.30719
492359.67 3626232.96 12.48092
492367.16 3626232.96 12.65168
492374.65 3626232.96 12.87827
492382.14 3626232.96 13.06353
492389.63 3626232.96 13.24757
492397.12 3626232.96 13.38691
492404.61 3626232.96 13.50450
492412.10 3626232.96 13.60327
492419.59 3626232.96 13.74924
492269.79 3626239.55 9.98957
492277.28 3626239.55 10.25882
492284.77 3626239.55 10.47918
492292.26 3626239.55 10.63877
492299.75 3626239.55 10.90969
492307.24 3626239.55 11.05643
492314.73 3626239.55 11.33348
492322.22 3626239.55 11.53903
492329.71 3626239.55 11.81735
492337.20 3626239.55 12.05184
492344.69 3626239.55 12.26128
492352.18 3626239.55 12.52154
492359.67 3626239.55 12.72093
492367.16 3626239.55 12.90457
492374.65 3626239.55 13.14468
492382.14 3626239.55 13.32381
492389.63 3626239.55 13.56189
492397.12 3626239.55 13.71463
492404.61 3626239.55 13.86110
492412.10 3626239.55 14.02417
492419.59 3626239.55 14.13363
492269.79 3626246.14 10.06077

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492277.28	3626246.14	10.34189	492284.77	3626246.14	10.54669
492292.26	3626246.14	10.83886	492299.75	3626246.14	11.00530
492307.24	3626246.14	11.22784	492314.73	3626246.14	11.44287
492322.22	3626246.14	11.67404	492329.71	3626246.14	11.95727
492337.20	3626246.14	12.19053	492344.69	3626246.14	12.44052
492352.18	3626246.14	12.72966	492359.67	3626246.14	12.94132
492367.16	3626246.14	13.15253	492374.65	3626246.14	13.41751
492382.14	3626246.14	13.60193	492389.63	3626246.14	13.86658
492397.12	3626246.14	14.04488	492404.61	3626246.14	14.20532
492412.10	3626246.14	14.41178	492419.59	3626246.14	14.52926
492269.79	3626252.73	10.19001	492277.28	3626252.73	10.40406
492284.77	3626252.73	10.63337	492292.26	3626252.73	10.92289
492299.75	3626252.73	11.15083	492307.24	3626252.73	11.39055
492314.73	3626252.73	11.61987	492322.22	3626252.73	11.85372
492329.71	3626252.73	12.08810	492337.20	3626252.73	12.32943
492344.69	3626252.73	12.57699	492352.18	3626252.73	12.89112

492359.67 3626252.73 13.15408
492367.16 3626252.73 13.37891
492374.65 3626252.73 13.67542
492382.14 3626252.73 13.94453
492389.63 3626252.73 14.14802
492397.12 3626252.73 14.36468
492404.61 3626252.73 14.60867
492412.10 3626252.73 14.85259
492419.59 3626252.73 14.93700
492269.79 3626259.32 10.24875
492277.28 3626259.32 10.53386
492284.77 3626259.32 10.69644
492292.26 3626259.32 11.00029
492299.75 3626259.32 11.23767
492307.24 3626259.32 11.48094
492314.73 3626259.32 11.72893
492322.22 3626259.32 12.03320
492329.71 3626259.32 12.27391
492337.20 3626259.32 12.58004
492344.69 3626259.32 12.71355
492352.18 3626259.32 13.04700
492359.67 3626259.32 13.31439
492367.16 3626259.32 13.59535
492374.65 3626259.32 13.97781
492382.14 3626259.32 14.21924
492389.63 3626259.32 14.44041
492397.12 3626259.32 14.65683
492404.61 3626259.32 14.99208
492412.10 3626259.32 15.19496
492419.59 3626259.32 15.39935
492269.79 3626265.91 10.29557
492277.28 3626265.91 10.58712
492284.77 3626265.91 10.75642
492292.26 3626265.91 11.06502
492299.75 3626265.91 11.31491
492307.24 3626265.91 11.63077
492314.73 3626265.91 11.82196
492322.22 3626265.91 12.16094
492329.71 3626265.91 12.40075
492337.20 3626265.91 12.71877
492344.69 3626265.91 12.97192
492352.18 3626265.91 13.31725
492359.67 3626265.91 13.53839
492367.16 3626265.91 13.82469
492374.65 3626265.91 14.16841
492382.14 3626265.91 14.46613
492389.63 3626265.91 14.72373
492397.12 3626265.91 15.03238

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492404.61	3626265.91	15.26215	492412.10	3626265.91	15.54301
492419.59	3626265.91	15.81974	492269.79	3626272.50	10.30733
492277.28	3626272.50	10.56516	492284.77	3626272.50	10.87325
492292.26	3626272.50	11.12013	492299.75	3626272.50	11.37820
492307.24	3626272.50	11.71037	492314.73	3626272.50	11.97145
492322.22	3626272.50	12.24540	492329.71	3626272.50	12.53182
492337.20	3626272.50	12.86632	492344.69	3626272.50	13.11947
492352.18	3626272.50	13.51462	492359.67	3626272.50	13.74649
492367.16	3626272.50	14.11462	492374.65	3626272.50	14.35774
492382.14	3626272.50	14.65324	492389.63	3626272.50	14.97184
492397.12	3626272.50	15.31732	492404.61	3626272.50	15.64069
492412.10	3626272.50	15.90182	492419.59	3626272.50	16.17990
492269.79	3626279.09	10.30350	492277.28	3626279.09	10.56601
492284.77	3626279.09	10.88795	492292.26	3626279.09	11.14199
492299.75	3626279.09	11.42745	492307.24	3626279.09	11.76667
492314.73	3626279.09	12.04706	492322.22	3626279.09	12.33003

492329.71 3626279.09 12.61426
492337.20 3626279.09 12.98750
492344.69 3626279.09 13.26831
492352.18 3626279.09 13.61974
492359.67 3626279.09 13.95121
492367.16 3626279.09 14.32580
492374.65 3626279.09 14.58480
492382.14 3626279.09 14.91051
492389.63 3626279.09 15.22575
492397.12 3626279.09 15.54800
492404.61 3626279.09 15.92758
492412.10 3626279.09 16.21194
492419.59 3626279.09 16.53720
492269.79 3626285.68 10.28863
492277.28 3626285.68 10.48798
492284.77 3626285.68 10.87543
492292.26 3626285.68 11.21230
492299.75 3626285.68 11.43744
492307.24 3626285.68 11.78808
492314.73 3626285.68 12.09530
492322.22 3626285.68 12.46291
492329.71 3626285.68 12.76280
492337.20 3626285.68 13.07021
492344.69 3626285.68 13.45926
492352.18 3626285.68 13.75805
492359.67 3626285.68 14.12582
492367.16 3626285.68 14.49103
492374.65 3626285.68 14.80274
492382.14 3626285.68 15.20584
492389.63 3626285.68 15.48805
492397.12 3626285.68 15.75074
492404.61 3626285.68 16.16323
492412.10 3626285.68 16.50324
492419.59 3626285.68 16.88020
492269.79 3626292.27 10.34477
492277.28 3626292.27 10.54295
492284.77 3626292.27 10.85174
492292.26 3626292.27 11.18248
492299.75 3626292.27 11.41696
492307.24 3626292.27 11.78403
492314.73 3626292.27 12.10153
492322.22 3626292.27 12.48040
492329.71 3626292.27 12.79299
492337.20 3626292.27 13.14026
492344.69 3626292.27 13.53412
492352.18 3626292.27 13.87515
492359.67 3626292.27 14.26538
492367.16 3626292.27 14.58274

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492374.65	3626292.27	15.03942	492382.14	3626292.27	15.38673
492389.63	3626292.27	15.72623	492397.12	3626292.27	16.08794
492404.61	3626292.27	16.52449	492412.10	3626292.27	16.81099
492419.59	3626292.27	17.15472	492269.79	3626298.86	10.31298
492277.28	3626298.86	10.63348	492284.77	3626298.86	10.90532
492292.26	3626298.86	11.16468	492299.75	3626298.86	11.38508
492307.24	3626298.86	11.81686	492314.73	3626298.86	12.13000
492322.22	3626298.86	12.46952	492329.71	3626298.86	12.79696
492337.20	3626298.86	13.15409	492344.69	3626298.86	13.57394
492352.18	3626298.86	13.93876	492359.67	3626298.86	14.37372
492367.16	3626298.86	14.71490	492374.65	3626298.86	15.13117
492382.14	3626298.86	15.53929	492389.63	3626298.86	15.98220
492397.12	3626298.86	16.35839	492404.61	3626298.86	16.79019
492412.10	3626298.86	17.18005	492419.59	3626298.86	17.49118
492269.79	3626305.45	10.24891	492277.28	3626305.45	10.58490
492284.77	3626305.45	10.86400	492292.26	3626305.45	11.20661

492299.75 3626305.45 11.48867
492307.24 3626305.45 11.78678
492314.73 3626305.45 12.22832
492322.22 3626305.45 12.50418
492329.71 3626305.45 12.84022
492337.20 3626305.45 13.20549
492344.69 3626305.45 13.56972
492352.18 3626305.45 14.01354
492359.67 3626305.45 14.40376
492367.16 3626305.45 14.86445
492374.65 3626305.45 15.25420
492382.14 3626305.45 15.69602
492389.63 3626305.45 16.13606
492397.12 3626305.45 16.52785
492404.61 3626305.45 17.08308
492412.10 3626305.45 17.47869
492419.59 3626305.45 17.86749
492269.79 3626312.04 10.14946
492277.28 3626312.04 10.49014
492284.77 3626312.04 10.77371
492292.26 3626312.04 11.13386
492299.75 3626312.04 11.45429
492307.24 3626312.04 11.76514
492314.73 3626312.04 12.12680
492322.22 3626312.04 12.52693
492329.71 3626312.04 12.86853
492337.20 3626312.04 13.29916
492344.69 3626312.04 13.61078
492352.18 3626312.04 14.06460
492359.67 3626312.04 14.47569
492367.16 3626312.04 14.87511
492374.65 3626312.04 15.31187
492382.14 3626312.04 15.78615
492389.63 3626312.04 16.20418
492397.12 3626312.04 16.74804
492404.61 3626312.04 17.17324
492412.10 3626312.04 17.67973
492419.59 3626312.04 18.18015
492269.79 3626318.63 10.04777
492277.28 3626318.63 10.38659
492284.77 3626318.63 10.67244
492292.26 3626318.63 11.03771
492299.75 3626318.63 11.36249
492307.24 3626318.63 11.68205
492314.73 3626318.63 12.06823
492322.22 3626318.63 12.44873
492329.71 3626318.63 12.75094
492337.20 3626318.63 13.24973

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492344.69	3626318.63	13.70074	492352.18	3626318.63	14.10158
492359.67	3626318.63	14.57622	492367.16	3626318.63	14.93517
492374.65	3626318.63	15.43450	492382.14	3626318.63	15.89835
492389.63	3626318.63	16.32755	492397.12	3626318.63	16.77708
492404.61	3626318.63	17.29799	492412.10	3626318.63	17.91254
492419.59	3626318.63	18.37934	492654.44	3626387.58	20.14289
492685.01	3626384.14	19.87851	492702.20	3626382.61	20.31452
492715.58	3626381.08	20.57782	492733.54	3626379.94	20.05487
492755.32	3626378.03	18.68985	492776.34	3626378.03	16.56605
492780.92	3626393.31	13.30720	492740.03	3626412.42	11.86256
492758.38	3626410.89	11.22025			

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)									
	492248.31	492298.31	492348.31	492398.31	492448.31	492498.31	492548.31	492598.31	492648.31
3626779.15	2.72757	2.90285	2.78422	2.52392	2.44095	2.45147	2.51683	2.60520	2.52253
3626729.15	3.09240	3.38987	3.35561	3.11061	3.00967	3.03107	2.98188	2.98770	3.16216
3626679.15	3.42709	3.87528	3.98675	3.80267	3.82235	3.96357	3.73722	3.63045	3.67641
3626629.15	3.87983	4.44385	4.77311	4.57365	4.93915	5.37866	4.91852	4.62024	4.47604
3626579.15	4.29263	5.10802	5.57730	5.57350	6.18173	7.05043	6.53798	6.13490	5.46291
3626529.15	4.95284	5.72821	6.61689	7.04715	7.66836	8.58404	8.70812	8.70350	7.14999
3626479.15	5.75326	6.63119	7.71958	8.96560	9.88922	11.56848	10.59998	13.90063	9.34926
3626429.15	6.74743	7.98240	9.53915	11.80432	14.44476	18.18355	38.95117	51.43203	11.37265
3626379.15	7.89444	9.60425	11.97175	15.32834	20.43805	27.42562	30.82672	29.23662	21.14648
3626329.15	9.05967	11.10140	13.75126	17.06139	20.84942	23.79323	24.19961	20.06333	15.16114
3626279.15	9.58612	11.37671	13.41352	15.66443	17.62643	17.94196	15.90278	12.94936	11.92707
3626229.15	9.33025	10.64335	12.08694	13.15307	13.65800	12.82007	11.04474	9.51682	9.46124
3626179.15	8.56572	9.39686	10.21633	10.61393	10.36599	9.35194	8.20057	7.38682	7.52281
3626129.15	7.41309	7.86991	8.33852	8.40423	7.45597	6.14018	5.80975	5.67788	6.08763

3626079.15 | 6.17994 6.55242 6.71428 6.49757
5.64678 4.93978 5.08943 4.90639 5.10101

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)					
	492698.31	492748.31	492798.31	492848.31	492898.31	492948.31
3626779.15	2.25595	1.96822	1.69245	1.45815	1.34275	1.30457
3626729.15	2.78644	2.39322	2.05466	1.70576	1.60312	1.52050
3626679.15	3.35740	2.82234	2.45639	2.05625	1.85600	1.66361
3626629.15	3.94385	3.33589	2.96772	2.48011	2.01903	1.73097
3626579.15	4.43328	3.84259	3.47138	2.84275	2.14903	1.88140
3626529.15	4.53820	4.12590	3.70055	3.14103	2.48000	2.23704
3626479.15	4.32674	4.14029	4.32163	4.00999	3.20427	2.73226
3626429.15	7.95762	7.51754	7.02752	6.16809	4.90369	3.73952
3626379.15	20.58335	19.11051	14.29877	10.61499	7.98886	5.72450
3626329.15	18.73326	21.42770	19.88055	15.99178	12.12078	9.02942
3626279.15	13.21838	15.98339	17.16069	16.58115	14.34074	11.75668
3626229.15	10.45191	11.81788	12.77651	13.32221	13.10613	12.08820
3626179.15	8.37514	9.32770	10.00476	10.19639	10.44483	10.43811
3626129.15	6.81625	7.55564	8.12689	8.34548	8.26836	8.32774

3626079.15 | 5.60664 6.20948 6.72860 6.98720 6.96814 6.87406

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492779.32	3626444.25	5.69909	492789.32	3626444.25	5.75995
492799.32	3626444.25	5.65490	492839.32	3626444.25	5.33191
492849.32	3626444.25	5.25511	492859.32	3626444.25	5.05951
492869.32	3626444.25	4.90172	492879.32	3626444.25	4.74774
492779.32	3626454.25	5.14265	492789.32	3626454.25	5.17852
492799.32	3626454.25	5.12867	492839.32	3626454.25	4.85661
492849.32	3626454.25	4.78967	492859.32	3626454.25	4.64160
492869.32	3626454.25	4.50518	492879.32	3626454.25	4.36348
492779.32	3626464.25	4.78075	492789.32	3626464.25	4.83461
492799.32	3626464.25	4.79242	492829.32	3626464.25	4.62565
492839.32	3626464.25	4.55390	492849.32	3626464.25	4.47224
492859.32	3626464.25	4.32422	492869.32	3626464.25	4.18793
492879.32	3626464.25	4.05817	492769.32	3626474.25	4.43868
492779.32	3626474.25	4.45693	492789.32	3626474.25	4.48277
492799.32	3626474.25	4.46079	492829.32	3626474.25	4.31316
492839.32	3626474.25	4.23327	492849.32	3626474.25	4.14980

492859.32 3626474.25 4.01916
492869.32 3626474.25 3.89783
492879.32 3626474.25 3.77610
492769.32 3626484.25 4.19830
492779.32 3626484.25 4.20574
492789.32 3626484.25 4.23796
492799.32 3626484.25 4.19096
492809.32 3626484.25 4.15293
492819.32 3626484.25 4.11763
492829.32 3626484.25 4.03467
492839.32 3626484.25 3.94955
492849.32 3626484.25 3.85063
492859.32 3626484.25 3.74556
492769.32 3626494.25 4.07032
492779.32 3626494.25 4.04189
492789.32 3626494.25 4.03117
492799.32 3626494.25 4.00356
492809.32 3626494.25 3.96202
492819.32 3626494.25 3.91752
492829.32 3626494.25 3.79863
492839.32 3626494.25 3.71071
492849.32 3626494.25 3.61358
492859.32 3626494.25 3.50568
492769.32 3626504.25 3.96786
492779.32 3626504.25 3.95091
492789.32 3626504.25 3.93400
492799.32 3626504.25 3.89152
492809.32 3626504.25 3.83823
492819.32 3626504.25 3.78037
492829.32 3626504.25 3.65106
492749.32 3626514.25 4.06504
492759.32 3626514.25 4.04079
492769.32 3626514.25 3.97428
492779.32 3626514.25 3.88514
492789.32 3626514.25 3.84891
492799.32 3626514.25 3.79016
492809.32 3626514.25 3.70986
492819.32 3626514.25 3.64641
492829.32 3626514.25 3.50775
492749.32 3626524.25 4.08839
492759.32 3626524.25 4.03594
492769.32 3626524.25 3.96642
492779.32 3626524.25 3.88785
492789.32 3626524.25 3.80926
492799.32 3626524.25 3.69871
492809.32 3626524.25 3.60428
492819.32 3626524.25 3.53447
492829.32 3626524.25 3.40723

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492739.32	3626534.25	4.21833	492749.32	3626534.25	4.13065
492759.32	3626534.25	4.07092	492769.32	3626534.25	3.97650
492779.32	3626534.25	3.88622	492789.32	3626534.25	3.78297
492799.32	3626534.25	3.68226	492809.32	3626534.25	3.54272
492819.32	3626534.25	3.42837	492719.32	3626544.25	4.26512
492729.32	3626544.25	4.23670	492739.32	3626544.25	4.16633
492749.32	3626544.25	4.10759	492759.32	3626544.25	4.03940
492769.32	3626544.25	3.94811	492779.32	3626544.25	3.86878
492789.32	3626544.25	3.78766	492799.32	3626544.25	3.65308
492809.32	3626544.25	3.51440	492819.32	3626544.25	3.39242
492719.32	3626554.25	4.27212	492729.32	3626554.25	4.22026
492739.32	3626554.25	4.10272	492749.32	3626554.25	4.04567
492759.32	3626554.25	3.98724	492769.32	3626554.25	3.90369
492779.32	3626554.25	3.80977	492789.32	3626554.25	3.73116
492799.32	3626554.25	3.61404	492809.32	3626554.25	3.48287
492819.32	3626554.25	3.37803	492709.32	3626564.25	4.37981

492719.32 3626564.25 4.22125
492729.32 3626564.25 4.11236
492739.32 3626564.25 4.02868
492749.32 3626564.25 3.98791
492759.32 3626564.25 3.90691
492769.32 3626564.25 3.84335
492779.32 3626564.25 3.75869
492789.32 3626564.25 3.66736
492799.32 3626564.25 3.55724
492809.32 3626564.25 3.43864
492819.32 3626564.25 3.33962
492709.32 3626574.25 4.30464
492719.32 3626574.25 4.15209
492729.32 3626574.25 4.02546
492739.32 3626574.25 3.96792
492749.32 3626574.25 3.88518
492759.32 3626574.25 3.83133
492769.32 3626574.25 3.77782
492779.32 3626574.25 3.69654
492789.32 3626574.25 3.60863
492799.32 3626574.25 3.48690
492809.32 3626574.25 3.37717
492819.32 3626574.25 3.28993
492699.32 3626584.25 4.37698
492709.32 3626584.25 4.23843
492719.32 3626584.25 4.07375
492729.32 3626584.25 3.96170
492739.32 3626584.25 3.84989
492749.32 3626584.25 3.81286
492759.32 3626584.25 3.76550
492769.32 3626584.25 3.68322
492779.32 3626584.25 3.59736
492789.32 3626584.25 3.53958
492799.32 3626584.25 3.42203
492809.32 3626584.25 3.31058
492819.32 3626584.25 3.20888
492689.32 3626594.25 4.45678
492699.32 3626594.25 4.29210
492709.32 3626594.25 4.09208
492719.32 3626594.25 3.96080
492729.32 3626594.25 3.88404
492739.32 3626594.25 3.77361
492749.32 3626594.25 3.70625
492759.32 3626594.25 3.65276
492769.32 3626594.25 3.57772
492779.32 3626594.25 3.49505
492789.32 3626594.25 3.42598
492799.32 3626594.25 3.35451

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492809.32	3626594.25	3.25566	492819.32	3626594.25	3.14110
492689.32	3626604.25	4.37136	492699.32	3626604.25	4.18186
492709.32	3626604.25	4.00530	492719.32	3626604.25	3.87515
492729.32	3626604.25	3.76405	492739.32	3626604.25	3.68314
492749.32	3626604.25	3.61293	492759.32	3626604.25	3.56000
492769.32	3626604.25	3.45932	492779.32	3626604.25	3.39540
492789.32	3626604.25	3.31061	492799.32	3626604.25	3.23245
492809.32	3626604.25	3.17506	492819.32	3626604.25	3.08867
492679.32	3626614.25	4.46812	492689.32	3626614.25	4.25596
492699.32	3626614.25	4.11659	492709.32	3626614.25	3.89235
492719.32	3626614.25	3.75865	492729.32	3626614.25	3.63556
492739.32	3626614.25	3.55659	492749.32	3626614.25	3.50121
492759.32	3626614.25	3.45197	492769.32	3626614.25	3.34148
492779.32	3626614.25	3.26047	492789.32	3626614.25	3.20264
492799.32	3626614.25	3.14052	492809.32	3626614.25	3.07415
492819.32	3626614.25	3.01726	492679.32	3626624.25	4.37830

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         492689.32    3626624.25        4.16314
492699.32    3626624.25        3.99725
         492709.32    3626624.25        3.84000
492719.32    3626624.25        3.68307
         492729.32    3626624.25        3.55379
492739.32    3626624.25        3.44734
         492749.32    3626624.25        3.38157
492759.32    3626624.25        3.31048
         492769.32    3626624.25        3.24852
492809.32    3626624.25        2.96826
         492679.32    3626634.25        4.23172
492689.32    3626634.25        4.05778
         492699.32    3626634.25        3.85557
492709.32    3626634.25        3.73747
         492719.32    3626634.25        3.59909
492729.32    3626634.25        3.44371
         492739.32    3626634.25        3.33706
492749.32    3626634.25        3.25804
         492759.32    3626634.25        3.16354
492769.32    3626634.25        3.10424
         492679.32    3626644.25        4.10709
492689.32    3626644.25        3.93601
         492699.32    3626644.25        3.76510
492709.32    3626644.25        3.62383
         492719.32    3626644.25        3.50131
492729.32    3626644.25        3.35807
         492739.32    3626644.25        3.24358
492749.32    3626644.25        3.14047
         492759.32    3626644.25        3.10061
492769.32    3626644.25        2.98866
         492779.32    3626644.25        2.94181
492789.32    3626644.25        2.87774
         492799.32    3626644.25        2.81423
492679.32    3626654.25        3.97112
         492689.32    3626654.25        3.82206
492699.32    3626654.25        3.66668
         492709.32    3626654.25        3.51589
492719.32    3626654.25        3.36296
         492729.32    3626654.25        3.25703
492739.32    3626654.25        3.15708
         492749.32    3626654.25        3.04660
492759.32    3626654.25        2.98759
         492769.32    3626654.25        2.89311
492779.32    3626654.25        2.81682
         492789.32    3626654.25        2.75724
492799.32    3626654.25        2.71147
         492679.32    3626664.25        3.84540
492689.32    3626664.25        3.67673
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492699.32	3626664.25	3.52873	492709.32	3626664.25	3.39268
492719.32	3626664.25	3.26371	492729.32	3626664.25	3.13307
492739.32	3626664.25	3.04794	492749.32	3626664.25	2.97120
492759.32	3626664.25	2.86220	492769.32	3626664.25	2.80084
492779.32	3626664.25	2.71004	492789.32	3626664.25	2.65798
492799.32	3626664.25	2.60848	492679.32	3626674.25	3.68508
492689.32	3626674.25	3.55244	492699.32	3626674.25	3.40359
492709.32	3626674.25	3.27418	492719.32	3626674.25	3.15753
492729.32	3626674.25	3.04601	492739.32	3626674.25	2.95463
492749.32	3626674.25	2.86186	492759.32	3626674.25	2.78593
492769.32	3626674.25	2.70307	492779.32	3626674.25	2.63281
492789.32	3626674.25	2.55781	492799.32	3626674.25	2.49091
492679.32	3626684.25	3.53239	492689.32	3626684.25	3.40995
492699.32	3626684.25	3.28857	492709.32	3626684.25	3.15375
492719.32	3626684.25	3.06957	492729.32	3626684.25	2.94870
492739.32	3626684.25	2.84545	492749.32	3626684.25	2.77154

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         492759.32    3626684.25        2.69795
492769.32    3626684.25        2.61073
         492779.32    3626684.25        2.54739
492789.32    3626684.25        2.47706
         492269.61    3626327.54        9.94276
492279.61    3626327.54       10.31697
         492289.61    3626327.54       10.70854
492299.61    3626327.54       11.18465
         492309.61    3626327.54       11.68670
492319.61    3626327.54       12.16219
         492329.61    3626327.54       12.69798
492339.61    3626327.54       13.18630
         492349.61    3626327.54       13.84338
492359.61    3626327.54       14.47178
         492369.61    3626327.54       15.16035
492379.61    3626327.54       15.84644
         492389.61    3626327.54       16.48020
492399.61    3626327.54       17.12981
         492409.61    3626327.54       17.78148
492419.61    3626327.54       18.52208
         492269.61    3626337.54        9.72416
492279.61    3626337.54       10.09345
         492289.61    3626337.54       10.54949
492299.61    3626337.54       10.96212
         492309.61    3626337.54       11.46150
492319.61    3626337.54       11.92133
         492329.61    3626337.54       12.47578
492339.61    3626337.54       13.01067
         492349.61    3626337.54       13.60581
492359.61    3626337.54       14.28354
         492369.61    3626337.54       14.97886
492379.61    3626337.54       15.69073
         492389.61    3626337.54       16.37507
492399.61    3626337.54       17.22560
         492409.61    3626337.54       17.97490
492419.61    3626337.54       18.81357
         492269.61    3626347.54        9.43001
492279.61    3626347.54        9.91179
         492289.61    3626347.54       10.25730
492299.61    3626347.54       10.72633
         492309.61    3626347.54       11.22359
492319.61    3626347.54       11.72507
         492329.61    3626347.54       12.22990
492339.61    3626347.54       12.69864
         492349.61    3626347.54       13.31350
492359.61    3626347.54       13.95933
         492369.61    3626347.54       14.62679
492379.61    3626347.54       15.41325
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492389.61	3626347.54	16.18153	492399.61	3626347.54	17.02074
492409.61	3626347.54	17.86179	492419.61	3626347.54	18.75699
492269.61	3626357.54	9.23326	492279.61	3626357.54	9.57451
492289.61	3626357.54	9.99880	492299.61	3626357.54	10.51186
492309.61	3626357.54	10.92827	492319.61	3626357.54	11.43487
492329.61	3626357.54	11.93601	492339.61	3626357.54	12.48664
492349.61	3626357.54	13.08955	492359.61	3626357.54	13.73296
492369.61	3626357.54	14.37672	492379.61	3626357.54	15.08453
492389.61	3626357.54	15.75972	492399.61	3626357.54	16.73111
492409.61	3626357.54	17.54740	492419.61	3626357.54	18.54865
492269.61	3626367.54	8.91800	492279.61	3626367.54	9.31717
492289.61	3626367.54	9.74394	492299.61	3626367.54	10.08468
492309.61	3626367.54	10.54075	492319.61	3626367.54	10.95555
492329.61	3626367.54	11.54304	492339.61	3626367.54	12.09454
492349.61	3626367.54	12.68545	492359.61	3626367.54	13.29228
492369.61	3626367.54	13.95530	492379.61	3626367.54	14.66468

492389.61 3626367.54 15.41658
492399.61 3626367.54 16.19957
492409.61 3626367.54 17.12139
492419.61 3626367.54 18.13050
492269.61 3626377.54 8.62159
492279.61 3626377.54 8.93929
492289.61 3626377.54 9.34742
492299.61 3626377.54 9.70312
492309.61 3626377.54 10.15112
492319.61 3626377.54 10.63153
492329.61 3626377.54 11.05688
492339.61 3626377.54 11.57513
492349.61 3626377.54 12.20187
492359.61 3626377.54 12.79897
492369.61 3626377.54 13.43988
492379.61 3626377.54 14.10171
492389.61 3626377.54 14.82523
492399.61 3626377.54 15.60113
492409.61 3626377.54 16.42512
492419.61 3626377.54 17.34090
492269.61 3626387.54 8.31143
492279.61 3626387.54 8.66186
492289.61 3626387.54 8.98058
492299.61 3626387.54 9.38738
492309.61 3626387.54 9.74569
492319.61 3626387.54 10.19972
492329.61 3626387.54 10.67357
492339.61 3626387.54 11.10365
492349.61 3626387.54 11.64481
492359.61 3626387.54 12.19674
492369.61 3626387.54 12.81758
492379.61 3626387.54 13.53399
492389.61 3626387.54 14.27011
492399.61 3626387.54 14.98562
492409.61 3626387.54 15.76987
492419.61 3626387.54 16.65301
492429.61 3626387.54 17.62415
492269.61 3626397.54 8.06102
492279.61 3626397.54 8.37900
492289.61 3626397.54 8.73091
492299.61 3626397.54 9.05027
492309.61 3626397.54 9.47355
492319.61 3626397.54 9.83263
492329.61 3626397.54 10.28469
492339.61 3626397.54 10.68847
492349.61 3626397.54 11.19580
492359.61 3626397.54 11.77002
492369.61 3626397.54 12.25692

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492379.61	3626397.54	12.86572	492389.61	3626397.54	13.49014
492399.61	3626397.54	14.27152	492409.61	3626397.54	15.00035
492419.61	3626397.54	15.83929	492429.61	3626397.54	16.71494
492439.61	3626397.54	17.61458	492569.61	3626397.54	52.88290
492269.61	3626407.54	7.75264	492279.61	3626407.54	8.14080
492289.61	3626407.54	8.42364	492299.61	3626407.54	8.72050
492309.61	3626407.54	9.09019	492319.61	3626407.54	9.44674
492329.61	3626407.54	9.85509	492339.61	3626407.54	10.22777
492349.61	3626407.54	10.67938	492359.61	3626407.54	11.21012
492369.61	3626407.54	11.65882	492379.61	3626407.54	12.21595
492389.61	3626407.54	12.82833	492399.61	3626407.54	13.45786
492409.61	3626407.54	14.05316	492419.61	3626407.54	14.81339
492429.61	3626407.54	15.68129	492439.61	3626407.54	16.51217
492449.61	3626407.54	17.51659	492561.65	3626406.52	57.11797
492569.61	3626407.54	60.53823	492579.61	3626407.54	61.16063
492269.61	3626417.54	7.51572	492279.61	3626417.54	7.75897

492289.61 3626417.54 8.04597
492299.61 3626417.54 8.37742
492309.61 3626417.54 8.66199
492319.61 3626417.54 8.98130
492329.61 3626417.54 9.44037
492339.61 3626417.54 9.78035
492349.61 3626417.54 10.22661
492359.61 3626417.54 10.60871
492369.61 3626417.54 11.07211
492379.61 3626417.54 11.59231
492389.61 3626417.54 12.04587
492399.61 3626417.54 12.66233
492409.61 3626417.54 13.29371
492419.61 3626417.54 13.95479
492429.61 3626417.54 14.64790
492439.61 3626417.54 15.35804
492449.61 3626417.54 16.29517
492459.61 3626417.54 16.96857
492569.61 3626417.54 63.26868
492579.61 3626417.54 65.68730
492587.89 3626417.54 62.69179
492269.61 3626427.54 7.27650
492279.61 3626427.54 7.50415
492289.61 3626427.54 7.78080
492299.61 3626427.54 8.05643
492309.61 3626427.54 8.31904
492319.61 3626427.54 8.59103
492329.61 3626427.54 8.97125
492339.61 3626427.54 9.27326
492349.61 3626427.54 9.68932
492359.61 3626427.54 10.04323
492369.61 3626427.54 10.54106
492379.61 3626427.54 11.00720
492389.61 3626427.54 11.50493
492399.61 3626427.54 11.99606
492409.61 3626427.54 12.46997
492419.61 3626427.54 13.03435
492429.61 3626427.54 13.63299
492439.61 3626427.54 14.18594
492449.61 3626427.54 14.74147
492459.61 3626427.54 15.34335
492469.61 3626427.54 15.65911
492577.71 3626427.45 62.79719
492589.61 3626427.54 59.76672
492599.61 3626427.54 50.84337
492609.61 3626427.54 38.83629
492269.61 3626437.54 6.99477
492279.61 3626437.54 7.28526

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492289.61	3626437.54	7.50828	492299.61	3626437.54	7.74006
492309.61	3626437.54	8.01229	492319.61	3626437.54	8.33516
492329.61	3626437.54	8.63603	492339.61	3626437.54	8.95318
492349.61	3626437.54	9.24713	492359.61	3626437.54	9.62363
492369.61	3626437.54	9.96698	492379.61	3626437.54	10.36756
492389.61	3626437.54	10.74892	492399.61	3626437.54	11.13496
492409.61	3626437.54	11.69653	492419.61	3626437.54	12.21413
492429.61	3626437.54	12.68023	492439.61	3626437.54	13.11539
492449.61	3626437.54	13.54023	492459.61	3626437.54	13.92474
492469.61	3626437.54	14.17286	492479.61	3626437.54	14.90587
492579.61	3626437.54	53.65879	492589.61	3626437.54	51.62368
492599.61	3626437.54	43.88333	492606.62	3626436.27	37.12644
492269.61	3626447.54	6.80082	492279.61	3626447.54	7.01417
492289.61	3626447.54	7.25238	492299.61	3626447.54	7.50274
492309.61	3626447.54	7.77605	492319.61	3626447.54	8.03731
492329.61	3626447.54	8.28608	492339.61	3626447.54	8.56586

492349.61 3626447.54 8.83322
492359.61 3626447.54 9.19749
492369.61 3626447.54 9.51257
492379.61 3626447.54 9.84105
492389.61 3626447.54 10.21115
492399.61 3626447.54 10.56905
492409.61 3626447.54 10.97999
492419.61 3626447.54 11.40349
492429.61 3626447.54 11.64970
492439.61 3626447.54 11.95221
492449.61 3626447.54 12.21261
492459.61 3626447.54 12.66136
492469.61 3626447.54 13.01017
492479.61 3626447.54 13.40506
492571.06 3626449.44 35.04089
492579.61 3626447.54 40.86840
492585.44 3626447.63 40.74389
492269.61 3626457.54 6.59497
492279.61 3626457.54 6.78173
492289.61 3626457.54 6.99687
492299.61 3626457.54 7.23847
492309.61 3626457.54 7.47013
492319.61 3626457.54 7.71554
492329.61 3626457.54 7.94428
492339.61 3626457.54 8.20304
492349.61 3626457.54 8.44769
492359.61 3626457.54 8.77690
492369.61 3626457.54 9.07470
492379.61 3626457.54 9.41719
492389.61 3626457.54 9.77421
492399.61 3626457.54 10.10627
492409.61 3626457.54 10.45428
492419.61 3626457.54 10.65606
492429.61 3626457.54 10.89142
492439.61 3626457.54 11.15379
492449.61 3626457.54 11.47882
492459.61 3626457.54 11.67940
492469.61 3626457.54 11.86072
492479.61 3626457.54 12.01819
492580.88 3626454.73 31.97393
492269.61 3626467.54 6.33141
492279.61 3626467.54 6.50612
492289.61 3626467.54 6.71007
492299.61 3626467.54 6.94216
492309.61 3626467.54 7.15792
492319.61 3626467.54 7.35978
492329.61 3626467.54 7.59379
492339.61 3626467.54 7.84188

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492349.61	3626467.54	8.06630	492359.61	3626467.54	8.36569
492369.61	3626467.54	8.67844	492379.61	3626467.54	9.00721
492389.61	3626467.54	9.30653	492399.61	3626467.54	9.60236
492409.61	3626467.54	9.78537	492419.61	3626467.54	9.98220
492429.61	3626467.54	10.17649	492439.61	3626467.54	10.44130
492449.61	3626467.54	10.70856	492459.61	3626467.54	10.89633
492469.61	3626467.54	11.04201	492479.61	3626467.54	11.18311
492499.61	3626467.54	11.97520	492269.61	3626477.54	6.13669
492279.61	3626477.54	6.32221	492289.61	3626477.54	6.49125
492299.61	3626477.54	6.68909	492309.61	3626477.54	6.86993
492319.61	3626477.54	7.08995	492329.61	3626477.54	7.31432
492339.61	3626477.54	7.59189	492349.61	3626477.54	7.83414
492359.61	3626477.54	8.09025	492369.61	3626477.54	8.35454
492379.61	3626477.54	8.62330	492389.61	3626477.54	8.89689
492399.61	3626477.54	9.06651	492409.61	3626477.54	9.22887
492419.61	3626477.54	9.45213	492429.61	3626477.54	9.56744

492439.61 3626477.54 9.79356
492449.61 3626477.54 9.99983
492459.61 3626477.54 10.26505
492469.61 3626477.54 10.44319
492479.61 3626477.54 10.55107
492489.61 3626477.54 10.81544
492499.61 3626477.54 11.92192
492506.66 3626477.89 11.08876
492269.61 3626487.54 5.92610
492279.61 3626487.54 6.08198
492289.61 3626487.54 6.27130
492299.61 3626487.54 6.43614
492309.61 3626487.54 6.63570
492319.61 3626487.54 6.88862
492329.61 3626487.54 7.10311
492339.61 3626487.54 7.33061
492349.61 3626487.54 7.56806
492359.61 3626487.54 7.80782
492369.61 3626487.54 8.01737
492379.61 3626487.54 8.25552
492389.61 3626487.54 8.41920
492399.61 3626487.54 8.62430
492409.61 3626487.54 8.76290
492419.61 3626487.54 8.86919
492429.61 3626487.54 8.92276
492439.61 3626487.54 9.16978
492449.61 3626487.54 9.46035
492459.61 3626487.54 9.74175
492469.61 3626487.54 9.79825
492479.61 3626487.54 9.96059
492489.61 3626487.54 10.03194
492499.61 3626487.54 10.62053
492509.61 3626487.54 10.54459
492269.61 3626497.54 5.74805
492279.61 3626497.54 5.92223
492289.61 3626497.54 6.02966
492299.61 3626497.54 6.26188
492309.61 3626497.54 6.45441
492319.61 3626497.54 6.65971
492329.61 3626497.54 6.87170
492339.61 3626497.54 7.08559
492349.61 3626497.54 7.28322
492359.61 3626497.54 7.51813
492369.61 3626497.54 7.75069
492379.61 3626497.54 7.89200
492389.61 3626497.54 8.08145
492399.61 3626497.54 8.20104
492409.61 3626497.54 8.20879

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492419.61	3626497.54	8.28573	492429.61	3626497.54	8.31121
492439.61	3626497.54	8.59410	492449.61	3626497.54	8.83072
492459.61	3626497.54	9.14509	492469.61	3626497.54	9.31018
492479.61	3626497.54	9.46729	492489.61	3626497.54	9.60740
492499.61	3626497.54	9.77399	492509.61	3626497.54	10.52928
492519.61	3626497.54	9.95884	492269.61	3626507.54	5.61165
492279.61	3626507.54	5.75869	492289.61	3626507.54	5.93273
492299.61	3626507.54	6.11839	492309.61	3626507.54	6.27146
492319.61	3626507.54	6.44229	492329.61	3626507.54	6.61099
492339.61	3626507.54	6.82318	492349.61	3626507.54	7.05146
492359.61	3626507.54	7.22976	492369.61	3626507.54	7.41346
492379.61	3626507.54	7.57549	492389.61	3626507.54	7.67628
492399.61	3626507.54	7.76377	492409.61	3626507.54	7.78540
492419.61	3626507.54	7.79626	492429.61	3626507.54	7.89724
492439.61	3626507.54	8.16341	492449.61	3626507.54	8.47493
492459.61	3626507.54	8.76353	492469.61	3626507.54	8.96675

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         492479.61    3626507.54        9.11153
492489.61    3626507.54        9.20094
         492499.61    3626507.54        9.23606
492509.61    3626507.54        9.54317
         492519.61    3626507.54       10.18082
492269.61    3626517.54        5.44233
         492279.61    3626517.54        5.57783
492289.61    3626517.54        5.75331
         492299.61    3626517.54        5.87452
492309.61    3626517.54        6.05786
         492319.61    3626517.54        6.25229
492329.61    3626517.54        6.45808
         492339.61    3626517.54        6.61624
492349.61    3626517.54        6.81294
         492359.61    3626517.54        7.02431
492369.61    3626517.54        7.18379
         492379.61    3626517.54        7.28167
492389.61    3626517.54        7.33021
         492399.61    3626517.54        7.43461
492409.61    3626517.54        7.41262
         492419.61    3626517.54        7.49945
492429.61    3626517.54        7.54108
         492439.61    3626517.54        7.81621
492449.61    3626517.54        8.08615
         492459.61    3626517.54        8.39902
492469.61    3626517.54        8.56238
         492479.61    3626517.54        8.73971
492489.61    3626517.54        8.97163
         492499.61    3626517.54        8.98679
492509.61    3626517.54        8.92034
         492519.61    3626517.54        9.22714
492529.61    3626517.54        9.56401
         492269.61    3626527.54        5.29624
492279.61    3626527.54        5.42440
         492289.61    3626527.54        5.59094
492299.61    3626527.54        5.76702
         492309.61    3626527.54        5.95388
492319.61    3626527.54        6.11238
         492329.61    3626527.54        6.30067
492339.61    3626527.54        6.50947
         492349.61    3626527.54        6.66182
492359.61    3626527.54        6.79763
         492369.61    3626527.54        6.91356
492459.61    3626527.54        8.02042
         492469.61    3626527.54        8.28239
492479.61    3626527.54        8.47016
         492489.61    3626527.54        8.62174
492499.61    3626527.54        8.60816
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492509.61	3626527.54	8.65512	492519.61	3626527.54	8.64640
492529.61	3626527.54	8.54552	492269.61	3626537.54	5.17472
492279.61	3626537.54	5.34368	492289.61	3626537.54	5.48114
492299.61	3626537.54	5.62806	492309.61	3626537.54	5.79633
492319.61	3626537.54	5.94922	492329.61	3626537.54	6.17096
492339.61	3626537.54	6.35006	492349.61	3626537.54	6.44180
492359.61	3626537.54	6.59170	492369.61	3626537.54	6.67787
492459.61	3626537.54	7.71123	492469.61	3626537.54	7.91494
492479.61	3626537.54	8.13731	492489.61	3626537.54	8.33839
492499.61	3626537.54	8.33050	492509.61	3626537.54	8.38662
492519.61	3626537.54	8.33645	492529.61	3626537.54	8.16010
492269.61	3626547.54	5.04239	492279.61	3626547.54	5.21969
492289.61	3626547.54	5.37395	492299.61	3626547.54	5.53020
492309.61	3626547.54	5.71346	492319.61	3626547.54	5.88023
492329.61	3626547.54	6.01081	492339.61	3626547.54	6.18189
492349.61	3626547.54	6.24715	492359.61	3626547.54	6.32223

492369.61 3626547.54 6.35682
492459.61 3626547.54 7.34805
492469.61 3626547.54 7.58209
492479.61 3626547.54 7.82115
492489.61 3626547.54 8.03378
492499.61 3626547.54 8.01711
492509.61 3626547.54 8.03971
492519.61 3626547.54 8.04064
492529.61 3626547.54 7.82843
492269.61 3626557.54 4.92900
492279.61 3626557.54 5.10988
492289.61 3626557.54 5.22572
492299.61 3626557.54 5.42197
492309.61 3626557.54 5.58200
492319.61 3626557.54 5.68802
492329.61 3626557.54 5.85091
492339.61 3626557.54 5.94615
492349.61 3626557.54 6.01873
492359.61 3626557.54 6.07555
492369.61 3626557.54 6.10198
492459.61 3626557.54 7.07245
492469.61 3626557.54 7.30116
492479.61 3626557.54 7.52336
492489.61 3626557.54 7.68656
492499.61 3626557.54 7.76027
492509.61 3626557.54 7.74685
492519.61 3626557.54 7.72188
492529.61 3626557.54 7.49920
492269.61 3626567.54 4.80994
492279.61 3626567.54 5.03760
492289.61 3626567.54 5.14268
492299.61 3626567.54 5.26149
492309.61 3626567.54 5.37190
492319.61 3626567.54 5.52585
492329.61 3626567.54 5.68364
492339.61 3626567.54 5.82901
492349.61 3626567.54 5.84296
492359.61 3626567.54 5.84053
492369.61 3626567.54 5.89720
492459.61 3626567.54 6.77475
492469.61 3626567.54 7.00749
492479.61 3626567.54 7.17518
492489.61 3626567.54 7.39488
492499.61 3626567.54 7.45449
492509.61 3626567.54 7.43964
492519.61 3626567.54 7.33532
492529.61 3626567.54 7.16648
492269.61 3626577.54 4.69918

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492279.61	3626577.54	4.88097	492289.61	3626577.54	5.01677
492299.61	3626577.54	5.14246	492309.61	3626577.54	5.28750
492319.61	3626577.54	5.40257	492329.61	3626577.54	5.53004
492339.61	3626577.54	5.62724	492469.61	3626577.54	6.67412
492479.61	3626577.54	6.88089	492489.61	3626577.54	7.07467
492499.61	3626577.54	7.09287	492509.61	3626577.54	7.07785
492519.61	3626577.54	7.01483	492529.61	3626577.54	6.84780
492269.61	3626587.54	4.60184	492279.61	3626587.54	4.77392
492289.61	3626587.54	4.89337	492299.61	3626587.54	5.03167
492309.61	3626587.54	5.14861	492319.61	3626587.54	5.25959
492329.61	3626587.54	5.34598	492339.61	3626587.54	5.42626
492469.61	3626587.54	6.40062	492479.61	3626587.54	6.56781
492489.61	3626587.54	6.75360	492499.61	3626587.54	6.76804
492509.61	3626587.54	6.71792	492519.61	3626587.54	6.65014
492529.61	3626587.54	6.51180	492269.61	3626597.54	4.48228
492279.61	3626597.54	4.67079	492289.61	3626597.54	4.77840

492299.61 3626597.54 4.89352
492309.61 3626597.54 5.02411
492319.61 3626597.54 5.09582
492329.61 3626597.54 5.18918
492339.61 3626597.54 5.28576
492469.61 3626597.54 6.11702
492479.61 3626597.54 6.26534
492489.61 3626597.54 6.44489
492499.61 3626597.54 6.40232
492509.61 3626597.54 6.38854
492519.61 3626597.54 6.37639
492529.61 3626597.54 6.15541
492269.61 3626607.54 4.38318
492279.61 3626607.54 4.53762
492289.61 3626607.54 4.66651
492299.61 3626607.54 4.76909
492309.61 3626607.54 4.86377
492319.61 3626607.54 4.98632
492329.61 3626607.54 5.02868
492339.61 3626607.54 5.11656
492469.61 3626607.54 5.85683
492479.61 3626607.54 5.97205
492489.61 3626607.54 6.09167
492499.61 3626607.54 6.06955
492509.61 3626607.54 6.01684
492519.61 3626607.54 5.98948
492529.61 3626607.54 5.83903
492269.61 3626617.54 4.30805
492279.61 3626617.54 4.44772
492289.61 3626617.54 4.53859
492299.61 3626617.54 4.66147
492309.61 3626617.54 4.72995
492319.61 3626617.54 4.79736
492329.61 3626617.54 4.90486
492339.61 3626617.54 4.97536
492469.61 3626617.54 5.57053
492479.61 3626617.54 5.67924
492489.61 3626617.54 5.82497
492499.61 3626617.54 5.75225
492509.61 3626617.54 5.73005
492519.61 3626617.54 5.65623
492529.61 3626617.54 5.51844
492269.61 3626627.54 4.17573
492279.61 3626627.54 4.32428
492289.61 3626627.54 4.41579
492299.61 3626627.54 4.47518
492309.61 3626627.54 4.58681
492319.61 3626627.54 4.68328

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492329.61	3626627.54	4.78166	492339.61	3626627.54	4.85165
492469.61	3626627.54	5.25806	492479.61	3626627.54	5.40027
492489.61	3626627.54	5.48765	492499.61	3626627.54	5.45555
492509.61	3626627.54	5.37324	492519.61	3626627.54	5.31654
492269.61	3626637.54	4.07252	492279.61	3626637.54	4.15458
492289.61	3626637.54	4.25106	492299.61	3626637.54	4.37347
492309.61	3626637.54	4.46916	492319.61	3626637.54	4.55748
492329.61	3626637.54	4.62657	492339.61	3626637.54	4.67299
492469.61	3626637.54	4.97321	492479.61	3626637.54	5.08791
492489.61	3626637.54	5.19103	492499.61	3626637.54	5.10556
492509.61	3626637.54	5.03462	492519.61	3626637.54	4.92665
492269.61	3626647.54	3.92333	492279.61	3626647.54	4.05960
492289.61	3626647.54	4.14869	492299.61	3626647.54	4.23622
492309.61	3626647.54	4.34852	492319.61	3626647.54	4.43923
492329.61	3626647.54	4.48289	492339.61	3626647.54	4.51582
492479.61	3626647.54	4.79744	492489.61	3626647.54	4.88783

492499.61 3626647.54 4.78997
492509.61 3626647.54 4.71674
492269.61 3626657.54 3.83041
492279.61 3626657.54 3.96132
492289.61 3626657.54 4.04260
492299.61 3626657.54 4.12676
492309.61 3626657.54 4.21003
492319.61 3626657.54 4.30574
492329.61 3626657.54 4.33658
492339.61 3626657.54 4.38025
492489.61 3626657.54 4.59073
492499.61 3626657.54 4.51154
492269.61 3626667.54 3.74126
492279.61 3626667.54 3.84117
492289.61 3626667.54 3.93685
492299.61 3626667.54 4.01293
492309.61 3626667.54 4.08756
492319.61 3626667.54 4.14388
492329.61 3626667.54 4.17996
492339.61 3626667.54 4.23111
492269.61 3626677.54 3.65453
492279.61 3626677.54 3.74080
492289.61 3626677.54 3.83329
492299.61 3626677.54 3.90163
492309.61 3626677.54 3.96712
492319.61 3626677.54 4.01989
492329.61 3626677.54 4.03828
492339.61 3626677.54 4.06379
492269.61 3626687.54 3.56457
492279.61 3626687.54 3.64412
492289.61 3626687.54 3.71570
492299.61 3626687.54 3.79435
492309.61 3626687.54 3.84913
492319.61 3626687.54 3.83471
492329.61 3626687.54 3.90327
492339.61 3626687.54 3.90398
492269.61 3626697.54 3.48360
492279.61 3626697.54 3.57095
492289.61 3626697.54 3.62382
492299.61 3626697.54 3.69894
492309.61 3626697.54 3.72152
492319.61 3626697.54 3.73532
492329.61 3626697.54 3.76389
492339.61 3626697.54 3.78788
492269.61 3626707.54 3.41798
492279.61 3626707.54 3.48536
492289.61 3626707.54 3.52901
492299.61 3626707.54 3.58044

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492309.61	3626707.54	3.63242	492319.61	3626707.54	3.65459
492329.61	3626707.54	3.65016	492339.61	3626707.54	3.64357
492269.61	3626717.54	3.33850	492279.61	3626717.54	3.39440
492289.61	3626717.54	3.44450	492299.61	3626717.54	3.49586
492309.61	3626717.54	3.54781	492319.61	3626717.54	3.55191
492329.61	3626717.54	3.54267	492339.61	3626717.54	3.52630
492669.07	3626644.38	4.29256	492665.07	3626656.03	4.10871
492665.74	3626664.35	3.96973	492664.07	3626675.33	3.78108
492599.44	3626421.99	52.79045	492613.55	3626421.99	36.32632
492613.75	3626427.92	33.56023	492613.55	3626435.89	29.08125
492573.34	3626443.01	44.34663	492576.15	3626437.02	53.18419
492578.78	3626431.67	59.70736	492589.21	3626442.01	46.75048
492486.91	3626457.88	13.00370	492754.50	3626421.99	8.80733
492769.80	3626421.07	8.55596	492785.88	3626420.30	8.09638
492738.65	3626423.47	8.92952	492706.56	3626426.42	8.66088
492711.95	3626405.79	14.20332	492768.79	3626400.83	12.77481

492785.62 3626408.85 9.93890
492738.00 3626391.14 17.03622
492723.48 3626404.28 14.19381
492719.55 3626425.32 8.74934
492703.08 3626394.66 17.52337
492754.36 3626388.55 16.38443
492658.16 3626430.53 9.40355
492688.16 3626427.66 8.44193
492657.04 3626417.15 13.49393
492706.48 3626414.85 11.40963
492668.44 3626429.07 8.61692
492669.26 3626416.07 12.52408
492656.31 3626403.36 17.47846
492648.73 3626393.67 20.54402
492687.87 3626416.29 11.54497
492685.94 3626396.06 17.88760
492667.70 3626402.11 16.67768
492667.29 3626385.32 19.55194
492269.79 3626186.83 9.06943
492277.28 3626186.83 9.25938
492284.77 3626186.83 9.38242
492292.26 3626186.83 9.56578
492299.75 3626186.83 9.63219
492307.24 3626186.83 9.80350
492314.73 3626186.83 9.94901
492322.22 3626186.83 10.06733
492329.71 3626186.83 10.17733
492337.20 3626186.83 10.35439
492344.69 3626186.83 10.46120
492352.18 3626186.83 10.53783
492359.67 3626186.83 10.68936
492367.16 3626186.83 10.77012
492374.65 3626186.83 10.83316
492382.14 3626186.83 10.88458
492389.63 3626186.83 10.91997
492397.12 3626186.83 10.97572
492404.61 3626186.83 11.09930
492412.10 3626186.83 11.11433
492419.59 3626186.83 11.05369
492269.79 3626193.42 9.28180
492277.28 3626193.42 9.42148
492284.77 3626193.42 9.55558
492292.26 3626193.42 9.74774
492299.75 3626193.42 9.87871
492307.24 3626193.42 10.00476
492314.73 3626193.42 10.13574
492322.22 3626193.42 10.28766
492329.71 3626193.42 10.40882

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492337.20	3626193.42	10.58172	492344.69	3626193.42	10.68939
492352.18	3626193.42	10.79895	492359.67	3626193.42	10.87780
492367.16	3626193.42	11.03477	492374.65	3626193.42	11.11891
492382.14	3626193.42	11.18333	492389.63	3626193.42	11.28061
492397.12	3626193.42	11.32629	492404.61	3626193.42	11.36451
492412.10	3626193.42	11.38755	492419.59	3626193.42	11.38642
492269.79	3626200.01	9.38094	492277.28	3626200.01	9.57572
492284.77	3626200.01	9.77739	492292.26	3626200.01	9.85649
492299.75	3626200.01	10.06063	492307.24	3626200.01	10.19889
492314.73	3626200.01	10.38869	492322.22	3626200.01	10.53254
492329.71	3626200.01	10.61787	492337.20	3626200.01	10.80052
492344.69	3626200.01	10.91549	492352.18	3626200.01	11.02789
492359.67	3626200.01	11.18180	492367.16	3626200.01	11.27834
492374.65	3626200.01	11.44406	492382.14	3626200.01	11.52460
492389.63	3626200.01	11.58268	492397.12	3626200.01	11.64107
492404.61	3626200.01	11.68596	492412.10	3626200.01	11.76248

492419.59 3626200.01 11.78718
492269.79 3626206.60 9.54163
492277.28 3626206.60 9.71207
492284.77 3626206.60 9.91332
492292.26 3626206.60 10.06625
492299.75 3626206.60 10.21549
492307.24 3626206.60 10.36644
492314.73 3626206.60 10.51180
492322.22 3626206.60 10.71295
492329.71 3626206.60 10.86422
492337.20 3626206.60 11.01327
492344.69 3626206.60 11.20058
492352.18 3626206.60 11.32426
492359.67 3626206.60 11.45400
492367.16 3626206.60 11.54532
492374.65 3626206.60 11.71724
492382.14 3626206.60 11.81794
492389.63 3626206.60 11.90044
492397.12 3626206.60 11.95795
492404.61 3626206.60 12.07321
492412.10 3626206.60 12.10057
492419.59 3626206.60 12.13612
492269.79 3626213.19 9.64831
492277.28 3626213.19 9.81094
492284.77 3626213.19 10.03210
492292.26 3626213.19 10.20573
492299.75 3626213.19 10.36684
492307.24 3626213.19 10.59046
492314.73 3626213.19 10.68571
492322.22 3626213.19 10.90628
492329.71 3626213.19 11.05187
492337.20 3626213.19 11.21146
492344.69 3626213.19 11.41570
492352.18 3626213.19 11.56512
492359.67 3626213.19 11.69502
492367.16 3626213.19 11.83132
492374.65 3626213.19 11.92560
492382.14 3626213.19 12.15990
492389.63 3626213.19 12.25813
492397.12 3626213.19 12.33486
492404.61 3626213.19 12.40053
492412.10 3626213.19 12.46964
492419.59 3626213.19 12.53638
492269.79 3626219.78 9.67831
492277.28 3626219.78 9.91819
492284.77 3626219.78 10.08918
492292.26 3626219.78 10.32498
492299.75 3626219.78 10.50916

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492307.24	3626219.78	10.74253	492314.73	3626219.78	10.91764
492322.22	3626219.78	11.08404	492329.71	3626219.78	11.25277
492337.20	3626219.78	11.40597	492344.69	3626219.78	11.63270
492352.18	3626219.78	11.79027	492359.67	3626219.78	11.94695
492367.16	3626219.78	12.08292	492374.65	3626219.78	12.26708
492382.14	3626219.78	12.45697	492389.63	3626219.78	12.57057
492397.12	3626219.78	12.67136	492404.61	3626219.78	12.74871
492412.10	3626219.78	12.87201	492419.59	3626219.78	12.92409
492269.79	3626226.37	9.86519	492277.28	3626226.37	10.00331
492284.77	3626226.37	10.19667	492292.26	3626226.37	10.44079
492299.75	3626226.37	10.62810	492307.24	3626226.37	10.86695
492314.73	3626226.37	11.07301	492322.22	3626226.37	11.25823
492329.71	3626226.37	11.50421	492337.20	3626226.37	11.67211
492344.69	3626226.37	11.77597	492352.18	3626226.37	12.01664
492359.67	3626226.37	12.18205	492367.16	3626226.37	12.34671
492374.65	3626226.37	12.62870	492382.14	3626226.37	12.75386

492389.63 3626226.37 12.88204
492397.12 3626226.37 12.99986
492404.61 3626226.37 13.14592
492412.10 3626226.37 13.23296
492419.59 3626226.37 13.31049
492269.79 3626232.96 9.97940
492277.28 3626232.96 10.19397
492284.77 3626232.96 10.34578
492292.26 3626232.96 10.54318
492299.75 3626232.96 10.74419
492307.24 3626232.96 10.94169
492314.73 3626232.96 11.19716
492322.22 3626232.96 11.41676
492329.71 3626232.96 11.67756
492337.20 3626232.96 11.87497
492344.69 3626232.96 12.05300
492352.18 3626232.96 12.30719
492359.67 3626232.96 12.48092
492367.16 3626232.96 12.65168
492374.65 3626232.96 12.87827
492382.14 3626232.96 13.06353
492389.63 3626232.96 13.24757
492397.12 3626232.96 13.38691
492404.61 3626232.96 13.50450
492412.10 3626232.96 13.60327
492419.59 3626232.96 13.74924
492269.79 3626239.55 9.98957
492277.28 3626239.55 10.25882
492284.77 3626239.55 10.47918
492292.26 3626239.55 10.63877
492299.75 3626239.55 10.90969
492307.24 3626239.55 11.05643
492314.73 3626239.55 11.33348
492322.22 3626239.55 11.53903
492329.71 3626239.55 11.81735
492337.20 3626239.55 12.05184
492344.69 3626239.55 12.26128
492352.18 3626239.55 12.52154
492359.67 3626239.55 12.72093
492367.16 3626239.55 12.90457
492374.65 3626239.55 13.14468
492382.14 3626239.55 13.32381
492389.63 3626239.55 13.56189
492397.12 3626239.55 13.71463
492404.61 3626239.55 13.86110
492412.10 3626239.55 14.02417
492419.59 3626239.55 14.13363
492269.79 3626246.14 10.06077

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492277.28	3626246.14	10.34189	492284.77	3626246.14	10.54669
492292.26	3626246.14	10.83886	492299.75	3626246.14	11.00530
492307.24	3626246.14	11.22784	492314.73	3626246.14	11.44287
492322.22	3626246.14	11.67404	492329.71	3626246.14	11.95727
492337.20	3626246.14	12.19053	492344.69	3626246.14	12.44052
492352.18	3626246.14	12.72966	492359.67	3626246.14	12.94132
492367.16	3626246.14	13.15253	492374.65	3626246.14	13.41751
492382.14	3626246.14	13.60193	492389.63	3626246.14	13.86658
492397.12	3626246.14	14.04488	492404.61	3626246.14	14.20532
492412.10	3626246.14	14.41178	492419.59	3626246.14	14.52926
492269.79	3626252.73	10.19001	492277.28	3626252.73	10.40406
492284.77	3626252.73	10.63337	492292.26	3626252.73	10.92289
492299.75	3626252.73	11.15083	492307.24	3626252.73	11.39055
492314.73	3626252.73	11.61987	492322.22	3626252.73	11.85372
492329.71	3626252.73	12.08810	492337.20	3626252.73	12.32943
492344.69	3626252.73	12.57699	492352.18	3626252.73	12.89112

492359.67 3626252.73 13.15408
492367.16 3626252.73 13.37891
492374.65 3626252.73 13.67542
492382.14 3626252.73 13.94453
492389.63 3626252.73 14.14802
492397.12 3626252.73 14.36468
492404.61 3626252.73 14.60867
492412.10 3626252.73 14.85259
492419.59 3626252.73 14.93700
492269.79 3626259.32 10.24875
492277.28 3626259.32 10.53386
492284.77 3626259.32 10.69644
492292.26 3626259.32 11.00029
492299.75 3626259.32 11.23767
492307.24 3626259.32 11.48094
492314.73 3626259.32 11.72893
492322.22 3626259.32 12.03320
492329.71 3626259.32 12.27391
492337.20 3626259.32 12.58004
492344.69 3626259.32 12.71355
492352.18 3626259.32 13.04700
492359.67 3626259.32 13.31439
492367.16 3626259.32 13.59535
492374.65 3626259.32 13.97781
492382.14 3626259.32 14.21924
492389.63 3626259.32 14.44041
492397.12 3626259.32 14.65683
492404.61 3626259.32 14.99208
492412.10 3626259.32 15.19496
492419.59 3626259.32 15.39935
492269.79 3626265.91 10.29557
492277.28 3626265.91 10.58712
492284.77 3626265.91 10.75642
492292.26 3626265.91 11.06502
492299.75 3626265.91 11.31491
492307.24 3626265.91 11.63077
492314.73 3626265.91 11.82196
492322.22 3626265.91 12.16094
492329.71 3626265.91 12.40075
492337.20 3626265.91 12.71877
492344.69 3626265.91 12.97192
492352.18 3626265.91 13.31725
492359.67 3626265.91 13.53839
492367.16 3626265.91 13.82469
492374.65 3626265.91 14.16841
492382.14 3626265.91 14.46613
492389.63 3626265.91 14.72373
492397.12 3626265.91 15.03238

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492404.61	3626265.91	15.26215	492412.10	3626265.91	15.54301
492419.59	3626265.91	15.81974	492269.79	3626272.50	10.30733
492277.28	3626272.50	10.56516	492284.77	3626272.50	10.87325
492292.26	3626272.50	11.12013	492299.75	3626272.50	11.37820
492307.24	3626272.50	11.71037	492314.73	3626272.50	11.97145
492322.22	3626272.50	12.24540	492329.71	3626272.50	12.53182
492337.20	3626272.50	12.86632	492344.69	3626272.50	13.11947
492352.18	3626272.50	13.51462	492359.67	3626272.50	13.74649
492367.16	3626272.50	14.11462	492374.65	3626272.50	14.35774
492382.14	3626272.50	14.65324	492389.63	3626272.50	14.97184
492397.12	3626272.50	15.31732	492404.61	3626272.50	15.64069
492412.10	3626272.50	15.90182	492419.59	3626272.50	16.17990
492269.79	3626279.09	10.30350	492277.28	3626279.09	10.56601
492284.77	3626279.09	10.88795	492292.26	3626279.09	11.14199
492299.75	3626279.09	11.42745	492307.24	3626279.09	11.76667
492314.73	3626279.09	12.04706	492322.22	3626279.09	12.33003

492329.71 3626279.09 12.61426
492337.20 3626279.09 12.98750
492344.69 3626279.09 13.26831
492352.18 3626279.09 13.61974
492359.67 3626279.09 13.95121
492367.16 3626279.09 14.32580
492374.65 3626279.09 14.58480
492382.14 3626279.09 14.91051
492389.63 3626279.09 15.22575
492397.12 3626279.09 15.54800
492404.61 3626279.09 15.92758
492412.10 3626279.09 16.21194
492419.59 3626279.09 16.53720
492269.79 3626285.68 10.28863
492277.28 3626285.68 10.48798
492284.77 3626285.68 10.87543
492292.26 3626285.68 11.21230
492299.75 3626285.68 11.43744
492307.24 3626285.68 11.78808
492314.73 3626285.68 12.09530
492322.22 3626285.68 12.46291
492329.71 3626285.68 12.76280
492337.20 3626285.68 13.07021
492344.69 3626285.68 13.45926
492352.18 3626285.68 13.75805
492359.67 3626285.68 14.12582
492367.16 3626285.68 14.49103
492374.65 3626285.68 14.80274
492382.14 3626285.68 15.20584
492389.63 3626285.68 15.48805
492397.12 3626285.68 15.75074
492404.61 3626285.68 16.16323
492412.10 3626285.68 16.50324
492419.59 3626285.68 16.88020
492269.79 3626292.27 10.34477
492277.28 3626292.27 10.54295
492284.77 3626292.27 10.85174
492292.26 3626292.27 11.18248
492299.75 3626292.27 11.41696
492307.24 3626292.27 11.78403
492314.73 3626292.27 12.10153
492322.22 3626292.27 12.48040
492329.71 3626292.27 12.79299
492337.20 3626292.27 13.14026
492344.69 3626292.27 13.53412
492352.18 3626292.27 13.87515
492359.67 3626292.27 14.26538
492367.16 3626292.27 14.58274

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492374.65	3626292.27	15.03942	492382.14	3626292.27	15.38673
492389.63	3626292.27	15.72623	492397.12	3626292.27	16.08794
492404.61	3626292.27	16.52449	492412.10	3626292.27	16.81099
492419.59	3626292.27	17.15472	492269.79	3626298.86	10.31298
492277.28	3626298.86	10.63348	492284.77	3626298.86	10.90532
492292.26	3626298.86	11.16468	492299.75	3626298.86	11.38508
492307.24	3626298.86	11.81686	492314.73	3626298.86	12.13000
492322.22	3626298.86	12.46952	492329.71	3626298.86	12.79696
492337.20	3626298.86	13.15409	492344.69	3626298.86	13.57394
492352.18	3626298.86	13.93876	492359.67	3626298.86	14.37372
492367.16	3626298.86	14.71490	492374.65	3626298.86	15.13117
492382.14	3626298.86	15.53929	492389.63	3626298.86	15.98220
492397.12	3626298.86	16.35839	492404.61	3626298.86	16.79019
492412.10	3626298.86	17.18005	492419.59	3626298.86	17.49118
492269.79	3626305.45	10.24891	492277.28	3626305.45	10.58490
492284.77	3626305.45	10.86400	492292.26	3626305.45	11.20661

492299.75 3626305.45 11.48867
492307.24 3626305.45 11.78678
492314.73 3626305.45 12.22832
492322.22 3626305.45 12.50418
492329.71 3626305.45 12.84022
492337.20 3626305.45 13.20549
492344.69 3626305.45 13.56972
492352.18 3626305.45 14.01354
492359.67 3626305.45 14.40376
492367.16 3626305.45 14.86445
492374.65 3626305.45 15.25420
492382.14 3626305.45 15.69602
492389.63 3626305.45 16.13606
492397.12 3626305.45 16.52785
492404.61 3626305.45 17.08308
492412.10 3626305.45 17.47869
492419.59 3626305.45 17.86749
492269.79 3626312.04 10.14946
492277.28 3626312.04 10.49014
492284.77 3626312.04 10.77371
492292.26 3626312.04 11.13386
492299.75 3626312.04 11.45429
492307.24 3626312.04 11.76514
492314.73 3626312.04 12.12680
492322.22 3626312.04 12.52693
492329.71 3626312.04 12.86853
492337.20 3626312.04 13.29916
492344.69 3626312.04 13.61078
492352.18 3626312.04 14.06460
492359.67 3626312.04 14.47569
492367.16 3626312.04 14.87511
492374.65 3626312.04 15.31187
492382.14 3626312.04 15.78615
492389.63 3626312.04 16.20418
492397.12 3626312.04 16.74804
492404.61 3626312.04 17.17324
492412.10 3626312.04 17.67973
492419.59 3626312.04 18.18015
492269.79 3626318.63 10.04777
492277.28 3626318.63 10.38659
492284.77 3626318.63 10.67244
492292.26 3626318.63 11.03771
492299.75 3626318.63 11.36249
492307.24 3626318.63 11.68205
492314.73 3626318.63 12.06823
492322.22 3626318.63 12.44873
492329.71 3626318.63 12.75094
492337.20 3626318.63 13.24973

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492344.69	3626318.63	13.70074	492352.18	3626318.63	14.10158
492359.67	3626318.63	14.57622	492367.16	3626318.63	14.93517
492374.65	3626318.63	15.43450	492382.14	3626318.63	15.89835
492389.63	3626318.63	16.32755	492397.12	3626318.63	16.77708
492404.61	3626318.63	17.29799	492412.10	3626318.63	17.91254
492419.59	3626318.63	18.37934	492654.44	3626387.58	20.14289
492685.01	3626384.14	19.87851	492702.20	3626382.61	20.31452
492715.58	3626381.08	20.57782	492733.54	3626379.94	20.05487
492755.32	3626378.03	18.68985	492776.34	3626378.03	16.56605
492780.92	3626393.31	13.30720	492740.03	3626412.42	11.86256
492758.38	3626410.89	11.22025			

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	492248.31	492298.31	492348.31	492398.31	492448.31
3626779.1	242.54399 (12071201)	227.27003 (12081103)	242.70623 (12082822)	200.82062 (12110518)	219.19266 (12081105)
3626729.1	291.89355 (12090521)	270.88959 (12071201)	234.12025 (10010721)	238.04378 (12082822)	241.97394 (12081105)
3626679.1	286.47936 (12080803)	329.03276 (12090521)	291.40138 (12102722)	240.06826 (12082822)	248.73185 (12110518)
3626629.1	279.54925 (12101521)	337.00010 (12080803)	354.29741 (12090521)	294.55003 (12102722)	302.44108 (12082822)
3626579.1	293.57621 (12092124)	316.39110 (12082903)	346.26430 (12080803)	347.21930 (12090521)	353.64767 (12090521)
3626529.1	329.59271 (12120521)	371.50772 (12120521)	370.13092 (12100921)	382.97502 (12101521)	401.99111 (12080803)
3626479.1	360.26435 (12081903)	392.33163 (12081903)	421.77752 (12091603)	448.34738 (12091603)	452.82592 (12100921)
3626429.1	364.18962 (12090704)	391.95725 (12090704)	422.67048 (12090704)	455.46972 (12090704)	477.15849 (12090704)
3626379.1	366.37889 (12110521)	380.74794 (12100521)	431.67314 (12100521)	483.19448 (12081904)	497.55260 (12081904)
3626329.1	342.77959 (12101401)	368.90135 (12111421)	383.14446 (10011403)	421.54799 (10010219)	425.68251 (10110123)
3626279.1	329.01334 (12111624)	335.82321 (10010219)	341.10988 (10021502)	357.31784 (12090705)	389.90096 (12102304)
3626229.1	287.77994 (12110221)	304.67273 (10102604)	322.61644 (12093001)	344.13322 (12112620)	348.55223 (10010401)
3626179.1	263.95434 (12092402)	294.41449 (12093001)	306.89168 (12112620)	307.28075 (11021123)	319.97838 (12090206)
3626129.1	260.16572 (12093001)	268.42510 (12112620)	271.50099 (12110223)	277.27558 (10122406)	293.98211 (12100304)

3626079.1 | 234.36386 (12112620) 240.37950 (12110223) 241.06412 (10010401) 264.59638 (12100304) 266.17293 (12081805)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	492498.31	492548.31	492598.31	492648.31	492698.31
3626779.1	222.78955 (12090604)	192.04923 (12010107)	183.78461 (11111322)	195.85576 (12032423)	222.30146 (12021620)
3626729.1	218.90090 (12090604)	218.19022 (12090604)	191.87145 (11111322)	227.75706 (12021620)	257.46301 (12092322)
3626679.1	280.34959 (12081105)	264.13241 (12090604)	203.95738 (12071403)	268.55221 (12021620)	289.52920 (12092322)
3626629.1	321.57384 (12081105)	310.98490 (12090604)	233.07752 (12010107)	295.03346 (12021620)	262.58329 (12012623)
3626579.1	378.89354 (12082822)	315.92196 (12012522)	271.15241 (12010107)	285.13237 (12092322)	238.39951 (11120219)
3626529.1	423.65298 (12090521)	348.03543 (12081105)	379.47832 (12010107)	263.92188 (12092322)	209.89099 (12071923)
3626479.1	483.72069 (12101521)	355.20265 (12060823)	396.03494 (12021620)	241.99781 (12010106)	172.25329 (12010106)
3626429.1	480.65411 (12110521)	495.23077 (12110521)	253.45940 (12032423)	268.44776 (12010220)	287.47917 (12010220)
3626379.1	529.90225 (12100205)	549.20592 (12041623)	442.58860 (11041402)	234.19425 (12020103)	299.76930 (12013006)
3626329.1	431.62702 (12102304)	558.03858 (10031704)	474.48527 (11041402)	309.44397 (11122619)	295.54854 (12122319)
3626279.1	396.61914 (12112022)	433.54984 (10040721)	375.20566 (11103024)	359.48625 (12102923)	360.53702 (12082722)
3626229.1	372.43330 (11012906)	375.24284 (11041521)	361.57153 (12112220)	357.55941 (10100824)	335.34293 (11100924)
3626179.1	339.76367 (11112801)	342.41810 (11120623)	335.42113 (12112220)	336.89139 (12103002)	341.37615 (12090804)
3626129.1	283.08750 (11041521)	292.46995 (11041421)	301.05318 (12110621)	322.03617 (12103002)	314.06132 (12082522)

3626079.1 | 257.31159 (11041521) 277.27768 (11041421) 295.17996 (12110621) 297.54996 (12103002) 305.83814 (12102923)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	492748.31	492798.31	492848.31	492898.31	492948.31
3626779.1	206.08233 (12092322)	186.16450 (11120219)	158.90153 (12071923)	152.84712 (11111822)	165.13099 (11121318)
3626729.1	213.54255 (12012623)	211.55605 (11042920)	176.85189 (12071923)	176.35248 (11121318)	167.18681 (11121318)
3626679.1	239.19974 (11120219)	236.30088 (12071923)	194.98731 (11111822)	180.96182 (11121318)	187.71357 (11122918)
3626629.1	263.59647 (12071923)	242.21101 (11111822)	212.91869 (12010106)	208.34137 (11122918)	182.14690 (11051701)
3626579.1	244.54460 (12091002)	266.42306 (11092818)	247.49650 (11122918)	185.16527 (11051701)	207.72317 (11110519)
3626529.1	254.35711 (12010106)	255.66571 (11051701)	287.19742 (11110519)	244.55555 (11110519)	220.51050 (12082123)
3626479.1	257.62408 (12082123)	318.99064 (12062721)	327.55332 (12100124)	281.46007 (12100124)	252.94245 (11052723)
3626429.1	350.06835 (12081901)	381.02086 (12081901)	384.33875 (12081901)	344.07146 (12081901)	288.58198 (12081901)
3626379.1	381.46934 (12080704)	395.96150 (12082506)	416.40167 (12082506)	392.58543 (12082506)	322.37034 (12082506)
3626329.1	346.34301 (11100222)	382.34970 (12080801)	376.45908 (12091922)	357.21840 (12080704)	332.88657 (12080721)
3626279.1	332.70965 (11100201)	349.02016 (12010206)	344.32004 (12080702)	350.37326 (12080801)	331.61988 (12091922)
3626229.1	348.89053 (12091923)	318.40946 (11082324)	323.84369 (12090903)	311.75677 (11052422)	312.69603 (12080702)
3626179.1	343.84059 (12091923)	300.94540 (12092224)	294.89188 (11082324)	301.85612 (12090903)	275.70154 (11082706)
3626129.1	299.56308 (12120107)	319.37124 (12091923)	290.56952 (12092224)	269.19746 (11082324)	277.52216 (12090903)

3626079.1 | 280.54567 (12072105) 293.71579 (12091923) 264.36797 (11080404) 267.72522 (12092224) 244.96204 (11082324)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492779.32	3626444.25	314.95018	(12060621)	492789.32	3626444.25	318.99694	(11052723)
492799.32	3626444.25	320.97844	(11052723)	492839.32	3626444.25	315.54366	(11052723)
492849.32	3626444.25	311.88909	(11052723)	492859.32	3626444.25	302.70702	(11052723)
492869.32	3626444.25	297.80716	(11122119)	492879.32	3626444.25	292.36104	(11122119)
492779.32	3626454.25	332.22495	(12060621)	492789.32	3626454.25	340.94822	(12060621)
492799.32	3626454.25	341.06709	(12060621)	492839.32	3626454.25	338.10121	(11052723)
492849.32	3626454.25	336.15082	(11052723)	492859.32	3626454.25	328.44009	(11052723)
492869.32	3626454.25	320.37774	(11052723)	492879.32	3626454.25	311.82921	(11052723)
492779.32	3626464.25	332.03069	(12062721)	492789.32	3626464.25	337.35987	(12062721)
492799.32	3626464.25	338.55136	(12100124)	492829.32	3626464.25	341.50560	(12060621)
492839.32	3626464.25	339.27814	(12060621)	492849.32	3626464.25	337.10946	(11052723)
492859.32	3626464.25	332.61832	(11052723)	492869.32	3626464.25	327.28398	(11052723)
492879.32	3626464.25	321.17298	(11052723)	492769.32	3626474.25	302.58422	(12062721)
492779.32	3626474.25	315.66811	(12062721)	492789.32	3626474.25	326.33871	(12062721)
492799.32	3626474.25	331.46487	(12062721)	492829.32	3626474.25	335.17807	(12100124)
492839.32	3626474.25	334.80249	(12100124)	492849.32	3626474.25	332.88499	(12100124)

492859.32 3626474.25 327.09475 (12100124)
492869.32 3626474.25 320.35523 (12100124)
492879.32 3626474.25 313.01577 (12100124)
492769.32 3626484.25 291.82461 (12082123)
492779.32 3626484.25 303.34950 (12082123)
492789.32 3626484.25 310.53021 (12082123)
492799.32 3626484.25 310.47134 (12082123)
492809.32 3626484.25 310.74198 (12062721)
492819.32 3626484.25 317.45416 (12062721)
492829.32 3626484.25 319.68483 (12062721)
492839.32 3626484.25 320.27916 (12062721)
492849.32 3626484.25 319.23768 (12062721)
492859.32 3626484.25 315.18635 (12062721)
492769.32 3626494.25 283.42803 (11110519)
492779.32 3626494.25 299.20000 (11110519)
492789.32 3626494.25 309.96314 (11110519)
492799.32 3626494.25 313.06721 (11110519)
492809.32 3626494.25 313.64472 (12082123)
492819.32 3626494.25 314.20010 (12082123)
492829.32 3626494.25 306.89918 (12082123)
492839.32 3626494.25 297.24827 (12082123)
492849.32 3626494.25 293.98237 (12062721)
492859.32 3626494.25 294.62028 (12062721)
492769.32 3626504.25 254.34379 (11110519)
492779.32 3626504.25 277.51260 (11110519)
492789.32 3626504.25 296.17963 (11110519)
492799.32 3626504.25 308.24102 (11110519)
492809.32 3626504.25 315.21305 (11110519)
492819.32 3626504.25 317.51789 (11110519)
492829.32 3626504.25 309.41061 (11110519)
492749.32 3626514.25 234.52197 (11122918)
492759.32 3626514.25 239.97955 (11122918)
492769.32 3626514.25 240.97794 (11051701)
492779.32 3626514.25 241.32514 (11051701)
492789.32 3626514.25 264.74145 (11110519)
492799.32 3626514.25 283.66963 (11110519)
492809.32 3626514.25 298.02560 (11110519)
492819.32 3626514.25 307.68140 (11110519)
492829.32 3626514.25 308.02946 (11110519)
492749.32 3626524.25 244.18208 (12020318)
492759.32 3626524.25 255.04961 (11122918)
492769.32 3626524.25 257.68020 (11122918)
492779.32 3626524.25 252.38285 (11051701)
492789.32 3626524.25 254.54544 (11051701)
492799.32 3626524.25 247.84481 (11051701)
492809.32 3626524.25 264.17928 (11110519)
492819.32 3626524.25 280.15981 (11110519)
492829.32 3626524.25 289.01000 (11110519)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492739.32	3626534.25	267.01456	(12010106)	492749.32	3626534.25	263.28131	(12010106)
492759.32	3626534.25	259.88049	(11092818)	492769.32	3626534.25	267.01594	(11122918)
492779.32	3626534.25	270.82569	(11122918)	492789.32	3626534.25	266.21470	(11122918)
492799.32	3626534.25	259.21122	(11051701)	492809.32	3626534.25	253.61005	(11051701)
492819.32	3626534.25	243.37882	(11051701)	492719.32	3626544.25	232.83768	(12091002)
492729.32	3626544.25	248.98502	(12010106)	492739.32	3626544.25	265.38778	(12010106)
492749.32	3626544.25	271.56676	(12010106)	492759.32	3626544.25	269.25410	(12010106)
492769.32	3626544.25	266.30730	(11092818)	492779.32	3626544.25	272.55787	(11122918)
492789.32	3626544.25	277.85098	(11122918)	492799.32	3626544.25	271.29293	(11122918)
492809.32	3626544.25	258.80434	(11051701)	492819.32	3626544.25	255.35592	(11051701)
492719.32	3626554.25	235.61322	(12071923)	492729.32	3626554.25	244.76702	(12091002)
492739.32	3626554.25	253.83376	(12091002)	492749.32	3626554.25	267.14108	(11042921)
492759.32	3626554.25	272.74208	(12010106)	492769.32	3626554.25	271.22640	(11092818)
492779.32	3626554.25	269.52747	(11092818)	492789.32	3626554.25	274.77569	(11122918)
492799.32	3626554.25	277.97485	(11122918)	492809.32	3626554.25	273.27884	(11122918)
492819.32	3626554.25	262.05162	(11122918)	492709.32	3626564.25	261.23605	(12071923)

492719.32 3626564.25 253.92821 (12071923)
492729.32 3626564.25 240.27317 (12071923)
492739.32 3626564.25 249.72274 (12091002)
492749.32 3626564.25 260.79250 (11042921)
492759.32 3626564.25 273.51336 (11042921)
492769.32 3626564.25 273.83311 (11042921)
492779.32 3626564.25 272.21392 (11092818)
492789.32 3626564.25 270.65960 (11092818)
492799.32 3626564.25 271.41860 (11122918)
492809.32 3626564.25 275.99146 (11122918)
492819.32 3626564.25 273.17763 (11122918)
492709.32 3626574.25 263.89246 (12071923)
492719.32 3626574.25 264.42876 (12071923)
492729.32 3626574.25 254.63411 (12071923)
492739.32 3626574.25 239.72936 (12071923)
492749.32 3626574.25 253.33457 (12091002)
492759.32 3626574.25 267.55180 (11042921)
492769.32 3626574.25 276.30722 (11042921)
492779.32 3626574.25 274.78527 (11042921)
492789.32 3626574.25 270.16004 (11092818)
492799.32 3626574.25 265.66112 (11092818)
492809.32 3626574.25 265.42300 (11122918)
492819.32 3626574.25 271.23024 (11122918)
492699.32 3626584.25 239.84236 (11120219)
492709.32 3626584.25 256.72492 (12071923)
492719.32 3626584.25 267.36268 (12071923)
492729.32 3626584.25 264.93911 (12071923)
492739.32 3626584.25 253.71303 (12071923)
492749.32 3626584.25 238.85146 (11111822)
492759.32 3626584.25 255.96757 (12091002)
492769.32 3626584.25 269.56373 (11042921)
492779.32 3626584.25 275.67461 (11042921)
492789.32 3626584.25 272.36603 (11042921)
492799.32 3626584.25 263.84774 (11092818)
492809.32 3626584.25 259.72016 (11092818)
492819.32 3626584.25 258.39426 (11122918)
492689.32 3626594.25 254.43681 (12012623)
492699.32 3626594.25 236.86180 (11120219)
492709.32 3626594.25 247.44844 (11120219)
492719.32 3626594.25 262.38881 (12071923)
492729.32 3626594.25 269.20965 (12071923)
492739.32 3626594.25 264.30726 (12071923)
492749.32 3626594.25 252.00190 (12071923)
492759.32 3626594.25 247.09892 (11111822)
492769.32 3626594.25 254.48476 (11042921)
492779.32 3626594.25 268.17102 (11042921)
492789.32 3626594.25 272.02604 (11042921)
492799.32 3626594.25 266.90970 (11042921)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492809.32	3626594.25	257.14331	(11092818)	492819.32	3626594.25	253.45224	(11092818)
492689.32	3626604.25	262.41072	(12012623)	492699.32	3626604.25	246.00408	(12012623)
492709.32	3626604.25	246.80003	(11120219)	492719.32	3626604.25	254.79693	(11042920)
492729.32	3626604.25	266.22206	(12071923)	492739.32	3626604.25	269.37036	(12071923)
492749.32	3626604.25	262.06238	(12071923)	492759.32	3626604.25	248.66871	(12071923)
492769.32	3626604.25	247.75407	(11111822)	492779.32	3626604.25	252.64388	(11042921)
492789.32	3626604.25	264.05304	(11042921)	492799.32	3626604.25	266.67485	(11042921)
492809.32	3626604.25	261.25406	(11042921)	492819.32	3626604.25	250.28204	(11092818)
492679.32	3626614.25	299.60346	(12092322)	492689.32	3626614.25	269.53309	(12092322)
492699.32	3626614.25	254.87262	(12012623)	492709.32	3626614.25	242.59354	(11120219)
492719.32	3626614.25	252.94087	(11120219)	492729.32	3626614.25	259.66348	(11042920)
492739.32	3626614.25	267.81979	(12071923)	492749.32	3626614.25	267.61654	(12071923)
492759.32	3626614.25	258.24600	(12071923)	492769.32	3626614.25	240.42501	(12071923)
492779.32	3626614.25	245.97321	(11111822)	492789.32	3626614.25	249.11880	(11042921)
492799.32	3626614.25	259.39253	(11042921)	492809.32	3626614.25	261.11496	(11042921)
492819.32	3626614.25	255.44968	(11042921)	492679.32	3626624.25	308.73002	(12092322)

492689.32 3626624.25 282.39294 (12092322)
492699.32 3626624.25 260.58957 (12012623)
492709.32 3626624.25 243.55657 (12012623)
492719.32 3626624.25 251.17496 (11120219)
492729.32 3626624.25 259.04886 (11042920)
492739.32 3626624.25 259.93619 (11042920)
492749.32 3626624.25 267.31320 (12071923)
492759.32 3626624.25 264.14078 (12071923)
492769.32 3626624.25 249.77100 (12071923)
492809.32 3626624.25 254.43981 (11042921)
492679.32 3626634.25 312.64153 (12092322)
492689.32 3626634.25 291.93888 (12092322)
492699.32 3626634.25 262.03953 (12012623)
492709.32 3626634.25 250.17506 (12012623)
492719.32 3626634.25 244.56312 (11120219)
492729.32 3626634.25 254.09119 (11120219)
492739.32 3626634.25 259.37964 (11042920)
492749.32 3626634.25 259.41287 (12071923)
492759.32 3626634.25 264.04841 (12071923)
492769.32 3626634.25 255.78659 (12071923)
492679.32 3626644.25 312.59266 (12092322)
492689.32 3626644.25 298.83153 (12092322)
492699.32 3626644.25 271.07738 (12092322)
492709.32 3626644.25 253.84182 (12012623)
492719.32 3626644.25 237.44599 (12012623)
492729.32 3626644.25 249.24334 (11120219)
492739.32 3626644.25 255.08505 (11042920)
492749.32 3626644.25 256.15013 (11042920)
492759.32 3626644.25 257.98962 (12071923)
492769.32 3626644.25 257.36813 (12071923)
492779.32 3626644.25 247.75724 (12071923)
492789.32 3626644.25 232.70885 (12071923)
492799.32 3626644.25 231.59461 (11111822)
492679.32 3626654.25 309.03450 (12092322)
492689.32 3626654.25 302.91184 (12092322)
492699.32 3626654.25 279.71186 (12092322)
492709.32 3626654.25 254.44236 (12012623)
492719.32 3626654.25 242.66315 (12012623)
492729.32 3626654.25 241.63898 (11120219)
492739.32 3626654.25 249.52540 (11120219)
492749.32 3626654.25 254.28705 (11042920)
492759.32 3626654.25 250.49171 (11042920)
492769.32 3626654.25 253.61318 (12071923)
492779.32 3626654.25 250.84267 (12071923)
492789.32 3626654.25 240.29447 (12071923)
492799.32 3626654.25 224.47049 (12071923)
492679.32 3626664.25 300.71952 (12092322)
492689.32 3626664.25 302.41913 (12092322)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492699.32	3626664.25	284.89518	(12092322)	492709.32	3626664.25	256.80002	(12092322)
492719.32	3626664.25	244.55592	(12012623)	492729.32	3626664.25	230.63849	(11120219)
492739.32	3626664.25	243.62788	(11120219)	492749.32	3626664.25	248.66605	(11042920)
492759.32	3626664.25	249.85828	(11042920)	492769.32	3626664.25	243.58641	(12071923)
492779.32	3626664.25	248.37354	(12071923)	492789.32	3626664.25	243.85421	(12071923)
492799.32	3626664.25	231.07944	(12071923)	492679.32	3626674.25	289.37518	(12092322)
492689.32	3626674.25	298.65535	(12092322)	492699.32	3626674.25	287.59655	(12092322)
492709.32	3626674.25	263.32549	(12092322)	492719.32	3626674.25	243.68885	(12012623)
492729.32	3626674.25	232.49961	(12012623)	492739.32	3626674.25	235.12148	(11120219)
492749.32	3626674.25	242.25268	(11120219)	492759.32	3626674.25	246.45465	(11042920)
492769.32	3626674.25	241.58104	(11042920)	492779.32	3626674.25	240.57637	(12071923)
492789.32	3626674.25	243.01727	(12071923)	492799.32	3626674.25	234.80049	(12071923)
492679.32	3626684.25	275.78264	(12092322)	492689.32	3626684.25	292.07979	(12092322)
492699.32	3626684.25	287.90846	(12092322)	492709.32	3626684.25	268.55500	(12092322)
492719.32	3626684.25	241.04104	(12092322)	492729.32	3626684.25	233.96070	(12012623)
492739.32	3626684.25	224.30469	(11120219)	492749.32	3626684.25	236.34842	(11120219)

492759.32 3626684.25 240.64525 (11042920)
492769.32 3626684.25 240.87272 (11042920)
492779.32 3626684.25 232.70236 (11042920)
492789.32 3626684.25 237.35846 (12071923)
492269.61 3626327.54 352.16624 (12111421)
492279.61 3626327.54 359.09440 (12111421)
492289.61 3626327.54 364.11835 (12111421)
492299.61 3626327.54 366.97405 (12111421)
492309.61 3626327.54 371.45834 (10112204)
492319.61 3626327.54 374.26658 (10112204)
492329.61 3626327.54 374.78516 (10112204)
492339.61 3626327.54 376.32965 (10011403)
492349.61 3626327.54 386.39763 (12111624)
492359.61 3626327.54 399.69590 (10010219)
492369.61 3626327.54 410.36730 (10010219)
492379.61 3626327.54 416.99932 (10010219)
492389.61 3626327.54 419.24745 (10010219)
492399.61 3626327.54 417.04648 (10010219)
492409.61 3626327.54 410.55740 (10010219)
492419.61 3626327.54 404.16368 (10032622)
492269.61 3626337.54 356.99968 (12101401)
492279.61 3626337.54 361.44464 (12101401)
492289.61 3626337.54 364.13284 (12101401)
492299.61 3626337.54 372.57755 (12111421)
492309.61 3626337.54 380.42631 (12111421)
492319.61 3626337.54 385.99152 (12111421)
492329.61 3626337.54 389.17243 (12111421)
492339.61 3626337.54 393.55420 (10112204)
492349.61 3626337.54 396.22516 (10112204)
492359.61 3626337.54 396.17958 (10112204)
492369.61 3626337.54 399.42363 (10011403)
492379.61 3626337.54 413.58813 (10010219)
492389.61 3626337.54 426.12901 (10010219)
492399.61 3626337.54 434.05660 (10010219)
492409.61 3626337.54 437.25632 (10010219)
492419.61 3626337.54 435.24268 (10010219)
492269.61 3626347.54 372.01398 (12081904)
492279.61 3626347.54 376.26990 (12081904)
492289.61 3626347.54 379.36320 (12081904)
492299.61 3626347.54 381.22390 (12081904)
492309.61 3626347.54 382.88119 (12101401)
492319.61 3626347.54 386.94201 (12101401)
492329.61 3626347.54 394.38205 (12111421)
492339.61 3626347.54 403.06285 (12111421)
492349.61 3626347.54 409.26973 (12111421)
492359.61 3626347.54 412.59286 (12111421)
492369.61 3626347.54 416.90262 (10112204)
492379.61 3626347.54 419.11050 (10112204)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492389.61	3626347.54	418.29886	(10112204)	492399.61	3626347.54	426.77894	(10010219)
492409.61	3626347.54	441.00109	(10010219)	492419.61	3626347.54	450.36992	(10010219)
492269.61	3626357.54	374.39259	(12100623)	492279.61	3626357.54	379.23069	(12081904)
492289.61	3626357.54	387.96424	(12081904)	492299.61	3626357.54	395.68326	(12081904)
492309.61	3626357.54	402.26768	(12081904)	492319.61	3626357.54	407.57754	(12081904)
492329.61	3626357.54	411.50520	(12081904)	492339.61	3626357.54	414.02271	(12081904)
492349.61	3626357.54	415.08222	(12081904)	492359.61	3626357.54	417.21086	(12111421)
492369.61	3626357.54	426.84337	(12111421)	492379.61	3626357.54	433.45755	(12111421)
492389.61	3626357.54	436.78685	(12111421)	492399.61	3626357.54	440.82039	(10112204)
492409.61	3626357.54	441.98970	(10112204)	492419.61	3626357.54	445.77549	(12100205)
492269.61	3626367.54	374.16316	(12100623)	492279.61	3626367.54	381.37369	(12100623)
492289.61	3626367.54	388.05250	(12100623)	492299.61	3626367.54	394.13661	(12100623)
492309.61	3626367.54	399.58986	(12100623)	492319.61	3626367.54	408.51856	(12081904)
492329.61	3626367.54	418.97896	(12081904)	492339.61	3626367.54	428.28969	(12081904)
492349.61	3626367.54	436.40023	(12081904)	492359.61	3626367.54	442.96729	(12081904)
492369.61	3626367.54	448.07158	(12081904)	492379.61	3626367.54	451.32638	(12081904)

492389.61 3626367.54 452.82251 (12081904)
492399.61 3626367.54 452.30976 (12081904)
492409.61 3626367.54 457.30069 (12111421)
492419.61 3626367.54 459.91550 (12111421)
492269.61 3626377.54 366.24575 (12110521)
492279.61 3626377.54 368.02439 (12110521)
492289.61 3626377.54 374.70995 (12100623)
492299.61 3626377.54 385.52404 (12100521)
492309.61 3626377.54 396.15450 (12100521)
492319.61 3626377.54 406.18740 (12100521)
492329.61 3626377.54 415.66093 (12100521)
492339.61 3626377.54 424.34090 (12100521)
492349.61 3626377.54 432.19624 (12100521)
492359.61 3626377.54 441.12485 (12081904)
492369.61 3626377.54 453.72126 (12081904)
492379.61 3626377.54 464.95935 (12081904)
492389.61 3626377.54 474.67096 (12081904)
492399.61 3626377.54 482.66268 (12081904)
492409.61 3626377.54 488.58937 (12081904)
492419.61 3626377.54 492.35634 (12081904)
492269.61 3626387.54 392.28956 (12110521)
492279.61 3626387.54 396.66629 (12110521)
492289.61 3626387.54 400.88401 (12110521)
492299.61 3626387.54 404.91177 (12110521)
492309.61 3626387.54 408.75092 (12110521)
492319.61 3626387.54 412.35241 (12110521)
492329.61 3626387.54 415.74515 (12110521)
492339.61 3626387.54 418.81330 (12110521)
492349.61 3626387.54 423.06077 (12100521)
492359.61 3626387.54 435.39931 (12100521)
492369.61 3626387.54 447.11467 (12100521)
492379.61 3626387.54 457.87937 (12100521)
492389.61 3626387.54 467.67536 (12100521)
492399.61 3626387.54 476.82876 (12081904)
492409.61 3626387.54 491.49964 (12081904)
492419.61 3626387.54 504.64305 (12081904)
492429.61 3626387.54 515.62414 (12081904)
492269.61 3626397.54 397.17162 (12110521)
492279.61 3626397.54 404.05049 (12110521)
492289.61 3626397.54 410.87470 (12110521)
492299.61 3626397.54 417.61677 (12110521)
492309.61 3626397.54 424.27275 (12110521)
492319.61 3626397.54 430.77674 (12110521)
492329.61 3626397.54 437.17484 (12110521)
492339.61 3626397.54 443.35385 (12110521)
492349.61 3626397.54 449.44241 (12110521)
492359.61 3626397.54 455.24481 (12110521)
492369.61 3626397.54 460.79043 (12110521)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492379.61	3626397.54	466.10069	(12110521)	492389.61	3626397.54	470.96134	(12110521)
492399.61	3626397.54	475.41987	(12110521)	492409.61	3626397.54	479.12678	(12110521)
492419.61	3626397.54	489.00132	(12100521)	492429.61	3626397.54	499.74349	(12100521)
492439.61	3626397.54	512.76927	(12081904)	492569.61	3626397.54	547.51579	(11123003)
492269.61	3626407.54	378.77781	(12110521)	492279.61	3626407.54	387.49874	(12110521)
492289.61	3626407.54	396.29706	(12110521)	492299.61	3626407.54	405.15370	(12110521)
492309.61	3626407.54	414.05992	(12110521)	492319.61	3626407.54	422.94063	(12110521)
492329.61	3626407.54	431.85730	(12110521)	492339.61	3626407.54	440.71271	(12110521)
492349.61	3626407.54	449.64013	(12110521)	492359.61	3626407.54	458.47235	(12110521)
492369.61	3626407.54	467.17764	(12110521)	492379.61	3626407.54	475.91086	(12110521)
492389.61	3626407.54	484.33580	(12110521)	492399.61	3626407.54	492.53458	(12110521)
492409.61	3626407.54	500.09216	(12110521)	492419.61	3626407.54	507.21224	(12110521)
492429.61	3626407.54	513.52962	(12110521)	492439.61	3626407.54	518.98326	(12110521)
492449.61	3626407.54	523.40370	(12110521)	492561.65	3626406.52	504.32580	(12010821)
492569.61	3626407.54	476.01597	(12011102)	492579.61	3626407.54	469.07102	(11123003)
492269.61	3626417.54	371.20894	(12090704)	492279.61	3626417.54	376.69729	(12090704)

492289.61 3626417.54 382.30164 (12090704)
492299.61 3626417.54 388.04091 (12090704)
492309.61 3626417.54 393.90520 (12090704)
492319.61 3626417.54 399.83235 (12090704)
492329.61 3626417.54 405.84276 (12090704)
492339.61 3626417.54 411.98986 (12090704)
492349.61 3626417.54 420.87566 (12110521)
492359.61 3626417.54 431.67955 (12110521)
492369.61 3626417.54 442.51424 (12110521)
492379.61 3626417.54 453.63417 (12110521)
492389.61 3626417.54 464.62400 (12110521)
492399.61 3626417.54 475.57916 (12110521)
492409.61 3626417.54 486.12807 (12110521)
492419.61 3626417.54 496.44285 (12110521)
492429.61 3626417.54 506.24966 (12110521)
492439.61 3626417.54 515.34966 (12110521)
492449.61 3626417.54 523.54526 (12110521)
492459.61 3626417.54 527.33112 (12110521)
492569.61 3626417.54 460.37368 (12010924)
492579.61 3626417.54 390.25402 (12010924)
492587.89 3626417.54 361.92829 (11041603)
492269.61 3626427.54 376.64780 (12090704)
492279.61 3626427.54 382.25273 (12090704)
492289.61 3626427.54 387.97761 (12090704)
492299.61 3626427.54 393.84177 (12090704)
492309.61 3626427.54 399.83543 (12090704)
492319.61 3626427.54 405.91941 (12090704)
492329.61 3626427.54 412.09950 (12090704)
492339.61 3626427.54 418.42519 (12090704)
492349.61 3626427.54 424.81377 (12090704)
492359.61 3626427.54 431.40760 (12090704)
492369.61 3626427.54 437.91931 (12090704)
492379.61 3626427.54 444.67619 (12090704)
492389.61 3626427.54 451.33302 (12090704)
492399.61 3626427.54 457.86485 (12090704)
492409.61 3626427.54 464.20361 (12090704)
492419.61 3626427.54 470.13605 (12090704)
492429.61 3626427.54 475.78055 (12090704)
492439.61 3626427.54 478.90980 (12090704)
492449.61 3626427.54 480.25282 (12110521)
492459.61 3626427.54 486.31840 (12110521)
492469.61 3626427.54 482.56623 (12110521)
492577.71 3626427.45 389.80789 (12011904)
492589.61 3626427.54 283.12173 (12010924)
492599.61 3626427.54 236.42685 (12032423)
492609.61 3626427.54 247.65402 (12010220)
492269.61 3626437.54 362.04835 (12090704)
492279.61 3626437.54 367.24111 (12090704)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492289.61	3626437.54	372.53543	(12090704)	492299.61	3626437.54	377.95058	(12090704)
492309.61	3626437.54	383.47594	(12090704)	492319.61	3626437.54	389.09110	(12090704)
492329.61	3626437.54	394.78610	(12090704)	492339.61	3626437.54	400.60620	(12090704)
492349.61	3626437.54	406.44016	(12090704)	492359.61	3626437.54	412.44917	(12090704)
492369.61	3626437.54	418.35683	(12090704)	492379.61	3626437.54	424.59879	(12101606)
492389.61	3626437.54	434.05153	(12101606)	492399.61	3626437.54	443.30435	(12101606)
492409.61	3626437.54	452.22249	(12101606)	492419.61	3626437.54	460.64929	(12101606)
492429.61	3626437.54	466.50163	(12101606)	492439.61	3626437.54	469.90175	(12101606)
492449.61	3626437.54	471.55507	(12101606)	492459.61	3626437.54	471.01506	(12101606)
492469.61	3626437.54	461.97459	(12101606)	492479.61	3626437.54	455.72855	(12101606)
492579.61	3626437.54	340.11968	(12101402)	492589.61	3626437.54	318.79224	(12010922)
492599.61	3626437.54	308.02752	(12032423)	492606.62	3626436.27	263.09844	(12012623)
492269.61	3626447.54	349.21607	(12101606)	492279.61	3626447.54	356.72006	(12101606)
492289.61	3626447.54	364.29358	(12101606)	492299.61	3626447.54	371.89184	(12101606)
492309.61	3626447.54	379.50578	(12101606)	492319.61	3626447.54	387.14407	(12101606)
492329.61	3626447.54	394.73947	(12101606)	492339.61	3626447.54	402.33766	(12101606)

492349.61 3626447.54 409.77918 (12101606)
492359.61 3626447.54 417.20395 (12101606)
492369.61 3626447.54 424.35600 (12101606)
492379.61 3626447.54 431.44599 (12101606)
492389.61 3626447.54 438.14239 (12101606)
492399.61 3626447.54 444.92787 (12011904)
492409.61 3626447.54 455.26777 (12011904)
492419.61 3626447.54 462.29343 (12011904)
492429.61 3626447.54 465.97607 (12011904)
492439.61 3626447.54 469.43260 (12081903)
492449.61 3626447.54 471.40045 (12081903)
492459.61 3626447.54 470.59575 (12081903)
492469.61 3626447.54 463.44138 (12081903)
492479.61 3626447.54 452.67149 (12081903)
492571.06 3626449.44 417.09935 (12012521)
492579.61 3626447.54 411.08232 (12010922)
492585.44 3626447.63 400.96938 (12010922)
492269.61 3626457.54 356.23681 (12101606)
492279.61 3626457.54 361.91242 (12101606)
492289.61 3626457.54 367.50228 (12101606)
492299.61 3626457.54 372.97143 (12101606)
492309.61 3626457.54 378.34508 (12101606)
492319.61 3626457.54 383.59588 (12101606)
492329.61 3626457.54 389.82395 (12081903)
492339.61 3626457.54 400.87141 (12081903)
492349.61 3626457.54 411.64627 (12081903)
492359.61 3626457.54 422.16334 (12081903)
492369.61 3626457.54 432.17805 (12081903)
492379.61 3626457.54 441.83560 (12081903)
492389.61 3626457.54 450.71156 (12081903)
492399.61 3626457.54 458.86577 (12081903)
492409.61 3626457.54 464.92824 (12081903)
492419.61 3626457.54 467.46600 (12081903)
492429.61 3626457.54 468.03755 (12081903)
492439.61 3626457.54 467.20126 (12081903)
492449.61 3626457.54 464.07045 (12081903)
492459.61 3626457.54 458.56088 (12091603)
492469.61 3626457.54 448.98130 (12091603)
492479.61 3626457.54 440.67460 (12100921)
492580.88 3626454.73 445.57633 (12010922)
492269.61 3626467.54 356.03956 (12081903)
492279.61 3626467.54 365.74398 (12081903)
492289.61 3626467.54 375.21687 (12081903)
492299.61 3626467.54 384.44640 (12081903)
492309.61 3626467.54 393.39658 (12081903)
492319.61 3626467.54 402.03603 (12081903)
492329.61 3626467.54 410.30443 (12081903)
492339.61 3626467.54 418.10604 (12081903)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492349.61	3626467.54	425.40833	(12081903)	492359.61	3626467.54	432.12343	(12081903)
492369.61	3626467.54	438.09273	(12081903)	492379.61	3626467.54	443.39265	(12081903)
492389.61	3626467.54	447.64983	(12081903)	492399.61	3626467.54	456.57816	(12091603)
492409.61	3626467.54	460.68352	(12091603)	492419.61	3626467.54	462.28846	(12091603)
492429.61	3626467.54	460.77854	(12091603)	492439.61	3626467.54	458.34331	(12091603)
492449.61	3626467.54	452.54406	(12091603)	492459.61	3626467.54	450.42556	(12100921)
492469.61	3626467.54	458.94234	(12100921)	492479.61	3626467.54	461.24997	(12100921)
492499.61	3626467.54	527.81704	(12100921)	492269.61	3626477.54	374.06137	(12081903)
492279.61	3626477.54	381.01536	(12081903)	492289.61	3626477.54	387.49368	(12081903)
492299.61	3626477.54	393.50558	(12081903)	492309.61	3626477.54	399.02102	(12081903)
492319.61	3626477.54	404.01692	(12081903)	492329.61	3626477.54	408.43590	(12081903)
492339.61	3626477.54	412.16899	(12081903)	492349.61	3626477.54	421.19276	(12091603)
492359.61	3626477.54	430.43174	(12091603)	492369.61	3626477.54	438.59941	(12091603)
492379.61	3626477.54	445.46168	(12091603)	492389.61	3626477.54	450.71181	(12091603)
492399.61	3626477.54	452.05927	(12091603)	492409.61	3626477.54	448.89600	(12091603)
492419.61	3626477.54	443.03480	(12091603)	492429.61	3626477.54	434.26464	(12120521)

492439.61 3626477.54 444.40471 (12100921)
492449.61 3626477.54 454.15578 (12100921)
492459.61 3626477.54 458.50699 (12100921)
492469.61 3626477.54 455.76061 (12100921)
492479.61 3626477.54 446.22808 (12081202)
492489.61 3626477.54 447.03991 (12101521)
492499.61 3626477.54 495.56102 (12101521)
492506.66 3626477.89 473.78320 (12091422)
492269.61 3626487.54 373.17321 (12081903)
492279.61 3626487.54 376.70182 (12081903)
492289.61 3626487.54 379.62267 (12081903)
492299.61 3626487.54 386.31352 (12091603)
492309.61 3626487.54 395.30620 (12091603)
492319.61 3626487.54 403.45606 (12091603)
492329.61 3626487.54 410.82425 (12091603)
492339.61 3626487.54 417.05464 (12091603)
492349.61 3626487.54 422.32369 (12091603)
492359.61 3626487.54 426.22283 (12091603)
492369.61 3626487.54 428.80519 (12091603)
492379.61 3626487.54 428.87009 (12091603)
492389.61 3626487.54 425.11702 (12091603)
492399.61 3626487.54 426.78156 (12120521)
492409.61 3626487.54 429.57190 (12120521)
492419.61 3626487.54 430.39518 (12100921)
492429.61 3626487.54 433.80486 (12100921)
492439.61 3626487.54 438.36532 (12100921)
492449.61 3626487.54 438.00197 (12100921)
492459.61 3626487.54 435.95249 (12081202)
492469.61 3626487.54 441.02578 (12101521)
492479.61 3626487.54 451.30165 (12101521)
492489.61 3626487.54 448.22509 (12101521)
492499.61 3626487.54 455.24460 (12091522)
492509.61 3626487.54 459.79741 (12080803)
492269.61 3626497.54 370.84213 (12091603)
492279.61 3626497.54 377.97256 (12091603)
492289.61 3626497.54 384.32115 (12091603)
492299.61 3626497.54 389.77191 (12091603)
492309.61 3626497.54 394.31136 (12091603)
492319.61 3626497.54 397.77216 (12091603)
492329.61 3626497.54 400.20174 (12091603)
492339.61 3626497.54 401.33257 (12091603)
492349.61 3626497.54 401.33715 (12091603)
492359.61 3626497.54 402.86916 (12120521)
492369.61 3626497.54 413.95006 (12120521)
492379.61 3626497.54 419.82032 (12120521)
492389.61 3626497.54 422.64966 (12120521)
492399.61 3626497.54 422.02086 (12120521)
492409.61 3626497.54 421.38103 (12100921)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492419.61	3626497.54	417.12076	(12100921)	492429.61	3626497.54	408.32991	(12100921)
492439.61	3626497.54	411.92450	(12081202)	492449.61	3626497.54	420.64004	(12101521)
492459.61	3626497.54	439.75910	(12101521)	492469.61	3626497.54	444.85587	(12101521)
492479.61	3626497.54	438.32575	(12101521)	492489.61	3626497.54	427.33318	(12112823)
492499.61	3626497.54	446.45473	(12091522)	492509.61	3626497.54	504.88055	(12091522)
492519.61	3626497.54	411.39707	(12091622)	492269.61	3626507.54	368.30299	(12091603)
492279.61	3626507.54	371.25828	(12091603)	492289.61	3626507.54	373.25360	(12091603)
492299.61	3626507.54	374.27074	(12091603)	492309.61	3626507.54	374.22782	(12091603)
492319.61	3626507.54	373.09972	(12091603)	492329.61	3626507.54	384.39697	(12120521)
492339.61	3626507.54	394.76443	(12120521)	492349.61	3626507.54	403.33261	(12120521)
492359.61	3626507.54	409.75746	(12120521)	492369.61	3626507.54	412.46667	(12120521)
492379.61	3626507.54	410.11286	(12120521)	492389.61	3626507.54	408.17050	(12100921)
492399.61	3626507.54	404.69472	(12100921)	492409.61	3626507.54	394.33272	(12100921)
492419.61	3626507.54	392.72807	(12081202)	492429.61	3626507.54	388.85893	(12101521)
492439.61	3626507.54	411.16483	(12101521)	492449.61	3626507.54	425.50336	(12101521)
492459.61	3626507.54	430.32992	(12101521)	492469.61	3626507.54	424.72633	(12112823)

492479.61 3626507.54 419.10874 (12080803)
492489.61 3626507.54 443.27811 (12091522)
492499.61 3626507.54 451.93188 (12091522)
492509.61 3626507.54 448.63729 (12091522)
492519.61 3626507.54 448.87450 (12091522)
492269.61 3626517.54 349.17128 (12091603)
492279.61 3626517.54 348.10079 (12091603)
492289.61 3626517.54 355.70509 (12120521)
492299.61 3626517.54 366.89151 (12120521)
492309.61 3626517.54 376.56339 (12120521)
492319.61 3626517.54 384.57142 (12120521)
492329.61 3626517.54 390.68923 (12120521)
492339.61 3626517.54 394.85651 (12120521)
492349.61 3626517.54 396.49022 (12120521)
492359.61 3626517.54 394.44306 (12120521)
492369.61 3626517.54 392.24534 (12100921)
492379.61 3626517.54 387.60589 (12100921)
492389.61 3626517.54 379.34651 (12081202)
492399.61 3626517.54 385.00964 (12081202)
492409.61 3626517.54 381.70046 (12081202)
492419.61 3626517.54 391.02368 (12101521)
492429.61 3626517.54 395.41008 (12101521)
492439.61 3626517.54 404.53434 (12101521)
492449.61 3626517.54 405.38242 (12112823)
492459.61 3626517.54 415.22892 (12080803)
492469.61 3626517.54 418.23341 (12080803)
492479.61 3626517.54 437.55374 (12091522)
492489.61 3626517.54 450.90063 (12091522)
492499.61 3626517.54 439.99825 (12091522)
492509.61 3626517.54 415.17536 (12090521)
492519.61 3626517.54 384.32480 (12090521)
492529.61 3626517.54 420.09534 (12082822)
492269.61 3626527.54 350.48872 (12120521)
492279.61 3626527.54 359.48433 (12120521)
492289.61 3626527.54 366.94815 (12120521)
492299.61 3626527.54 372.70574 (12120521)
492309.61 3626527.54 376.63961 (12120521)
492319.61 3626527.54 378.68705 (12120521)
492329.61 3626527.54 378.69075 (12120521)
492339.61 3626527.54 376.70615 (12120521)
492349.61 3626527.54 373.61876 (12100921)
492359.61 3626527.54 369.38061 (12100921)
492369.61 3626527.54 371.63921 (10100923)
492459.61 3626527.54 408.69638 (12080803)
492469.61 3626527.54 430.03159 (12090521)
492479.61 3626527.54 443.96976 (12090521)
492489.61 3626527.54 444.24385 (12090521)
492499.61 3626527.54 423.83300 (12090521)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492509.61	3626527.54	391.28255	(12090521)	492519.61	3626527.54	372.64141	(12082822)
492529.61	3626527.54	380.69755	(12082822)	492269.61	3626537.54	355.60374	(12120521)
492279.61	3626537.54	359.61188	(12120521)	492289.61	3626537.54	361.59035	(12120521)
492299.61	3626537.54	361.73410	(12120521)	492309.61	3626537.54	360.03331	(12120521)
492319.61	3626537.54	356.47579	(12100921)	492329.61	3626537.54	354.92458	(12100921)
492339.61	3626537.54	360.81423	(10100923)	492349.61	3626537.54	362.83718	(10100923)
492359.61	3626537.54	361.07786	(10100923)	492369.61	3626537.54	362.60779	(12081202)
492459.61	3626537.54	420.46366	(12090521)	492469.61	3626537.54	434.48489	(12090521)
492479.61	3626537.54	436.33721	(12090521)	492489.61	3626537.54	426.66430	(12090521)
492499.61	3626537.54	396.52058	(12090521)	492509.61	3626537.54	371.70327	(12082822)
492519.61	3626537.54	385.14148	(12082822)	492529.61	3626537.54	371.30174	(12082822)
492269.61	3626547.54	344.52111	(12120521)	492279.61	3626547.54	344.39611	(12120521)
492289.61	3626547.54	341.23771	(12120521)	492299.61	3626547.54	338.72593	(12100921)
492309.61	3626547.54	341.66674	(10100923)	492319.61	3626547.54	348.31889	(10100923)
492329.61	3626547.54	352.17455	(10100923)	492339.61	3626547.54	352.94681	(10100923)
492349.61	3626547.54	349.63512	(12081202)	492359.61	3626547.54	355.12146	(12101521)

492369.61 3626547.54 368.82732 (12101521)
492459.61 3626547.54 420.67604 (12090521)
492469.61 3626547.54 422.57305 (12090521)
492479.61 3626547.54 414.16239 (12090521)
492489.61 3626547.54 395.88921 (12090521)
492499.61 3626547.54 365.15064 (12082822)
492509.61 3626547.54 384.82020 (12082822)
492519.61 3626547.54 386.31839 (12082822)
492529.61 3626547.54 362.28790 (12082822)
492269.61 3626557.54 321.78117 (12100921)
492279.61 3626557.54 321.62415 (12100921)
492289.61 3626557.54 329.80499 (10100923)
492299.61 3626557.54 335.61245 (10100923)
492309.61 3626557.54 338.90575 (10100923)
492319.61 3626557.54 339.26095 (10100923)
492329.61 3626557.54 338.58494 (12082903)
492339.61 3626557.54 341.06508 (12101521)
492349.61 3626557.54 355.57863 (12101521)
492359.61 3626557.54 364.18105 (12101521)
492369.61 3626557.54 366.13349 (12101521)
492459.61 3626557.54 405.75471 (12090521)
492469.61 3626557.54 397.84130 (12090521)
492479.61 3626557.54 381.60957 (12090521)
492489.61 3626557.54 362.32518 (12102722)
492499.61 3626557.54 380.13047 (12082822)
492509.61 3626557.54 387.74003 (12082822)
492519.61 3626557.54 378.28153 (12082822)
492529.61 3626557.54 346.25032 (12082822)
492269.61 3626567.54 314.45508 (10100923)
492279.61 3626567.54 323.41932 (10100923)
492289.61 3626567.54 325.86920 (10100923)
492299.61 3626567.54 325.78461 (10100923)
492309.61 3626567.54 328.36473 (12082903)
492319.61 3626567.54 328.51063 (12082903)
492329.61 3626567.54 340.55641 (12101521)
492339.61 3626567.54 354.01208 (12101521)
492349.61 3626567.54 358.10335 (12101521)
492359.61 3626567.54 355.44677 (12101521)
492369.61 3626567.54 356.43041 (12080803)
492459.61 3626567.54 379.68467 (12090521)
492469.61 3626567.54 364.53608 (12090521)
492479.61 3626567.54 352.29469 (12102722)
492489.61 3626567.54 371.95498 (12082822)
492499.61 3626567.54 384.86919 (12082822)
492509.61 3626567.54 381.38859 (12082822)
492519.61 3626567.54 362.64521 (12082822)
492529.61 3626567.54 340.31368 (12060622)
492269.61 3626577.54 308.59618 (10100923)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492279.61	3626577.54	315.65193	(12082903)	492289.61	3626577.54	318.34315	(12082903)
492299.61	3626577.54	318.36799	(12082903)	492309.61	3626577.54	323.29301	(12101521)
492319.61	3626577.54	337.00501	(12101521)	492329.61	3626577.54	346.15986	(12101521)
492339.61	3626577.54	350.03958	(12101521)	492469.61	3626577.54	340.57981	(12102722)
492479.61	3626577.54	352.63697	(12082822)	492489.61	3626577.54	377.96937	(12082822)
492499.61	3626577.54	379.64831	(12082822)	492509.61	3626577.54	366.31239	(12082822)
492519.61	3626577.54	340.95292	(12060622)	492529.61	3626577.54	334.70494	(12060622)
492269.61	3626587.54	305.92515	(12082903)	492279.61	3626587.54	308.20358	(12082903)
492289.61	3626587.54	310.60161	(12100922)	492299.61	3626587.54	320.96061	(12101521)
492309.61	3626587.54	331.60744	(12101521)	492319.61	3626587.54	336.73286	(12101521)
492329.61	3626587.54	336.84426	(12101521)	492339.61	3626587.54	350.44355	(12080803)
492469.61	3626587.54	333.21465	(12082822)	492479.61	3626587.54	360.98925	(12082822)
492489.61	3626587.54	375.07286	(12082822)	492499.61	3626587.54	366.52757	(12082822)
492509.61	3626587.54	345.48517	(12082822)	492519.61	3626587.54	340.36120	(12060622)
492529.61	3626587.54	337.28218	(12081105)	492269.61	3626597.54	297.90221	(12100922)
492279.61	3626597.54	307.45129	(12100922)	492289.61	3626597.54	316.04963	(12101521)

492299.61 3626597.54 323.35118 (12101521)
492309.61 3626597.54 326.21880 (12101521)
492319.61 3626597.54 331.67061 (12080803)
492329.61 3626597.54 349.56491 (12080803)
492339.61 3626597.54 361.70088 (12080803)
492469.61 3626597.54 343.56584 (12082822)
492479.61 3626597.54 360.62377 (12082822)
492489.61 3626597.54 364.20406 (12082822)
492499.61 3626597.54 347.34433 (12082822)
492509.61 3626597.54 330.19029 (12060622)
492519.61 3626597.54 341.10967 (12081105)
492529.61 3626597.54 335.21590 (12081105)
492269.61 3626607.54 299.59268 (12100922)
492279.61 3626607.54 308.88577 (12101521)
492289.61 3626607.54 313.09424 (12101521)
492299.61 3626607.54 313.11894 (12101521)
492309.61 3626607.54 332.94949 (12080803)
492319.61 3626607.54 348.15632 (12080803)
492329.61 3626607.54 357.68019 (12080803)
492339.61 3626607.54 360.87598 (12080803)
492469.61 3626607.54 345.19533 (12082822)
492479.61 3626607.54 352.27610 (12082822)
492489.61 3626607.54 347.08790 (12082822)
492499.61 3626607.54 323.11431 (12082822)
492509.61 3626607.54 331.08148 (12081105)
492519.61 3626607.54 339.44089 (12081105)
492529.61 3626607.54 326.78584 (12081105)
492269.61 3626617.54 297.76399 (12101521)
492279.61 3626617.54 301.22714 (12101521)
492289.61 3626617.54 311.89398 (12080803)
492299.61 3626617.54 330.66069 (12080803)
492309.61 3626617.54 344.78167 (12080803)
492319.61 3626617.54 351.64685 (12080803)
492329.61 3626617.54 352.64679 (12080803)
492339.61 3626617.54 347.66089 (12080803)
492469.61 3626617.54 339.34631 (12082822)
492479.61 3626617.54 337.57256 (12082822)
492489.61 3626617.54 325.46334 (12082822)
492499.61 3626617.54 319.00858 (12081105)
492509.61 3626617.54 332.82731 (12081105)
492519.61 3626617.54 333.68644 (12081105)
492529.61 3626617.54 315.22362 (12081105)
492269.61 3626627.54 288.72903 (12080803)
492279.61 3626627.54 310.58574 (12080803)
492289.61 3626627.54 326.63316 (12080803)
492299.61 3626627.54 337.97574 (12080803)
492309.61 3626627.54 344.08830 (12080803)
492319.61 3626627.54 342.80669 (12080803)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492329.61	3626627.54	336.33169	(12080803)	492339.61	3626627.54	342.94953	(12090521)
492469.61	3626627.54	326.76407	(12082822)	492479.61	3626627.54	317.76142	(12082822)
492489.61	3626627.54	309.14194	(12110518)	492499.61	3626627.54	323.46592	(12081105)
492509.61	3626627.54	329.90069	(12081105)	492519.61	3626627.54	323.80416	(12081105)
492269.61	3626637.54	306.35407	(12080803)	492279.61	3626637.54	321.60808	(12080803)
492289.61	3626637.54	330.14535	(12080803)	492299.61	3626637.54	333.64152	(12080803)
492309.61	3626637.54	332.09205	(12080803)	492319.61	3626637.54	325.58344	(12091622)
492329.61	3626637.54	339.19360	(12090521)	492339.61	3626637.54	354.99991	(12090521)
492469.61	3626637.54	307.68060	(12082822)	492479.61	3626637.54	296.47419	(12110518)
492489.61	3626637.54	309.96020	(12081105)	492499.61	3626637.54	320.76651	(12081105)
492509.61	3626637.54	319.68856	(12081105)	492519.61	3626637.54	307.21730	(12081105)
492269.61	3626647.54	313.67076	(12080803)	492279.61	3626647.54	321.50337	(12080803)
492289.61	3626647.54	322.64334	(12080803)	492299.61	3626647.54	319.17833	(12080803)
492309.61	3626647.54	319.90223	(12091622)	492319.61	3626647.54	335.35415	(12090521)
492329.61	3626647.54	349.33785	(12090521)	492339.61	3626647.54	355.68377	(12090521)
492479.61	3626647.54	287.27861	(12081105)	492489.61	3626647.54	311.30207	(12081105)

492499.61 3626647.54 314.73673 (12081105)
492509.61 3626647.54 307.10821 (12081105)
492269.61 3626657.54 310.51887 (12080803)
492279.61 3626657.54 311.26153 (12080803)
492289.61 3626657.54 306.11785 (12080803)
492299.61 3626657.54 311.95580 (12091622)
492309.61 3626657.54 331.57425 (12090521)
492319.61 3626657.54 343.71283 (12090521)
492329.61 3626657.54 348.50564 (12090521)
492339.61 3626657.54 345.87150 (12090521)
492489.61 3626657.54 308.98059 (12081105)
492499.61 3626657.54 305.81743 (12081105)
492269.61 3626667.54 298.21563 (12080803)
492279.61 3626667.54 295.73783 (12091622)
492289.61 3626667.54 306.66356 (12090521)
492299.61 3626667.54 325.37223 (12090521)
492309.61 3626667.54 337.81831 (12090521)
492319.61 3626667.54 341.07086 (12090521)
492329.61 3626667.54 337.31929 (12090521)
492339.61 3626667.54 327.11768 (12090521)
492269.61 3626677.54 288.13270 (12091622)
492279.61 3626677.54 302.58734 (12090521)
492289.61 3626677.54 319.35001 (12090521)
492299.61 3626677.54 330.03891 (12090521)
492309.61 3626677.54 334.10669 (12090521)
492319.61 3626677.54 329.20387 (12090521)
492329.61 3626677.54 318.42873 (12090521)
492339.61 3626677.54 302.72789 (12090521)
492269.61 3626687.54 297.25273 (12090521)
492279.61 3626687.54 313.73693 (12090521)
492289.61 3626687.54 322.74843 (12090521)
492299.61 3626687.54 325.38376 (12090521)
492309.61 3626687.54 321.85693 (12090521)
492319.61 3626687.54 310.39624 (12090521)
492329.61 3626687.54 294.50215 (12090521)
492339.61 3626687.54 291.03301 (12102722)
492269.61 3626697.54 307.30952 (12090521)
492279.61 3626697.54 316.26382 (12090521)
492289.61 3626697.54 317.78020 (12090521)
492299.61 3626697.54 313.46460 (12090521)
492309.61 3626697.54 303.97062 (12090521)
492319.61 3626697.54 287.73227 (12090521)
492329.61 3626697.54 286.06663 (12102722)
492339.61 3626697.54 281.40010 (12102722)
492269.61 3626707.54 308.65145 (12090521)
492279.61 3626707.54 310.30781 (12090521)
492289.61 3626707.54 305.21432 (12090521)
492299.61 3626707.54 295.40487 (12090521)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492309.61	3626707.54	281.78247	(12090521)	492319.61	3626707.54	281.78502	(12102722)
492329.61	3626707.54	277.26370	(12102722)	492339.61	3626707.54	266.77825	(12102722)
492269.61	3626717.54	301.76547	(12090521)	492279.61	3626717.54	297.04127	(12090521)
492289.61	3626717.54	286.91880	(12090521)	492299.61	3626717.54	276.60566	(12071201)
492309.61	3626717.54	278.24525	(12102722)	492319.61	3626717.54	273.83030	(12102722)
492329.61	3626717.54	263.66187	(12102722)	492339.61	3626717.54	258.56298	(12081103)
492669.07	3626644.38	302.79381	(12092322)	492665.07	3626656.03	297.95993	(12021620)
492665.74	3626664.35	297.15524	(12021620)	492664.07	3626675.33	295.73694	(12021620)
492599.44	3626421.99	254.34359	(11041603)	492613.55	3626421.99	275.23802	(12011021)
492613.75	3626427.92	268.57190	(12010220)	492613.55	3626435.89	245.24753	(12010220)
492573.34	3626443.01	380.55830	(12091522)	492576.15	3626437.02	373.18525	(12101402)
492578.78	3626431.67	370.70860	(12011904)	492589.21	3626442.01	349.18267	(12010922)
492486.91	3626457.88	489.93071	(12100921)	492754.50	3626421.99	396.76930	(12081901)
492769.80	3626421.07	408.99341	(12081901)	492785.88	3626420.30	414.65381	(12081901)
492738.65	3626423.47	375.41439	(12081901)	492706.56	3626426.42	304.86536	(12010220)
492711.95	3626405.79	307.27972	(12082506)	492768.79	3626400.83	406.75419	(12082506)

492785.62 3626408.85 419.09352 (12081901)
492738.00 3626391.14 356.18541 (12080704)
492723.48 3626404.28 339.58942 (12082506)
492719.55 3626425.32 334.84705 (12081901)
492703.08 3626394.66 304.26418 (12080704)
492754.36 3626388.55 372.39478 (12082506)
492658.16 3626430.53 265.12397 (12010220)
492688.16 3626427.66 314.94952 (12010220)
492657.04 3626417.15 266.37867 (12011021)
492706.48 3626414.85 315.71231 (12081901)
492668.44 3626429.07 267.41659 (12010220)
492669.26 3626416.07 260.28117 (12011021)
492656.31 3626403.36 265.41716 (12011021)
492648.73 3626393.67 251.92412 (12013006)
492687.87 3626416.29 304.04133 (12010220)
492685.94 3626396.06 300.60756 (12011021)
492667.70 3626402.11 269.18332 (12011021)
492667.29 3626385.32 248.10338 (12013006)
492269.79 3626186.83 278.22436 (12092402)
492277.28 3626186.83 281.59884 (12092402)
492284.77 3626186.83 282.45546 (12092402)
492292.26 3626186.83 280.94311 (12092402)
492299.75 3626186.83 291.62226 (12093001)
492307.24 3626186.83 300.56749 (12093001)
492314.73 3626186.83 305.64087 (12093001)
492322.22 3626186.83 306.63900 (12093001)
492329.71 3626186.83 303.73015 (12093001)
492337.20 3626186.83 305.90462 (12102304)
492344.69 3626186.83 311.03375 (12102304)
492352.18 3626186.83 311.07611 (12102304)
492359.67 3626186.83 314.66413 (12112620)
492367.16 3626186.83 315.18144 (12112620)
492374.65 3626186.83 311.15955 (12111622)
492382.14 3626186.83 306.34437 (12111622)
492389.63 3626186.83 305.56822 (12110223)
492397.12 3626186.83 308.69754 (10010519)
492404.61 3626186.83 313.33042 (11021123)
492412.10 3626186.83 315.45059 (10032006)
492419.59 3626186.83 316.67526 (10010401)
492269.79 3626193.42 275.34698 (12092402)
492277.28 3626193.42 281.93714 (12092402)
492284.77 3626193.42 285.89976 (12092402)
492292.26 3626193.42 287.27367 (12092402)
492299.75 3626193.42 286.22810 (12092402)
492307.24 3626193.42 296.49091 (12093001)
492314.73 3626193.42 305.94875 (12093001)
492322.22 3626193.42 311.26841 (12093001)
492329.71 3626193.42 312.36755 (12093001)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492337.20	3626193.42	309.29686	(12093001)	492344.69	3626193.42	311.45220	(12102304)
492352.18	3626193.42	316.29437	(12102304)	492359.67	3626193.42	315.96188	(12102304)
492367.16	3626193.42	319.84349	(12112620)	492374.65	3626193.42	319.73155	(12112620)
492382.14	3626193.42	315.15672	(12111622)	492389.63	3626193.42	309.85423	(12111622)
492397.12	3626193.42	310.30893	(12110223)	492404.61	3626193.42	314.39781	(10010519)
492412.10	3626193.42	318.89370	(11021123)	492419.59	3626193.42	320.89911	(10032006)
492269.79	3626200.01	278.52219	(10102604)	492277.28	3626200.01	278.29462	(12092402)
492284.77	3626200.01	285.41218	(12092402)	492292.26	3626200.01	289.95740	(12092402)
492299.75	3626200.01	291.94066	(12092402)	492307.24	3626200.01	291.41018	(12092402)
492314.73	3626200.01	301.29417	(12093001)	492322.22	3626200.01	311.07428	(12093001)
492329.71	3626200.01	316.55556	(12093001)	492337.20	3626200.01	317.62219	(12093001)
492344.69	3626200.01	314.50142	(12093001)	492352.18	3626200.01	316.90377	(12102304)
492359.67	3626200.01	321.47047	(12102304)	492367.16	3626200.01	320.73133	(12102304)
492374.65	3626200.01	324.86718	(12112620)	492382.14	3626200.01	324.07687	(12112620)
492389.63	3626200.01	318.95660	(12111622)	492397.12	3626200.01	313.13823	(12111622)
492404.61	3626200.01	316.07761	(10010519)	492412.10	3626200.01	320.72997	(11021123)

492419.59 3626200.01 323.99269 (11021123)
492269.79 3626206.60 285.40593 (10102604)
492277.28 3626206.60 284.85571 (10102604)
492284.77 3626206.60 281.88454 (10102604)
492292.26 3626206.60 288.32883 (12092402)
492299.75 3626206.60 293.56033 (12092402)
492307.24 3626206.60 296.12457 (12092402)
492314.73 3626206.60 296.10880 (12092402)
492322.22 3626206.60 305.79342 (12093001)
492329.71 3626206.60 315.98302 (12093001)
492337.20 3626206.60 321.73871 (12093001)
492344.69 3626206.60 322.96103 (12093001)
492352.18 3626206.60 319.85024 (12093001)
492359.67 3626206.60 322.45298 (12102304)
492367.16 3626206.60 326.73865 (12102304)
492374.65 3626206.60 326.02667 (12112620)
492382.14 3626206.60 329.90206 (12112620)
492389.63 3626206.60 328.42455 (12112620)
492397.12 3626206.60 322.74787 (12111622)
492404.61 3626206.60 316.50916 (12052723)
492412.10 3626206.60 322.61855 (10010519)
492419.59 3626206.60 327.30144 (11021123)
492269.79 3626213.19 287.89177 (10102604)
492277.28 3626213.19 290.81190 (10102604)
492284.77 3626213.19 291.04460 (10102604)
492292.26 3626213.19 288.68162 (10102604)
492299.75 3626213.19 291.16700 (12092402)
492307.24 3626213.19 297.08057 (12092402)
492314.73 3626213.19 300.29796 (12092402)
492322.22 3626213.19 300.83560 (12092402)
492329.71 3626213.19 310.35613 (12093001)
492337.20 3626213.19 320.99351 (12093001)
492344.69 3626213.19 327.06186 (12093001)
492352.18 3626213.19 328.43602 (12093001)
492359.67 3626213.19 325.33377 (12093001)
492367.16 3626213.19 328.11301 (12102304)
492374.65 3626213.19 332.09597 (12102304)
492382.14 3626213.19 331.70629 (12112620)
492389.63 3626213.19 334.93290 (12112620)
492397.12 3626213.19 332.74846 (12112620)
492404.61 3626213.19 326.56707 (12111622)
492412.10 3626213.19 322.78523 (12052723)
492419.59 3626213.19 328.79811 (10010519)
492269.79 3626219.78 285.62827 (10102604)
492277.28 3626219.78 292.21978 (10102604)
492284.77 3626219.78 296.09081 (10102604)
492292.26 3626219.78 297.18879 (10102604)
492299.75 3626219.78 295.55082 (10102604)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492307.24	3626219.78	293.89671	(12092402)	492314.73	3626219.78	300.54981	(12092402)
492322.22	3626219.78	304.41988	(12092402)	492329.71	3626219.78	305.55056	(12092402)
492337.20	3626219.78	315.01302	(12093001)	492344.69	3626219.78	326.11194	(12093001)
492352.18	3626219.78	332.49990	(12093001)	492359.67	3626219.78	334.03211	(12093001)
492367.16	3626219.78	330.94639	(12093001)	492374.65	3626219.78	333.88976	(12102304)
492382.14	3626219.78	337.53951	(12102304)	492389.63	3626219.78	337.40054	(12112620)
492397.12	3626219.78	339.99111	(12112620)	492404.61	3626219.78	337.06539	(12112620)
492412.10	3626219.78	330.36990	(12111622)	492419.59	3626219.78	329.55401	(10010519)
492269.79	3626226.37	287.46681	(12110221)	492277.28	3626226.37	289.45236	(10032822)
492284.77	3626226.37	296.31401	(10102604)	492292.26	3626226.37	301.25246	(10102604)
492299.75	3626226.37	303.28203	(10102604)	492307.24	3626226.37	302.42493	(10102604)
492314.73	3626226.37	298.86015	(10102604)	492322.22	3626226.37	303.91980	(12092402)
492329.71	3626226.37	308.50606	(12092402)	492337.20	3626226.37	310.25081	(12092402)
492344.69	3626226.37	319.74249	(12093001)	492352.18	3626226.37	331.32423	(12093001)
492359.67	3626226.37	338.05099	(12093001)	492367.16	3626226.37	339.77513	(12093001)
492374.65	3626226.37	336.70011	(12093001)	492382.14	3626226.37	339.75450	(12102304)

492389.63 3626226.37 343.07432 (12102304)
492397.12 3626226.37 343.12591 (12112620)
492404.61 3626226.37 345.01416 (12112620)
492412.10 3626226.37 341.35554 (12112620)
492419.59 3626226.37 334.17689 (12111622)
492269.79 3626232.96 294.49014 (12110221)
492277.28 3626232.96 293.73821 (12110221)
492284.77 3626232.96 294.29844 (10032822)
492292.26 3626232.96 300.18512 (10102604)
492299.75 3626232.96 306.22408 (10102604)
492307.24 3626232.96 309.28241 (10102604)
492314.73 3626232.96 309.29816 (10102604)
492322.22 3626232.96 306.41976 (10102604)
492329.71 3626232.96 307.19450 (12092402)
492337.20 3626232.96 312.51833 (12092402)
492344.69 3626232.96 314.92852 (12092402)
492352.18 3626232.96 324.53897 (12093001)
492359.67 3626232.96 336.64200 (12093001)
492367.16 3626232.96 343.73062 (12093001)
492374.65 3626232.96 345.62189 (12093001)
492382.14 3626232.96 342.56740 (12093001)
492389.63 3626232.96 345.72318 (12102304)
492397.12 3626232.96 348.65884 (12102304)
492404.61 3626232.96 348.86449 (12112620)
492412.10 3626232.96 350.04363 (12112620)
492419.59 3626232.96 345.60604 (12112620)
492269.79 3626239.55 297.20620 (12110221)
492277.28 3626239.55 299.36388 (12110221)
492284.77 3626239.55 299.66915 (12110221)
492292.26 3626239.55 298.78290 (10032822)
492299.75 3626239.55 303.76250 (10102604)
492307.24 3626239.55 310.99754 (10102604)
492314.73 3626239.55 315.14872 (10102604)
492322.22 3626239.55 316.13786 (10102604)
492329.71 3626239.55 314.02850 (10102604)
492337.20 3626239.55 310.35066 (12092402)
492344.69 3626239.55 316.44499 (12092402)
492352.18 3626239.55 319.55372 (12092402)
492359.67 3626239.55 329.41589 (12093001)
492367.16 3626239.55 342.04167 (12093001)
492374.65 3626239.55 349.50114 (12093001)
492382.14 3626239.55 351.61157 (12093001)
492389.63 3626239.55 348.57744 (12093001)
492397.12 3626239.55 351.77656 (12102304)
492404.61 3626239.55 354.35042 (12102304)
492412.10 3626239.55 354.61290 (12112620)
492419.59 3626239.55 355.03632 (12112620)
492269.79 3626246.14 295.11741 (12110221)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492277.28	3626246.14	300.39789	(12110221)	492284.77	3626246.14	303.75372	(12110221)
492292.26	3626246.14	305.14852	(12110221)	492299.75	3626246.14	304.80508	(10021502)
492307.24	3626246.14	309.24447	(10032822)	492314.73	3626246.14	315.51411	(10102604)
492322.22	3626246.14	320.85494	(10102604)	492329.71	3626246.14	322.88795	(10102604)
492337.20	3626246.14	321.66726	(10102604)	492344.69	3626246.14	317.38416	(10102604)
492352.18	3626246.14	320.27947	(12092402)	492359.67	3626246.14	324.11946	(12092402)
492367.16	3626246.14	334.33242	(12093001)	492374.65	3626246.14	347.53799	(12093001)
492382.14	3626246.14	355.39140	(12093001)	492389.63	3626246.14	357.69821	(12093001)
492397.12	3626246.14	354.71959	(12093001)	492404.61	3626246.14	357.95804	(12102304)
492412.10	3626246.14	360.07796	(12102304)	492419.59	3626246.14	360.35625	(12112620)
492269.79	3626252.73	295.51611	(12110222)	492277.28	3626252.73	296.41619	(12110221)
492284.77	3626252.73	302.95612	(12110221)	492292.26	3626252.73	307.54612	(12110221)
492299.75	3626252.73	310.15219	(12110221)	492307.24	3626252.73	310.76021	(12110221)
492314.73	3626252.73	314.45519	(10032822)	492322.22	3626252.73	319.72448	(10102604)
492329.71	3626252.73	326.33919	(10102604)	492337.20	3626252.73	329.54161	(10102604)
492344.69	3626252.73	329.27590	(10102604)	492352.18	3626252.73	325.74347	(10102604)

492359.67 3626252.73 325.25940 (12090705)
492367.16 3626252.73 329.14668 (12090705)
492374.65 3626252.73 339.31449 (12093001)
492382.14 3626252.73 353.10291 (12093001)
492389.63 3626252.73 361.38828 (12093001)
492397.12 3626252.73 363.95055 (12093001)
492404.61 3626252.73 360.97761 (12093001)
492412.10 3626252.73 364.18317 (12102304)
492419.59 3626252.73 365.88970 (12102304)
492269.79 3626259.32 308.86271 (12110222)
492277.28 3626259.32 306.07427 (12110222)
492284.77 3626259.32 301.36798 (12110222)
492292.26 3626259.32 304.81752 (12110221)
492299.75 3626259.32 310.71616 (12110221)
492307.24 3626259.32 314.57341 (12110221)
492314.73 3626259.32 316.38409 (12110221)
492322.22 3626259.32 319.88894 (10021502)
492329.71 3626259.32 325.09182 (10032822)
492337.20 3626259.32 331.57478 (10102604)
492344.69 3626259.32 336.01692 (10102604)
492352.18 3626259.32 336.85308 (10102604)
492359.67 3626259.32 334.16568 (10102604)
492367.16 3626259.32 331.14849 (12090705)
492374.65 3626259.32 335.88604 (12090705)
492382.14 3626259.32 344.33961 (12093001)
492389.63 3626259.32 358.77430 (12093001)
492397.12 3626259.32 367.49671 (12093001)
492404.61 3626259.32 370.26116 (12093001)
492412.10 3626259.32 367.35617 (12093001)
492419.59 3626259.32 370.47092 (12102304)
492269.79 3626265.91 317.36236 (10010219)
492277.28 3626265.91 317.55640 (12110222)
492284.77 3626265.91 316.18878 (12110222)
492292.26 3626265.91 312.66616 (12110222)
492299.75 3626265.91 307.20602 (12110222)
492307.24 3626265.91 313.17578 (12110221)
492314.73 3626265.91 318.37196 (12110221)
492322.22 3626265.91 322.30025 (11011224)
492329.71 3626265.91 326.46397 (10021502)
492337.20 3626265.91 331.05158 (10032822)
492344.69 3626265.91 336.50254 (10102604)
492352.18 3626265.91 342.30021 (10102604)
492359.67 3626265.91 344.30233 (10102604)
492367.16 3626265.91 342.59842 (10102604)
492374.65 3626265.91 337.47666 (10102604)
492382.14 3626265.91 342.72211 (12090705)
492389.63 3626265.91 349.42424 (12093001)
492397.12 3626265.91 364.48512 (12093001)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492404.61	3626265.91	373.67865	(12093001)	492412.10	3626265.91	376.69132	(12093001)
492419.59	3626265.91	373.76559	(12093001)	492269.79	3626272.50	329.57078	(10010219)
492277.28	3626272.50	328.50111	(10010219)	492284.77	3626272.50	326.03101	(10010219)
492292.26	3626272.50	325.69839	(12110222)	492299.75	3626272.50	323.59637	(12110222)
492307.24	3626272.50	319.29064	(12110222)	492314.73	3626272.50	314.89873	(12110221)
492322.22	3626272.50	322.66413	(10032622)	492329.71	3626272.50	328.09300	(11011224)
492337.20	3626272.50	332.53923	(10021502)	492344.69	3626272.50	336.61835	(10032822)
492352.18	3626272.50	341.75695	(10032822)	492359.67	3626272.50	348.31093	(10102604)
492367.16	3626272.50	351.64550	(10102604)	492374.65	3626272.50	351.01045	(10102604)
492382.14	3626272.50	346.67929	(10102604)	492389.63	3626272.50	349.64047	(12090705)
492397.12	3626272.50	354.49631	(12093001)	492404.61	3626272.50	370.25124	(12093001)
492412.10	3626272.50	379.87288	(12093001)	492419.59	3626272.50	383.16283	(12093001)
492269.79	3626279.09	336.63375	(10010219)	492277.28	3626279.09	338.53446	(10010219)
492284.77	3626279.09	338.89731	(10010219)	492292.26	3626279.09	337.71896	(10010219)
492299.75	3626279.09	335.06391	(10010219)	492307.24	3626279.09	333.95238	(12110222)
492314.73	3626279.09	331.04809	(12110222)	492322.22	3626279.09	325.90875	(12110222)

492329.71 3626279.09 326.82574 (10032622)
492337.20 3626279.09 334.11293 (10032622)
492344.69 3626279.09 338.03357 (10021502)
492352.18 3626279.09 343.31086 (10021502)
492359.67 3626279.09 348.62671 (10032822)
492367.16 3626279.09 354.01973 (10113022)
492374.65 3626279.09 358.74382 (10102604)
492382.14 3626279.09 359.34606 (10102604)
492389.63 3626279.09 355.94329 (10102604)
492397.12 3626279.09 356.61718 (12090705)
492404.61 3626279.09 359.54763 (12093001)
492412.10 3626279.09 375.99686 (12093001)
492419.59 3626279.09 386.18188 (12093001)
492269.79 3626285.68 339.87218 (12111624)
492277.28 3626285.68 342.72391 (10010219)
492284.77 3626285.68 346.33158 (10010219)
492292.26 3626285.68 348.28656 (10010219)
492299.75 3626285.68 348.60114 (10010219)
492307.24 3626285.68 347.33401 (10010219)
492314.73 3626285.68 344.46477 (10010219)
492322.22 3626285.68 342.29116 (12110222)
492329.71 3626285.68 338.51312 (12110222)
492337.20 3626285.68 332.47046 (12110222)
492344.69 3626285.68 339.48194 (10032622)
492352.18 3626285.68 345.01639 (10032622)
492359.67 3626285.68 350.12202 (10021502)
492367.16 3626285.68 355.02338 (10032822)
492374.65 3626285.68 359.77491 (10113022)
492382.14 3626285.68 365.61452 (10102604)
492389.63 3626285.68 367.50763 (10102604)
492397.12 3626285.68 365.16867 (10102604)
492404.61 3626285.68 363.60606 (12090705)
492412.10 3626285.68 366.10102 (12090705)
492419.59 3626285.68 381.78752 (12093001)
492269.79 3626292.27 339.69919 (12111624)
492277.28 3626292.27 344.89466 (12111624)
492284.77 3626292.27 348.53345 (12111624)
492292.26 3626292.27 352.68159 (10010219)
492299.75 3626292.27 356.44271 (10010219)
492307.24 3626292.27 358.46364 (10010219)
492314.73 3626292.27 358.72944 (10010219)
492322.22 3626292.27 357.32750 (10010219)
492329.71 3626292.27 354.23447 (10010219)
492337.20 3626292.27 350.68251 (12110222)
492344.69 3626292.27 345.94574 (12110222)
492352.18 3626292.27 343.95547 (10032622)
492359.67 3626292.27 351.68549 (10032622)
492367.16 3626292.27 356.25409 (10021502)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492374.65	3626292.27	361.16010	(10021502)	492382.14	3626292.27	367.05625	(10032822)
492389.63	3626292.27	372.61111	(10113022)	492397.12	3626292.27	375.47481	(10102604)
492404.61	3626292.27	374.30431	(10102604)	492412.10	3626292.27	370.66637	(12090705)
492419.59	3626292.27	374.09365	(12090705)	492269.79	3626298.86	332.16307	(12111624)
492277.28	3626298.86	340.75992	(12111624)	492284.77	3626298.86	347.92160	(12111624)
492292.26	3626298.86	353.53033	(12111624)	492299.75	3626298.86	357.53095	(12111624)
492307.24	3626298.86	363.06571	(10010219)	492314.73	3626298.86	366.97830	(10010219)
492322.22	3626298.86	369.07149	(10010219)	492329.71	3626298.86	369.25474	(10010219)
492337.20	3626298.86	367.67440	(10010219)	492344.69	3626298.86	364.32867	(10010219)
492352.18	3626298.86	359.31371	(10010219)	492359.67	3626298.86	353.27816	(12110222)
492367.16	3626298.86	357.44810	(10032622)	492374.65	3626298.86	363.20058	(10032622)
492382.14	3626298.86	368.76809	(10021502)	492389.63	3626298.86	374.36847	(10032822)
492397.12	3626298.86	379.34114	(10113022)	492404.61	3626298.86	383.33677	(10113022)
492412.10	3626298.86	383.31716	(10102604)	492419.59	3626298.86	378.91957	(10102604)
492269.79	3626305.45	331.58779	(10112204)	492277.28	3626305.45	334.09714	(10051122)
492284.77	3626305.45	339.60211	(12111624)	492292.26	3626305.45	348.75602	(12111624)

492299.75 3626305.45 356.42474 (12111624)
492307.24 3626305.45 362.47257 (12111624)
492314.73 3626305.45 367.95094 (10010219)
492322.22 3626305.45 373.88088 (10010219)
492329.71 3626305.45 377.92235 (10010219)
492337.20 3626305.45 380.05045 (10010219)
492344.69 3626305.45 380.15611 (10010219)
492352.18 3626305.45 378.33457 (10010219)
492359.67 3626305.45 374.66664 (10010219)
492367.16 3626305.45 369.23617 (10010219)
492374.65 3626305.45 362.24617 (10032622)
492382.14 3626305.45 370.43438 (10032622)
492389.63 3626305.45 375.65725 (10021502)
492397.12 3626305.45 381.10743 (10032822)
492404.61 3626305.45 386.16506 (10032822)
492412.10 3626305.45 391.53062 (10110123)
492419.59 3626305.45 392.08695 (10102604)
492269.79 3626312.04 342.31924 (10112204)
492277.28 3626312.04 343.67676 (10112204)
492284.77 3626312.04 343.91074 (10112204)
492292.26 3626312.04 344.21769 (10051122)
492299.75 3626312.04 347.76491 (10011403)
492307.24 3626312.04 356.98749 (12111624)
492314.73 3626312.04 365.22173 (12111624)
492322.22 3626312.04 371.73990 (12111624)
492329.71 3626312.04 378.87063 (10010219)
492337.20 3626312.04 385.09816 (10010219)
492344.69 3626312.04 389.26256 (10010219)
492352.18 3626312.04 391.36996 (10010219)
492359.67 3626312.04 391.38745 (10010219)
492367.16 3626312.04 389.27719 (10010219)
492374.65 3626312.04 385.22050 (10010219)
492382.14 3626312.04 379.34628 (10010219)
492389.63 3626312.04 376.67609 (10032622)
492397.12 3626312.04 382.57922 (10032622)
492404.61 3626312.04 388.46033 (10021502)
492412.10 3626312.04 394.54704 (10032822)
492419.59 3626312.04 399.82672 (10110123)
492269.79 3626318.63 347.95255 (12111421)
492277.28 3626318.63 350.54230 (10112204)
492284.77 3626318.63 353.70448 (10112204)
492292.26 3626318.63 355.77879 (10112204)
492299.75 3626318.63 356.62442 (10112204)
492307.24 3626318.63 356.32798 (10112204)
492314.73 3626318.63 358.76325 (10051122)
492322.22 3626318.63 365.45010 (12111624)
492329.71 3626318.63 374.25690 (12111624)
492337.20 3626318.63 381.71112 (10010219)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK1 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492344.69	3626318.63	390.15812	(10010219)	492352.18	3626318.63	396.62405	(10010219)
492359.67	3626318.63	400.93863	(10010219)	492367.16	3626318.63	402.99295	(10010219)
492374.65	3626318.63	402.84392	(10010219)	492382.14	3626318.63	400.47671	(10010219)
492389.63	3626318.63	395.93523	(10010219)	492397.12	3626318.63	389.47593	(10010219)
492404.61	3626318.63	390.35961	(10032622)	492412.10	3626318.63	396.09275	(10021502)
492419.59	3626318.63	402.16307	(10032822)	492654.44	3626387.58	245.36704	(12013006)
492685.01	3626384.14	295.30778	(12013006)	492702.20	3626382.61	302.11771	(12010124)
492715.58	3626381.08	325.24107	(12080704)	492733.54	3626379.94	363.42881	(12080704)
492755.32	3626378.03	386.41158	(12080704)	492776.34	3626378.03	387.06382	(12080704)
492780.92	3626393.31	419.09121	(12082506)	492740.03	3626412.42	390.22323	(12081901)
492758.38	3626410.89	411.20229	(12081901)				

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	492248.31	492298.31	492348.31	492398.31	492448.31
3626779.1	242.54399 (12071201)	227.27003 (12081103)	242.70623 (12082822)	200.82062 (12110518)	219.19266 (12081105)
3626729.1	291.89355 (12090521)	270.88959 (12071201)	234.12025 (10010721)	238.04378 (12082822)	241.97394 (12081105)
3626679.1	286.47936 (12080803)	329.03276 (12090521)	291.40138 (12102722)	240.06826 (12082822)	248.73185 (12110518)
3626629.1	279.54925 (12101521)	337.00010 (12080803)	354.29741 (12090521)	294.55003 (12102722)	302.44108 (12082822)
3626579.1	293.57621 (12092124)	316.39110 (12082903)	346.26430 (12080803)	347.21930 (12090521)	353.64767 (12090521)
3626529.1	329.59271 (12120521)	371.50772 (12120521)	370.13092 (12100921)	382.97502 (12101521)	401.99111 (12080803)
3626479.1	360.26435 (12081903)	392.33163 (12081903)	421.77752 (12091603)	448.34738 (12091603)	452.82592 (12100921)
3626429.1	364.18962 (12090704)	391.95725 (12090704)	422.67048 (12090704)	455.46972 (12090704)	477.15849 (12090704)
3626379.1	366.37889 (12110521)	380.74794 (12100521)	431.67314 (12100521)	483.19448 (12081904)	497.55260 (12081904)
3626329.1	342.77959 (12101401)	368.90135 (12111421)	383.14446 (10011403)	421.54799 (10010219)	425.68251 (10110123)
3626279.1	329.01334 (12111624)	335.82321 (10010219)	341.10988 (10021502)	357.31784 (12090705)	389.90096 (12102304)
3626229.1	287.77994 (12110221)	304.67273 (10102604)	322.61644 (12093001)	344.13322 (12112620)	348.55223 (10010401)
3626179.1	263.95434 (12092402)	294.41449 (12093001)	306.89168 (12112620)	307.28075 (11021123)	319.97838 (12090206)
3626129.1	260.16572 (12093001)	268.42510 (12112620)	271.50099 (12110223)	277.27558 (10122406)	293.98211 (12100304)

3626079.1 | 234.36386 (12112620) 240.37950 (12110223) 241.06412 (10010401) 264.59638 (12100304) 266.17293 (12081805)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	492498.31	492548.31	492598.31	492648.31	492698.31
3626779.1	222.78955 (12090604)	192.04923 (12010107)	183.78461 (11111322)	195.85576 (12032423)	222.30146 (12021620)
3626729.1	218.90090 (12090604)	218.19022 (12090604)	191.87145 (11111322)	227.75706 (12021620)	257.46301 (12092322)
3626679.1	280.34959 (12081105)	264.13241 (12090604)	203.95738 (12071403)	268.55221 (12021620)	289.52920 (12092322)
3626629.1	321.57384 (12081105)	310.98490 (12090604)	233.07752 (12010107)	295.03346 (12021620)	262.58329 (12012623)
3626579.1	378.89354 (12082822)	315.92196 (12012522)	271.15241 (12010107)	285.13237 (12092322)	238.39951 (11120219)
3626529.1	423.65298 (12090521)	348.03543 (12081105)	379.47832 (12010107)	263.92188 (12092322)	209.89099 (12071923)
3626479.1	483.72069 (12101521)	355.20265 (12060823)	396.03494 (12021620)	241.99781 (12010106)	172.25329 (12010106)
3626429.1	480.65411 (12110521)	495.23077 (12110521)	253.45940 (12032423)	268.44776 (12010220)	287.47917 (12010220)
3626379.1	529.90225 (12100205)	549.20592 (12041623)	442.58860 (11041402)	234.19425 (12020103)	299.76930 (12013006)
3626329.1	431.62702 (12102304)	558.03858 (10031704)	474.48527 (11041402)	309.44397 (11122619)	295.54854 (12122319)
3626279.1	396.61914 (12112022)	433.54984 (10040721)	375.20566 (11103024)	359.48625 (12102923)	360.53702 (12082722)
3626229.1	372.43330 (11012906)	375.24284 (11041521)	361.57153 (12112220)	357.55941 (10100824)	335.34293 (11100924)
3626179.1	339.76367 (11112801)	342.41810 (11120623)	335.42113 (12112220)	336.89139 (12103002)	341.37615 (12090804)
3626129.1	283.08750 (11041521)	292.46995 (11041421)	301.05318 (12110621)	322.03617 (12103002)	314.06132 (12082522)

3626079.1 | 257.31159 (11041521) 277.27768 (11041421) 295.17996 (12110621) 297.54996 (12103002) 305.83814 (12102923)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	492748.31	492798.31	492848.31	492898.31	492948.31
3626779.1	206.08233 (12092322)	186.16450 (11120219)	158.90153 (12071923)	152.84712 (11111822)	165.13099 (11121318)
3626729.1	213.54255 (12012623)	211.55605 (11042920)	176.85189 (12071923)	176.35248 (11121318)	167.18681 (11121318)
3626679.1	239.19974 (11120219)	236.30088 (12071923)	194.98731 (11111822)	180.96182 (11121318)	187.71357 (11122918)
3626629.1	263.59647 (12071923)	242.21101 (11111822)	212.91869 (12010106)	208.34137 (11122918)	182.14690 (11051701)
3626579.1	244.54460 (12091002)	266.42306 (11092818)	247.49650 (11122918)	185.16527 (11051701)	207.72317 (11110519)
3626529.1	254.35711 (12010106)	255.66571 (11051701)	287.19742 (11110519)	244.55555 (11110519)	220.51050 (12082123)
3626479.1	257.62408 (12082123)	318.99064 (12062721)	327.55332 (12100124)	281.46007 (12100124)	252.94245 (11052723)
3626429.1	350.06835 (12081901)	381.02086 (12081901)	384.33875 (12081901)	344.07146 (12081901)	288.58198 (12081901)
3626379.1	381.46934 (12080704)	395.96150 (12082506)	416.40167 (12082506)	392.58543 (12082506)	322.37034 (12082506)
3626329.1	346.34301 (11100222)	382.34970 (12080801)	376.45908 (12091922)	357.21840 (12080704)	332.88657 (12080721)
3626279.1	332.70965 (11100201)	349.02016 (12010206)	344.32004 (12080702)	350.37326 (12080801)	331.61988 (12091922)
3626229.1	348.89053 (12091923)	318.40946 (11082324)	323.84369 (12090903)	311.75677 (11052422)	312.69603 (12080702)
3626179.1	343.84059 (12091923)	300.94540 (12092224)	294.89188 (11082324)	301.85612 (12090903)	275.70154 (11082706)
3626129.1	299.56308 (12120107)	319.37124 (12091923)	290.56952 (12092224)	269.19746 (11082324)	277.52216 (12090903)

3626079.1 | 280.54567 (12072105) 293.71579 (12091923) 264.36797 (11080404) 267.72522 (12092224) 244.96204 (11082324)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492779.32	3626444.25	314.95018	(12060621)	492789.32	3626444.25	318.99694	(11052723)
492799.32	3626444.25	320.97844	(11052723)	492839.32	3626444.25	315.54366	(11052723)
492849.32	3626444.25	311.88909	(11052723)	492859.32	3626444.25	302.70702	(11052723)
492869.32	3626444.25	297.80716	(11122119)	492879.32	3626444.25	292.36104	(11122119)
492779.32	3626454.25	332.22495	(12060621)	492789.32	3626454.25	340.94822	(12060621)
492799.32	3626454.25	341.06709	(12060621)	492839.32	3626454.25	338.10121	(11052723)
492849.32	3626454.25	336.15082	(11052723)	492859.32	3626454.25	328.44009	(11052723)
492869.32	3626454.25	320.37774	(11052723)	492879.32	3626454.25	311.82921	(11052723)
492779.32	3626464.25	332.03069	(12062721)	492789.32	3626464.25	337.35987	(12062721)
492799.32	3626464.25	338.55136	(12100124)	492829.32	3626464.25	341.50560	(12060621)
492839.32	3626464.25	339.27814	(12060621)	492849.32	3626464.25	337.10946	(11052723)
492859.32	3626464.25	332.61832	(11052723)	492869.32	3626464.25	327.28398	(11052723)
492879.32	3626464.25	321.17298	(11052723)	492769.32	3626474.25	302.58422	(12062721)
492779.32	3626474.25	315.66811	(12062721)	492789.32	3626474.25	326.33871	(12062721)
492799.32	3626474.25	331.46487	(12062721)	492829.32	3626474.25	335.17807	(12100124)
492839.32	3626474.25	334.80249	(12100124)	492849.32	3626474.25	332.88499	(12100124)

492859.32 3626474.25 327.09475 (12100124)
492869.32 3626474.25 320.35523 (12100124)
492879.32 3626474.25 313.01577 (12100124)
492769.32 3626484.25 291.82461 (12082123)
492779.32 3626484.25 303.34950 (12082123)
492789.32 3626484.25 310.53021 (12082123)
492799.32 3626484.25 310.47134 (12082123)
492809.32 3626484.25 310.74198 (12062721)
492819.32 3626484.25 317.45416 (12062721)
492829.32 3626484.25 319.68483 (12062721)
492839.32 3626484.25 320.27916 (12062721)
492849.32 3626484.25 319.23768 (12062721)
492859.32 3626484.25 315.18635 (12062721)
492769.32 3626494.25 283.42803 (11110519)
492779.32 3626494.25 299.20000 (11110519)
492789.32 3626494.25 309.96314 (11110519)
492799.32 3626494.25 313.06721 (11110519)
492809.32 3626494.25 313.64472 (12082123)
492819.32 3626494.25 314.20010 (12082123)
492829.32 3626494.25 306.89918 (12082123)
492839.32 3626494.25 297.24827 (12082123)
492849.32 3626494.25 293.98237 (12062721)
492859.32 3626494.25 294.62028 (12062721)
492769.32 3626504.25 254.34379 (11110519)
492779.32 3626504.25 277.51260 (11110519)
492789.32 3626504.25 296.17963 (11110519)
492799.32 3626504.25 308.24102 (11110519)
492809.32 3626504.25 315.21305 (11110519)
492819.32 3626504.25 317.51789 (11110519)
492829.32 3626504.25 309.41061 (11110519)
492749.32 3626514.25 234.52197 (11122918)
492759.32 3626514.25 239.97955 (11122918)
492769.32 3626514.25 240.97794 (11051701)
492779.32 3626514.25 241.32514 (11051701)
492789.32 3626514.25 264.74145 (11110519)
492799.32 3626514.25 283.66963 (11110519)
492809.32 3626514.25 298.02560 (11110519)
492819.32 3626514.25 307.68140 (11110519)
492829.32 3626514.25 308.02946 (11110519)
492749.32 3626524.25 244.18208 (12020318)
492759.32 3626524.25 255.04961 (11122918)
492769.32 3626524.25 257.68020 (11122918)
492779.32 3626524.25 252.38285 (11051701)
492789.32 3626524.25 254.54544 (11051701)
492799.32 3626524.25 247.84481 (11051701)
492809.32 3626524.25 264.17928 (11110519)
492819.32 3626524.25 280.15981 (11110519)
492829.32 3626524.25 289.01000 (11110519)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492739.32	3626534.25	267.01456	(12010106)	492749.32	3626534.25	263.28131	(12010106)
492759.32	3626534.25	259.88049	(11092818)	492769.32	3626534.25	267.01594	(11122918)
492779.32	3626534.25	270.82569	(11122918)	492789.32	3626534.25	266.21470	(11122918)
492799.32	3626534.25	259.21122	(11051701)	492809.32	3626534.25	253.61005	(11051701)
492819.32	3626534.25	243.37882	(11051701)	492719.32	3626544.25	232.83768	(12091002)
492729.32	3626544.25	248.98502	(12010106)	492739.32	3626544.25	265.38778	(12010106)
492749.32	3626544.25	271.56676	(12010106)	492759.32	3626544.25	269.25410	(12010106)
492769.32	3626544.25	266.30730	(11092818)	492779.32	3626544.25	272.55787	(11122918)
492789.32	3626544.25	277.85098	(11122918)	492799.32	3626544.25	271.29293	(11122918)
492809.32	3626544.25	258.80434	(11051701)	492819.32	3626544.25	255.35592	(11051701)
492719.32	3626554.25	235.61322	(12071923)	492729.32	3626554.25	244.76702	(12091002)
492739.32	3626554.25	253.83376	(12091002)	492749.32	3626554.25	267.14108	(11042921)
492759.32	3626554.25	272.74208	(12010106)	492769.32	3626554.25	271.22640	(11092818)
492779.32	3626554.25	269.52747	(11092818)	492789.32	3626554.25	274.77569	(11122918)
492799.32	3626554.25	277.97485	(11122918)	492809.32	3626554.25	273.27884	(11122918)
492819.32	3626554.25	262.05162	(11122918)	492709.32	3626564.25	261.23605	(12071923)

492719.32 3626564.25 253.92821 (12071923)
492729.32 3626564.25 240.27317 (12071923)
492739.32 3626564.25 249.72274 (12091002)
492749.32 3626564.25 260.79250 (11042921)
492759.32 3626564.25 273.51336 (11042921)
492769.32 3626564.25 273.83311 (11042921)
492779.32 3626564.25 272.21392 (11092818)
492789.32 3626564.25 270.65960 (11092818)
492799.32 3626564.25 271.41860 (11122918)
492809.32 3626564.25 275.99146 (11122918)
492819.32 3626564.25 273.17763 (11122918)
492709.32 3626574.25 263.89246 (12071923)
492719.32 3626574.25 264.42876 (12071923)
492729.32 3626574.25 254.63411 (12071923)
492739.32 3626574.25 239.72936 (12071923)
492749.32 3626574.25 253.33457 (12091002)
492759.32 3626574.25 267.55180 (11042921)
492769.32 3626574.25 276.30722 (11042921)
492779.32 3626574.25 274.78527 (11042921)
492789.32 3626574.25 270.16004 (11092818)
492799.32 3626574.25 265.66112 (11092818)
492809.32 3626574.25 265.42300 (11122918)
492819.32 3626574.25 271.23024 (11122918)
492699.32 3626584.25 239.84236 (11120219)
492709.32 3626584.25 256.72492 (12071923)
492719.32 3626584.25 267.36268 (12071923)
492729.32 3626584.25 264.93911 (12071923)
492739.32 3626584.25 253.71303 (12071923)
492749.32 3626584.25 238.85146 (11111822)
492759.32 3626584.25 255.96757 (12091002)
492769.32 3626584.25 269.56373 (11042921)
492779.32 3626584.25 275.67461 (11042921)
492789.32 3626584.25 272.36603 (11042921)
492799.32 3626584.25 263.84774 (11092818)
492809.32 3626584.25 259.72016 (11092818)
492819.32 3626584.25 258.39426 (11122918)
492689.32 3626594.25 254.43681 (12012623)
492699.32 3626594.25 236.86180 (11120219)
492709.32 3626594.25 247.44844 (11120219)
492719.32 3626594.25 262.38881 (12071923)
492729.32 3626594.25 269.20965 (12071923)
492739.32 3626594.25 264.30726 (12071923)
492749.32 3626594.25 252.00190 (12071923)
492759.32 3626594.25 247.09892 (11111822)
492769.32 3626594.25 254.48476 (11042921)
492779.32 3626594.25 268.17102 (11042921)
492789.32 3626594.25 272.02604 (11042921)
492799.32 3626594.25 266.90970 (11042921)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492809.32	3626594.25	257.14331	(11092818)	492819.32	3626594.25	253.45224	(11092818)
492689.32	3626604.25	262.41072	(12012623)	492699.32	3626604.25	246.00408	(12012623)
492709.32	3626604.25	246.80003	(11120219)	492719.32	3626604.25	254.79693	(11042920)
492729.32	3626604.25	266.22206	(12071923)	492739.32	3626604.25	269.37036	(12071923)
492749.32	3626604.25	262.06238	(12071923)	492759.32	3626604.25	248.66871	(12071923)
492769.32	3626604.25	247.75407	(11111822)	492779.32	3626604.25	252.64388	(11042921)
492789.32	3626604.25	264.05304	(11042921)	492799.32	3626604.25	266.67485	(11042921)
492809.32	3626604.25	261.25406	(11042921)	492819.32	3626604.25	250.28204	(11092818)
492679.32	3626614.25	299.60346	(12092322)	492689.32	3626614.25	269.53309	(12092322)
492699.32	3626614.25	254.87262	(12012623)	492709.32	3626614.25	242.59354	(11120219)
492719.32	3626614.25	252.94087	(11120219)	492729.32	3626614.25	259.66348	(11042920)
492739.32	3626614.25	267.81979	(12071923)	492749.32	3626614.25	267.61654	(12071923)
492759.32	3626614.25	258.24600	(12071923)	492769.32	3626614.25	240.42501	(12071923)
492779.32	3626614.25	245.97321	(11111822)	492789.32	3626614.25	249.11880	(11042921)
492799.32	3626614.25	259.39253	(11042921)	492809.32	3626614.25	261.11496	(11042921)
492819.32	3626614.25	255.44968	(11042921)	492679.32	3626624.25	308.73002	(12092322)

492689.32 3626624.25 282.39294 (12092322)
492699.32 3626624.25 260.58957 (12012623)
492709.32 3626624.25 243.55657 (12012623)
492719.32 3626624.25 251.17496 (11120219)
492729.32 3626624.25 259.04886 (11042920)
492739.32 3626624.25 259.93619 (11042920)
492749.32 3626624.25 267.31320 (12071923)
492759.32 3626624.25 264.14078 (12071923)
492769.32 3626624.25 249.77100 (12071923)
492809.32 3626624.25 254.43981 (11042921)
492679.32 3626634.25 312.64153 (12092322)
492689.32 3626634.25 291.93888 (12092322)
492699.32 3626634.25 262.03953 (12012623)
492709.32 3626634.25 250.17506 (12012623)
492719.32 3626634.25 244.56312 (11120219)
492729.32 3626634.25 254.09119 (11120219)
492739.32 3626634.25 259.37964 (11042920)
492749.32 3626634.25 259.41287 (12071923)
492759.32 3626634.25 264.04841 (12071923)
492769.32 3626634.25 255.78659 (12071923)
492679.32 3626644.25 312.59266 (12092322)
492689.32 3626644.25 298.83153 (12092322)
492699.32 3626644.25 271.07738 (12092322)
492709.32 3626644.25 253.84182 (12012623)
492719.32 3626644.25 237.44599 (12012623)
492729.32 3626644.25 249.24334 (11120219)
492739.32 3626644.25 255.08505 (11042920)
492749.32 3626644.25 256.15013 (11042920)
492759.32 3626644.25 257.98962 (12071923)
492769.32 3626644.25 257.36813 (12071923)
492779.32 3626644.25 247.75724 (12071923)
492789.32 3626644.25 232.70885 (12071923)
492799.32 3626644.25 231.59461 (11111822)
492679.32 3626654.25 309.03450 (12092322)
492689.32 3626654.25 302.91184 (12092322)
492699.32 3626654.25 279.71186 (12092322)
492709.32 3626654.25 254.44236 (12012623)
492719.32 3626654.25 242.66315 (12012623)
492729.32 3626654.25 241.63898 (11120219)
492739.32 3626654.25 249.52540 (11120219)
492749.32 3626654.25 254.28705 (11042920)
492759.32 3626654.25 250.49171 (11042920)
492769.32 3626654.25 253.61318 (12071923)
492779.32 3626654.25 250.84267 (12071923)
492789.32 3626654.25 240.29447 (12071923)
492799.32 3626654.25 224.47049 (12071923)
492679.32 3626664.25 300.71952 (12092322)
492689.32 3626664.25 302.41913 (12092322)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492699.32	3626664.25	284.89518	(12092322)	492709.32	3626664.25	256.80002	(12092322)
492719.32	3626664.25	244.55592	(12012623)	492729.32	3626664.25	230.63849	(11120219)
492739.32	3626664.25	243.62788	(11120219)	492749.32	3626664.25	248.66605	(11042920)
492759.32	3626664.25	249.85828	(11042920)	492769.32	3626664.25	243.58641	(12071923)
492779.32	3626664.25	248.37354	(12071923)	492789.32	3626664.25	243.85421	(12071923)
492799.32	3626664.25	231.07944	(12071923)	492679.32	3626674.25	289.37518	(12092322)
492689.32	3626674.25	298.65535	(12092322)	492699.32	3626674.25	287.59655	(12092322)
492709.32	3626674.25	263.32549	(12092322)	492719.32	3626674.25	243.68885	(12012623)
492729.32	3626674.25	232.49961	(12012623)	492739.32	3626674.25	235.12148	(11120219)
492749.32	3626674.25	242.25268	(11120219)	492759.32	3626674.25	246.45465	(11042920)
492769.32	3626674.25	241.58104	(11042920)	492779.32	3626674.25	240.57637	(12071923)
492789.32	3626674.25	243.01727	(12071923)	492799.32	3626674.25	234.80049	(12071923)
492679.32	3626684.25	275.78264	(12092322)	492689.32	3626684.25	292.07979	(12092322)
492699.32	3626684.25	287.90846	(12092322)	492709.32	3626684.25	268.55500	(12092322)
492719.32	3626684.25	241.04104	(12092322)	492729.32	3626684.25	233.96070	(12012623)
492739.32	3626684.25	224.30469	(11120219)	492749.32	3626684.25	236.34842	(11120219)

492759.32 3626684.25 240.64525 (11042920)
492769.32 3626684.25 240.87272 (11042920)
492779.32 3626684.25 232.70236 (11042920)
492789.32 3626684.25 237.35846 (12071923)
492269.61 3626327.54 352.16624 (12111421)
492279.61 3626327.54 359.09440 (12111421)
492289.61 3626327.54 364.11835 (12111421)
492299.61 3626327.54 366.97405 (12111421)
492309.61 3626327.54 371.45834 (10112204)
492319.61 3626327.54 374.26658 (10112204)
492329.61 3626327.54 374.78516 (10112204)
492339.61 3626327.54 376.32965 (10011403)
492349.61 3626327.54 386.39763 (12111624)
492359.61 3626327.54 399.69590 (10010219)
492369.61 3626327.54 410.36730 (10010219)
492379.61 3626327.54 416.99932 (10010219)
492389.61 3626327.54 419.24745 (10010219)
492399.61 3626327.54 417.04648 (10010219)
492409.61 3626327.54 410.55740 (10010219)
492419.61 3626327.54 404.16368 (10032622)
492269.61 3626337.54 356.99968 (12101401)
492279.61 3626337.54 361.44464 (12101401)
492289.61 3626337.54 364.13284 (12101401)
492299.61 3626337.54 372.57755 (12111421)
492309.61 3626337.54 380.42631 (12111421)
492319.61 3626337.54 385.99152 (12111421)
492329.61 3626337.54 389.17243 (12111421)
492339.61 3626337.54 393.55420 (10112204)
492349.61 3626337.54 396.22516 (10112204)
492359.61 3626337.54 396.17958 (10112204)
492369.61 3626337.54 399.42363 (10011403)
492379.61 3626337.54 413.58813 (10010219)
492389.61 3626337.54 426.12901 (10010219)
492399.61 3626337.54 434.05660 (10010219)
492409.61 3626337.54 437.25632 (10010219)
492419.61 3626337.54 435.24268 (10010219)
492269.61 3626347.54 372.01398 (12081904)
492279.61 3626347.54 376.26990 (12081904)
492289.61 3626347.54 379.36320 (12081904)
492299.61 3626347.54 381.22390 (12081904)
492309.61 3626347.54 382.88119 (12101401)
492319.61 3626347.54 386.94201 (12101401)
492329.61 3626347.54 394.38205 (12111421)
492339.61 3626347.54 403.06285 (12111421)
492349.61 3626347.54 409.26973 (12111421)
492359.61 3626347.54 412.59286 (12111421)
492369.61 3626347.54 416.90262 (10112204)
492379.61 3626347.54 419.11050 (10112204)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492389.61	3626347.54	418.29886	(10112204)	492399.61	3626347.54	426.77894	(10010219)
492409.61	3626347.54	441.00109	(10010219)	492419.61	3626347.54	450.36992	(10010219)
492269.61	3626357.54	374.39259	(12100623)	492279.61	3626357.54	379.23069	(12081904)
492289.61	3626357.54	387.96424	(12081904)	492299.61	3626357.54	395.68326	(12081904)
492309.61	3626357.54	402.26768	(12081904)	492319.61	3626357.54	407.57754	(12081904)
492329.61	3626357.54	411.50520	(12081904)	492339.61	3626357.54	414.02271	(12081904)
492349.61	3626357.54	415.08222	(12081904)	492359.61	3626357.54	417.21086	(12111421)
492369.61	3626357.54	426.84337	(12111421)	492379.61	3626357.54	433.45755	(12111421)
492389.61	3626357.54	436.78685	(12111421)	492399.61	3626357.54	440.82039	(10112204)
492409.61	3626357.54	441.98970	(10112204)	492419.61	3626357.54	445.77549	(12100205)
492269.61	3626367.54	374.16316	(12100623)	492279.61	3626367.54	381.37369	(12100623)
492289.61	3626367.54	388.05250	(12100623)	492299.61	3626367.54	394.13661	(12100623)
492309.61	3626367.54	399.58986	(12100623)	492319.61	3626367.54	408.51856	(12081904)
492329.61	3626367.54	418.97896	(12081904)	492339.61	3626367.54	428.28969	(12081904)
492349.61	3626367.54	436.40023	(12081904)	492359.61	3626367.54	442.96729	(12081904)
492369.61	3626367.54	448.07158	(12081904)	492379.61	3626367.54	451.32638	(12081904)

492389.61 3626367.54 452.82251 (12081904)
492399.61 3626367.54 452.30976 (12081904)
492409.61 3626367.54 457.30069 (12111421)
492419.61 3626367.54 459.91550 (12111421)
492269.61 3626377.54 366.24575 (12110521)
492279.61 3626377.54 368.02439 (12110521)
492289.61 3626377.54 374.70995 (12100623)
492299.61 3626377.54 385.52404 (12100521)
492309.61 3626377.54 396.15450 (12100521)
492319.61 3626377.54 406.18740 (12100521)
492329.61 3626377.54 415.66093 (12100521)
492339.61 3626377.54 424.34090 (12100521)
492349.61 3626377.54 432.19624 (12100521)
492359.61 3626377.54 441.12485 (12081904)
492369.61 3626377.54 453.72126 (12081904)
492379.61 3626377.54 464.95935 (12081904)
492389.61 3626377.54 474.67096 (12081904)
492399.61 3626377.54 482.66268 (12081904)
492409.61 3626377.54 488.58937 (12081904)
492419.61 3626377.54 492.35634 (12081904)
492269.61 3626387.54 392.28956 (12110521)
492279.61 3626387.54 396.66629 (12110521)
492289.61 3626387.54 400.88401 (12110521)
492299.61 3626387.54 404.91177 (12110521)
492309.61 3626387.54 408.75092 (12110521)
492319.61 3626387.54 412.35241 (12110521)
492329.61 3626387.54 415.74515 (12110521)
492339.61 3626387.54 418.81330 (12110521)
492349.61 3626387.54 423.06077 (12100521)
492359.61 3626387.54 435.39931 (12100521)
492369.61 3626387.54 447.11467 (12100521)
492379.61 3626387.54 457.87937 (12100521)
492389.61 3626387.54 467.67536 (12100521)
492399.61 3626387.54 476.82876 (12081904)
492409.61 3626387.54 491.49964 (12081904)
492419.61 3626387.54 504.64305 (12081904)
492429.61 3626387.54 515.62414 (12081904)
492269.61 3626397.54 397.17162 (12110521)
492279.61 3626397.54 404.05049 (12110521)
492289.61 3626397.54 410.87470 (12110521)
492299.61 3626397.54 417.61677 (12110521)
492309.61 3626397.54 424.27275 (12110521)
492319.61 3626397.54 430.77674 (12110521)
492329.61 3626397.54 437.17484 (12110521)
492339.61 3626397.54 443.35385 (12110521)
492349.61 3626397.54 449.44241 (12110521)
492359.61 3626397.54 455.24481 (12110521)
492369.61 3626397.54 460.79043 (12110521)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492379.61	3626397.54	466.10069	(12110521)	492389.61	3626397.54	470.96134	(12110521)
492399.61	3626397.54	475.41987	(12110521)	492409.61	3626397.54	479.12678	(12110521)
492419.61	3626397.54	489.00132	(12100521)	492429.61	3626397.54	499.74349	(12100521)
492439.61	3626397.54	512.76927	(12081904)	492569.61	3626397.54	547.51579	(11123003)
492269.61	3626407.54	378.77781	(12110521)	492279.61	3626407.54	387.49874	(12110521)
492289.61	3626407.54	396.29706	(12110521)	492299.61	3626407.54	405.15370	(12110521)
492309.61	3626407.54	414.05992	(12110521)	492319.61	3626407.54	422.94063	(12110521)
492329.61	3626407.54	431.85730	(12110521)	492339.61	3626407.54	440.71271	(12110521)
492349.61	3626407.54	449.64013	(12110521)	492359.61	3626407.54	458.47235	(12110521)
492369.61	3626407.54	467.17764	(12110521)	492379.61	3626407.54	475.91086	(12110521)
492389.61	3626407.54	484.33580	(12110521)	492399.61	3626407.54	492.53458	(12110521)
492409.61	3626407.54	500.09216	(12110521)	492419.61	3626407.54	507.21224	(12110521)
492429.61	3626407.54	513.52962	(12110521)	492439.61	3626407.54	518.98326	(12110521)
492449.61	3626407.54	523.40370	(12110521)	492561.65	3626406.52	504.32580	(12010821)
492569.61	3626407.54	476.01597	(12011102)	492579.61	3626407.54	469.07102	(11123003)
492269.61	3626417.54	371.20894	(12090704)	492279.61	3626417.54	376.69729	(12090704)

492289.61 3626417.54 382.30164 (12090704)
492299.61 3626417.54 388.04091 (12090704)
492309.61 3626417.54 393.90520 (12090704)
492319.61 3626417.54 399.83235 (12090704)
492329.61 3626417.54 405.84276 (12090704)
492339.61 3626417.54 411.98986 (12090704)
492349.61 3626417.54 420.87566 (12110521)
492359.61 3626417.54 431.67955 (12110521)
492369.61 3626417.54 442.51424 (12110521)
492379.61 3626417.54 453.63417 (12110521)
492389.61 3626417.54 464.62400 (12110521)
492399.61 3626417.54 475.57916 (12110521)
492409.61 3626417.54 486.12807 (12110521)
492419.61 3626417.54 496.44285 (12110521)
492429.61 3626417.54 506.24966 (12110521)
492439.61 3626417.54 515.34966 (12110521)
492449.61 3626417.54 523.54526 (12110521)
492459.61 3626417.54 527.33112 (12110521)
492569.61 3626417.54 460.37368 (12010924)
492579.61 3626417.54 390.25402 (12010924)
492587.89 3626417.54 361.92829 (11041603)
492269.61 3626427.54 376.64780 (12090704)
492279.61 3626427.54 382.25273 (12090704)
492289.61 3626427.54 387.97761 (12090704)
492299.61 3626427.54 393.84177 (12090704)
492309.61 3626427.54 399.83543 (12090704)
492319.61 3626427.54 405.91941 (12090704)
492329.61 3626427.54 412.09950 (12090704)
492339.61 3626427.54 418.42519 (12090704)
492349.61 3626427.54 424.81377 (12090704)
492359.61 3626427.54 431.40760 (12090704)
492369.61 3626427.54 437.91931 (12090704)
492379.61 3626427.54 444.67619 (12090704)
492389.61 3626427.54 451.33302 (12090704)
492399.61 3626427.54 457.86485 (12090704)
492409.61 3626427.54 464.20361 (12090704)
492419.61 3626427.54 470.13605 (12090704)
492429.61 3626427.54 475.78055 (12090704)
492439.61 3626427.54 478.90980 (12090704)
492449.61 3626427.54 480.25282 (12110521)
492459.61 3626427.54 486.31840 (12110521)
492469.61 3626427.54 482.56623 (12110521)
492577.71 3626427.45 389.80789 (12011904)
492589.61 3626427.54 283.12173 (12010924)
492599.61 3626427.54 236.42685 (12032423)
492609.61 3626427.54 247.65402 (12010220)
492269.61 3626437.54 362.04835 (12090704)
492279.61 3626437.54 367.24111 (12090704)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492289.61	3626437.54	372.53543	(12090704)	492299.61	3626437.54	377.95058	(12090704)
492309.61	3626437.54	383.47594	(12090704)	492319.61	3626437.54	389.09110	(12090704)
492329.61	3626437.54	394.78610	(12090704)	492339.61	3626437.54	400.60620	(12090704)
492349.61	3626437.54	406.44016	(12090704)	492359.61	3626437.54	412.44917	(12090704)
492369.61	3626437.54	418.35683	(12090704)	492379.61	3626437.54	424.59879	(12101606)
492389.61	3626437.54	434.05153	(12101606)	492399.61	3626437.54	443.30435	(12101606)
492409.61	3626437.54	452.22249	(12101606)	492419.61	3626437.54	460.64929	(12101606)
492429.61	3626437.54	466.50163	(12101606)	492439.61	3626437.54	469.90175	(12101606)
492449.61	3626437.54	471.55507	(12101606)	492459.61	3626437.54	471.01506	(12101606)
492469.61	3626437.54	461.97459	(12101606)	492479.61	3626437.54	455.72855	(12101606)
492579.61	3626437.54	340.11968	(12101402)	492589.61	3626437.54	318.79224	(12010922)
492599.61	3626437.54	308.02752	(12032423)	492606.62	3626436.27	263.09844	(12012623)
492269.61	3626447.54	349.21607	(12101606)	492279.61	3626447.54	356.72006	(12101606)
492289.61	3626447.54	364.29358	(12101606)	492299.61	3626447.54	371.89184	(12101606)
492309.61	3626447.54	379.50578	(12101606)	492319.61	3626447.54	387.14407	(12101606)
492329.61	3626447.54	394.73947	(12101606)	492339.61	3626447.54	402.33766	(12101606)

492349.61 3626447.54 409.77918 (12101606)
492359.61 3626447.54 417.20395 (12101606)
492369.61 3626447.54 424.35600 (12101606)
492379.61 3626447.54 431.44599 (12101606)
492389.61 3626447.54 438.14239 (12101606)
492399.61 3626447.54 444.92787 (12011904)
492409.61 3626447.54 455.26777 (12011904)
492419.61 3626447.54 462.29343 (12011904)
492429.61 3626447.54 465.97607 (12011904)
492439.61 3626447.54 469.43260 (12081903)
492449.61 3626447.54 471.40045 (12081903)
492459.61 3626447.54 470.59575 (12081903)
492469.61 3626447.54 463.44138 (12081903)
492479.61 3626447.54 452.67149 (12081903)
492571.06 3626449.44 417.09935 (12012521)
492579.61 3626447.54 411.08232 (12010922)
492585.44 3626447.63 400.96938 (12010922)
492269.61 3626457.54 356.23681 (12101606)
492279.61 3626457.54 361.91242 (12101606)
492289.61 3626457.54 367.50228 (12101606)
492299.61 3626457.54 372.97143 (12101606)
492309.61 3626457.54 378.34508 (12101606)
492319.61 3626457.54 383.59588 (12101606)
492329.61 3626457.54 389.82395 (12081903)
492339.61 3626457.54 400.87141 (12081903)
492349.61 3626457.54 411.64627 (12081903)
492359.61 3626457.54 422.16334 (12081903)
492369.61 3626457.54 432.17805 (12081903)
492379.61 3626457.54 441.83560 (12081903)
492389.61 3626457.54 450.71156 (12081903)
492399.61 3626457.54 458.86577 (12081903)
492409.61 3626457.54 464.92824 (12081903)
492419.61 3626457.54 467.46600 (12081903)
492429.61 3626457.54 468.03755 (12081903)
492439.61 3626457.54 467.20126 (12081903)
492449.61 3626457.54 464.07045 (12081903)
492459.61 3626457.54 458.56088 (12091603)
492469.61 3626457.54 448.98130 (12091603)
492479.61 3626457.54 440.67460 (12100921)
492580.88 3626454.73 445.57633 (12010922)
492269.61 3626467.54 356.03956 (12081903)
492279.61 3626467.54 365.74398 (12081903)
492289.61 3626467.54 375.21687 (12081903)
492299.61 3626467.54 384.44640 (12081903)
492309.61 3626467.54 393.39658 (12081903)
492319.61 3626467.54 402.03603 (12081903)
492329.61 3626467.54 410.30443 (12081903)
492339.61 3626467.54 418.10604 (12081903)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492349.61	3626467.54	425.40833	(12081903)	492359.61	3626467.54	432.12343	(12081903)
492369.61	3626467.54	438.09273	(12081903)	492379.61	3626467.54	443.39265	(12081903)
492389.61	3626467.54	447.64983	(12081903)	492399.61	3626467.54	456.57816	(12091603)
492409.61	3626467.54	460.68352	(12091603)	492419.61	3626467.54	462.28846	(12091603)
492429.61	3626467.54	460.77854	(12091603)	492439.61	3626467.54	458.34331	(12091603)
492449.61	3626467.54	452.54406	(12091603)	492459.61	3626467.54	450.42556	(12100921)
492469.61	3626467.54	458.94234	(12100921)	492479.61	3626467.54	461.24997	(12100921)
492499.61	3626467.54	527.81704	(12100921)	492269.61	3626477.54	374.06137	(12081903)
492279.61	3626477.54	381.01536	(12081903)	492289.61	3626477.54	387.49368	(12081903)
492299.61	3626477.54	393.50558	(12081903)	492309.61	3626477.54	399.02102	(12081903)
492319.61	3626477.54	404.01692	(12081903)	492329.61	3626477.54	408.43590	(12081903)
492339.61	3626477.54	412.16899	(12081903)	492349.61	3626477.54	421.19276	(12091603)
492359.61	3626477.54	430.43174	(12091603)	492369.61	3626477.54	438.59941	(12091603)
492379.61	3626477.54	445.46168	(12091603)	492389.61	3626477.54	450.71181	(12091603)
492399.61	3626477.54	452.05927	(12091603)	492409.61	3626477.54	448.89600	(12091603)
492419.61	3626477.54	443.03480	(12091603)	492429.61	3626477.54	434.26464	(12120521)

492439.61 3626477.54 444.40471 (12100921)
492449.61 3626477.54 454.15578 (12100921)
492459.61 3626477.54 458.50699 (12100921)
492469.61 3626477.54 455.76061 (12100921)
492479.61 3626477.54 446.22808 (12081202)
492489.61 3626477.54 447.03991 (12101521)
492499.61 3626477.54 495.56102 (12101521)
492506.66 3626477.89 473.78320 (12091422)
492269.61 3626487.54 373.17321 (12081903)
492279.61 3626487.54 376.70182 (12081903)
492289.61 3626487.54 379.62267 (12081903)
492299.61 3626487.54 386.31352 (12091603)
492309.61 3626487.54 395.30620 (12091603)
492319.61 3626487.54 403.45606 (12091603)
492329.61 3626487.54 410.82425 (12091603)
492339.61 3626487.54 417.05464 (12091603)
492349.61 3626487.54 422.32369 (12091603)
492359.61 3626487.54 426.22283 (12091603)
492369.61 3626487.54 428.80519 (12091603)
492379.61 3626487.54 428.87009 (12091603)
492389.61 3626487.54 425.11702 (12091603)
492399.61 3626487.54 426.78156 (12120521)
492409.61 3626487.54 429.57190 (12120521)
492419.61 3626487.54 430.39518 (12100921)
492429.61 3626487.54 433.80486 (12100921)
492439.61 3626487.54 438.36532 (12100921)
492449.61 3626487.54 438.00197 (12100921)
492459.61 3626487.54 435.95249 (12081202)
492469.61 3626487.54 441.02578 (12101521)
492479.61 3626487.54 451.30165 (12101521)
492489.61 3626487.54 448.22509 (12101521)
492499.61 3626487.54 455.24460 (12091522)
492509.61 3626487.54 459.79741 (12080803)
492269.61 3626497.54 370.84213 (12091603)
492279.61 3626497.54 377.97256 (12091603)
492289.61 3626497.54 384.32115 (12091603)
492299.61 3626497.54 389.77191 (12091603)
492309.61 3626497.54 394.31136 (12091603)
492319.61 3626497.54 397.77216 (12091603)
492329.61 3626497.54 400.20174 (12091603)
492339.61 3626497.54 401.33257 (12091603)
492349.61 3626497.54 401.33715 (12091603)
492359.61 3626497.54 402.86916 (12120521)
492369.61 3626497.54 413.95006 (12120521)
492379.61 3626497.54 419.82032 (12120521)
492389.61 3626497.54 422.64966 (12120521)
492399.61 3626497.54 422.02086 (12120521)
492409.61 3626497.54 421.38103 (12100921)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492419.61	3626497.54	417.12076	(12100921)	492429.61	3626497.54	408.32991	(12100921)
492439.61	3626497.54	411.92450	(12081202)	492449.61	3626497.54	420.64004	(12101521)
492459.61	3626497.54	439.75910	(12101521)	492469.61	3626497.54	444.85587	(12101521)
492479.61	3626497.54	438.32575	(12101521)	492489.61	3626497.54	427.33318	(12112823)
492499.61	3626497.54	446.45473	(12091522)	492509.61	3626497.54	504.88055	(12091522)
492519.61	3626497.54	411.39707	(12091622)	492269.61	3626507.54	368.30299	(12091603)
492279.61	3626507.54	371.25828	(12091603)	492289.61	3626507.54	373.25360	(12091603)
492299.61	3626507.54	374.27074	(12091603)	492309.61	3626507.54	374.22782	(12091603)
492319.61	3626507.54	373.09972	(12091603)	492329.61	3626507.54	384.39697	(12120521)
492339.61	3626507.54	394.76443	(12120521)	492349.61	3626507.54	403.33261	(12120521)
492359.61	3626507.54	409.75746	(12120521)	492369.61	3626507.54	412.46667	(12120521)
492379.61	3626507.54	410.11286	(12120521)	492389.61	3626507.54	408.17050	(12100921)
492399.61	3626507.54	404.69472	(12100921)	492409.61	3626507.54	394.33272	(12100921)
492419.61	3626507.54	392.72807	(12081202)	492429.61	3626507.54	388.85893	(12101521)
492439.61	3626507.54	411.16483	(12101521)	492449.61	3626507.54	425.50336	(12101521)
492459.61	3626507.54	430.32992	(12101521)	492469.61	3626507.54	424.72633	(12112823)

492479.61 3626507.54 419.10874 (12080803)
492489.61 3626507.54 443.27811 (12091522)
492499.61 3626507.54 451.93188 (12091522)
492509.61 3626507.54 448.63729 (12091522)
492519.61 3626507.54 448.87450 (12091522)
492269.61 3626517.54 349.17128 (12091603)
492279.61 3626517.54 348.10079 (12091603)
492289.61 3626517.54 355.70509 (12120521)
492299.61 3626517.54 366.89151 (12120521)
492309.61 3626517.54 376.56339 (12120521)
492319.61 3626517.54 384.57142 (12120521)
492329.61 3626517.54 390.68923 (12120521)
492339.61 3626517.54 394.85651 (12120521)
492349.61 3626517.54 396.49022 (12120521)
492359.61 3626517.54 394.44306 (12120521)
492369.61 3626517.54 392.24534 (12100921)
492379.61 3626517.54 387.60589 (12100921)
492389.61 3626517.54 379.34651 (12081202)
492399.61 3626517.54 385.00964 (12081202)
492409.61 3626517.54 381.70046 (12081202)
492419.61 3626517.54 391.02368 (12101521)
492429.61 3626517.54 395.41008 (12101521)
492439.61 3626517.54 404.53434 (12101521)
492449.61 3626517.54 405.38242 (12112823)
492459.61 3626517.54 415.22892 (12080803)
492469.61 3626517.54 418.23341 (12080803)
492479.61 3626517.54 437.55374 (12091522)
492489.61 3626517.54 450.90063 (12091522)
492499.61 3626517.54 439.99825 (12091522)
492509.61 3626517.54 415.17536 (12090521)
492519.61 3626517.54 384.32480 (12090521)
492529.61 3626517.54 420.09534 (12082822)
492269.61 3626527.54 350.48872 (12120521)
492279.61 3626527.54 359.48433 (12120521)
492289.61 3626527.54 366.94815 (12120521)
492299.61 3626527.54 372.70574 (12120521)
492309.61 3626527.54 376.63961 (12120521)
492319.61 3626527.54 378.68705 (12120521)
492329.61 3626527.54 378.69075 (12120521)
492339.61 3626527.54 376.70615 (12120521)
492349.61 3626527.54 373.61876 (12100921)
492359.61 3626527.54 369.38061 (12100921)
492369.61 3626527.54 371.63921 (10100923)
492459.61 3626527.54 408.69638 (12080803)
492469.61 3626527.54 430.03159 (12090521)
492479.61 3626527.54 443.96976 (12090521)
492489.61 3626527.54 444.24385 (12090521)
492499.61 3626527.54 423.83300 (12090521)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492509.61	3626527.54	391.28255	(12090521)	492519.61	3626527.54	372.64141	(12082822)
492529.61	3626527.54	380.69755	(12082822)	492269.61	3626537.54	355.60374	(12120521)
492279.61	3626537.54	359.61188	(12120521)	492289.61	3626537.54	361.59035	(12120521)
492299.61	3626537.54	361.73410	(12120521)	492309.61	3626537.54	360.03331	(12120521)
492319.61	3626537.54	356.47579	(12100921)	492329.61	3626537.54	354.92458	(12100921)
492339.61	3626537.54	360.81423	(10100923)	492349.61	3626537.54	362.83718	(10100923)
492359.61	3626537.54	361.07786	(10100923)	492369.61	3626537.54	362.60779	(12081202)
492459.61	3626537.54	420.46366	(12090521)	492469.61	3626537.54	434.48489	(12090521)
492479.61	3626537.54	436.33721	(12090521)	492489.61	3626537.54	426.66430	(12090521)
492499.61	3626537.54	396.52058	(12090521)	492509.61	3626537.54	371.70327	(12082822)
492519.61	3626537.54	385.14148	(12082822)	492529.61	3626537.54	371.30174	(12082822)
492269.61	3626547.54	344.52111	(12120521)	492279.61	3626547.54	344.39611	(12120521)
492289.61	3626547.54	341.23771	(12120521)	492299.61	3626547.54	338.72593	(12100921)
492309.61	3626547.54	341.66674	(10100923)	492319.61	3626547.54	348.31889	(10100923)
492329.61	3626547.54	352.17455	(10100923)	492339.61	3626547.54	352.94681	(10100923)
492349.61	3626547.54	349.63512	(12081202)	492359.61	3626547.54	355.12146	(12101521)

492369.61 3626547.54 368.82732 (12101521)
492459.61 3626547.54 420.67604 (12090521)
492469.61 3626547.54 422.57305 (12090521)
492479.61 3626547.54 414.16239 (12090521)
492489.61 3626547.54 395.88921 (12090521)
492499.61 3626547.54 365.15064 (12082822)
492509.61 3626547.54 384.82020 (12082822)
492519.61 3626547.54 386.31839 (12082822)
492529.61 3626547.54 362.28790 (12082822)
492269.61 3626557.54 321.78117 (12100921)
492279.61 3626557.54 321.62415 (12100921)
492289.61 3626557.54 329.80499 (10100923)
492299.61 3626557.54 335.61245 (10100923)
492309.61 3626557.54 338.90575 (10100923)
492319.61 3626557.54 339.26095 (10100923)
492329.61 3626557.54 338.58494 (12082903)
492339.61 3626557.54 341.06508 (12101521)
492349.61 3626557.54 355.57863 (12101521)
492359.61 3626557.54 364.18105 (12101521)
492369.61 3626557.54 366.13349 (12101521)
492459.61 3626557.54 405.75471 (12090521)
492469.61 3626557.54 397.84130 (12090521)
492479.61 3626557.54 381.60957 (12090521)
492489.61 3626557.54 362.32518 (12102722)
492499.61 3626557.54 380.13047 (12082822)
492509.61 3626557.54 387.74003 (12082822)
492519.61 3626557.54 378.28153 (12082822)
492529.61 3626557.54 346.25032 (12082822)
492269.61 3626567.54 314.45508 (10100923)
492279.61 3626567.54 323.41932 (10100923)
492289.61 3626567.54 325.86920 (10100923)
492299.61 3626567.54 325.78461 (10100923)
492309.61 3626567.54 328.36473 (12082903)
492319.61 3626567.54 328.51063 (12082903)
492329.61 3626567.54 340.55641 (12101521)
492339.61 3626567.54 354.01208 (12101521)
492349.61 3626567.54 358.10335 (12101521)
492359.61 3626567.54 355.44677 (12101521)
492369.61 3626567.54 356.43041 (12080803)
492459.61 3626567.54 379.68467 (12090521)
492469.61 3626567.54 364.53608 (12090521)
492479.61 3626567.54 352.29469 (12102722)
492489.61 3626567.54 371.95498 (12082822)
492499.61 3626567.54 384.86919 (12082822)
492509.61 3626567.54 381.38859 (12082822)
492519.61 3626567.54 362.64521 (12082822)
492529.61 3626567.54 340.31368 (12060622)
492269.61 3626577.54 308.59618 (10100923)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492279.61	3626577.54	315.65193	(12082903)	492289.61	3626577.54	318.34315	(12082903)
492299.61	3626577.54	318.36799	(12082903)	492309.61	3626577.54	323.29301	(12101521)
492319.61	3626577.54	337.00501	(12101521)	492329.61	3626577.54	346.15986	(12101521)
492339.61	3626577.54	350.03958	(12101521)	492469.61	3626577.54	340.57981	(12102722)
492479.61	3626577.54	352.63697	(12082822)	492489.61	3626577.54	377.96937	(12082822)
492499.61	3626577.54	379.64831	(12082822)	492509.61	3626577.54	366.31239	(12082822)
492519.61	3626577.54	340.95292	(12060622)	492529.61	3626577.54	334.70494	(12060622)
492269.61	3626587.54	305.92515	(12082903)	492279.61	3626587.54	308.20358	(12082903)
492289.61	3626587.54	310.60161	(12100922)	492299.61	3626587.54	320.96061	(12101521)
492309.61	3626587.54	331.60744	(12101521)	492319.61	3626587.54	336.73286	(12101521)
492329.61	3626587.54	336.84426	(12101521)	492339.61	3626587.54	350.44355	(12080803)
492469.61	3626587.54	333.21465	(12082822)	492479.61	3626587.54	360.98925	(12082822)
492489.61	3626587.54	375.07286	(12082822)	492499.61	3626587.54	366.52757	(12082822)
492509.61	3626587.54	345.48517	(12082822)	492519.61	3626587.54	340.36120	(12060622)
492529.61	3626587.54	337.28218	(12081105)	492269.61	3626597.54	297.90221	(12100922)
492279.61	3626597.54	307.45129	(12100922)	492289.61	3626597.54	316.04963	(12101521)

492299.61 3626597.54 323.35118 (12101521)
492309.61 3626597.54 326.21880 (12101521)
492319.61 3626597.54 331.67061 (12080803)
492329.61 3626597.54 349.56491 (12080803)
492339.61 3626597.54 361.70088 (12080803)
492469.61 3626597.54 343.56584 (12082822)
492479.61 3626597.54 360.62377 (12082822)
492489.61 3626597.54 364.20406 (12082822)
492499.61 3626597.54 347.34433 (12082822)
492509.61 3626597.54 330.19029 (12060622)
492519.61 3626597.54 341.10967 (12081105)
492529.61 3626597.54 335.21590 (12081105)
492269.61 3626607.54 299.59268 (12100922)
492279.61 3626607.54 308.88577 (12101521)
492289.61 3626607.54 313.09424 (12101521)
492299.61 3626607.54 313.11894 (12101521)
492309.61 3626607.54 332.94949 (12080803)
492319.61 3626607.54 348.15632 (12080803)
492329.61 3626607.54 357.68019 (12080803)
492339.61 3626607.54 360.87598 (12080803)
492469.61 3626607.54 345.19533 (12082822)
492479.61 3626607.54 352.27610 (12082822)
492489.61 3626607.54 347.08790 (12082822)
492499.61 3626607.54 323.11431 (12082822)
492509.61 3626607.54 331.08148 (12081105)
492519.61 3626607.54 339.44089 (12081105)
492529.61 3626607.54 326.78584 (12081105)
492269.61 3626617.54 297.76399 (12101521)
492279.61 3626617.54 301.22714 (12101521)
492289.61 3626617.54 311.89398 (12080803)
492299.61 3626617.54 330.66069 (12080803)
492309.61 3626617.54 344.78167 (12080803)
492319.61 3626617.54 351.64685 (12080803)
492329.61 3626617.54 352.64679 (12080803)
492339.61 3626617.54 347.66089 (12080803)
492469.61 3626617.54 339.34631 (12082822)
492479.61 3626617.54 337.57256 (12082822)
492489.61 3626617.54 325.46334 (12082822)
492499.61 3626617.54 319.00858 (12081105)
492509.61 3626617.54 332.82731 (12081105)
492519.61 3626617.54 333.68644 (12081105)
492529.61 3626617.54 315.22362 (12081105)
492269.61 3626627.54 288.72903 (12080803)
492279.61 3626627.54 310.58574 (12080803)
492289.61 3626627.54 326.63316 (12080803)
492299.61 3626627.54 337.97574 (12080803)
492309.61 3626627.54 344.08830 (12080803)
492319.61 3626627.54 342.80669 (12080803)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492329.61	3626627.54	336.33169	(12080803)	492339.61	3626627.54	342.94953	(12090521)
492469.61	3626627.54	326.76407	(12082822)	492479.61	3626627.54	317.76142	(12082822)
492489.61	3626627.54	309.14194	(12110518)	492499.61	3626627.54	323.46592	(12081105)
492509.61	3626627.54	329.90069	(12081105)	492519.61	3626627.54	323.80416	(12081105)
492269.61	3626637.54	306.35407	(12080803)	492279.61	3626637.54	321.60808	(12080803)
492289.61	3626637.54	330.14535	(12080803)	492299.61	3626637.54	333.64152	(12080803)
492309.61	3626637.54	332.09205	(12080803)	492319.61	3626637.54	325.58344	(12091622)
492329.61	3626637.54	339.19360	(12090521)	492339.61	3626637.54	354.99991	(12090521)
492469.61	3626637.54	307.68060	(12082822)	492479.61	3626637.54	296.47419	(12110518)
492489.61	3626637.54	309.96020	(12081105)	492499.61	3626637.54	320.76651	(12081105)
492509.61	3626637.54	319.68856	(12081105)	492519.61	3626637.54	307.21730	(12081105)
492269.61	3626647.54	313.67076	(12080803)	492279.61	3626647.54	321.50337	(12080803)
492289.61	3626647.54	322.64334	(12080803)	492299.61	3626647.54	319.17833	(12080803)
492309.61	3626647.54	319.90223	(12091622)	492319.61	3626647.54	335.35415	(12090521)
492329.61	3626647.54	349.33785	(12090521)	492339.61	3626647.54	355.68377	(12090521)
492479.61	3626647.54	287.27861	(12081105)	492489.61	3626647.54	311.30207	(12081105)

492499.61 3626647.54 314.73673 (12081105)
492509.61 3626647.54 307.10821 (12081105)
492269.61 3626657.54 310.51887 (12080803)
492279.61 3626657.54 311.26153 (12080803)
492289.61 3626657.54 306.11785 (12080803)
492299.61 3626657.54 311.95580 (12091622)
492309.61 3626657.54 331.57425 (12090521)
492319.61 3626657.54 343.71283 (12090521)
492329.61 3626657.54 348.50564 (12090521)
492339.61 3626657.54 345.87150 (12090521)
492489.61 3626657.54 308.98059 (12081105)
492499.61 3626657.54 305.81743 (12081105)
492269.61 3626667.54 298.21563 (12080803)
492279.61 3626667.54 295.73783 (12091622)
492289.61 3626667.54 306.66356 (12090521)
492299.61 3626667.54 325.37223 (12090521)
492309.61 3626667.54 337.81831 (12090521)
492319.61 3626667.54 341.07086 (12090521)
492329.61 3626667.54 337.31929 (12090521)
492339.61 3626667.54 327.11768 (12090521)
492269.61 3626677.54 288.13270 (12091622)
492279.61 3626677.54 302.58734 (12090521)
492289.61 3626677.54 319.35001 (12090521)
492299.61 3626677.54 330.03891 (12090521)
492309.61 3626677.54 334.10669 (12090521)
492319.61 3626677.54 329.20387 (12090521)
492329.61 3626677.54 318.42873 (12090521)
492339.61 3626677.54 302.72789 (12090521)
492269.61 3626687.54 297.25273 (12090521)
492279.61 3626687.54 313.73693 (12090521)
492289.61 3626687.54 322.74843 (12090521)
492299.61 3626687.54 325.38376 (12090521)
492309.61 3626687.54 321.85693 (12090521)
492319.61 3626687.54 310.39624 (12090521)
492329.61 3626687.54 294.50215 (12090521)
492339.61 3626687.54 291.03301 (12102722)
492269.61 3626697.54 307.30952 (12090521)
492279.61 3626697.54 316.26382 (12090521)
492289.61 3626697.54 317.78020 (12090521)
492299.61 3626697.54 313.46460 (12090521)
492309.61 3626697.54 303.97062 (12090521)
492319.61 3626697.54 287.73227 (12090521)
492329.61 3626697.54 286.06663 (12102722)
492339.61 3626697.54 281.40010 (12102722)
492269.61 3626707.54 308.65145 (12090521)
492279.61 3626707.54 310.30781 (12090521)
492289.61 3626707.54 305.21432 (12090521)
492299.61 3626707.54 295.40487 (12090521)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492309.61	3626707.54	281.78247	(12090521)	492319.61	3626707.54	281.78502	(12102722)
492329.61	3626707.54	277.26370	(12102722)	492339.61	3626707.54	266.77825	(12102722)
492269.61	3626717.54	301.76547	(12090521)	492279.61	3626717.54	297.04127	(12090521)
492289.61	3626717.54	286.91880	(12090521)	492299.61	3626717.54	276.60566	(12071201)
492309.61	3626717.54	278.24525	(12102722)	492319.61	3626717.54	273.83030	(12102722)
492329.61	3626717.54	263.66187	(12102722)	492339.61	3626717.54	258.56298	(12081103)
492669.07	3626644.38	302.79381	(12092322)	492665.07	3626656.03	297.95993	(12021620)
492665.74	3626664.35	297.15524	(12021620)	492664.07	3626675.33	295.73694	(12021620)
492599.44	3626421.99	254.34359	(11041603)	492613.55	3626421.99	275.23802	(12011021)
492613.75	3626427.92	268.57190	(12010220)	492613.55	3626435.89	245.24753	(12010220)
492573.34	3626443.01	380.55830	(12091522)	492576.15	3626437.02	373.18525	(12101402)
492578.78	3626431.67	370.70860	(12011904)	492589.21	3626442.01	349.18267	(12010922)
492486.91	3626457.88	489.93071	(12100921)	492754.50	3626421.99	396.76930	(12081901)
492769.80	3626421.07	408.99341	(12081901)	492785.88	3626420.30	414.65381	(12081901)
492738.65	3626423.47	375.41439	(12081901)	492706.56	3626426.42	304.86536	(12010220)
492711.95	3626405.79	307.27972	(12082506)	492768.79	3626400.83	406.75419	(12082506)

492785.62 3626408.85 419.09352 (12081901)
492738.00 3626391.14 356.18541 (12080704)
492723.48 3626404.28 339.58942 (12082506)
492719.55 3626425.32 334.84705 (12081901)
492703.08 3626394.66 304.26418 (12080704)
492754.36 3626388.55 372.39478 (12082506)
492658.16 3626430.53 265.12397 (12010220)
492688.16 3626427.66 314.94952 (12010220)
492657.04 3626417.15 266.37867 (12011021)
492706.48 3626414.85 315.71231 (12081901)
492668.44 3626429.07 267.41659 (12010220)
492669.26 3626416.07 260.28117 (12011021)
492656.31 3626403.36 265.41716 (12011021)
492648.73 3626393.67 251.92412 (12013006)
492687.87 3626416.29 304.04133 (12010220)
492685.94 3626396.06 300.60756 (12011021)
492667.70 3626402.11 269.18332 (12011021)
492667.29 3626385.32 248.10338 (12013006)
492269.79 3626186.83 278.22436 (12092402)
492277.28 3626186.83 281.59884 (12092402)
492284.77 3626186.83 282.45546 (12092402)
492292.26 3626186.83 280.94311 (12092402)
492299.75 3626186.83 291.62226 (12093001)
492307.24 3626186.83 300.56749 (12093001)
492314.73 3626186.83 305.64087 (12093001)
492322.22 3626186.83 306.63900 (12093001)
492329.71 3626186.83 303.73015 (12093001)
492337.20 3626186.83 305.90462 (12102304)
492344.69 3626186.83 311.03375 (12102304)
492352.18 3626186.83 311.07611 (12102304)
492359.67 3626186.83 314.66413 (12112620)
492367.16 3626186.83 315.18144 (12112620)
492374.65 3626186.83 311.15955 (12111622)
492382.14 3626186.83 306.34437 (12111622)
492389.63 3626186.83 305.56822 (12110223)
492397.12 3626186.83 308.69754 (10010519)
492404.61 3626186.83 313.33042 (11021123)
492412.10 3626186.83 315.45059 (10032006)
492419.59 3626186.83 316.67526 (10010401)
492269.79 3626193.42 275.34698 (12092402)
492277.28 3626193.42 281.93714 (12092402)
492284.77 3626193.42 285.89976 (12092402)
492292.26 3626193.42 287.27367 (12092402)
492299.75 3626193.42 286.22810 (12092402)
492307.24 3626193.42 296.49091 (12093001)
492314.73 3626193.42 305.94875 (12093001)
492322.22 3626193.42 311.26841 (12093001)
492329.71 3626193.42 312.36755 (12093001)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492337.20	3626193.42	309.29686	(12093001)	492344.69	3626193.42	311.45220	(12102304)
492352.18	3626193.42	316.29437	(12102304)	492359.67	3626193.42	315.96188	(12102304)
492367.16	3626193.42	319.84349	(12112620)	492374.65	3626193.42	319.73155	(12112620)
492382.14	3626193.42	315.15672	(12111622)	492389.63	3626193.42	309.85423	(12111622)
492397.12	3626193.42	310.30893	(12110223)	492404.61	3626193.42	314.39781	(10010519)
492412.10	3626193.42	318.89370	(11021123)	492419.59	3626193.42	320.89911	(10032006)
492269.79	3626200.01	278.52219	(10102604)	492277.28	3626200.01	278.29462	(12092402)
492284.77	3626200.01	285.41218	(12092402)	492292.26	3626200.01	289.95740	(12092402)
492299.75	3626200.01	291.94066	(12092402)	492307.24	3626200.01	291.41018	(12092402)
492314.73	3626200.01	301.29417	(12093001)	492322.22	3626200.01	311.07428	(12093001)
492329.71	3626200.01	316.55556	(12093001)	492337.20	3626200.01	317.62219	(12093001)
492344.69	3626200.01	314.50142	(12093001)	492352.18	3626200.01	316.90377	(12102304)
492359.67	3626200.01	321.47047	(12102304)	492367.16	3626200.01	320.73133	(12102304)
492374.65	3626200.01	324.86718	(12112620)	492382.14	3626200.01	324.07687	(12112620)
492389.63	3626200.01	318.95660	(12111622)	492397.12	3626200.01	313.13823	(12111622)
492404.61	3626200.01	316.07761	(10010519)	492412.10	3626200.01	320.72997	(11021123)

492419.59 3626200.01 323.99269 (11021123)
492269.79 3626206.60 285.40593 (10102604)
492277.28 3626206.60 284.85571 (10102604)
492284.77 3626206.60 281.88454 (10102604)
492292.26 3626206.60 288.32883 (12092402)
492299.75 3626206.60 293.56033 (12092402)
492307.24 3626206.60 296.12457 (12092402)
492314.73 3626206.60 296.10880 (12092402)
492322.22 3626206.60 305.79342 (12093001)
492329.71 3626206.60 315.98302 (12093001)
492337.20 3626206.60 321.73871 (12093001)
492344.69 3626206.60 322.96103 (12093001)
492352.18 3626206.60 319.85024 (12093001)
492359.67 3626206.60 322.45298 (12102304)
492367.16 3626206.60 326.73865 (12102304)
492374.65 3626206.60 326.02667 (12112620)
492382.14 3626206.60 329.90206 (12112620)
492389.63 3626206.60 328.42455 (12112620)
492397.12 3626206.60 322.74787 (12111622)
492404.61 3626206.60 316.50916 (12052723)
492412.10 3626206.60 322.61855 (10010519)
492419.59 3626206.60 327.30144 (11021123)
492269.79 3626213.19 287.89177 (10102604)
492277.28 3626213.19 290.81190 (10102604)
492284.77 3626213.19 291.04460 (10102604)
492292.26 3626213.19 288.68162 (10102604)
492299.75 3626213.19 291.16700 (12092402)
492307.24 3626213.19 297.08057 (12092402)
492314.73 3626213.19 300.29796 (12092402)
492322.22 3626213.19 300.83560 (12092402)
492329.71 3626213.19 310.35613 (12093001)
492337.20 3626213.19 320.99351 (12093001)
492344.69 3626213.19 327.06186 (12093001)
492352.18 3626213.19 328.43602 (12093001)
492359.67 3626213.19 325.33377 (12093001)
492367.16 3626213.19 328.11301 (12102304)
492374.65 3626213.19 332.09597 (12102304)
492382.14 3626213.19 331.70629 (12112620)
492389.63 3626213.19 334.93290 (12112620)
492397.12 3626213.19 332.74846 (12112620)
492404.61 3626213.19 326.56707 (12111622)
492412.10 3626213.19 322.78523 (12052723)
492419.59 3626213.19 328.79811 (10010519)
492269.79 3626219.78 285.62827 (10102604)
492277.28 3626219.78 292.21978 (10102604)
492284.77 3626219.78 296.09081 (10102604)
492292.26 3626219.78 297.18879 (10102604)
492299.75 3626219.78 295.55082 (10102604)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492307.24	3626219.78	293.89671	(12092402)	492314.73	3626219.78	300.54981	(12092402)
492322.22	3626219.78	304.41988	(12092402)	492329.71	3626219.78	305.55056	(12092402)
492337.20	3626219.78	315.01302	(12093001)	492344.69	3626219.78	326.11194	(12093001)
492352.18	3626219.78	332.49990	(12093001)	492359.67	3626219.78	334.03211	(12093001)
492367.16	3626219.78	330.94639	(12093001)	492374.65	3626219.78	333.88976	(12102304)
492382.14	3626219.78	337.53951	(12102304)	492389.63	3626219.78	337.40054	(12112620)
492397.12	3626219.78	339.99111	(12112620)	492404.61	3626219.78	337.06539	(12112620)
492412.10	3626219.78	330.36990	(12111622)	492419.59	3626219.78	329.55401	(10010519)
492269.79	3626226.37	287.46681	(12110221)	492277.28	3626226.37	289.45236	(10032822)
492284.77	3626226.37	296.31401	(10102604)	492292.26	3626226.37	301.25246	(10102604)
492299.75	3626226.37	303.28203	(10102604)	492307.24	3626226.37	302.42493	(10102604)
492314.73	3626226.37	298.86015	(10102604)	492322.22	3626226.37	303.91980	(12092402)
492329.71	3626226.37	308.50606	(12092402)	492337.20	3626226.37	310.25081	(12092402)
492344.69	3626226.37	319.74249	(12093001)	492352.18	3626226.37	331.32423	(12093001)
492359.67	3626226.37	338.05099	(12093001)	492367.16	3626226.37	339.77513	(12093001)
492374.65	3626226.37	336.70011	(12093001)	492382.14	3626226.37	339.75450	(12102304)

492389.63 3626226.37 343.07432 (12102304)
492397.12 3626226.37 343.12591 (12112620)
492404.61 3626226.37 345.01416 (12112620)
492412.10 3626226.37 341.35554 (12112620)
492419.59 3626226.37 334.17689 (12111622)
492269.79 3626232.96 294.49014 (12110221)
492277.28 3626232.96 293.73821 (12110221)
492284.77 3626232.96 294.29844 (10032822)
492292.26 3626232.96 300.18512 (10102604)
492299.75 3626232.96 306.22408 (10102604)
492307.24 3626232.96 309.28241 (10102604)
492314.73 3626232.96 309.29816 (10102604)
492322.22 3626232.96 306.41976 (10102604)
492329.71 3626232.96 307.19450 (12092402)
492337.20 3626232.96 312.51833 (12092402)
492344.69 3626232.96 314.92852 (12092402)
492352.18 3626232.96 324.53897 (12093001)
492359.67 3626232.96 336.64200 (12093001)
492367.16 3626232.96 343.73062 (12093001)
492374.65 3626232.96 345.62189 (12093001)
492382.14 3626232.96 342.56740 (12093001)
492389.63 3626232.96 345.72318 (12102304)
492397.12 3626232.96 348.65884 (12102304)
492404.61 3626232.96 348.86449 (12112620)
492412.10 3626232.96 350.04363 (12112620)
492419.59 3626232.96 345.60604 (12112620)
492269.79 3626239.55 297.20620 (12110221)
492277.28 3626239.55 299.36388 (12110221)
492284.77 3626239.55 299.66915 (12110221)
492292.26 3626239.55 298.78290 (10032822)
492299.75 3626239.55 303.76250 (10102604)
492307.24 3626239.55 310.99754 (10102604)
492314.73 3626239.55 315.14872 (10102604)
492322.22 3626239.55 316.13786 (10102604)
492329.71 3626239.55 314.02850 (10102604)
492337.20 3626239.55 310.35066 (12092402)
492344.69 3626239.55 316.44499 (12092402)
492352.18 3626239.55 319.55372 (12092402)
492359.67 3626239.55 329.41589 (12093001)
492367.16 3626239.55 342.04167 (12093001)
492374.65 3626239.55 349.50114 (12093001)
492382.14 3626239.55 351.61157 (12093001)
492389.63 3626239.55 348.57744 (12093001)
492397.12 3626239.55 351.77656 (12102304)
492404.61 3626239.55 354.35042 (12102304)
492412.10 3626239.55 354.61290 (12112620)
492419.59 3626239.55 355.03632 (12112620)
492269.79 3626246.14 295.11741 (12110221)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492277.28	3626246.14	300.39789	(12110221)	492284.77	3626246.14	303.75372	(12110221)
492292.26	3626246.14	305.14852	(12110221)	492299.75	3626246.14	304.80508	(10021502)
492307.24	3626246.14	309.24447	(10032822)	492314.73	3626246.14	315.51411	(10102604)
492322.22	3626246.14	320.85494	(10102604)	492329.71	3626246.14	322.88795	(10102604)
492337.20	3626246.14	321.66726	(10102604)	492344.69	3626246.14	317.38416	(10102604)
492352.18	3626246.14	320.27947	(12092402)	492359.67	3626246.14	324.11946	(12092402)
492367.16	3626246.14	334.33242	(12093001)	492374.65	3626246.14	347.53799	(12093001)
492382.14	3626246.14	355.39140	(12093001)	492389.63	3626246.14	357.69821	(12093001)
492397.12	3626246.14	354.71959	(12093001)	492404.61	3626246.14	357.95804	(12102304)
492412.10	3626246.14	360.07796	(12102304)	492419.59	3626246.14	360.35625	(12112620)
492269.79	3626252.73	295.51611	(12110222)	492277.28	3626252.73	296.41619	(12110221)
492284.77	3626252.73	302.95612	(12110221)	492292.26	3626252.73	307.54612	(12110221)
492299.75	3626252.73	310.15219	(12110221)	492307.24	3626252.73	310.76021	(12110221)
492314.73	3626252.73	314.45519	(10032822)	492322.22	3626252.73	319.72448	(10102604)
492329.71	3626252.73	326.33919	(10102604)	492337.20	3626252.73	329.54161	(10102604)
492344.69	3626252.73	329.27590	(10102604)	492352.18	3626252.73	325.74347	(10102604)

492359.67 3626252.73 325.25940 (12090705)
492367.16 3626252.73 329.14668 (12090705)
492374.65 3626252.73 339.31449 (12093001)
492382.14 3626252.73 353.10291 (12093001)
492389.63 3626252.73 361.38828 (12093001)
492397.12 3626252.73 363.95055 (12093001)
492404.61 3626252.73 360.97761 (12093001)
492412.10 3626252.73 364.18317 (12102304)
492419.59 3626252.73 365.88970 (12102304)
492269.79 3626259.32 308.86271 (12110222)
492277.28 3626259.32 306.07427 (12110222)
492284.77 3626259.32 301.36798 (12110222)
492292.26 3626259.32 304.81752 (12110221)
492299.75 3626259.32 310.71616 (12110221)
492307.24 3626259.32 314.57341 (12110221)
492314.73 3626259.32 316.38409 (12110221)
492322.22 3626259.32 319.88894 (10021502)
492329.71 3626259.32 325.09182 (10032822)
492337.20 3626259.32 331.57478 (10102604)
492344.69 3626259.32 336.01692 (10102604)
492352.18 3626259.32 336.85308 (10102604)
492359.67 3626259.32 334.16568 (10102604)
492367.16 3626259.32 331.14849 (12090705)
492374.65 3626259.32 335.88604 (12090705)
492382.14 3626259.32 344.33961 (12093001)
492389.63 3626259.32 358.77430 (12093001)
492397.12 3626259.32 367.49671 (12093001)
492404.61 3626259.32 370.26116 (12093001)
492412.10 3626259.32 367.35617 (12093001)
492419.59 3626259.32 370.47092 (12102304)
492269.79 3626265.91 317.36236 (10010219)
492277.28 3626265.91 317.55640 (12110222)
492284.77 3626265.91 316.18878 (12110222)
492292.26 3626265.91 312.66616 (12110222)
492299.75 3626265.91 307.20602 (12110222)
492307.24 3626265.91 313.17578 (12110221)
492314.73 3626265.91 318.37196 (12110221)
492322.22 3626265.91 322.30025 (11011224)
492329.71 3626265.91 326.46397 (10021502)
492337.20 3626265.91 331.05158 (10032822)
492344.69 3626265.91 336.50254 (10102604)
492352.18 3626265.91 342.30021 (10102604)
492359.67 3626265.91 344.30233 (10102604)
492367.16 3626265.91 342.59842 (10102604)
492374.65 3626265.91 337.47666 (10102604)
492382.14 3626265.91 342.72211 (12090705)
492389.63 3626265.91 349.42424 (12093001)
492397.12 3626265.91 364.48512 (12093001)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492404.61	3626265.91	373.67865	(12093001)	492412.10	3626265.91	376.69132	(12093001)
492419.59	3626265.91	373.76559	(12093001)	492269.79	3626272.50	329.57078	(10010219)
492277.28	3626272.50	328.50111	(10010219)	492284.77	3626272.50	326.03101	(10010219)
492292.26	3626272.50	325.69839	(12110222)	492299.75	3626272.50	323.59637	(12110222)
492307.24	3626272.50	319.29064	(12110222)	492314.73	3626272.50	314.89873	(12110221)
492322.22	3626272.50	322.66413	(10032622)	492329.71	3626272.50	328.09300	(11011224)
492337.20	3626272.50	332.53923	(10021502)	492344.69	3626272.50	336.61835	(10032822)
492352.18	3626272.50	341.75695	(10032822)	492359.67	3626272.50	348.31093	(10102604)
492367.16	3626272.50	351.64550	(10102604)	492374.65	3626272.50	351.01045	(10102604)
492382.14	3626272.50	346.67929	(10102604)	492389.63	3626272.50	349.64047	(12090705)
492397.12	3626272.50	354.49631	(12093001)	492404.61	3626272.50	370.25124	(12093001)
492412.10	3626272.50	379.87288	(12093001)	492419.59	3626272.50	383.16283	(12093001)
492269.79	3626279.09	336.63375	(10010219)	492277.28	3626279.09	338.53446	(10010219)
492284.77	3626279.09	338.89731	(10010219)	492292.26	3626279.09	337.71896	(10010219)
492299.75	3626279.09	335.06391	(10010219)	492307.24	3626279.09	333.95238	(12110222)
492314.73	3626279.09	331.04809	(12110222)	492322.22	3626279.09	325.90875	(12110222)

492329.71 3626279.09 326.82574 (10032622)
492337.20 3626279.09 334.11293 (10032622)
492344.69 3626279.09 338.03357 (10021502)
492352.18 3626279.09 343.31086 (10021502)
492359.67 3626279.09 348.62671 (10032822)
492367.16 3626279.09 354.01973 (10113022)
492374.65 3626279.09 358.74382 (10102604)
492382.14 3626279.09 359.34606 (10102604)
492389.63 3626279.09 355.94329 (10102604)
492397.12 3626279.09 356.61718 (12090705)
492404.61 3626279.09 359.54763 (12093001)
492412.10 3626279.09 375.99686 (12093001)
492419.59 3626279.09 386.18188 (12093001)
492269.79 3626285.68 339.87218 (12111624)
492277.28 3626285.68 342.72391 (10010219)
492284.77 3626285.68 346.33158 (10010219)
492292.26 3626285.68 348.28656 (10010219)
492299.75 3626285.68 348.60114 (10010219)
492307.24 3626285.68 347.33401 (10010219)
492314.73 3626285.68 344.46477 (10010219)
492322.22 3626285.68 342.29116 (12110222)
492329.71 3626285.68 338.51312 (12110222)
492337.20 3626285.68 332.47046 (12110222)
492344.69 3626285.68 339.48194 (10032622)
492352.18 3626285.68 345.01639 (10032622)
492359.67 3626285.68 350.12202 (10021502)
492367.16 3626285.68 355.02338 (10032822)
492374.65 3626285.68 359.77491 (10113022)
492382.14 3626285.68 365.61452 (10102604)
492389.63 3626285.68 367.50763 (10102604)
492397.12 3626285.68 365.16867 (10102604)
492404.61 3626285.68 363.60606 (12090705)
492412.10 3626285.68 366.10102 (12090705)
492419.59 3626285.68 381.78752 (12093001)
492269.79 3626292.27 339.69919 (12111624)
492277.28 3626292.27 344.89466 (12111624)
492284.77 3626292.27 348.53345 (12111624)
492292.26 3626292.27 352.68159 (10010219)
492299.75 3626292.27 356.44271 (10010219)
492307.24 3626292.27 358.46364 (10010219)
492314.73 3626292.27 358.72944 (10010219)
492322.22 3626292.27 357.32750 (10010219)
492329.71 3626292.27 354.23447 (10010219)
492337.20 3626292.27 350.68251 (12110222)
492344.69 3626292.27 345.94574 (12110222)
492352.18 3626292.27 343.95547 (10032622)
492359.67 3626292.27 351.68549 (10032622)
492367.16 3626292.27 356.25409 (10021502)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492374.65	3626292.27	361.16010	(10021502)	492382.14	3626292.27	367.05625	(10032822)
492389.63	3626292.27	372.61111	(10113022)	492397.12	3626292.27	375.47481	(10102604)
492404.61	3626292.27	374.30431	(10102604)	492412.10	3626292.27	370.66637	(12090705)
492419.59	3626292.27	374.09365	(12090705)	492269.79	3626298.86	332.16307	(12111624)
492277.28	3626298.86	340.75992	(12111624)	492284.77	3626298.86	347.92160	(12111624)
492292.26	3626298.86	353.53033	(12111624)	492299.75	3626298.86	357.53095	(12111624)
492307.24	3626298.86	363.06571	(10010219)	492314.73	3626298.86	366.97830	(10010219)
492322.22	3626298.86	369.07149	(10010219)	492329.71	3626298.86	369.25474	(10010219)
492337.20	3626298.86	367.67440	(10010219)	492344.69	3626298.86	364.32867	(10010219)
492352.18	3626298.86	359.31371	(10010219)	492359.67	3626298.86	353.27816	(12110222)
492367.16	3626298.86	357.44810	(10032622)	492374.65	3626298.86	363.20058	(10032622)
492382.14	3626298.86	368.76809	(10021502)	492389.63	3626298.86	374.36847	(10032822)
492397.12	3626298.86	379.34114	(10113022)	492404.61	3626298.86	383.33677	(10113022)
492412.10	3626298.86	383.31716	(10102604)	492419.59	3626298.86	378.91957	(10102604)
492269.79	3626305.45	331.58779	(10112204)	492277.28	3626305.45	334.09714	(10051122)
492284.77	3626305.45	339.60211	(12111624)	492292.26	3626305.45	348.75602	(12111624)

492299.75 3626305.45 356.42474 (12111624)
492307.24 3626305.45 362.47257 (12111624)
492314.73 3626305.45 367.95094 (10010219)
492322.22 3626305.45 373.88088 (10010219)
492329.71 3626305.45 377.92235 (10010219)
492337.20 3626305.45 380.05045 (10010219)
492344.69 3626305.45 380.15611 (10010219)
492352.18 3626305.45 378.33457 (10010219)
492359.67 3626305.45 374.66664 (10010219)
492367.16 3626305.45 369.23617 (10010219)
492374.65 3626305.45 362.24617 (10032622)
492382.14 3626305.45 370.43438 (10032622)
492389.63 3626305.45 375.65725 (10021502)
492397.12 3626305.45 381.10743 (10032822)
492404.61 3626305.45 386.16506 (10032822)
492412.10 3626305.45 391.53062 (10110123)
492419.59 3626305.45 392.08695 (10102604)
492269.79 3626312.04 342.31924 (10112204)
492277.28 3626312.04 343.67676 (10112204)
492284.77 3626312.04 343.91074 (10112204)
492292.26 3626312.04 344.21769 (10051122)
492299.75 3626312.04 347.76491 (10011403)
492307.24 3626312.04 356.98749 (12111624)
492314.73 3626312.04 365.22173 (12111624)
492322.22 3626312.04 371.73990 (12111624)
492329.71 3626312.04 378.87063 (10010219)
492337.20 3626312.04 385.09816 (10010219)
492344.69 3626312.04 389.26256 (10010219)
492352.18 3626312.04 391.36996 (10010219)
492359.67 3626312.04 391.38745 (10010219)
492367.16 3626312.04 389.27719 (10010219)
492374.65 3626312.04 385.22050 (10010219)
492382.14 3626312.04 379.34628 (10010219)
492389.63 3626312.04 376.67609 (10032622)
492397.12 3626312.04 382.57922 (10032622)
492404.61 3626312.04 388.46033 (10021502)
492412.10 3626312.04 394.54704 (10032822)
492419.59 3626312.04 399.82672 (10110123)
492269.79 3626318.63 347.95255 (12111421)
492277.28 3626318.63 350.54230 (10112204)
492284.77 3626318.63 353.70448 (10112204)
492292.26 3626318.63 355.77879 (10112204)
492299.75 3626318.63 356.62442 (10112204)
492307.24 3626318.63 356.32798 (10112204)
492314.73 3626318.63 358.76325 (10051122)
492322.22 3626318.63 365.45010 (12111624)
492329.71 3626318.63 374.25690 (12111624)
492337.20 3626318.63 381.71112 (10010219)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
492344.69	3626318.63	390.15812	(10010219)	492352.18	3626318.63	396.62405	(10010219)
492359.67	3626318.63	400.93863	(10010219)	492367.16	3626318.63	402.99295	(10010219)
492374.65	3626318.63	402.84392	(10010219)	492382.14	3626318.63	400.47671	(10010219)
492389.63	3626318.63	395.93523	(10010219)	492397.12	3626318.63	389.47593	(10010219)
492404.61	3626318.63	390.35961	(10032622)	492412.10	3626318.63	396.09275	(10021502)
492419.59	3626318.63	402.16307	(10032822)	492654.44	3626387.58	245.36704	(12013006)
492685.01	3626384.14	295.30778	(12013006)	492702.20	3626382.61	302.11771	(12010124)
492715.58	3626381.08	325.24107	(12080704)	492733.54	3626379.94	363.42881	(12080704)
492755.32	3626378.03	386.41158	(12080704)	492776.34	3626378.03	387.06382	(12080704)
492780.92	3626393.31	419.09121	(12082506)	492740.03	3626412.42	390.22323	(12081901)
492758.38	3626410.89	411.20229	(12081901)				

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE SUMMARY OF MAXIMUM PERIOD (26304 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
STCK1	1ST HIGHEST VALUE IS	65.68730 AT (492579.61, 3626417.54, 127.76, 134.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	63.26868 AT (492569.61, 3626417.54, 124.13, 134.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	62.79719 AT (492577.71, 3626427.45, 125.45, 134.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	62.69179 AT (492587.89, 3626417.54, 128.61, 134.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	61.16063 AT (492579.61, 3626407.54, 128.59, 134.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	60.53823 AT (492569.61, 3626407.54, 125.54, 134.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	59.76672 AT (492589.61, 3626427.54, 127.23, 134.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	59.70736 AT (492578.78, 3626431.67, 125.16, 134.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	57.11797 AT (492561.65, 3626406.52, 123.26, 134.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	53.65879 AT (492579.61, 3626437.54, 124.44, 134.00, 0.00)	DC	
ALL	1ST HIGHEST VALUE IS	65.68730 AT (492579.61, 3626417.54, 127.76, 134.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	63.26868 AT (492569.61, 3626417.54, 124.13, 134.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	62.79719 AT (492577.71, 3626427.45, 125.45, 134.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	62.69179 AT (492587.89, 3626417.54, 128.61, 134.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	61.16063 AT (492579.61, 3626407.54, 128.59, 134.00, 0.00)	DC	

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          6TH HIGHEST VALUE IS      60.53823 AT (  492569.61,
3626407.54,   125.54,   134.00,    0.00)  DC
          7TH HIGHEST VALUE IS      59.76672 AT (  492589.61,
3626427.54,   127.23,   134.00,    0.00)  DC
          8TH HIGHEST VALUE IS      59.70736 AT (  492578.78,
3626431.67,   125.16,   134.00,    0.00)  DC
          9TH HIGHEST VALUE IS      57.11797 AT (  492561.65,
3626406.52,   123.26,   134.00,    0.00)  DC
         10TH HIGHEST VALUE IS      53.65879 AT (  492579.61,
3626437.54,   124.44,   134.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

NETWORK GROUP ID	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	AVERAGE CONC OF TYPE	DATE (YYMMDDHH) GRID-ID
STCK1	HIGH 1ST HIGH VALUE IS	558.03858	ON 10031704: AT (492548.31, 3626329.15, 131.90, 131.90, 0.00) GC UCART1
ALL	HIGH 1ST HIGH VALUE IS	558.03858	ON 10031704: AT (492548.31, 3626329.15, 131.90, 131.90, 0.00) GC UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

 *** MODELOPTs: RegDFAULT CONC ELEV RURAL

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   37 Warning Message(s)
 A Total of   697 Informational Message(s)

 A Total of   26304 Hours Were Processed

 A Total of   348 Calm Hours Identified

 A Total of   349 Missing Hours Identified (1.33 Percent)

    ******** FATAL ERROR MESSAGES ********
               *** NONE ***

    ********   WARNING MESSAGES   ********
 SO W320   38   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
 MX W441   14167   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081407
 MX W441   14168   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081408
 MX W441   14169   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081409
 MX W441   14170   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081410
 MX W441   14171   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081411
 MX W441   14172   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081412
 MX W441   14173   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081413
 MX W441   14174   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081414
 MX W441   14175   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081415
 MX W441   14176   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081416
 MX W441   14177   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081417
 MX W441   14178   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=   11081418

```
 MX W441   14191        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081507
 MX W441   14192        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081508
 MX W441   14193        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081509
 MX W441   14194        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081510
 MX W441   14195        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081511
 MX W441   14196        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081512
 MX W441   14197        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081513
 MX W441   14198        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081514
 MX W441   14199        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081515
 MX W441   14200        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081516
 MX W441   14201        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081517
 MX W441   14202        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081518
 MX W441   14215        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081607
 MX W441   14216        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081608
 MX W441   14217        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081609
 MX W441   14218        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081610
 MX W441   14219        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081611
 MX W441   14220        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081612
 MX W441   14221        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081613
 MX W441   14222        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081614
 MX W441   14223        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081615
 MX W441   14224        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081616
 MX W441   14225        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081617
 MX W441   14226        METQA: Vert Pot Temp Grad abv ZI set to min .005,
KURDAT=     11081618

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
```

ATTACHMENT 5

HARP2 Construction Output

Maximum Off-Site Residence - Construction Cancer Risk

**HARP - Air Dispersion Modeling and Risk Tool v17052
**7/12/2017
**Exported Risk Results
NOTE: Starting with highest off-site discrete receptor, sorted risk from highest to lowest for 20 receptors. Chappy Hall Residents are Depicted on the On-Site Results

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INHAL_RISK
226	ALL		492780.6	3626444	5.82E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.82E-06
227	ALL		492790.6	3626444	5.47E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.47E-06
228	ALL		492798.5	3626444	5.08E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.08E-06
234	ALL		492779.3	3626454	4.65E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.65E-06
235	ALL		492789.3	3626454	4.42E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.42E-06
236	ALL		492799.3	3626454	4.06E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.06E-06
242	ALL		492779.3	3626464	3.80E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.80E-06
243	ALL		492789.3	3626464	3.62E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.62E-06
244	ALL		492799.3	3626464	3.36E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.36E-06
251	ALL		492769.3	3626474	3.29E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.29E-06
252	ALL		492779.3	3626474	3.16E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.16E-06
253	ALL		492789.3	3626474	3.02E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.02E-06
229	ALL		492839.3	3626444	2.91E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.91E-06
254	ALL		492799.3	3626474	2.82E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.82E-06
261	ALL		492769.3	3626484	2.77E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.77E-06
262	ALL		492779.3	3626484	2.67E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.67E-06
263	ALL		492789.3	3626484	2.55E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.55E-06
237	ALL		492839.3	3626454	2.55E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.55E-06
245	ALL		492829.3	3626464	2.51E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.51E-06
230	ALL		492849.3	3626444	2.51E-06	3YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.51E-06

Maximum Off-Site Residence - Construction Chronic Health Hazard Index

**HARP - Air Dispersion Modeling and Risk Tool v17052
**7/12/2017
**Exported Risk Results
NOTE: Starting with highest off-site discrete receptor, sorted risk from highest to lowest for 20 receptors. Chappy Hall Residents are Depicted on the On-Site Results

REC	GRP	NETID	X	Y	SCENARIO	RESP	MAXHI
226	ALL		492780.6	3626444	NonCancerChronicDerived_InhSoilDermMMilk	0.00365	0.00365
227	ALL		492790.6	3626444	NonCancerChronicDerived_InhSoilDermMMilk	0.003435	0.003435
228	ALL		492798.5	3626444	NonCancerChronicDerived_InhSoilDermMMilk	0.00319	0.00319
234	ALL		492779.3	3626454	NonCancerChronicDerived_InhSoilDermMMilk	0.002915	0.002915
235	ALL		492789.3	3626454	NonCancerChronicDerived_InhSoilDermMMilk	0.002774	0.002774
236	ALL		492799.3	3626454	NonCancerChronicDerived_InhSoilDermMMilk	0.002547	0.002547
242	ALL		492779.3	3626464	NonCancerChronicDerived_InhSoilDermMMilk	0.002384	0.002384
243	ALL		492789.3	3626464	NonCancerChronicDerived_InhSoilDermMMilk	0.00227	0.00227
244	ALL		492799.3	3626464	NonCancerChronicDerived_InhSoilDermMMilk	0.002107	0.002107
251	ALL		492769.3	3626474	NonCancerChronicDerived_InhSoilDermMMilk	0.002061	0.002061
252	ALL		492779.3	3626474	NonCancerChronicDerived_InhSoilDermMMilk	0.001986	0.001986
253	ALL		492789.3	3626474	NonCancerChronicDerived_InhSoilDermMMilk	0.001893	0.001893
229	ALL		492839.3	3626444	NonCancerChronicDerived_InhSoilDermMMilk	0.001823	0.001823
254	ALL		492799.3	3626474	NonCancerChronicDerived_InhSoilDermMMilk	0.001772	0.001772
261	ALL		492769.3	3626484	NonCancerChronicDerived_InhSoilDermMMilk	0.001736	0.001736
262	ALL		492779.3	3626484	NonCancerChronicDerived_InhSoilDermMMilk	0.001675	0.001675
263	ALL		492789.3	3626484	NonCancerChronicDerived_InhSoilDermMMilk	0.001601	0.001601
237	ALL		492839.3	3626454	NonCancerChronicDerived_InhSoilDermMMilk	0.001599	0.001599
245	ALL		492829.3	3626464	NonCancerChronicDerived_InhSoilDermMMilk	0.001575	0.001575
230	ALL		492849.3	3626444	NonCancerChronicDerived_InhSoilDermMMilk	0.001572	0.001572

Maximum On-Site Residence - Construction Cancer Risk

**HARP - Air Dispersion Modeling and Risk Tool v17052
**7/12/2017
**Exported Risk Results
NOTE: Starting with highest on-site discrete receptor at Chappy Hall, sorted risk from highest to lowest for 20 receptors.

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INHAL_RISK
1203	ALL		492613.6	3626422	5.93E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.93E-06
1204	ALL		492613.8	3626428	4.90E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.90E-06
703	ALL		492609.6	3626428	4.46E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.46E-06
1202	ALL		492599.4	3626422	3.90E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.90E-06
1205	ALL		492613.6	3626436	3.73E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.73E-06
702	ALL		492599.6	3626428	3.29E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.29E-06
729	ALL		492606.6	3626436	3.06E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.06E-06
678	ALL		492587.9	3626418	3.03E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.03E-06
655	ALL		492579.6	3626408	2.74E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.74E-06
701	ALL		492589.6	3626428	2.42E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.42E-06
728	ALL		492599.6	3626438	2.42E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.42E-06
677	ALL		492579.6	3626418	2.26E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.26E-06
633	ALL		492569.6	3626398	2.01E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.01E-06
727	ALL		492589.6	3626438	1.86E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	1.86E-06
654	ALL		492569.6	3626408	1.83E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	1.83E-06
700	ALL		492577.7	3626427	1.70E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	1.70E-06
1209	ALL		492589.2	3626442	1.65E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	1.65E-06
1208	ALL		492578.8	3626432	1.61E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	1.61E-06
676	ALL		492569.6	3626418	1.59E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	1.59E-06
726	ALL		492579.6	3626438	1.45E-06	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	1.45E-06

Maximum On-Site Residence - Construction Chronic Health Hazard Index

**HARP - Air Dispersion Modeling and Risk Tool v17052
**7/12/2017
**Exported Risk Results
NOTE: Starting with highest on-site discrete receptor at Chappy Hall, sorted risk from highest to lowest for 20 receptors.

REC	GRP	NETID	X	Y	SCENARIO	RESP	MAXHI
1203	ALL		492613.55	3626421.99	NonCancerChronicDerived_InhSoilDermMMilk	0.0078467	0.0078467
1204	ALL		492613.75	3626427.92	NonCancerChronicDerived_InhSoilDermMMilk	0.006485	0.006485
703	ALL		492609.61	3626427.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0058984	0.0058984
1202	ALL		492599.44	3626421.99	NonCancerChronicDerived_InhSoilDermMMilk	0.0051659	0.0051659
1205	ALL		492613.55	3626435.89	NonCancerChronicDerived_InhSoilDermMMilk	0.0049402	0.0049402
702	ALL		492599.61	3626427.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0043522	0.0043522
729	ALL		492606.62	3626436.27	NonCancerChronicDerived_InhSoilDermMMilk	0.0040453	0.0040453
678	ALL		492587.89	3626417.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0040039	0.0040039
655	ALL		492579.61	3626407.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0036193	0.0036193
701	ALL		492589.61	3626427.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0032033	0.0032033
728	ALL		492599.61	3626437.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0032018	0.0032018
677	ALL		492579.61	3626417.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0029929	0.0029929
633	ALL		492569.61	3626397.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0026602	0.0026602
727	ALL		492589.61	3626437.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0024589	0.0024589
654	ALL		492569.61	3626407.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0024249	0.0024249
700	ALL		492577.71	3626427.45	NonCancerChronicDerived_InhSoilDermMMilk	0.0022507	0.0022507
1209	ALL		492589.21	3626442.01	NonCancerChronicDerived_InhSoilDermMMilk	0.0021814	0.0021814
1208	ALL		492578.78	3626431.67	NonCancerChronicDerived_InhSoilDermMMilk	0.0021264	0.0021264
676	ALL		492569.61	3626417.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0020971	0.0020971
726	ALL		492579.61	3626437.54	NonCancerChronicDerived_InhSoilDermMMilk	0.0019204	0.0019204

ATTACHMENT 6

HARP2 Emergency Generator Output

Maximum Off-Site Residence - Emergency Generators Cancer Risk

**HARP - Air Dispersion Modeling and Risk Tool v17052
**7/12/2017
**Exported Risk Results
NOTE: Starting with highest off-site discrete receptor, sorted risk from highest to lowest for 20 receptors. Resident Halls are Depicted on the On-Site Results

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INHAL_RISK
533	ALL		492419.6	3626338	6.03E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	6.03E-07
549	ALL		492419.6	3626348	6.02E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	6.02E-07
565	ALL		492419.6	3626358	5.95E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.95E-07
517	ALL		492419.6	3626328	5.94E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.94E-07
1655	ALL		492419.6	3626312	5.83E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.83E-07
581	ALL		492419.6	3626368	5.81E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.81E-07
532	ALL		492409.6	3626338	5.76E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.76E-07
1634	ALL		492419.6	3626305	5.73E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.73E-07
548	ALL		492409.6	3626348	5.73E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.73E-07
516	ALL		492409.6	3626328	5.70E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.70E-07
1654	ALL		492412.1	3626312	5.67E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.67E-07
614	ALL		492429.6	3626388	5.65E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.65E-07
632	ALL		492439.6	3626398	5.65E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.65E-07
564	ALL		492409.6	3626358	5.63E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.63E-07
652	ALL		492449.6	3626408	5.62E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.62E-07
1613	ALL		492419.6	3626299	5.61E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.61E-07
1633	ALL		492412.1	3626305	5.61E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.61E-07
597	ALL		492419.6	3626378	5.56E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.56E-07
531	ALL		492399.6	3626338	5.52E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.52E-07
1612	ALL		492412.1	3626299	5.51E-07	30YrCancerDerived_InhSoilDermMMilk_FAH3to70	5.51E-07

Maximum Off-Site Residence - Emergency Generators Chronic Health Hazard Index

**HARP - Air Dispersion Modeling and Risk Tool v17052
**7/12/2017
**Exported Risk Results
NOTE: Starting with highest off-site discrete receptor, sorted risk from highest to lowest for 20 receptors. Resident Halls are Depicted on the On-Site Results

REC	GRP	NETID	X	Y	SCENARIO	RESP	MAXHI
533	ALL		492419.6	3626338	NonCancerChronicDerived_InhSoilDermMMilk	0.000177	0.000177
549	ALL		492419.6	3626348	NonCancerChronicDerived_InhSoilDermMMilk	0.000176	0.000176
565	ALL		492419.6	3626358	NonCancerChronicDerived_InhSoilDermMMilk	0.000174	0.000174
517	ALL		492419.6	3626328	NonCancerChronicDerived_InhSoilDermMMilk	0.000174	0.000174
1655	ALL		492419.6	3626312	NonCancerChronicDerived_InhSoilDermMMilk	0.000171	0.000171
581	ALL		492419.6	3626368	NonCancerChronicDerived_InhSoilDermMMilk	0.000171	0.000171
532	ALL		492409.6	3626338	NonCancerChronicDerived_InhSoilDermMMilk	0.000169	0.000169
1634	ALL		492419.6	3626305	NonCancerChronicDerived_InhSoilDermMMilk	0.000168	0.000168
548	ALL		492409.6	3626348	NonCancerChronicDerived_InhSoilDermMMilk	0.000168	0.000168
516	ALL		492409.6	3626328	NonCancerChronicDerived_InhSoilDermMMilk	0.000167	0.000167
1654	ALL		492412.1	3626312	NonCancerChronicDerived_InhSoilDermMMilk	0.000166	0.000166
614	ALL		492429.6	3626388	NonCancerChronicDerived_InhSoilDermMMilk	0.000166	0.000166
632	ALL		492439.6	3626398	NonCancerChronicDerived_InhSoilDermMMilk	0.000166	0.000166
564	ALL		492409.6	3626358	NonCancerChronicDerived_InhSoilDermMMilk	0.000165	0.000165
652	ALL		492449.6	3626408	NonCancerChronicDerived_InhSoilDermMMilk	0.000165	0.000165
1613	ALL		492419.6	3626299	NonCancerChronicDerived_InhSoilDermMMilk	0.000165	0.000165
1633	ALL		492412.1	3626305	NonCancerChronicDerived_InhSoilDermMMilk	0.000164	0.000164
597	ALL		492419.6	3626378	NonCancerChronicDerived_InhSoilDermMMilk	0.000163	0.000163
531	ALL		492399.6	3626338	NonCancerChronicDerived_InhSoilDermMMilk	0.000162	0.000162
1612	ALL		492412.1	3626299	NonCancerChronicDerived_InhSoilDermMMilk	0.000162	0.000162

Maximum On-Site Residence - Emergency Generators Cancer Risk

**HARP - Air Dispersion Modeling and Risk Tool v17052
**7/12/2017
**Exported Risk Results
NOTE: Starting with highest on-site discrete receptor at Chappy hall, sorted risk from highest to lowest for 20 receptors.

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INHAL_RISK
677	ALL		492579.6	3626418	4.67E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.67E-07
676	ALL		492569.6	3626418	4.50E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.50E-07
700	ALL		492577.7	3626427	4.46E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.46E-07
678	ALL		492587.9	3626418	4.46E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.46E-07
655	ALL		492579.6	3626408	4.35E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.35E-07
654	ALL		492569.6	3626408	4.30E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.30E-07
701	ALL		492589.6	3626428	4.25E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.25E-07
1208	ALL		492578.8	3626432	4.25E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.25E-07
653	ALL		492561.7	3626407	4.06E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	4.06E-07
726	ALL		492579.6	3626438	3.82E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.82E-07
1207	ALL		492576.2	3626437	3.78E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.78E-07
633	ALL		492569.6	3626398	3.76E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.76E-07
1202	ALL		492599.4	3626422	3.75E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.75E-07
727	ALL		492589.6	3626438	3.67E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.67E-07
702	ALL		492599.6	3626428	3.61E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.61E-07
1209	ALL		492589.2	3626442	3.32E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.32E-07
1206	ALL		492573.3	3626443	3.15E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.15E-07
728	ALL		492599.6	3626438	3.12E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	3.12E-07
753	ALL		492579.6	3626448	2.91E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.91E-07
754	ALL		492585.4	3626448	2.90E-07	1YrCancerDerived_InhSoilDermMMilk_FAH3to70	2.90E-07

Maximum On-Site Residence - Emergency Generators Chronic Health Hazard Index

**HARP - Air Dispersion Modeling and Risk Tool v17052
**7/12/2017
**Exported Risk Results
NOTE: Starting with highest on-site discrete receptor at Chappy hall, sorted risk from highest to lowest for 20 receptors.

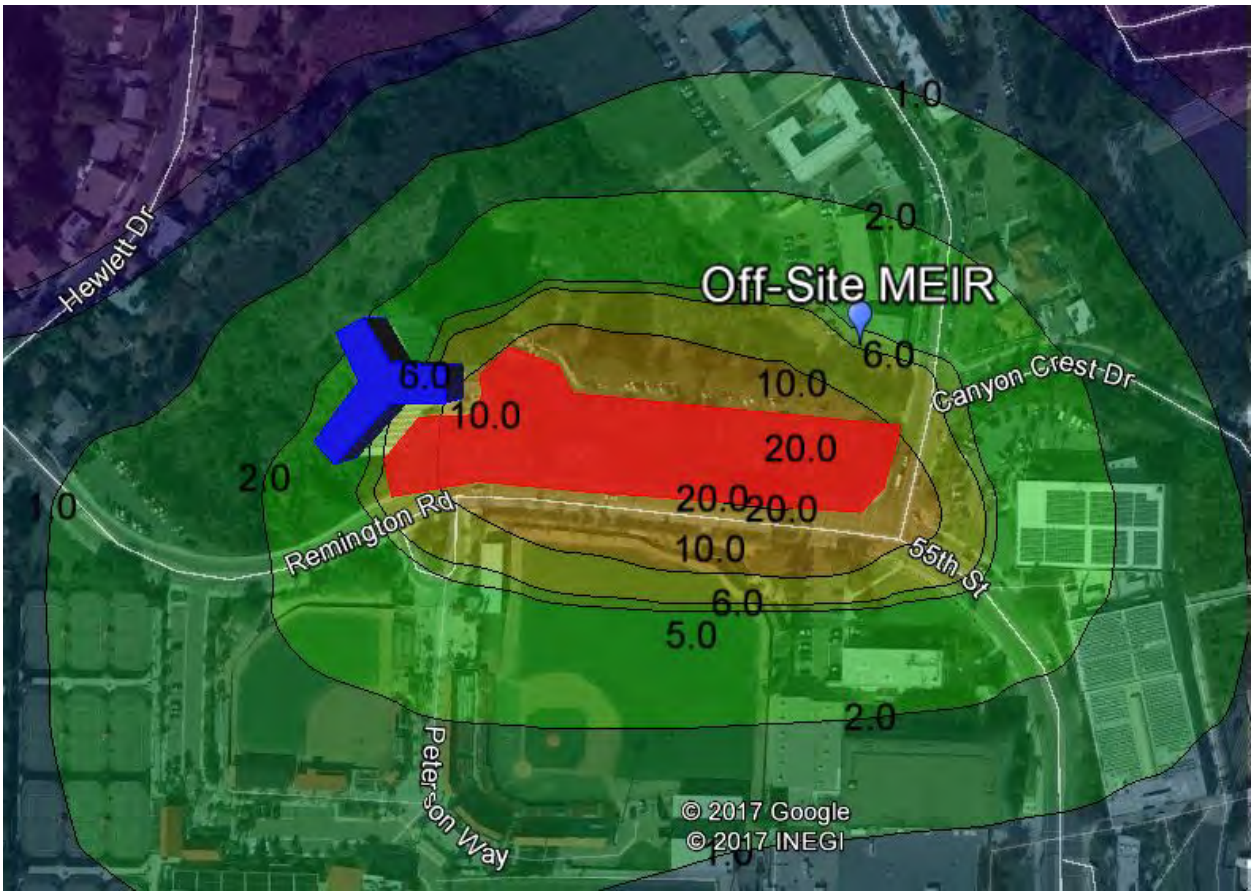
REC	GRP	NETID	X	Y	SCENARIO	RESP	MAXHI
677	ALL		492579.6	3626418	NonCancerChronicDerived_InhSoilDermMMilk	0.000618	0.000618
676	ALL		492569.6	3626418	NonCancerChronicDerived_InhSoilDermMMilk	0.000595	0.000595
700	ALL		492577.7	3626427	NonCancerChronicDerived_InhSoilDermMMilk	0.000591	0.000591
678	ALL		492587.9	3626418	NonCancerChronicDerived_InhSoilDermMMilk	0.00059	0.00059
655	ALL		492579.6	3626408	NonCancerChronicDerived_InhSoilDermMMilk	0.000575	0.000575
654	ALL		492569.6	3626408	NonCancerChronicDerived_InhSoilDermMMilk	0.000569	0.000569
701	ALL		492589.6	3626428	NonCancerChronicDerived_InhSoilDermMMilk	0.000562	0.000562
1208	ALL		492578.8	3626432	NonCancerChronicDerived_InhSoilDermMMilk	0.000562	0.000562
653	ALL		492561.7	3626407	NonCancerChronicDerived_InhSoilDermMMilk	0.000537	0.000537
726	ALL		492579.6	3626438	NonCancerChronicDerived_InhSoilDermMMilk	0.000505	0.000505
1207	ALL		492576.2	3626437	NonCancerChronicDerived_InhSoilDermMMilk	0.0005	0.0005
633	ALL		492569.6	3626398	NonCancerChronicDerived_InhSoilDermMMilk	0.000497	0.000497
1202	ALL		492599.4	3626422	NonCancerChronicDerived_InhSoilDermMMilk	0.000497	0.000497
727	ALL		492589.6	3626438	NonCancerChronicDerived_InhSoilDermMMilk	0.000486	0.000486
702	ALL		492599.6	3626428	NonCancerChronicDerived_InhSoilDermMMilk	0.000478	0.000478
1209	ALL		492589.2	3626442	NonCancerChronicDerived_InhSoilDermMMilk	0.00044	0.00044
1206	ALL		492573.3	3626443	NonCancerChronicDerived_InhSoilDermMMilk	0.000417	0.000417
728	ALL		492599.6	3626438	NonCancerChronicDerived_InhSoilDermMMilk	0.000413	0.000413
753	ALL		492579.6	3626448	NonCancerChronicDerived_InhSoilDermMMilk	0.000384	0.000384
754	ALL		492585.4	3626448	NonCancerChronicDerived_InhSoilDermMMilk	0.000383	0.000383

ATTACHMENT 7

Construction and Operation Isopleths

PROJECT CONSTRUCTION – CANCER RISK ISOPLETH

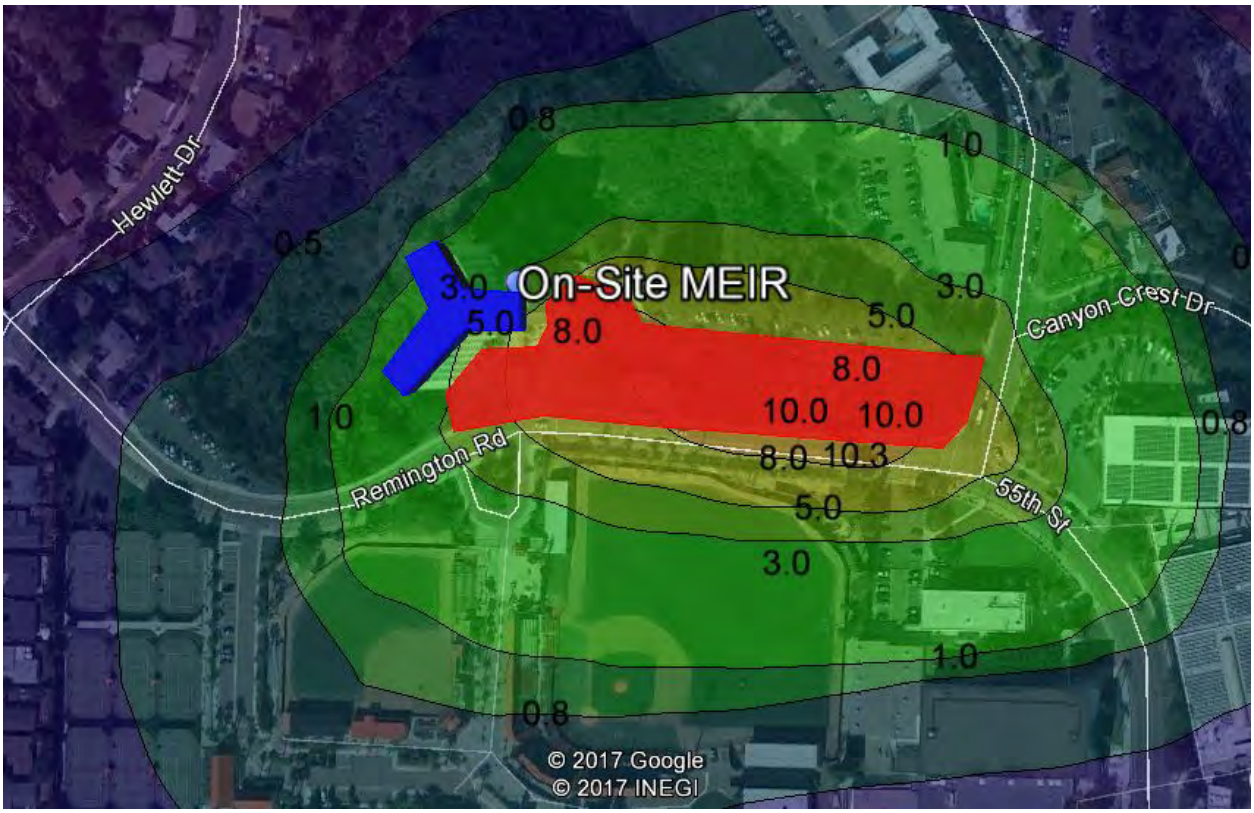
Off-site MEIR Cancer Risk: 3-Year Exposure



Note: Cancer Risk isopleths exported to Google Earth

PROJECT CONSTRUCTION – CANCER RISK ISOPLETH

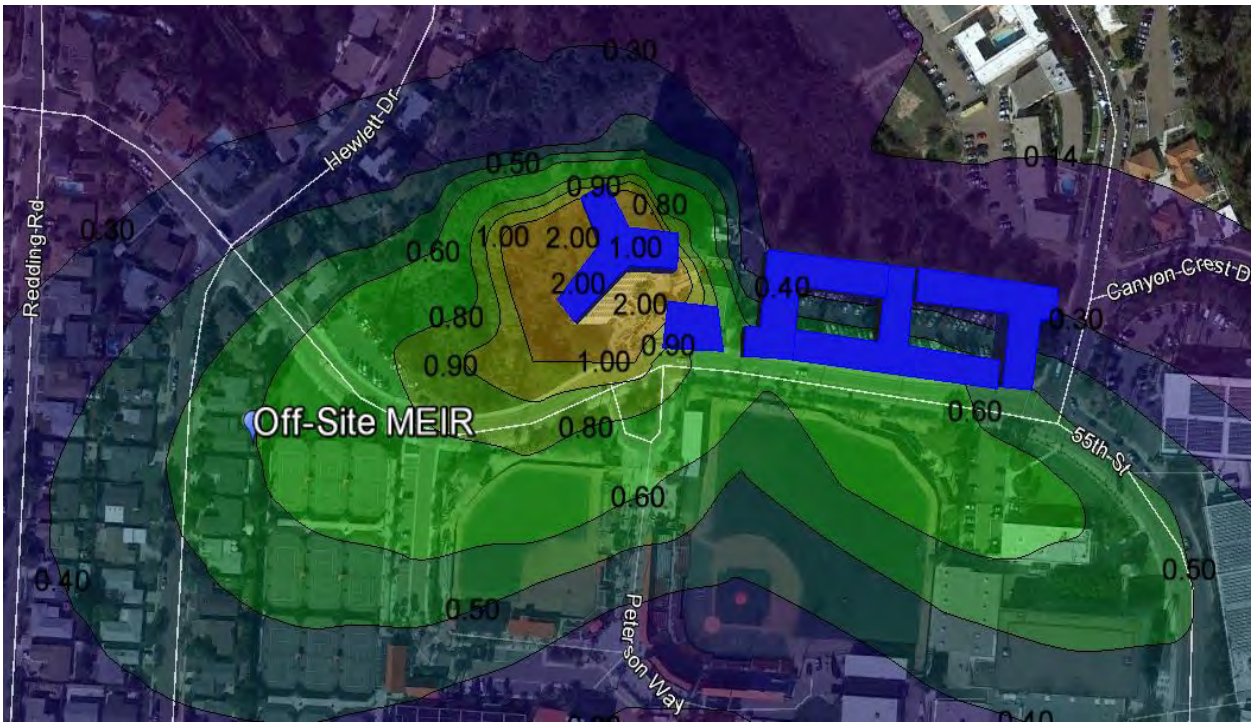
On-site MEIR Cancer Risk: 1-Year Exposure



Note: Cancer Risk isopleths exported to Google Earth

PROJECT EMERGENCY GENERATORS – CANCER RISK ISOPLETH

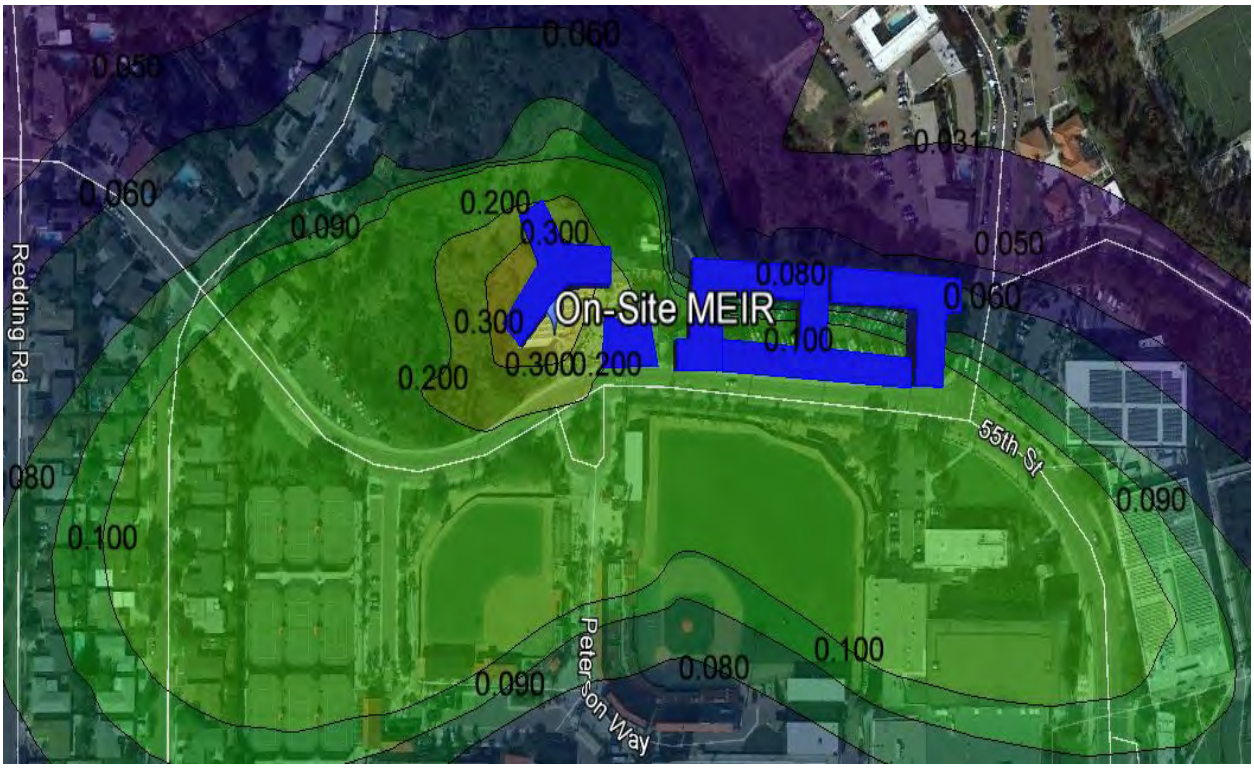
Off-site MEIR Cancer Risk: 30-Year Exposure



Note: Cancer Risk isopleths exported to Google Earth

PROJECT EMERGENCY GENERATORS – CANCER RISK ISOPLETH

On-site MEIR Cancer Risk: 1-Year Exposure



Note: Cancer Risk isopleths exported to Google Earth

Cody J. Martinez
Chairman

Henry R. Murphy
Vice Chairman

Charlene Worrell
Secretary

LaShunna Davidson
Treasurer

Shu Brown
Council Member

Joshua Muse
Council Member

Alanna Sandoval
Councilwoman

January 19, 2017

Mr. Robert Schulz
Associate Vice President
Real Estate, Planning & Development
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1620

RE: SDSU New Student Housing Expansion

Dear Mr. Schulz:

The Sycuan Band of the Kumeyaay Nation ("Sycuan Band") is a federally-recognized Indian Tribe organized under Articles of Association initially approved by the Secretary of Interior on August 18, 1972. Please be advised the Sycuan Tribal Offices were closed for business December 19, 2016 through January 2, 2017

Kumeyaay cultural resources have been documented throughout the Kumeyaay Territory. The SDSU New Student Housing Expansion property is located in an area of San Diego with known cultural resources and should be considered as a "high value" resource area. In addition, the absence of visible cultural resources does not preclude their existence. Certain plants, animals, habitats and use areas are also considered cultural resources. Below ground cultural resources may also be present without any manifestation on the surface. The Sycuan Band believes this land is highly likely to host additional environmental and cultural resources.

To ensure adequate resource protection, the Sycuan Band request a qualified Kumeyaay Cultural Monitor be present during any pedestrian surveys conducted by an archeologist and during all ground disturbing activities. Please provide the name and contact information for the Kumeyaay Monitor for this project. In addition the Sycuan Band requests a copy of any archeological survey reports currently on file for the area or conducted as part of the project development.

If development is planned in the immediate vicinity or adjacent areas of a known cultural resource(s), mitigation measures shall be incorporated to reduce potential impacts. Avoidance is the preferred mitigation. When avoidance is not feasible, consideration shall be given to creative and alternative strategies to avoid, minimize or mitigate adverse effects to cultural resources. The Sycuan Band requests notice and consultation should mitigation measure be needed.

1 Kwaaypaay Court • El Cajon, California 92019 • 619.445.2613 • Fax 619.445.1927 • sycuantribe.com

Should the project require an environmental report, a Kumeyaay prepared cultural context section is appropriate. The Kumeyaay Nation has been here since the beginning of time. There is a continuum of Kumeyaay ancestry from the first Kumeyaay people to the present. To acknowledge the Kumeyaay perspective is beneficial to fully understanding potential impacts to the broad range of natural and environment that are Cultural Resources.

Should it be necessary to curate any archeological collections, including prehistoric and historic artifacts and associated records, the curation should occur within the traditional Kumeyaay Territory and with priority placed on tribal facilities that provide professional, systematic, and accountable curatorial services on a long-term basis.

If you need any additional information or continued discussion regarding project impacts, please contact Lisa Haws, Cultural Resource Manager, at (619) 312-1935 or lhaws@sycuan-nsn.gov. Thank you.

Sincerely,

Cody J. Martinez
Chairman

1 Kwaaypaay Court • El Cajon, California 92019

UNITED STATES POSTAGE
PITNEY BOWES
02 1P $ 000.46⁵
0003212683 JAN 27 2017
MAILED FROM ZIP CODE 92019

RECEIVED
FEB - 3 2017
Facilities Planning, Design and Construction

Mr. Robert Schulz, Associate Vice President
Real Estate, Planning & Development
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1620

RECEIVED
FEB - 3 2017
Facilities Planning, Design and Construction

92182$0003 C003

Snipes-Dye associates

PRELIMINARY DRAINAGE STUDY

For

WEST CAMPUS HOUSING

SAN DIEGO STATE UNIVERSITY

Prepared by:
Snipes-Dye Associates
8348 Center Drive, Suite G
La Mesa, CA 91942-2910
(619)697-9234
Job No. SD2916

Dated: August 1, 2017

Preliminary Hydraulic/Hydrology Calculations

The site is located at the northwesterly portion of San Diego State University, along the northerly side of Remington Road, between Hewlett Drive and 55th Street. The proposed development of the student housing complex consists of the construction of additional two residence halls, multi-story buildings with parking levels over a 3.42-acre site which currently occupied by Chapultepec Hall, a retail building, a multi-purpose building and couple parking lots. Parking Lot T and Chapultepec Hall will remain. The existing buildings located adjacent to Chapultepec Hall and the parking lot will get demolished for the construction of new residence halls and fire-truck access lane. The site topography consists of natural vegetated slope land, sloping northerly descending toward Interstate 8, excepting the areas occupied by buildings and the parking lots.

The upstream basin, tributary to the site runoff consists of approximately 7.8 acres of developed area, including a portion of the Sport Complex and Remington Road. The runoff from these areas is collected in curb-inlet and catch basins then discharge to the natural vegetated slope on the northerly side of Remington Road through a 24-inch CMP and a 12-inch CMP which located west of Chapultepec Hall. Runoff from Chapultepec Hall, retail building, multi-purpose building rooftops and their courtyard area is collected and discharged over the same natural vegetated slope, north of Chapultepec Hall through a 12-inch PVC pipe. The runoff then flows northerly in the westerly creek located along the westerly site boundary then outfalls at the most northerly corner of the site. The runoff from portion of the site which is occupied by Parking Lot U is discharged over the natural vegetated slope and outfalls into the easterly creek located on the neighbor property to the north. See attached pre-development drainage map. A hydrology analysis, based upon the 100-year, 6-hour storm event of the existing flows has been calculated, using the Advanced Engineering Software (AES) and InteliSolve Hydroflow programs. The runoff coefficients were calculated based on the percentage of impervious area within each basin. In the pre-development conditions, the peak runoff discharges at the outfalls to the westerly creek and the easterly creek were calculated to be 15.02 cubic feet per second (cfs) and 7.63 cfs, respectively. The pre-development site discharges a total of 22.65 cfs in the 100-year storm.

In the post-development site, a new storm drain system is proposed including the replacement of the existing 24-inch and 12-inch CMPs. The new storm drain system will convey the onsite and offsite runoff and discharge to the downstream drainage creek located along the northwesterly site boundary where it outfalls to the downstream at the most northerly corner of the site.

In compliance with the State Water Resources Control Board MS4 Permit, the development would have to implement the stormwater quality control and flow control facilities. Due to the site constrains and conditions, stormwater infiltration, bioretention and biofiltration facilities are not feasible for this development. The

proposed BMPs selected for stormwater quality control are the proprietary biofiltration BMPs (i.e. Modular Wetlands, Contech Filterra Biofiltration sytems) which must be certified by the Washington Technology Acceptance Protocol-Ecology program. The proposed detention facilities for stormwater hydromodification flow control are detention vaults/cisterns (i.e. Brentwood StormTank, Oldcastle Precast Storm Capture) which must be traffic rated. The selected detention facilities for this project are the Brentwood StormTank systems composed of module double stacks units. Detention Basin (BMP#1) located in the fire lane adjacent to the proposed Residence Hall 1, has storage capacity of approximate 19,800 cubic feet (required 15,213 cubic feet) which will detain the required runoff (minimum 10-year event volume) from areas of the Residence Hall 1 and Residence Hall 2 and metered discharge at the lower flow rate (10% of the peak 2-year discharge). Detention Basin (BMP#2) located in the fire lane turnaround cul-de-sac, has storage capacity of approximate 9,310 cubic feet (required 8,740 cubic feet). It will be designed similarly to the Detention Basin (BMP#1) to control the runoff flow from the areas of the Food Service building.

With the proposed detention basins, peak discharge in the 100-year event from the post-development site is calculated to be about 12.59 cfs which is less than the pre-development conditions. See the attached hydrology calculations and post-development drainage map.

CONCLUSION:

- The outfall in the post-development condition is at the same location as in the pre-development condition.

- Site design includes detention basins which have the capacity to retain the on-site runoff to mitigate the increase runoff in the post-development site for 100-year storm event.

- The peak 100-year discharge from the post-development site will be less than the discharge in the pre-development after mitigation.

- There will be no impact to downstream and adjacent properties due to the grading of the site.

ATTACHMENTS

ATTACHMENT A – DRAINAGE MAPS

ATTACHMENT B – PRE-DEVELOPMENT CALCUALTIONS

ATTACHMENT C – POST-DEVELOPMENT CALCUALTIONS

ATTACHMENT D – POST-DEVELOPMENT WITH MITIGATION CALCULATIONS

ATTACHMENT E – HYDRAULIC CALCULATIONS

ATTACHMENT F – DETENTION BASINS CALCULATIONS AND DETAILS

ATTACHMENT G – REFERENCE (ISOPLUVIAL, RAINFALL BASIN, SOIL HYDROLOGIC GROUP, TIME OF CONCETRATION AND RAINFALL INTENSITY CALCULATIONS)

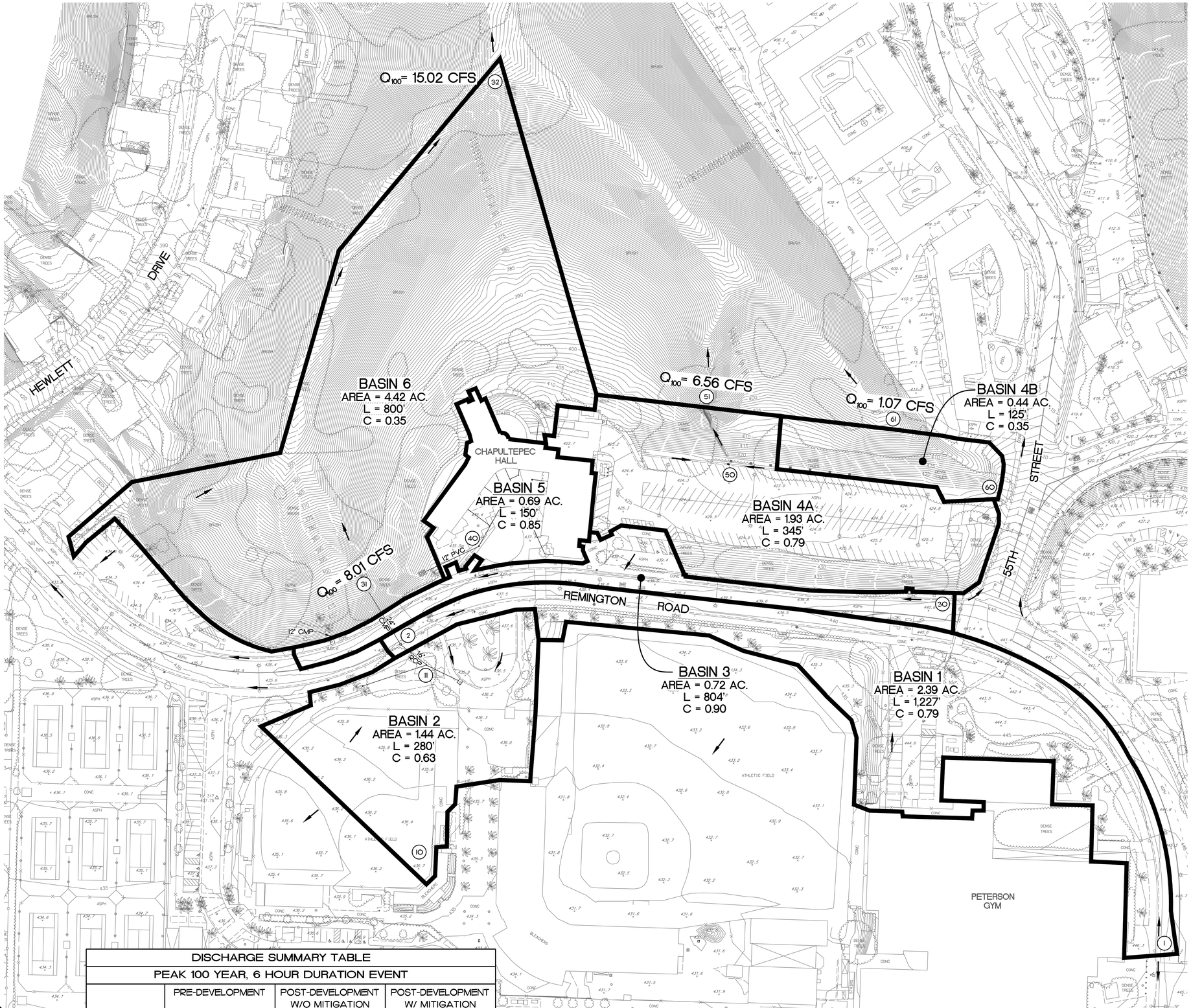
ATTACHMENT A

DRAINAGE MAPS

SAN DIEGO STATE UNIVERSITY

WEST CAMPUS HOUSING EIR

PRE-DEVELOPMENT DRAINAGE MAP



LEGEND

ITEM	SYMBOL
DRAINAGE BASIN BOUNDARY	
NODE	(1)
FLOW	→
LENGTH OF FLOWLINE	L = 345'
RUNOFF COEFFICIENT	C = 0.35
PEAK DISCHARGE (100-YR STORM)	Q_{100}= 14.9 CFS

DISCHARGE SUMMARY TABLE						
PEAK 100 YEAR, 6 HOUR DURATION EVENT						
	PRE-DEVELOPMENT		POST-DEVELOPMENT W/O MITIGATION		POST-DEVELOPMENT W/ MITIGATION	
	A (ACRES)	Q_{100}(CFS)	A (ACRES)	Q_{100}(CFS)	A (ACRES)	Q_{100}(CFS)
TOTAL	12.03 AC	22.65 CFS	12.03 AC	33.33 CFS	12.03 AC	12.59 CFS

N

50 25 0 50 100 150

SCALE: 1"=50'

PRELIMINARY

PRE-DEVELOPMENT DRAINAGE MAP

SNIPES-DYE ASSOCIATES
8348 CENTER DRIVE, SUITE G, LA MESA, CA 91942-2910 (619) 697-9234, FAX (619) 460-2033

SHEET TITLE: PRE-DEVELOPMENT DRAINAGE MAP
JOB NAME: SAN DIEGO STATE UNIVERSITY WEST CAMPUS HOUSING EIR
DESIGNER: SPN
DRAWN: JGF
CHECKED: MPK
DATE: 8-1-2017
SHEET 1 of 1 SHEETS
JOB NO. SD2912

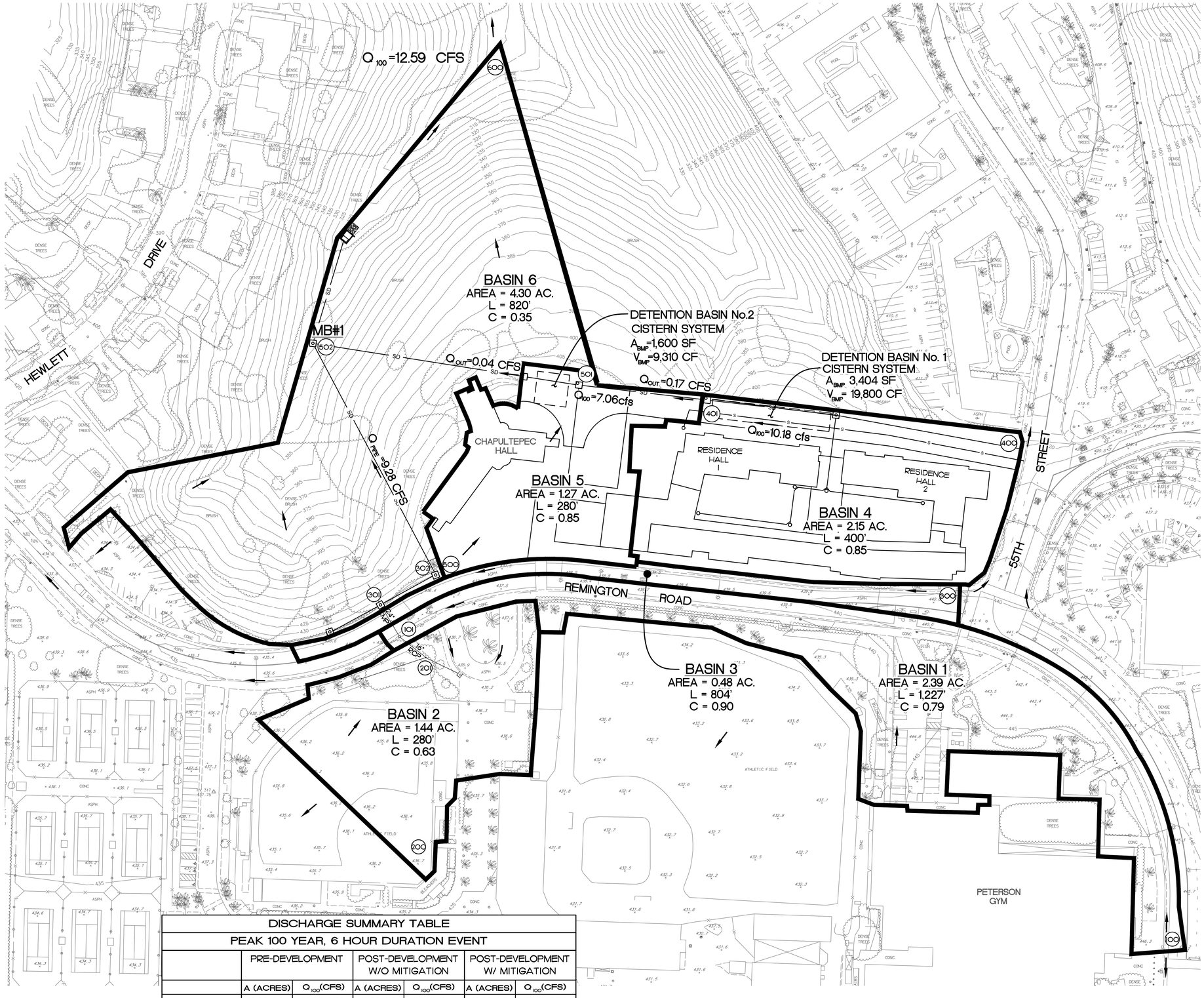
NO	DATE	REVISION DESCRIPTION	BY

S:\SNIPES\SD2912 - SDSU West Campus EIR\DWG\Exhibits\Pre-Drainage Map.dwg
Apr 03, 2017 - 10:49am, Plotted by Jeff Fuller

SAN DIEGO STATE UNIVERSITY

WEST CAMPUS HOUSING EIR

POST-DEVELOPMENT DRAINAGE MAP



LEGEND

ITEM	SYMBOL
DRAINAGE BASIN BOUNDARY	
NODE	(1)
FLOW	→
LENGTH OF FLOWLINE	L = 345'
RUNOFF COEFFICIENT	C = 0.35

DISCHARGE SUMMARY TABLE

PEAK 100 YEAR, 6 HOUR DURATION EVENT

	PRE-DEVELOPMENT		POST-DEVELOPMENT W/O MITIGATION		POST-DEVELOPMENT W/ MITIGATION	
	A (ACRES)	Q_{100}(CFS)	A (ACRES)	Q_{100}(CFS)	A (ACRES)	Q_{100}(CFS)
TOTAL	12.03 AC	22.65 CFS	12.03 AC	33.33 CFS	12.03 AC	12.59 CFS

N

SCALE: 1"=50'

PRELIMINARY

POST-DEVELOPMENT DRAINAGE MAP

SNIPES-DYE ASSOCIATES
8348 CENTER DRIVE, SUITE G, LA MESA, CA 91942-2910 (619) 697-9234, FAX (619) 460-2033

SHEET TITLE	POST-DEVELOPMENT DRAINAGE MAP
JOB NAME	SAN DIEGO STATE UNIVERSITY WEST CAMPUS HOUSING EIR
DESIGNER	DCP
DRAWN	DCP
CHECKED	MPK
DATE	8-1-2017

NO	DATE	BY	REVISION DESCRIPTION

SHEET 1 OF 1 SHEETS

JOB NO. SD2912

N:\PROJECTS\SD2912_SDSU_WEST\Engineering\EXHIBITS\Exhibit\Post-Drainage Map.dwg
Aug 01, 2017 - 3:39pm

ATTACHMENT B

PRE-DEVELOPMENT CALCUALTIONS

```
**************************************************************************

          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
          Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT
                       2003,1985,1981 HYDROLOGY MANUAL
        (c) Copyright 1982-2013 Advanced Engineering Software (aes)
            Ver. 20.0 Release Date: 06/01/2013  License ID 1305
```

Analysis prepared by:

Snipes-Dye associates

civil engineers & land surveyors

8348 Center Drive, Suite G, La Mesa, CA 91942
(619) 697-9234 (619) 460-2033 fax
www.snipesdye.com


```
 ************************** DESCRIPTION OF STUDY **************************
* SDSU-WEST CAMPUS HOUSING                                                *
* PRE-DEVELOPMENT                                                         *
* HYDROLOGY STUDY- 100YEAR FREQUENCY                                      *
 **************************************************************************

  FILE NAME: SD2912.DAT
  TIME/DATE OF STUDY: 08:24 06/22/2017
--------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
--------------------------------------------------------------------------
  2003 SAN DIEGO MANUAL CRITERIA

  USER SPECIFIED STORM EVENT(YEAR) = 100.00
  6-HOUR DURATION PRECIPITATION (INCHES) =   2.700
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  ========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
```

BASIN 1

```
****************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .7900
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =   20.500
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.863
  SUBAREA RUNOFF(CFS) =      5.41
  TOTAL AREA(ACRES) =      2.39   TOTAL RUNOFF(CFS) =      5.41

****************************************************************************
  FLOW PROCESS FROM NODE      2.00 TO NODE      2.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   20.50
  RAINFALL INTENSITY(INCH/HR) =   2.86
  TOTAL STREAM AREA(ACRES) =     2.39
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      5.41
```

BASIN 2

```
****************************************************************************
  FLOW PROCESS FROM NODE     10.00 TO NODE     11.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .6300
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =   12.500
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.939
  SUBAREA RUNOFF(CFS) =      3.57
  TOTAL AREA(ACRES) =      1.44   TOTAL RUNOFF(CFS) =      3.57

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE      2.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  REPRESENTATIVE SLOPE =  0.0200
  FLOW LENGTH(FEET) =    30.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  16.0 INCH PIPE IS   6.4 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   6.83
  GIVEN PIPE DIAMETER(INCH) =  16.00    NUMBER OF PIPES =   1
```

```
  PIPE-FLOW(CFS) =       3.57
  PIPE TRAVEL TIME(MIN.) =   0.07    Tc(MIN.) =   12.57
  LONGEST FLOWPATH FROM NODE     10.00 TO NODE      2.00 =      30.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      2.00 TO NODE      2.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   12.57
  RAINFALL INTENSITY(INCH/HR) =   3.92
  TOTAL STREAM AREA(ACRES) =     1.44
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      3.57

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        5.41    20.50        2.863          2.39
      2        3.57    12.57        3.925          1.44

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1        6.89    12.57       3.925
      2        8.01    20.50       2.863

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       8.01   Tc(MIN.) =   20.50
  TOTAL AREA(ACRES) =        3.83
  LONGEST FLOWPATH FROM NODE     10.00 TO NODE      2.00 =      30.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      2.00 TO NODE     31.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  REPRESENTATIVE SLOPE =  0.0500
  FLOW LENGTH(FEET) =    50.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   6.5 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  11.55
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       8.01
  PIPE TRAVEL TIME(MIN.) =   0.07    Tc(MIN.) =   20.57
  LONGEST FLOWPATH FROM NODE     10.00 TO NODE     31.00 =      80.00 FEET.

****************************************************************************
```

```
  FLOW PROCESS FROM NODE     31.00 TO NODE     31.00 IS CODE =   1
 ----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
 ============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   20.57
  RAINFALL INTENSITY(INCH/HR) =   2.86
  TOTAL STREAM AREA(ACRES) =     3.83
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      8.01
```

BASIN 3

```
****************************************************************************
  FLOW PROCESS FROM NODE     30.00 TO NODE     31.00 IS CODE =  22
 ----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 ============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .9000
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =   12.000
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.044
  SUBAREA RUNOFF(CFS) =      2.62
  TOTAL AREA(ACRES) =      0.72   TOTAL RUNOFF(CFS) =      2.62

 ****************************************************************************
  FLOW PROCESS FROM NODE     31.00 TO NODE     31.00 IS CODE =   1
 ----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
 ============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   12.00
  RAINFALL INTENSITY(INCH/HR) =   4.04
  TOTAL STREAM AREA(ACRES) =     0.72
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      2.62
```

BASIN 5

```
****************************************************************************
  FLOW PROCESS FROM NODE     40.00 TO NODE     31.00 IS CODE =  22
 ----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 ============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .8500
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =    5.600
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.612
  SUBAREA RUNOFF(CFS) =      3.88
  TOTAL AREA(ACRES) =      0.69   TOTAL RUNOFF(CFS) =      3.88

 ****************************************************************************
  FLOW PROCESS FROM NODE     31.00 TO NODE     31.00 IS CODE =   1
```

```
 ----------------------------------------------------------------------------
   >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
   >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
 ============================================================================
   TOTAL NUMBER OF STREAMS =  3
   CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  3 ARE:
   TIME OF CONCENTRATION(MIN.) =    5.60
   RAINFALL INTENSITY(INCH/HR) =   6.61
   TOTAL STREAM AREA(ACRES) =     0.69
   PEAK FLOW RATE(CFS) AT CONFLUENCE =      3.88

   ** CONFLUENCE DATA **
   STREAM     RUNOFF       Tc      INTENSITY      AREA
   NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
       1        8.01    20.57        2.857          3.83
       2        2.62    12.00        4.044          0.72
       3        3.88     5.60        6.612          0.69

   RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
   CONFLUENCE FORMULA USED FOR  3 STREAMS.

   ** PEAK FLOW RATE TABLE **
   STREAM     RUNOFF      Tc      INTENSITY
   NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
       1        8.56     5.60       6.612
       2       10.65    12.00       4.044
       3       11.54    20.57       2.857

   COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
   PEAK FLOW RATE(CFS) =      11.54   Tc(MIN.) =   20.57
   TOTAL AREA(ACRES) =        5.24
   LONGEST FLOWPATH FROM NODE     10.00 TO NODE     31.00 =      80.00 FEET.
```

BASIN 6

```
 ****************************************************************************
   FLOW PROCESS FROM NODE     31.00 TO NODE     32.00 IS CODE =  51
 ----------------------------------------------------------------------------
   >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
   >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
 ============================================================================
   CHANNEL LENGTH THRU SUBAREA(FEET) =   800.00
   REPRESENTATIVE CHANNEL SLOPE =  0.1750
   CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =   2.000
   MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =  20.00
    100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.693
   *USER SPECIFIED(SUBAREA):
   USER-SPECIFIED RUNOFF COEFFICIENT = .3500
   S.C.S. CURVE NUMBER (AMC II) =   0
   TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      13.63
   TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   6.78
   AVERAGE FLOW DEPTH(FEET) =   0.19   TRAVEL TIME(MIN.) =   1.97
   Tc(MIN.) =   22.54
   SUBAREA AREA(ACRES) =     4.42       SUBAREA RUNOFF(CFS) =    4.17
```

```
   AREA-AVERAGE RUNOFF COEFFICIENT =  0.577
   TOTAL AREA(ACRES) =        9.66         PEAK FLOW RATE(CFS) =      15.02

   END OF SUBAREA CHANNEL FLOW HYDRAULICS:
   DEPTH(FEET) =  0.21   FLOW VELOCITY(FEET/SEC.) =   6.90
   LONGEST FLOWPATH FROM NODE     10.00 TO NODE     32.00 =     880.00 FEET.
```

BASIN 4A

```
****************************************************************************
   FLOW PROCESS FROM NODE     50.00 TO NODE     51.00 IS CODE =  22
 ----------------------------------------------------------------------------
   >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 ============================================================================
   *USER SPECIFIED(SUBAREA):
   USER-SPECIFIED RUNOFF COEFFICIENT = .7900
   S.C.S. CURVE NUMBER (AMC II) =   0
   USER SPECIFIED Tc(MIN.) =   10.900
    100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.303
   SUBAREA RUNOFF(CFS) =      6.56
   TOTAL AREA(ACRES) =      1.93   TOTAL RUNOFF(CFS) =      6.56
```

BASIN 4B

```
****************************************************************************
   FLOW PROCESS FROM NODE     60.00 TO NODE     61.00 IS CODE =  22
 ----------------------------------------------------------------------------
   >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 ============================================================================
   *USER SPECIFIED(SUBAREA):
   USER-SPECIFIED RUNOFF COEFFICIENT = .3500
   S.C.S. CURVE NUMBER (AMC II) =   0
   USER SPECIFIED Tc(MIN.) =    5.200
    100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.936
   SUBAREA RUNOFF(CFS) =      1.07
   TOTAL AREA(ACRES) =      0.44   TOTAL RUNOFF(CFS) =      1.07
```

ATTACHMENT C

POST-DEVELOPMENT CALCUALTIONS

```
**************************************************************************

          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
          Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT
                       2003,1985,1981 HYDROLOGY MANUAL
        (c) Copyright 1982-2013 Advanced Engineering Software (aes)
            Ver. 20.0 Release Date: 06/01/2013  License ID 1305
```


Analysis prepared by:

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```
 ************************** DESCRIPTION OF STUDY **************************
* SDSU-WEST CAMPUS HOUSING                                                *
* POST-DEVELOPMENT                                                        *
* HYDROLOGY STUDY- 100YEAR FREQUENCY                                      *
 **************************************************************************

  FILE NAME: SD2916PO.DAT
  TIME/DATE OF STUDY: 14:08 08/01/2017
--------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
--------------------------------------------------------------------------
  2003 SAN DIEGO MANUAL CRITERIA

  USER SPECIFIED STORM EVENT(YEAR) = 100.00
  6-HOUR DURATION PRECIPITATION (INCHES) =   2.700
  SPECIFIED MINIMUM PIPE SIZE(INCH) =   6.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  ========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
```

BASIN 1

```
****************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .7900
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =   20.500
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.863
  SUBAREA RUNOFF(CFS) =      5.41
```
TOTAL AREA(ACRES) = 2.39 TOTAL RUNOFF(CFS) = 5.41

```
****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    101.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   20.50
  RAINFALL INTENSITY(INCH/HR) =   2.86
  TOTAL STREAM AREA(ACRES) =     2.39
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      5.41
```

BASIN 2

```
****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .6300
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =   12.500
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.939
  SUBAREA RUNOFF(CFS) =      3.57
```
TOTAL AREA(ACRES) = 1.44 TOTAL RUNOFF(CFS) = 3.57

```
****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    101.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   100.00  DOWNSTREAM(FEET) =    99.00
  FLOW LENGTH(FEET) =    95.00   MANNING'S N =  0.013
  ASSUME FULL-FLOWING PIPELINE
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.55
  PIPE FLOW VELOCITY = (TOTAL FLOW)/(PIPE CROSS SECTION AREA)
  GIVEN PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
```

```
  PIPE-FLOW(CFS) =       3.57
  PIPE TRAVEL TIME(MIN.) =   0.35    Tc(MIN.) =   12.85
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    101.00 =      95.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    101.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   12.85
  RAINFALL INTENSITY(INCH/HR) =   3.87
  TOTAL STREAM AREA(ACRES) =     1.44
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      3.57

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        5.41    20.50        2.863          2.39
      2        3.57    12.85        3.870          1.44

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1        6.96    12.85       3.870
      2        8.05    20.50       2.863

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       8.05   Tc(MIN.) =   20.50
  TOTAL AREA(ACRES) =        3.83
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    101.00 =      95.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    301.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   100.00  DOWNSTREAM(FEET) =    99.00
  FLOW LENGTH(FEET) =    50.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   8.3 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   8.33
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       8.05
  PIPE TRAVEL TIME(MIN.) =   0.10    Tc(MIN.) =   20.60
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    301.00 =     145.00 FEET.

****************************************************************************
```

```
  FLOW PROCESS FROM NODE    301.00 TO NODE    301.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   20.60
  RAINFALL INTENSITY(INCH/HR) =   2.85
  TOTAL STREAM AREA(ACRES) =     3.83
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      8.05
```

BASIN 3

```
****************************************************************************
  FLOW PROCESS FROM NODE    300.00 TO NODE    301.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .9000
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =   12.000
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.044
  SUBAREA RUNOFF(CFS) =      1.75
  TOTAL AREA(ACRES) =      0.48   TOTAL RUNOFF(CFS) =      1.75

****************************************************************************
  FLOW PROCESS FROM NODE    301.00 TO NODE    301.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   12.00
  RAINFALL INTENSITY(INCH/HR) =   4.04
  TOTAL STREAM AREA(ACRES) =     0.48
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      1.75

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        8.05    20.60        2.854          3.83
      2        1.75    12.00        4.044          0.48

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1        7.43    12.00       4.044
      2        9.28    20.60       2.854
```

```
  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       9.28   Tc(MIN.) =   20.60
  TOTAL AREA(ACRES) =        4.31
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    301.00 =     145.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    301.00 TO NODE    302.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   100.00  DOWNSTREAM(FEET) =    95.00
  FLOW LENGTH(FEET) =   150.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   7.8 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  10.41
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       9.28
  PIPE TRAVEL TIME(MIN.) =   0.24    Tc(MIN.) =   20.84
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    302.00 =     295.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    302.00 TO NODE    502.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   436.00  DOWNSTREAM(FEET) =   340.00
  FLOW LENGTH(FEET) =   330.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   4.5 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  22.51
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       9.28
  PIPE TRAVEL TIME(MIN.) =   0.24    Tc(MIN.) =   21.08
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    502.00 =     625.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    502.00 TO NODE    502.00 IS CODE =  10
----------------------------------------------------------------------------
  >>>>>MAIN-STREAM MEMORY COPIED ONTO MEMORY BANK # 1 <<<<<
============================================================================

 BASIN 4
****************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    401.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .8500
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =    7.300
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  5.573
  SUBAREA RUNOFF(CFS) =     10.18
```

```
  TOTAL AREA(ACRES) =      2.15   TOTAL RUNOFF(CFS) =     10.18

****************************************************************************
  FLOW PROCESS FROM NODE    401.00 TO NODE    501.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   100.00  DOWNSTREAM(FEET) =    90.00
  FLOW LENGTH(FEET) =   500.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  18.0 INCH PIPE IS  11.1 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   8.88
  GIVEN PIPE DIAMETER(INCH) =  18.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      10.18
  PIPE TRAVEL TIME(MIN.) =   0.94    Tc(MIN.) =    8.24
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    501.00 =     830.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    501.00 TO NODE    501.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    8.24
  RAINFALL INTENSITY(INCH/HR) =   5.15
  TOTAL STREAM AREA(ACRES) =     2.15
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     10.18
```

BASIN 5

```
****************************************************************************
  FLOW PROCESS FROM NODE    500.00 TO NODE    501.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .8500
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =    5.690
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.545
  SUBAREA RUNOFF(CFS) =      7.06
  TOTAL AREA(ACRES) =      1.27   TOTAL RUNOFF(CFS) =      7.06

****************************************************************************
  FLOW PROCESS FROM NODE    501.00 TO NODE    501.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    5.69
  RAINFALL INTENSITY(INCH/HR) =   6.54
```

```
  TOTAL STREAM AREA(ACRES) =     1.27
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      7.06

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1       10.18     8.24        5.155          2.15
      2        7.06     5.69        6.545          1.27

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1       14.10     5.69       6.545
      2       15.75     8.24       5.155

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      15.75   Tc(MIN.) =    8.24
  TOTAL AREA(ACRES) =        3.41
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    501.00 =     830.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    500.00 TO NODE    501.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   155.00  DOWNSTREAM(FEET) =   152.00
  FLOW LENGTH(FEET) =   340.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS  15.7 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   7.25
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      15.75
  PIPE TRAVEL TIME(MIN.) =   0.78    Tc(MIN.) =    9.02
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    501.00 =    1170.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    502.00 TO NODE    502.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>CONFLUENCE MEMORY BANK # 1 WITH THE MAIN-STREAM MEMORY<<<<<
============================================================================

  ** MAIN STREAM CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1       15.75     9.02       4.862        3.42
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    502.00 =    1170.00 FEET.

  ** MEMORY BANK #  1 CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
```

```
     1        9.28    21.08       2.812        4.31
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    502.00 =     625.00 FEET.

  ** PEAK FLOW RATE TABLE **
  STREAM    RUNOFF       Tc      INTENSITY
  NUMBER     (CFS)     (MIN.)   (INCH/HOUR)
      1      19.72       9.02        4.862
      2      18.39      21.08        2.812

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      19.72   Tc(MIN.) =    9.02
  TOTAL AREA(ACRES) =        7.73

****************************************************************************
  FLOW PROCESS FROM NODE    552.00 TO NODE    600.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    435.00  DOWNSTREAM(FEET) =    285.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   820.00   CHANNEL SLOPE =  0.1829
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =   2.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =  20.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.366
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .3500
  S.C.S. CURVE NUMBER (AMC II) =   0
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      23.01
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   8.34
  AVERAGE FLOW DEPTH(FEET) =   0.26   TRAVEL TIME(MIN.) =   1.64
  Tc(MIN.) =   10.66
  SUBAREA AREA(ACRES) =     4.30       SUBAREA RUNOFF(CFS) =    6.55
  AREA-AVERAGE RUNOFF COEFFICIENT =  0.635
  TOTAL AREA(ACRES) =       12.03         PEAK FLOW RATE(CFS) =      33.33

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.33   FLOW VELOCITY(FEET/SEC.) =   9.62
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    600.00 =    1990.00 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =       12.03  TC(MIN.) =     10.66
  PEAK FLOW RATE(CFS)   =      33.33
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

ATTACHMENT D

POST-DEVELOPMENT WITH MITIGATION CALCULATIONS

```
**************************************************************************

          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
          Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT
                       2003,1985,1981 HYDROLOGY MANUAL
        (c) Copyright 1982-2013 Advanced Engineering Software (aes)
            Ver. 20.0 Release Date: 06/01/2013  License ID 1305
```


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```
 ************************** DESCRIPTION OF STUDY **************************
* SDSU-WEST CAMPUS HOUSING                                                *
* MITIGATED                                                               *
* HYDROLOGY STUDY- 100YEAR FREQUENCY                                      *
 *************************************************************************

  FILE NAME: SD2916MI.DAT
  TIME/DATE OF STUDY: 18:00 07/31/2017
--------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
--------------------------------------------------------------------------
  2003 SAN DIEGO MANUAL CRITERIA

  USER SPECIFIED STORM EVENT(YEAR) = 100.00
  6-HOUR DURATION PRECIPITATION (INCHES) =   2.700
  SPECIFIED MINIMUM PIPE SIZE(INCH) =   6.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
```

BASIN 1

```
****************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .7900
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =   20.500
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.863
  SUBAREA RUNOFF(CFS) =      5.41
  TOTAL AREA(ACRES) =      2.39   TOTAL RUNOFF(CFS) =      5.41

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    101.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   20.50
  RAINFALL INTENSITY(INCH/HR) =   2.86
  TOTAL STREAM AREA(ACRES) =     2.39
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      5.41
```

BASIN 2

```
****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .6300
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =   12.500
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.939
  SUBAREA RUNOFF(CFS) =      3.57
  TOTAL AREA(ACRES) =      1.44   TOTAL RUNOFF(CFS) =      3.57

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    101.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   100.00  DOWNSTREAM(FEET) =    99.00
  FLOW LENGTH(FEET) =    95.00   MANNING'S N =  0.013
  ASSUME FULL-FLOWING PIPELINE
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.55
  PIPE FLOW VELOCITY = (TOTAL FLOW)/(PIPE CROSS SECTION AREA)
  GIVEN PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
```

```
  PIPE-FLOW(CFS) =       3.57
  PIPE TRAVEL TIME(MIN.) =   0.35    Tc(MIN.) =   12.85
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    101.00 =      95.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    101.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   12.85
  RAINFALL INTENSITY(INCH/HR) =   3.87
  TOTAL STREAM AREA(ACRES) =     1.44
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      3.57

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        5.41    20.50        2.863          2.39
      2        3.57    12.85        3.870          1.44

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1        6.96    12.85       3.870
      2        8.05    20.50       2.863

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       8.05   Tc(MIN.) =   20.50
  TOTAL AREA(ACRES) =        3.83
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    101.00 =      95.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    301.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   100.00  DOWNSTREAM(FEET) =    99.00
  FLOW LENGTH(FEET) =    50.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   8.3 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   8.33
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       8.05
  PIPE TRAVEL TIME(MIN.) =   0.10    Tc(MIN.) =   20.60
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    301.00 =     145.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    301.00 TO NODE    301.00 IS CODE =   1
```

```
------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
========================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   20.60
  RAINFALL INTENSITY(INCH/HR) =   2.85
  TOTAL STREAM AREA(ACRES) =     3.83
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      8.05
```

BASIN 3

```
************************************************************************
  FLOW PROCESS FROM NODE    300.00 TO NODE    301.00 IS CODE =  22
------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
========================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .9000
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =   12.000
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.044
  SUBAREA RUNOFF(CFS) =      1.75
  TOTAL AREA(ACRES) =      0.48   TOTAL RUNOFF(CFS) =      1.75

************************************************************************
  FLOW PROCESS FROM NODE    301.00 TO NODE    301.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
========================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   12.00
  RAINFALL INTENSITY(INCH/HR) =   4.04
  TOTAL STREAM AREA(ACRES) =     0.48
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      1.75

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        8.05    20.60        2.854          3.83
      2        1.75    12.00        4.044          0.48

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1        7.43    12.00       4.044
      2        9.28    20.60       2.854

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
```

```
  PEAK FLOW RATE(CFS) =       9.28   Tc(MIN.) =   20.60
  TOTAL AREA(ACRES) =        4.31
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    301.00 =     145.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    301.00 TO NODE    302.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   100.00  DOWNSTREAM(FEET) =    95.00
  FLOW LENGTH(FEET) =   150.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   7.8 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  10.41
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       9.28
  PIPE TRAVEL TIME(MIN.) =   0.24    Tc(MIN.) =   20.84
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    302.00 =     295.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    302.00 TO NODE    502.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   436.00  DOWNSTREAM(FEET) =   340.00
  FLOW LENGTH(FEET) =   330.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   4.5 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  22.51
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       9.28
  PIPE TRAVEL TIME(MIN.) =   0.24    Tc(MIN.) =   21.08
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    502.00 =     625.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    502.00 TO NODE    502.00 IS CODE =  10
----------------------------------------------------------------------------
  >>>>>MAIN-STREAM MEMORY COPIED ONTO MEMORY BANK # 1 <<<<<
============================================================================
```

BASIN 4

```
****************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    401.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .8500
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =    7.300
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  5.573
  SUBAREA RUNOFF(CFS) =     10.18
  TOTAL AREA(ACRES) =      2.15   TOTAL RUNOFF(CFS) =     10.18
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    401.00 TO NODE    401.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>USER SPECIFIED HYDROLOGY INFORMATION AT NODE<<<<<
============================================================================
  USER-SPECIFIED VALUES ARE AS FOLLOWS:
  TC(MIN) =   7.30   RAIN INTENSITY(INCH/HOUR) =  5.57
  TOTAL AREA(ACRES) =     2.15   TOTAL RUNOFF(CFS) =      0.17
+--------------------------------------------------------------------------+
| NOTE:                                                                    |
| MITIGATED OUTFLOW Q= 0.17 CFS PER HYDRAFLOW SOFTWARE                     |

+--------------------------------------------------------------------------+
****************************************************************************
  FLOW PROCESS FROM NODE    401.00 TO NODE    501.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   100.00  DOWNSTREAM(FEET) =    90.00
  FLOW LENGTH(FEET) =   500.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  18.0 INCH PIPE IS   1.4 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   2.79
  GIVEN PIPE DIAMETER(INCH) =  18.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       0.17
  PIPE TRAVEL TIME(MIN.) =   2.99    Tc(MIN.) =   10.29
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    501.00 =     830.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    501.00 TO NODE    501.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   10.29
  RAINFALL INTENSITY(INCH/HR) =   4.47
  TOTAL STREAM AREA(ACRES) =     2.15
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      0.17
```

BASIN 5

```
****************************************************************************
  FLOW PROCESS FROM NODE    500.00 TO NODE    501.00 IS CODE =  22
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .8500
  S.C.S. CURVE NUMBER (AMC II) =   0
  USER SPECIFIED Tc(MIN.) =    5.690
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.545
  SUBAREA RUNOFF(CFS) =      7.06
```

```
  TOTAL AREA(ACRES) =      1.27   TOTAL RUNOFF(CFS) =      7.06

****************************************************************************
  FLOW PROCESS FROM NODE    501.00 TO NODE    501.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>USER SPECIFIED HYDROLOGY INFORMATION AT NODE<<<<<
============================================================================
  USER-SPECIFIED VALUES ARE AS FOLLOWS:
  TC(MIN) =   5.69   RAIN INTENSITY(INCH/HOUR) =  6.54
  TOTAL AREA(ACRES) =     1.27   TOTAL RUNOFF(CFS) =      0.04
+--------------------------------------------------------------------------+
| NOTE:                                                                    |
| MITIGATED OUTFLOW Q= 0.04 CFS PER HYDRAFLOW SOFTWARE                     |
+--------------------------------------------------------------------------+

****************************************************************************
  FLOW PROCESS FROM NODE    501.00 TO NODE    501.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    5.69
  RAINFALL INTENSITY(INCH/HR) =   6.54
  TOTAL STREAM AREA(ACRES) =     1.27
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      0.04

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        0.17    10.29        4.466          2.15
      2        0.04     5.69        6.545          1.27

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1        0.13     5.69       6.545
      2        0.20    10.29       4.466

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       0.20   Tc(MIN.) =   10.29
  TOTAL AREA(ACRES) =        3.41
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    501.00 =     830.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    501.00 TO NODE    502.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
```

```
  ELEVATION DATA: UPSTREAM(FEET) =   155.00  DOWNSTREAM(FEET) =   152.00
  FLOW LENGTH(FEET) =   340.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   1.7 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   2.09
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       0.20
  PIPE TRAVEL TIME(MIN.) =   2.71    Tc(MIN.) =   12.99
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    501.00 =    1170.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    502.00 TO NODE    502.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>CONFLUENCE MEMORY BANK # 1 WITH THE MAIN-STREAM MEMORY<<<<<
============================================================================

  ** MAIN STREAM CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1        0.20    12.99       3.842        3.42
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    502.00 =    1170.00 FEET.

  ** MEMORY BANK #  1 CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1        9.28    21.08       2.812        4.31
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    502.00 =     625.00 FEET.

  ** PEAK FLOW RATE TABLE **
  STREAM    RUNOFF       Tc      INTENSITY
  NUMBER     (CFS)     (MIN.)   (INCH/HOUR)
      1       5.92      12.99        3.842
      2       9.43      21.08        2.812

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       9.43   Tc(MIN.) =   21.08
  TOTAL AREA(ACRES) =        7.73
```

BASIN 6

```
****************************************************************************
  FLOW PROCESS FROM NODE    502.00 TO NODE    600.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    435.00  DOWNSTREAM(FEET) =    285.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   820.00   CHANNEL SLOPE =  0.1829
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =   2.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =  20.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.642
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .3500
  S.C.S. CURVE NUMBER (AMC II) =   0
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      11.41
```

```
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   6.39
  AVERAGE FLOW DEPTH(FEET) =   0.17   TRAVEL TIME(MIN.) =   2.14
  Tc(MIN.) =   23.22
  SUBAREA AREA(ACRES) =     4.30       SUBAREA RUNOFF(CFS) =    3.97
  AREA-AVERAGE RUNOFF COEFFICIENT =  0.396
  TOTAL AREA(ACRES) =       12.0         PEAK FLOW RATE(CFS) =      12.59

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.18   FLOW VELOCITY(FEET/SEC.) =   6.74
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    600.00 =    1990.00 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =       12.03  TC(MIN.) =     23.22
  PEAK FLOW RATE(CFS)   =      12.59
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

ATTACHMENT E

HYDRAULIC CALCULATIONS

Hydrograph Plot

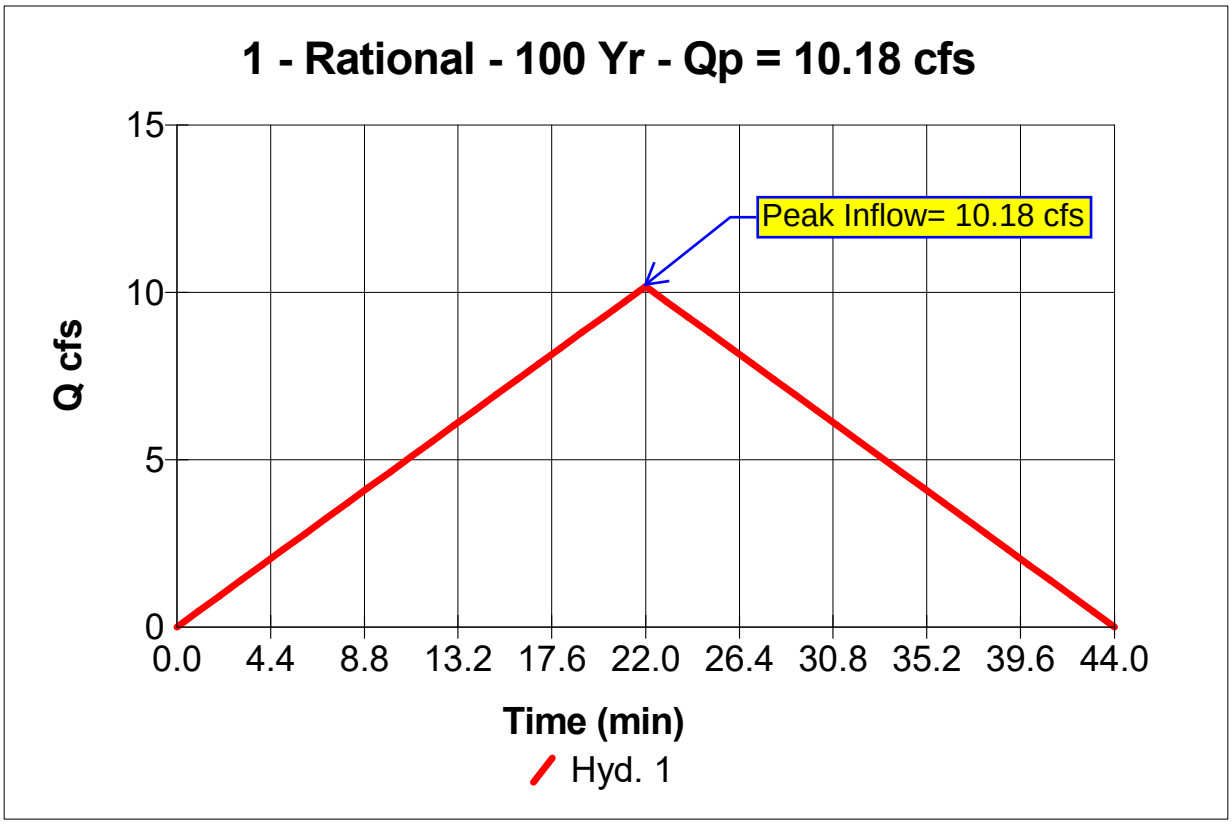
Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

BASIN 4- TRIBUTARY TO BMP#1

Hydrograph type	= Rational	Peak discharge	= 10.18 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Drainage area	= 3.8 ac	Runoff coeff.	= 0.99
Intensity	= 2.692 in/hr	Time of conc. (Tc)	= 22 min
IDF Curve	= IDF-SDSU.idf	Asc/Rec limb fact	= 1/1

Hydrograph Volume = 13,436 cuft



Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

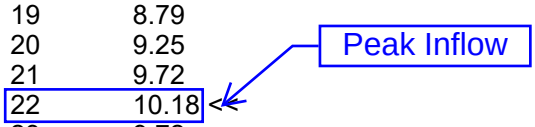
BASIN 4- TRIBUTARY TO BMP#1

Hydrograph type	= Rational	Peak discharge	= 10.18 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Drainage area	= 3.8 ac	Runoff coeff.	= 0.99
Intensity	= 2.692 in/hr	Time of conc. (Tc)	= 22 min
IDF Curve	= IDF-SDSU.idf	Asc/Rec limb fact	= 1/1

Hydrograph Volume = 13,436 cuft

Hydrograph Discharge Table

Time (min)	Outflow (cfs)	Time (min)	Outflow (cfs)
1	0.46	35	4.16
2	0.93	36	3.70
3	1.39	37	3.24
4	1.85	38	2.78
5	2.31	39	2.31
6	2.78	40	1.85
7	3.24	41	1.39
8	3.70	42	0.93
9	4.16	43	0.46
10	4.63		
11	5.09		
12	5.55	*...End*	
13	6.01		
14	6.48		
15	6.94		
16	7.40		
17	7.87		
18	8.33		
19	8.79		
20	9.25		
21	9.72		
22	10.18		
23	9.72		
24	9.25		
25	8.79		
26	8.33		
27	7.87		
28	7.40		
29	6.94		
30	6.48		
31	6.01		
32	5.55		
33	5.09		
34	4.63		



Reservoir Report

Hydraflow Hydrographs by Intelisolve

BMP#1- TRIBUTARY TO BASIN 4

Pond Data

Bottom LxW = 148.0 x 23.0 ft Side slope = 0.0:1 Bottom elev. = 412.00 ft Depth = 5.82 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	412.00	3,404	0	0
0.29	412.29	3,404	991	991
0.58	412.58	3,404	991	1,981
0.87	412.87	3,404	991	2,972
1.16	413.16	3,404	991	3,962
1.46	413.46	3,404	991	4,953
1.75	413.75	3,404	991	5,943
2.04	414.04	3,404	991	6,934
2.33	414.33	3,404	991	7,925
2.62	414.62	3,404	991	8,915
2.91	414.91	3,404	991	9,906
3.20	415.20	3,404	991	10,896
3.49	415.49	3,404	991	11,887
3.78	415.78	3,404	991	12,877
4.07	416.07	3,404	991	13,868
4.36	416.37	3,404	991	14,858
4.66	416.66	3,404	991	15,849
4.95	416.95	3,404	991	16,840
5.24	417.24	3,404	991	17,830
5.53	417.53	3,404	991	18,821
5.82	417.82	3,404	991	19,811

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise in	= 1.4	0.0	0.0	0.0
Span in	= 1.4	0.0	0.0	0.0
No. Barrels	= 0	0	0	0
Invert El. ft	= 412.25	0.00	0.00	0.00
Length ft	= 0.0	0.0	0.0	0.0
Slope %	= 0.00	0.00	0.00	0.00
N-Value	= .013	.000	.000	.000
Orif. Coeff.	= 0.60	0.00	0.00	0.00
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len ft	= 6.00	0.00	0.00	0.00
Crest El. ft	= 415.90	0.00	0.00	0.00
Weir Coeff.	= 3.33	0.00	0.00	0.00
Weir Type	= Riser	---	---	---
Multi-Stage	= No	No	No	No

Exfiltration Rate = 0.00 in/hr/sqft Tailwater Elev. = 0.00 ft

Note: All outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0	412.00	0.00	---	---	---	0.00	---	---	---	---	0.00
0.29	991	412.29	0.00	---	---	---	0.00	---	---	---	---	0.00
0.58	1,981	412.58	0.00	---	---	---	0.00	---	---	---	---	0.00
0.87	2,972	412.87	0.00	---	---	---	0.00	---	---	---	---	0.00
1.16	3,962	413.16	0.00	---	---	---	0.00	---	---	---	---	0.00
1.46	4,953	413.46	0.00	---	---	---	0.00	---	---	---	---	0.00
1.75	5,943	413.75	0.00	---	---	---	0.00	---	---	---	---	0.00
2.04	6,934	414.04	0.00	---	---	---	0.00	---	---	---	---	0.00
2.33	7,925	414.33	0.00	---	---	---	0.00	---	---	---	---	0.00
2.62	8,915	414.62	0.00	---	---	---	0.00	---	---	---	---	0.00
2.91	9,906	414.91	0.00	---	---	---	0.00	---	---	---	---	0.00
3.20	10,896	415.20	0.00	---	---	---	0.00	---	---	---	---	0.00
3.49	11,887	415.49	0.00	---	---	---	0.00	---	---	---	---	0.00
3.78	12,877	415.78	0.00	---	---	---	0.00	---	---	---	---	0.00
4.07	13,868	416.07	0.00	---	---	---	1.45	---	---	---	---	1.45
4.36	14,858	416.37	0.00	---	---	---	6.34	---	---	---	---	6.34
4.66	15,849	416.66	0.00	---	---	---	13.13	---	---	---	---	13.13
4.95	16,840	416.95	0.00	---	---	---	21.40	---	---	---	---	21.40
5.24	17,830	417.24	0.00	---	---	---	30.92	---	---	---	---	30.92
5.53	18,821	417.53	0.00	---	---	---	41.54	---	---	---	---	41.54
5.82	19,811	417.82	0.00	---	---	---	53.16	---	---	---	---	53.16

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

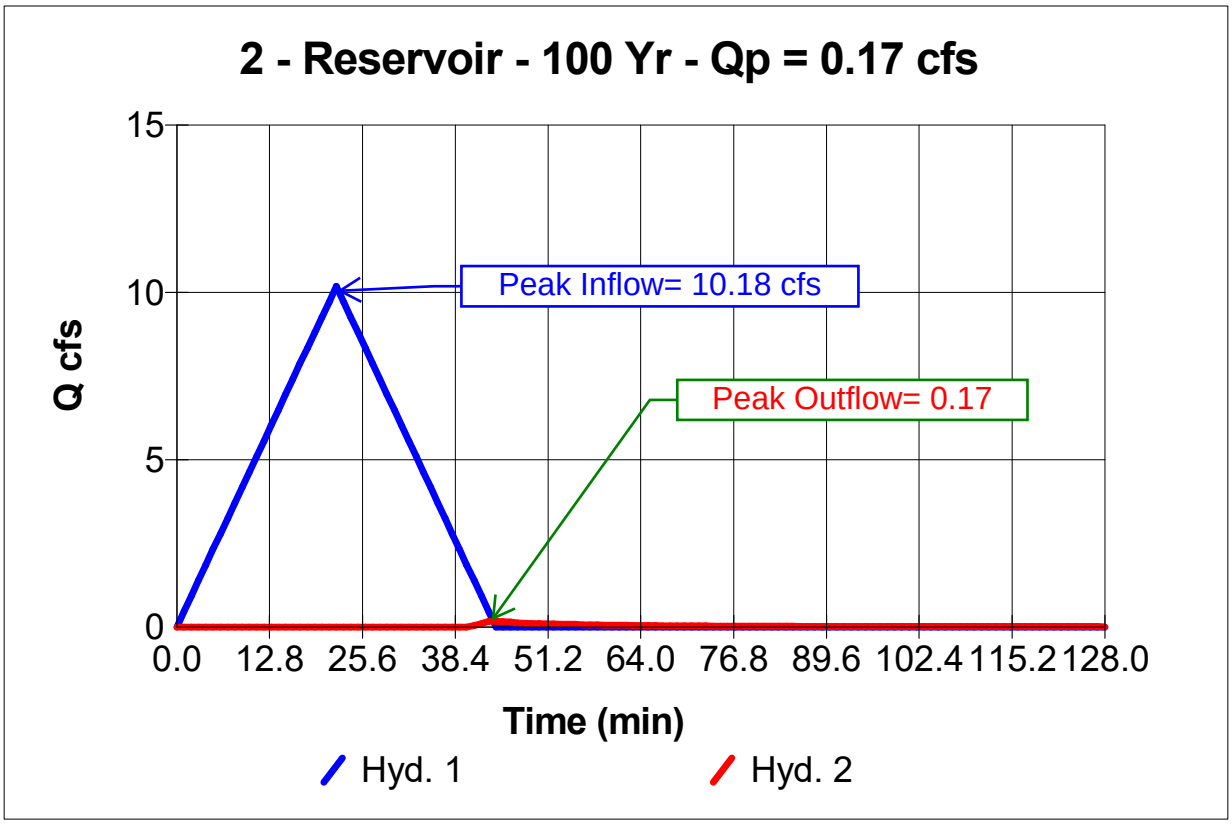
Hyd. No. 2

BMP#1- TRIBUTARY TO BASIN 4

Hydrograph type	= Reservoir	Peak discharge	= 0.17 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Inflow hyd. No.	= 1	Reservoir name	= BMP#1
Max. Elevation	= 415.94 ft	Max. Storage	= 13,413 cuft

Storage Indication method used.

Hydrograph Volume = 161 cuft



Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Hyd. No. 2

BMP#1- TRIBUTARY TO BASIN 4

Hydrograph type	= Reservoir	Peak discharge	= 0.17 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Inflow hyd. No.	= 1	Reservoir name	= BMP#1
Max. Elevation	= 415.94 ft	Max. Storage	= 13,413 cuft

Storage Indication method used.

Outflow hydrograph volume = 161 cuft

Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
0.68	1.39	415.91	-----	-----	-----	-----	0.04	-----	-----	-----	-----	0.04
0.70	0.93	415.93	-----	-----	-----	-----	0.10	-----	-----	-----	-----	0.10
0.72	0.46	415.94	-----	-----	-----	-----	0.16	-----	-----	-----	-----	0.16
0.73	0.00	415.94 <<	-----	-----	-----	-----	0.17	-----	-----	-----	-----	0.17 <<
0.75	0.00	415.94	-----	-----	-----	-----	0.15	-----	-----	-----	-----	0.15
0.77	0.00	415.94	-----	-----	-----	-----	0.14	-----	-----	-----	-----	0.14
0.78	0.00	415.93	-----	-----	-----	-----	0.12	-----	-----	-----	-----	0.12
0.80	0.00	415.93	-----	-----	-----	-----	0.11	-----	-----	-----	-----	0.11
0.82	0.00	415.93	-----	-----	-----	-----	0.10	-----	-----	-----	-----	0.10
0.83	0.00	415.93	-----	-----	-----	-----	0.09	-----	-----	-----	-----	0.09
0.85	0.00	415.93	-----	-----	-----	-----	0.09	-----	-----	-----	-----	0.09
0.87	0.00	415.92	-----	-----	-----	-----	0.08	-----	-----	-----	-----	0.08
0.88	0.00	415.92	-----	-----	-----	-----	0.08	-----	-----	-----	-----	0.08
0.90	0.00	415.92	-----	-----	-----	-----	0.07	-----	-----	-----	-----	0.07
0.92	0.00	415.92	-----	-----	-----	-----	0.07	-----	-----	-----	-----	0.07
0.93	0.00	415.92	-----	-----	-----	-----	0.06	-----	-----	-----	-----	0.06
0.95	0.00	415.92	-----	-----	-----	-----	0.06	-----	-----	-----	-----	0.06
0.97	0.00	415.92	-----	-----	-----	-----	0.06	-----	-----	-----	-----	0.06
0.98	0.00	415.92	-----	-----	-----	-----	0.05	-----	-----	-----	-----	0.05
1.00	0.00	415.91	-----	-----	-----	-----	0.05	-----	-----	-----	-----	0.05
1.02	0.00	415.91	-----	-----	-----	-----	0.05	-----	-----	-----	-----	0.05
1.03	0.00	415.91	-----	-----	-----	-----	0.05	-----	-----	-----	-----	0.05
1.05	0.00	415.91	-----	-----	-----	-----	0.04	-----	-----	-----	-----	0.04
1.07	0.00	415.91	-----	-----	-----	-----	0.04	-----	-----	-----	-----	0.04
1.08	0.00	415.91	-----	-----	-----	-----	0.04	-----	-----	-----	-----	0.04
1.10	0.00	415.91	-----	-----	-----	-----	0.04	-----	-----	-----	-----	0.04
1.12	0.00	415.91	-----	-----	-----	-----	0.03	-----	-----	-----	-----	0.03
1.13	0.00	415.91	-----	-----	-----	-----	0.03	-----	-----	-----	-----	0.03
1.15	0.00	415.91	-----	-----	-----	-----	0.03	-----	-----	-----	-----	0.03
1.17	0.00	415.91	-----	-----	-----	-----	0.03	-----	-----	-----	-----	0.03
1.18	0.00	415.91	-----	-----	-----	-----	0.03	-----	-----	-----	-----	0.03
1.20	0.00	415.91	-----	-----	-----	-----	0.03	-----	-----	-----	-----	0.03
1.22	0.00	415.91	-----	-----	-----	-----	0.02	-----	-----	-----	-----	0.02
1.23	0.00	415.91	-----	-----	-----	-----	0.02	-----	-----	-----	-----	0.02
1.25	0.00	415.91	-----	-----	-----	-----	0.02	-----	-----	-----	-----	0.02
1.27	0.00	415.91	-----	-----	-----	-----	0.02	-----	-----	-----	-----	0.02
1.28	0.00	415.91	-----	-----	-----	-----	0.02	-----	-----	-----	-----	0.02
1.30	0.00	415.90	-----	-----	-----	-----	0.02	-----	-----	-----	-----	0.02

Continues on next page...

Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
1.32	0.00	415.90	-----	-----	-----	-----	0.02	-----	-----	-----	-----	0.02
1.33	0.00	415.90	-----	-----	-----	-----	0.02	-----	-----	-----	-----	0.02
1.35	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.02
1.37	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.38	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.40	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.42	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.43	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.45	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.47	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.48	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.50	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.52	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.53	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.55	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.57	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.58	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.60	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.62	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.63	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.65	0.00	415.90	-----	-----	-----	-----	0.01	-----	-----	-----	-----	0.01
1.67	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.68	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.70	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.72	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.73	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.75	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.77	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.78	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.80	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.82	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.83	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.85	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.87	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.88	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.90	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.92	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.93	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.95	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00
1.97	0.00	415.90	-----	-----	-----	-----	0.00	-----	-----	-----	-----	0.00

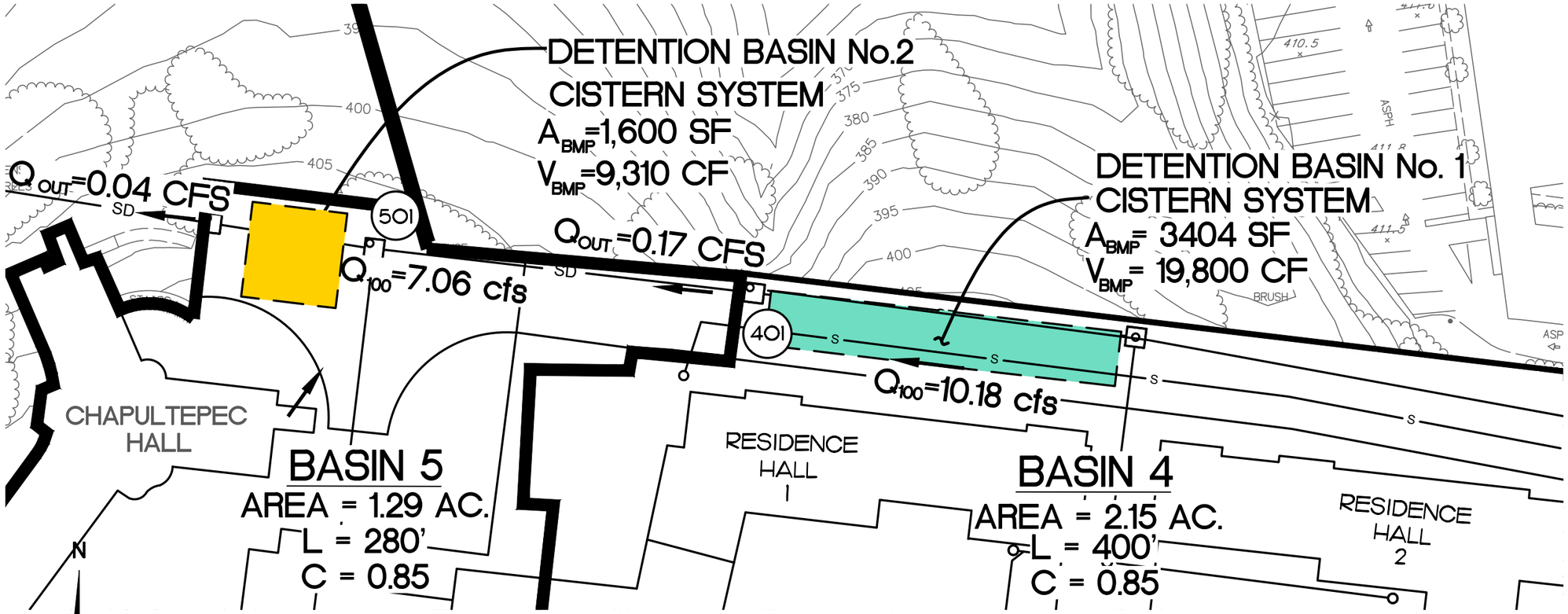
...End

LEGEND

ITEM	SYMBOL
DRAINAGE BASIN BOUNDARY	
FLOW	
DETENTION BASIN #1 (CISTERN) AREA: 3,404 SF	
DETENTION BASIN #2 (CISTERN) AREA: 1,600 SF	

FLOW CONTROL - DETENTION BASIN (BMP#1)		
	REQUIRED	PROPOSED
VOLUME	15,213 CF	19,800 CF
ORIFICE SIZE	1.42 INCH	1.42 INCH

FLOW CONTROL - DETENTION BASIN (BMP#2)		
	REQUIRED	PROPOSED
VOLUME	8,740 CF	9,310 CF
ORIFICE SIZE	1.09 INCH	1.09 INCH



DETENTION BASINS EXHIBIT

50 25 0 50 100 150

SCALE: 1"50'

SHEET TITLE: DETENTION BASINS EXHIBIT
JOB NAME: SAN DIEGO STATE UNIVERSITY WEST CAMPUS HOUSING

SNIPES-DYE ASSOCIATES
8348 CENTER DRIVE, STE. G, LA MESA, CA 91942 TELEPHONE (619) 697-9234 FAX (619) 460-2033

DESIGNER	DCP
DRAWN	DCP
CHECKED	MK
DATE	2017-8-17

SHEET 1 OF 1 SHEETS
JOB NO. SD2916

Hydrograph Plot

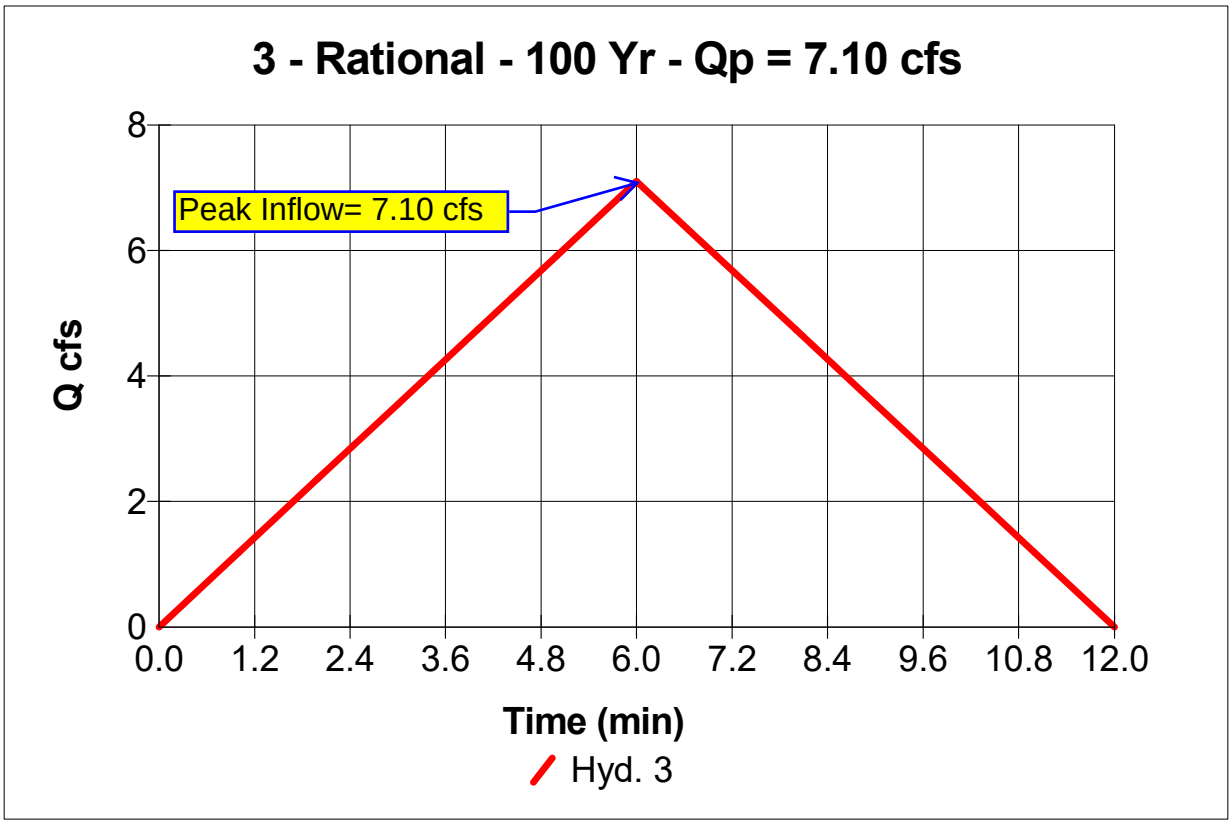
Hydraflow Hydrographs by Intelisolve

Hyd. No. 3

BASIN 5- TRIBUTARY TO BMP#2

Hydrograph type	= Rational	Peak discharge	= 7.10 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Drainage area	= 1.3 ac	Runoff coeff.	= 0.9
Intensity	= 6.208 in/hr	Time of conc. (Tc)	= 6 min
IDF Curve	= IDF-SDSU.idf	Asc/Rec limb fact	= 1/1

Hydrograph Volume = 2,554 cuft



Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Hyd. No. 3

BASIN 5- TRIBUTARY TO BMP#2

Hydrograph type	= Rational	Peak discharge	= 7.10 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Drainage area	= 1.3 ac	Runoff coeff.	= 0.9
Intensity	= 6.208 in/hr	Time of conc. (Tc)	= 6 min
IDF Curve	= IDF-SDSU.idf	Asc/Rec limb fact	= 1/1

Hydrograph Volume = 2,554 cuft

Hydrograph Discharge Table

Time (min)	Outflow (cfs)	
1	1.18	
2	2.37	
3	3.55	
4	4.73	
5	5.91	
6	7.10	Peak Inflow
7	5.91	
8	4.73	
9	3.55	
10	2.37	
11	1.18	

...End

Reservoir Report

Hydraflow Hydrographs by Intelisolve

BMP#2- TRIBUTARY TO BASIN 5

Pond Data

Bottom LxW = 40.0 x 40.0 ft Side slope = 0.0:1 Bottom elev. = 395.00 ft Depth = 5.82 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	395.00	1,600	0	0
0.29	395.29	1,600	466	466
0.58	395.58	1,600	466	931
0.87	395.87	1,600	466	1,397
1.16	396.16	1,600	466	1,862
1.46	396.46	1,600	466	2,328
1.75	396.75	1,600	466	2,794
2.04	397.04	1,600	466	3,259
2.33	397.33	1,600	466	3,725
2.62	397.62	1,600	466	4,190
2.91	397.91	1,600	466	4,656
3.20	398.20	1,600	466	5,122
3.49	398.49	1,600	466	5,587
3.78	398.78	1,600	466	6,053
4.07	399.07	1,600	466	6,518
4.36	399.37	1,600	466	6,984
4.66	399.66	1,600	466	7,450
4.95	399.95	1,600	466	7,915
5.24	400.24	1,600	466	8,381
5.53	400.53	1,600	466	8,846
5.82	400.82	1,600	466	9,312

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise in	= 1.1	0.0	0.0	0.0
Span in	= 1.1	0.0	0.0	0.0
No. Barrels	= 1	0	0	0
Invert El. ft	= 395.10	0.00	0.00	0.00
Length ft	= 0.0	0.0	0.0	0.0
Slope %	= 0.00	0.00	0.00	0.00
N-Value	= .013	.000	.000	.000
Orif. Coeff.	= 0.60	0.00	0.00	0.00
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len ft	= 6.00	0.00	0.00	0.00
Crest El. ft	= 399.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	0.00	0.00	0.00
Weir Type	= Riser	---	---	---
Multi-Stage	= No	No	No	No

Exfiltration Rate = 0.00 in/hr/sqft Tailwater Elev. = 0.00 ft

Note: All outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0	395.00	0.00	---	---	---	0.00	---	---	---	---	0.00
0.29	466	395.29	0.01	---	---	---	0.00	---	---	---	---	0.01
0.58	931	395.58	0.02	---	---	---	0.00	---	---	---	---	0.02
0.87	1,397	395.87	0.03	---	---	---	0.00	---	---	---	---	0.03
1.16	1,862	396.16	0.03	---	---	---	0.00	---	---	---	---	0.03
1.46	2,328	396.46	0.04	---	---	---	0.00	---	---	---	---	0.04
1.75	2,794	396.75	0.04	---	---	---	0.00	---	---	---	---	0.04
2.04	3,259	397.04	0.04	---	---	---	0.00	---	---	---	---	0.04
2.33	3,725	397.33	0.05	---	---	---	0.00	---	---	---	---	0.05
2.62	4,190	397.62	0.05	---	---	---	0.00	---	---	---	---	0.05
2.91	4,656	397.91	0.05	---	---	---	0.00	---	---	---	---	0.05
3.20	5,122	398.20	0.05	---	---	---	0.00	---	---	---	---	0.05
3.49	5,587	398.49	0.06	---	---	---	0.00	---	---	---	---	0.06
3.78	6,053	398.78	0.06	---	---	---	0.00	---	---	---	---	0.06
4.07	6,518	399.07	0.06	---	---	---	0.40	---	---	---	---	0.46
4.36	6,984	399.37	0.06	---	---	---	4.41	---	---	---	---	4.47
4.66	7,450	399.66	0.07	---	---	---	10.62	---	---	---	---	10.68
4.95	7,915	399.95	0.07	---	---	---	18.41	---	---	---	---	18.48
5.24	8,381	400.24	0.07	---	---	---	27.52	---	---	---	---	27.59
5.53	8,846	400.53	0.07	---	---	---	37.77	---	---	---	---	37.85
5.82	9,312	400.82	0.07	---	---	---	49.06	---	---	---	---	49.13

Hydrograph Plot

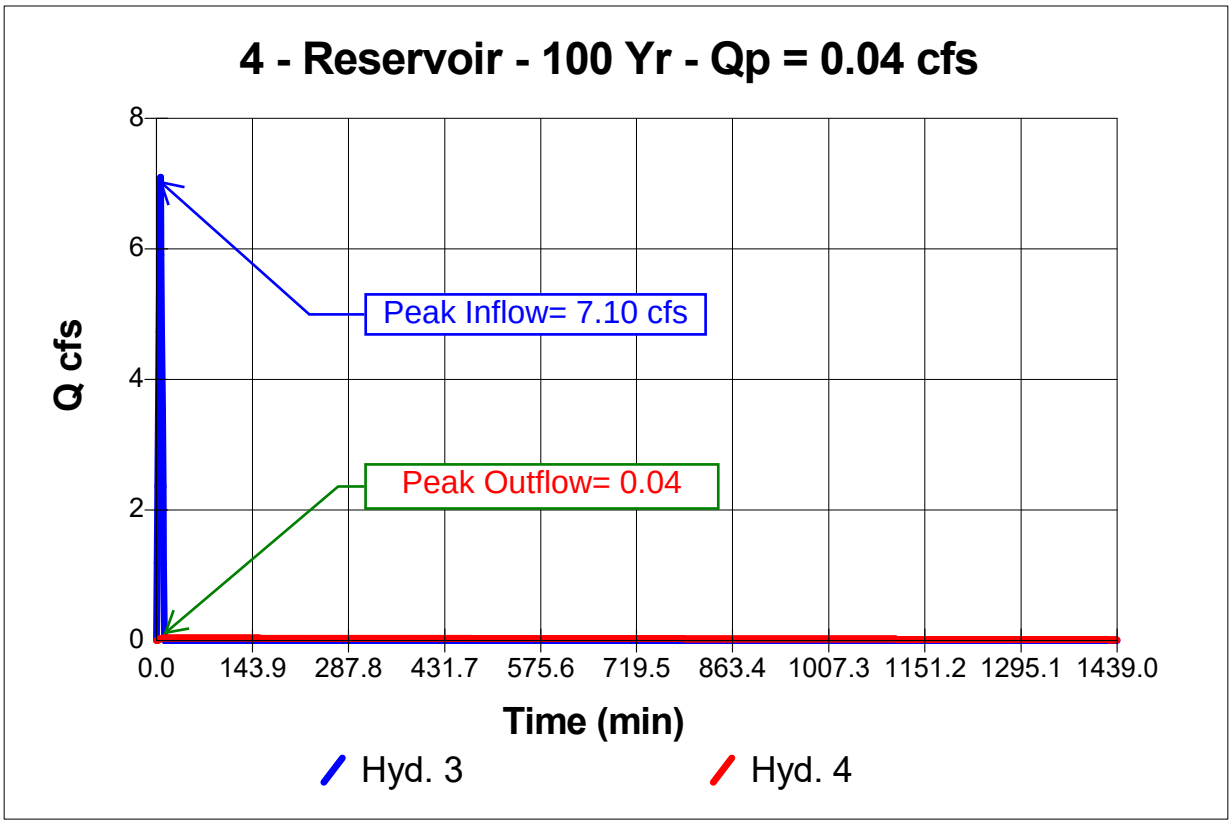
Hyd. No. 4

BMP#2- TRIBUTARY TO BASIN 5

Hydrograph type	=	Reservoir	Peak discharge	=	0.04 cfs
Storm frequency	=	100 yrs	Time interval	=	1 min
Inflow hyd. No.	=	3	Reservoir name	=	BMP#2
Max. Elevation	=	396.59 ft	Max. Storage	=	2,539 cuft

Storage Indication method used.

Hydrograph Volume = 2,109 cuft



Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Hyd. No. 4

BMP#2- TRIBUTARY TO BASIN 5

Hydrograph type	= Reservoir	Peak discharge	= 0.04 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Inflow hyd. No.	= 3	Reservoir name	= BMP#2
Max. Elevation	= 396.59 ft	Max. Storage	= 2,539 cuft

Storage Indication method used.

Outflow hydrograph volume = 2,109 cuft

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
3	3.55	395.20	0.01	-----	-----	-----	-----	-----	-----	-----	-----	0.01
4	4.73	395.35	0.01	-----	-----	-----	-----	-----	-----	-----	-----	0.01
5	5.91	395.55	0.02	-----	-----	-----	-----	-----	-----	-----	-----	0.02
6	7.10 <<	395.80	0.03	-----	-----	-----	-----	-----	-----	-----	-----	0.03
7	5.91	396.04	0.03	-----	-----	-----	-----	-----	-----	-----	-----	0.03
8	4.73	396.24	0.03	-----	-----	-----	-----	-----	-----	-----	-----	0.03
9	3.55	396.39	0.03	-----	-----	-----	-----	-----	-----	-----	-----	0.03
10	2.37	396.50	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
11	1.18	396.57	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
12	0.00	396.59 <<	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04 <<
13	0.00	396.59	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
14	0.00	396.58	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
15	0.00	396.58	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
16	0.00	396.58	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
17	0.00	396.58	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
18	0.00	396.58	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
19	0.00	396.58	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
20	0.00	396.58	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
21	0.00	396.57	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
22	0.00	396.57	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
23	0.00	396.57	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
24	0.00	396.57	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
25	0.00	396.57	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
26	0.00	396.57	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
27	0.00	396.57	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
28	0.00	396.56	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
29	0.00	396.56	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
30	0.00	396.56	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
31	0.00	396.56	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
32	0.00	396.56	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
33	0.00	396.56	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
34	0.00	396.56	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
35	0.00	396.55	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
36	0.00	396.55	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
37	0.00	396.55	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
38	0.00	396.55	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
39	0.00	396.55	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04
40	0.00	396.55	0.04	-----	-----	-----	-----	-----	-----	-----	-----	0.04

Peak Outflow= 0.04 cfs

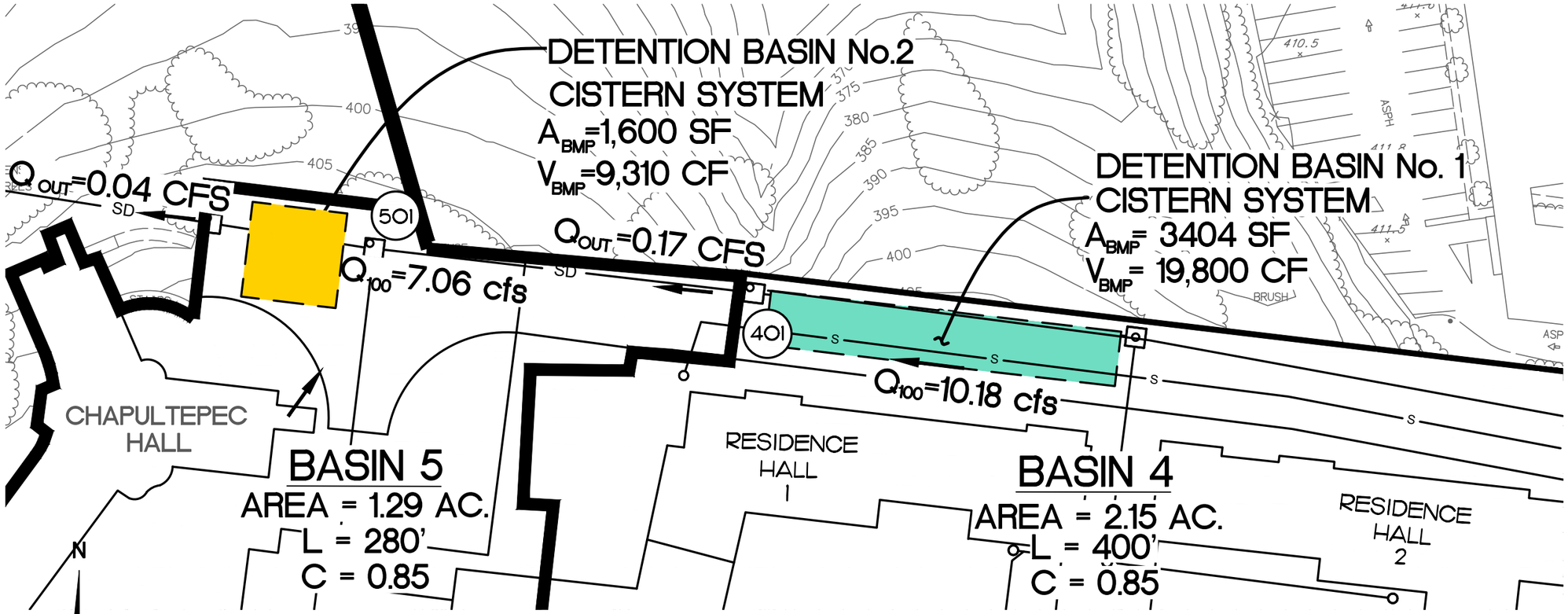
Continues on next page...

LEGEND

ITEM	SYMBOL
DRAINAGE BASIN BOUNDARY	
FLOW	
DETENTION BASIN #1 (CISTERN) AREA: 3,404 SF	
DETENTION BASIN #2 (CISTERN) AREA: 1,600 SF	

FLOW CONTROL - DETENTION BASIN (BMP#1)		
	REQUIRED	PROPOSED
VOLUME	15,213 CF	19,800 CF
ORIFICE SIZE	1.42 INCH	1.42 INCH

FLOW CONTROL - DETENTION BASIN (BMP#2)		
	REQUIRED	PROPOSED
VOLUME	8,740 CF	9,310 CF
ORIFICE SIZE	1.09 INCH	1.09 INCH



DETENTION BASINS EXHIBIT

50 25 0 50 100 150

SCALE: 1"50'

SHEET TITLE: DETENTION BASINS EXHIBIT
JOB NAME: SAN DIEGO STATE UNIVERSITY WEST CAMPUS HOUSING

SNIPES-DYE ASSOCIATES
8348 CENTER DRIVE, STE. G, LA MESA, CA 91942 TELEPHONE (619) 697-9234 FAX (619) 460-2033

DESIGNER	DCP
DRAWN	DCP
CHECKED	MK
DATE	2017-8-17

SHEET 1 OF 1 SHEETS
JOB NO. SD2916

ATTACHMENT F

DETENTION BASINS CALCULATIONS AND DETAILS

Appendix G: Guidance for Continuous Simulation and Hydromodification Management Sizing Factors

Worksheet G.2-1: Sizing Factor Worksheet

Site Information			
Project Name:	SDSU- West Campus Housing	**Hydrologic Unit**	San Diego (907.11)
Project Applicant:	SDSU	**Rain: Gauge:**	Oceanside Basin
Jurisdiction:	City of San Diego	**Total Project Area:**	2.15 AC
Assessor's Parcel Number :	.	**Low Flow Threshold:**	0.1Q2
BMP Name:	**BMP#1**	**BMP Type:**	Cistern

Areas Draining to BMP						Sizing Factors			Minimum BMP Size		
DMA Name	**Area (sf)**	**Soil Type**	**Pre-Project Slope**	**Post Project Surface Type**	**Runoff Factor (From Table G.2-1)**	**Surface Area**	**Surface Volume**	**Subsurface Volume**	**Surface Area (sf)**	**Surface Volume (cf)**	**Subsurface Volume (cf)**
Basin 4	93,910	D	Medium	Concrete/Building Rooftops	0.9	0	0.1800	0	-	15,213	-
Basin 4	-	D	Medium	Landscape	0.1	0	0.1800	0	-	-	-
Total DMA Area	**93,910 SF**							**Minimum BMP Size***	-	**15,213**	-
	2.15 AC							**Proposed BMP Size***	-	**19,800**	

***Minimum BMP Size = Total of rows above.**

***Proposed BMP Size ≥ Minimum BMP size.**

Appendix G: Guidance for Continuous Simulation and Hydromodification Management Sizing Factors

Worksheet G.2-1: Sizing Factor Worksheet

Site Information			
Project Name:	SDSU- West Campus Housing	**Hydrologic Unit**	San Diego (907.11)
Project Applicant:	SDSU	**Rain: Gauge:**	Oceanside Basin
Jurisdiction:	City of San Diego	**Total Project Area:**	1.27 AC
Assessor's Parcel Number :	.	**Low Flow Threshold:**	0.1Q2
BMP Name:	**BMP#2**	**BMP Type:**	Cistern

Areas Draining to BMP						Sizing Factors			Minimum BMP Size		
DMA Name	**Area (sf)**	**Soil Type**	**Pre-Project Slope**	**Post Project Surface Type**	**Runoff Factor (From Table G.2-1)**	**Surface Area**	**Surface Volume**	**Subsurface Volume**	**Surface Area (sf)**	**Surface Volume (cf)**	**Subsurface Volume (cf)**
Basin 5	53,775	D	Medium	Concrete/Building Rooftops	0.9	0	0.1800	0	-	8,712	-
Basin 5	1,670	D	Medium	Landscape	0.1	0	0.1800	0	-	30	-
Total DMA Area	**55,445 SF**							**Minimum BMP Size***	-	**8,742**	-
	1.27 AC							**Proposed BMP Size***	-	**9,310**	

***Minimum BMP Size = Total of rows above.**

***Proposed BMP Size ≥ Minimum BMP size.**

VOLUME PROPOSED (STORM TANK MODULE)						
BMP#1- CISTERN				**BMP#2- CISTERN**		
Surface Area	=	3,404	FT5	Surface Area	=	1,600 FT5
Depth	=	6	FT	Depth	=	6 FT
Volume	=	20,424	FT;	Volume	=	9,600 FT;
Vproposed	**=**	**19,811**	**FT;**	**V**proposed	**=**	**9,312 FT;**
Vrequired	=	15,213	FT;	Vrequired	=	8,745 FT;
Vproposed > V required				**Vproposed > V required**		

BMP#1: Sizing Low Flow Orifice

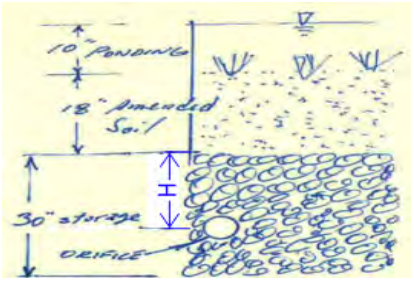
(1) $Q = C_d \times A \times (2gH)^{0.5}$ Orifice Discharge Equation

C_d = Orifice Coefficient = 0.60 (sharp, clean edge)

H = Water Head above orifice

g = Gravitational Acceleration = 32.2 ft/s^2

A = Area of the Orifice

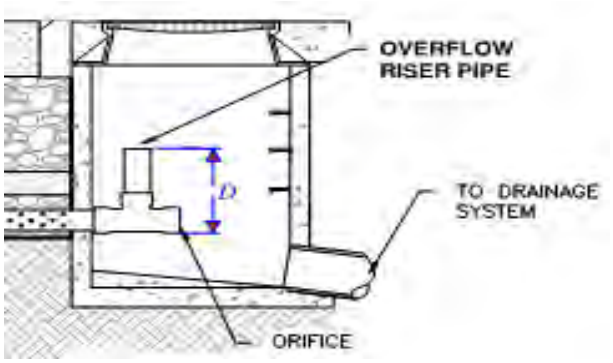


(2) $A = [0.1Q_2 \times A_{DMA}]/C_d \times (2gH)^{0.5}$

Q_2 = 2-year Storm Unit Runoff (Per Table G.2-2 of City of San Diego BMP Design Manual, January. 2016)

A_{DMA} = Area of the Drainage Management Area (DMA)

Basin	Rain Gauge	Soil Type	Cover	Slope	H (ft)	Q_2 Unit Runoff	A_{DMA} (SF)	A_{DMA} (Acres)	$0.1Q_2$	Max. Orifice Area ($inch^2$)	Orifice Diameter (inches)	Q_{10} Unit Runoff (cfs/acre)	Q_{10} (cfs)
4	Oceanside	D	Scrub	Steep	1.00	0.244	93,910	2.16	0.0526	1.57	**1.42**	0.571	1.2310



FLOW CONTROL FOR BMP NO. 2		
Lower Flow Threshold =	0.0526	cfs
Peak Q_{10} =	1.2310	cfs
Max Orifice Diameter Allowed =	1.416	inch
Proposed Orifice Diameter =	0.21	inch

BMP#2: Sizing Low Flow Orifice

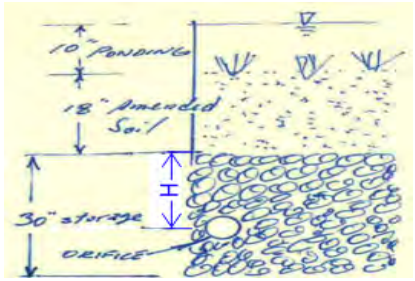
(1) $Q = C_d \times A \times (2gH)^{0.5}$ Orifice Discharge Equation

C_d = Orifice Coefficient = 0.60 (sharp, clean edge)

H = Water Head above orifice

g = Gravitational Acceleration = 32.2 ft/s^2

A = Area of the Orifice

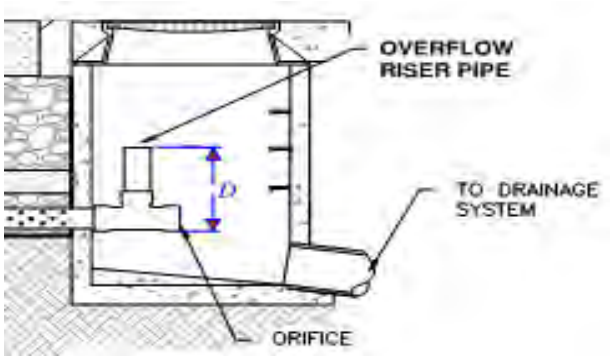


(2) $A = [0.1Q_2 \times A_{DMA}]/C_d \times (2gH)^{0.5}$

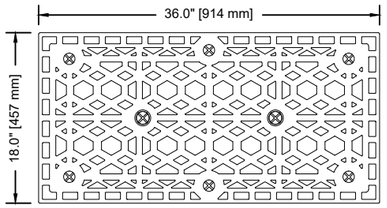
Q_2 = 2-year Storm Unit Runoff (Per Table G.2-2 of City of San Diego BMP Design Manual, January. 2016)

A_{DMA} = Area of the Drainage Management Area (DMA)

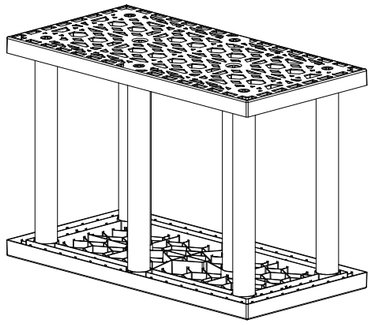
Basin	Rain Gauge	Soil Type	Cover	Slope	H (ft)	Q_2 Unit Runoff	A_{DMA} (SF)	A_{DMA} (Acres)	$0.1Q_2$	Max. Orifice Area ($inch^2$)	Orifice Diameter (inches)	Q_{10} Unit Runoff (cfs/acre)	Q_{10} (cfs)
5	Oceanside	D	Scrub	Steep	1.00	0.244	55,445	1.27	0.0311	0.93	**1.09**	0.571	0.7268



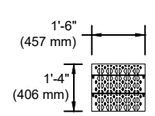
FLOW CONTROL FOR BMP NO. 2		
Lower Flow Threshold =	0.0311	cfs
Peak Q_{10} =	0.7268	cfs
Max Orifice Diameter Allowed =	1.088	inch
Proposed Orifice Diameter =	0.21	inch



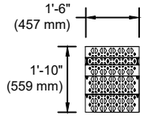
TOP



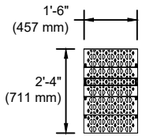
ISOMETRIC VIEW



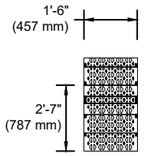
18" (457 mm)
SIDE PANEL



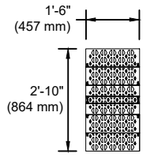
24" (610 mm)
SIDE PANEL



30" (762 mm)
SIDE PANEL



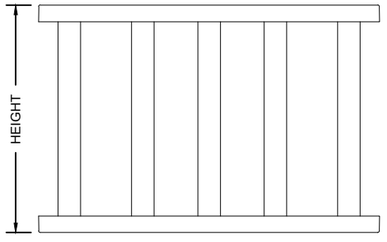
33" (838 mm)
SIDE PANEL



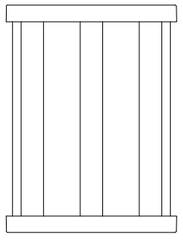
36" (914 mm)
SIDE PANEL

NOTES:
1. SIDE PANELS TO BE INSTALLED ALONG SYSTEM PERIMETER, UNLESS OTHERWISE SPECIFIED.
2. ALL HEIGHTS TO BE CUT FROM A 36" (914 mm) SIDE PANEL AT PRE-SCRIBED LOCATIONS, EXCEPT 33" (838 mm) SIDE PANEL.

SIDE PANEL DETAIL



FRONT



SIDE

MODULE DETAIL

STORMTANK® MODULE				
NAME	HEIGHT (mm)	CAPACITY (m^3)	VOID RATIO	NOMINAL WEIGHT (kg)
ST-18	18" (457)	6.44 cf (0.18)	95.50%	22.70 lbs. (10)
ST-24	24" (610)	8.66 cf (0.25)	96.00%	26.30 lbs. (12)
ST-30	30" (762)	10.88 cf (0.31)	96.50%	29.50 lbs. (13)
ST-33	33" (838)	11.99 cf (0.34)	96.90%	29.82 lbs. (13.5)
ST-36	36" (914)	13.10 cf (0.37)	97.00%	33.10 lbs. (15)

NOTES:
a. REFERENCE CURRENT INSTALLATION INSTRUCTIONS FOR PROPER ASSEMBLY AND INSTALLATION PRACTICES.
b. SIDE PANELS REQUIRED AROUND THE PERIMETER OF THE INSTALLATION ONLY, UNLESS OTHERWISE NOTED.
c. SIDE PANELS ARE TO BE CUT FROM A 36" PANEL AT THE PRE-SCRIBED LOCATIONS.

REV.	DATE	RECORD OF CHANGES	BY	APPRV.
C	9/12/13	NOTE REVISION, FORMATTING UPDATE & DWG. NO. UPDATE	JKB	JKB
B	9/11/12	FORMATTING & DWG. NO. UPDATE	JKB	FK
A	4/5/12	INITIAL RELEASE	BLL	FK

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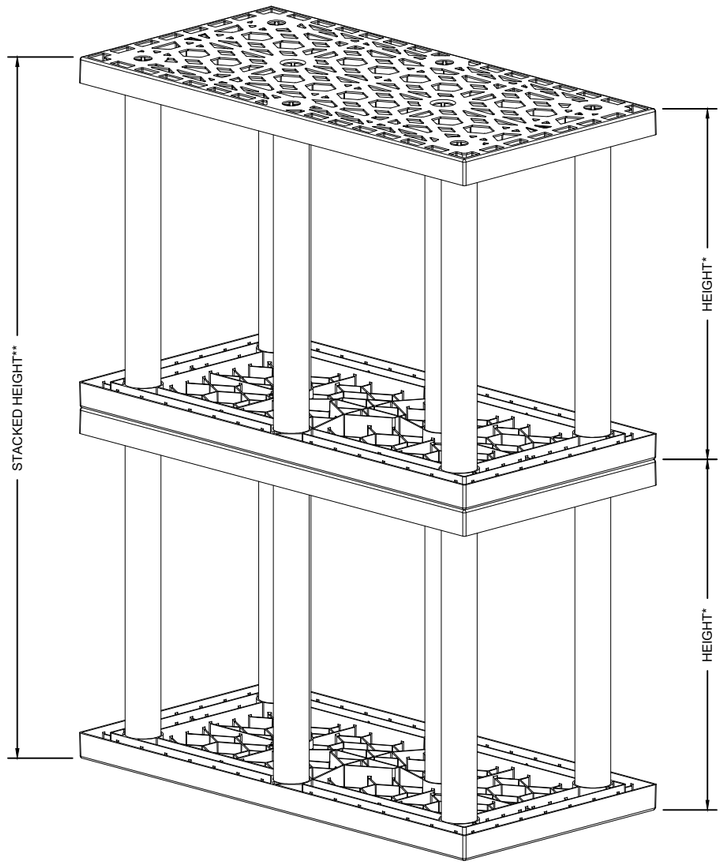
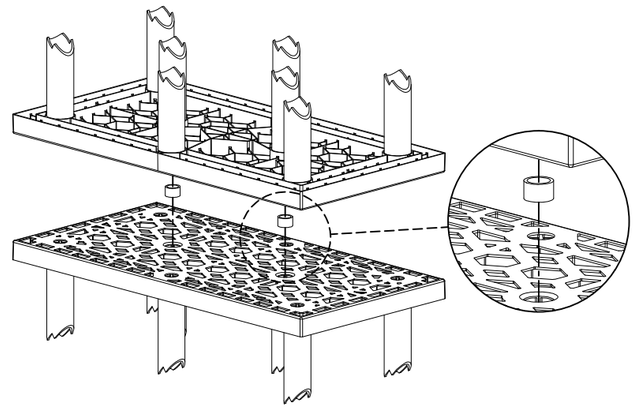
Project Name: MODULE DETAIL

Title: STORMTANK® MODULE

Drawn By	Date
B.LINE	4/5/12
Drawing No.	Sheet / Scale
STM-000-00	1 of 2 / NTS



MODULE DOUBLE STACK DETAIL



STACKING PIN DETAIL

DOUBLE STACK CONFIGURATIONS:						
SYSTEM HEIGHT (mm)	ST-18	ST-24	ST-30	ST-33	ST-36	CAPACITY (m^3)
42" (1,067)	1	1	-	-	-	15.08 cf (0.42)
48" (1,219)	1	-	1	-	-	17.30 cf (0.48)
51" (1,295)	1	-	-	1	-	18.42 cf (0.52)
54" (1,372)	1	-	-	-	1	19.50 cf (0.54)
57" (1,448)	-	1	-	1	-	20.64 cf (0.58)
60" (1,524)	-	1	-	-	1	21.75 cf (0.62)
63" (1,600)	-	-	1	1	-	22.86 cf (0.65)
66" (1,676)	-	-	-	2	-	23.97 cf (0.68)
69" (1,753)	-	-	-	1	1	25.08 cf (0.71)
72" (1,829)	-	-	-	-	2	26.20 cf (0.73)

NOTES:

a. REFERENCE CURRENT INSTALLATION INSTRUCTIONS FOR PROPER ASSEMBLY AND INSTALLATION PRACTICES.
b. STACKING PINS REQUIRED BETWEEN MODULE LAYERS, FOR ALL STACKED SYSTEMS (SEE DETAIL).

REV.	DATE	RECORD OF CHANGES	BY	APPRV.
C	9/12/13	NOTE REVISION, FORMATTING UPDATE & DWG. NO. UPDATE	JKB	JKB
B	9/11/12	FORMATTING & DWG. NO. UPDATE	JKB	FK
A	4/5/12	INITIAL RELEASE	BLL	FK

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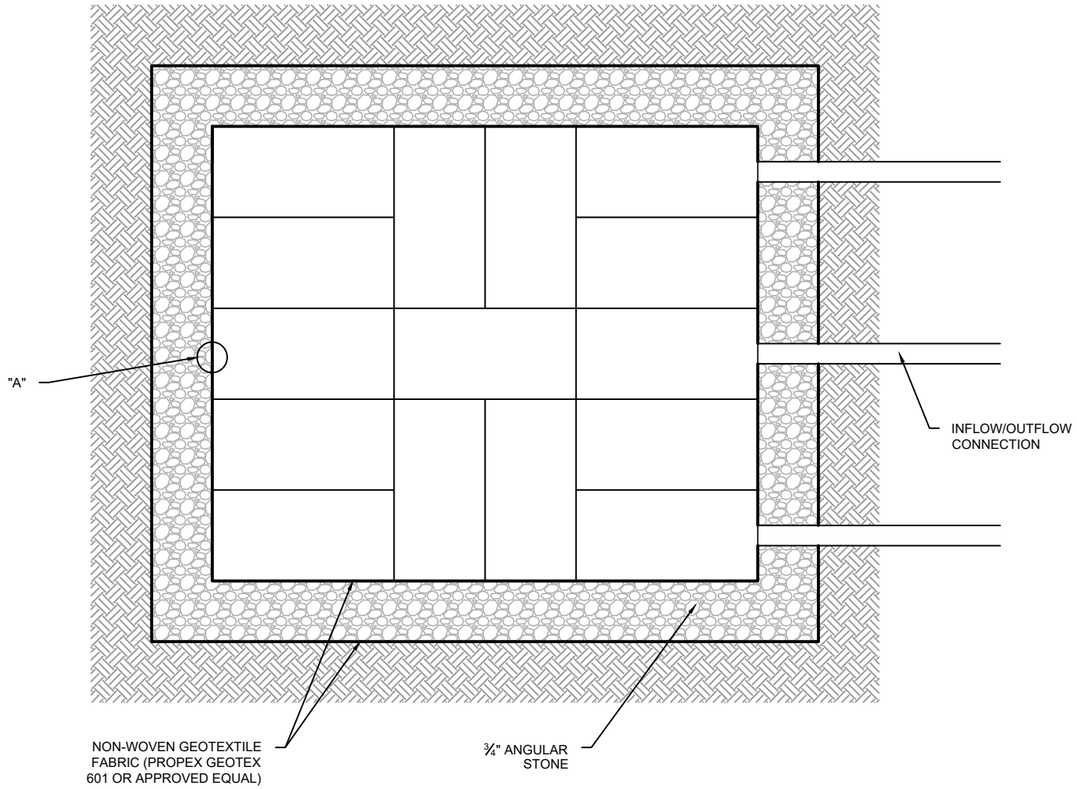
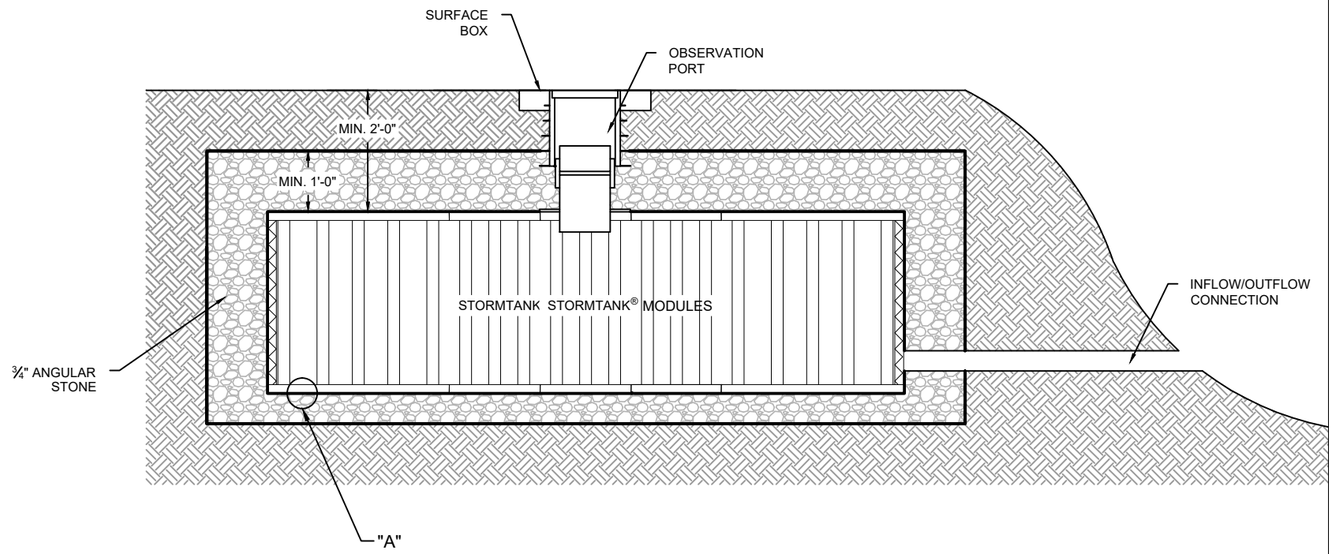
Project Name: MODULE DOUBLE STACK DETAIL

Title: STORMTANK® MODULE

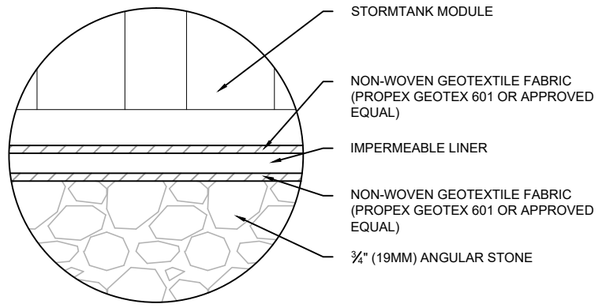
Drawn By		Date
B.LINE		4/5/12
Drawing No.	Sheet	Scale
STM-000-00	2 of 2	NTS



LAYOUT VIEW



CROSS-SECTION



DETAIL "A"

NOTES:

a. **REFERENCE CURRENT INSTALLATION INSTRUCTIONS FOR PROPER INSTALLATION PRACTICES.**
b. **THIS DRAWINGS IS FOR ILLUSTRATION PURPOSES ONLY AND DOES NOT SUPERSEDE ENGINEERING DESIGN OR CALCULATIONS. THIS DRAWINGS REPRESENT THE INTEGRATION OF STORMTANK MODULES INTO A FLOOD PLAIN MITIGATION APPLICATION AND SHALL NOT BE CONSTRUED AS PROPER DESIGN. PLEASE REFERENCE ALL LOCAL REGULATIONS AND DESIGN MANUALS DURING THE DESIGN OF THESE APPLICATIONS.**

REV.	DATE	RECORD OF CHANGES	BY	APPRV.
B	11/7/14	GEOTEXTILE PRODUCT SPECIFIED	CGB	
A.	11/13/13	INITIAL RELEASE	CAT	

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Project Name
CONCEPTUAL FLOODPLAIN MITIGATION DESIGN

Title
STORMTANK® MODULE

Drawn By		Date
C.TORRES		11/11/13
Drawing No.	Sheet	Scale
APP-002-00	1 of 1	NTS

which a cistern provides temporary storage for runoff to be either used onsite (harvest and use), infiltrated, or biofiltered, project-specific continuous simulation modeling is recommended. Refer to Sections 5.6 and 6.3.6.

Table G.2-7: Sizing Factors for Hydromodification Flow Control Cistern Facilities Designed Using Sizing Factor Method

Sizing Factors for Hydromodification Flow Control Cistern Facilities Designed Using Sizing Factor Method						
Lower Flow Threshold	Soil Group	Slope	Rain Gauge	A	V_1	V_2
$0.5Q_2$	A	Flat	Lindbergh	N/A	0.1200	N/A
$0.5Q_2$	A	Moderate	Lindbergh	N/A	0.1000	N/A
$0.5Q_2$	A	Steep	Lindbergh	N/A	0.1000	N/A
$0.5Q_2$	B	Flat	Lindbergh	N/A	0.3900	N/A
$0.5Q_2$	B	Moderate	Lindbergh	N/A	0.2000	N/A
$0.5Q_2$	B	Steep	Lindbergh	N/A	0.1200	N/A
$0.5Q_2$	C	Flat	Lindbergh	N/A	0.1200	N/A
$0.5Q_2$	C	Moderate	Lindbergh	N/A	0.1200	N/A
$0.5Q_2$	C	Steep	Lindbergh	N/A	0.1000	N/A
$0.5Q_2$	D	Flat	Lindbergh	N/A	0.1000	N/A
$0.5Q_2$	D	Moderate	Lindbergh	N/A	0.1000	N/A
$0.5Q_2$	D	Steep	Lindbergh	N/A	0.0800	N/A
$0.5Q_2$	A	Flat	Oceanside	N/A	0.1600	N/A
$0.5Q_2$	A	Moderate	Oceanside	N/A	0.1400	N/A
$0.5Q_2$	A	Steep	Oceanside	N/A	0.1200	N/A
$0.5Q_2$	B	Flat	Oceanside	N/A	0.1900	N/A
$0.5Q_2$	B	Moderate	Oceanside	N/A	0.1600	N/A
$0.5Q_2$	B	Steep	Oceanside	N/A	0.1400	N/A
$0.5Q_2$	C	Flat	Oceanside	N/A	0.1400	N/A
$0.5Q_2$	C	Moderate	Oceanside	N/A	0.1400	N/A
$0.5Q_2$	C	Steep	Oceanside	N/A	0.1200	N/A
$0.5Q_2$	D	Flat	Oceanside	N/A	0.1200	N/A
$0.5Q_2$	D	Moderate	Oceanside	N/A	0.1200	N/A
$0.5Q_2$	D	Steep	Oceanside	N/A	0.1000	N/A
$0.5Q_2$	A	Flat	L Wohlford	N/A	0.1800	N/A
$0.5Q_2$	A	Moderate	L Wohlford	N/A	0.1400	N/A
$0.5Q_2$	A	Steep	L Wohlford	N/A	0.0800	N/A
$0.5Q_2$	B	Flat	L Wohlford	N/A	0.2100	N/A
$0.5Q_2$	B	Moderate	L Wohlford	N/A	0.2000	N/A

Sizing Factors for Hydromodification Flow Control Cistern Facilities Designed Using Sizing Factor Method						
Lower Flow Threshold	Soil Group	Slope	Rain Gauge	A	V_1	V_2
$0.5Q_2$	B	Steep	L Wohlford	N/A	0.1400	N/A
$0.5Q_2$	C	Flat	L Wohlford	N/A	0.1400	N/A
$0.5Q_2$	C	Moderate	L Wohlford	N/A	0.1400	N/A
$0.5Q_2$	C	Steep	L Wohlford	N/A	0.1000	N/A
$0.5Q_2$	D	Flat	L Wohlford	N/A	0.1000	N/A
$0.5Q_2$	D	Moderate	L Wohlford	N/A	0.1000	N/A
$0.5Q_2$	D	Steep	L Wohlford	N/A	0.0800	N/A
$0.3Q_2$	A	Flat	Lindbergh	N/A	0.1200	N/A
$0.3Q_2$	A	Moderate	Lindbergh	N/A	0.1000	N/A
$0.3Q_2$	A	Steep	Lindbergh	N/A	0.1000	N/A
$0.3Q_2$	B	Flat	Lindbergh	N/A	0.5900	N/A
$0.3Q_2$	B	Moderate	Lindbergh	N/A	0.3600	N/A
$0.3Q_2$	B	Steep	Lindbergh	N/A	0.1800	N/A
$0.3Q_2$	C	Flat	Lindbergh	N/A	0.1800	N/A
$0.3Q_2$	C	Moderate	Lindbergh	N/A	0.1800	N/A
$0.3Q_2$	C	Steep	Lindbergh	N/A	0.1400	N/A
$0.3Q_2$	D	Flat	Lindbergh	N/A	0.1400	N/A
$0.3Q_2$	D	Moderate	Lindbergh	N/A	0.1400	N/A
$0.3Q_2$	D	Steep	Lindbergh	N/A	0.0800	N/A
$0.3Q_2$	A	Flat	Oceanside	N/A	0.1600	N/A
$0.3Q_2$	A	Moderate	Oceanside	N/A	0.1400	N/A
$0.3Q_2$	A	Steep	Oceanside	N/A	0.1200	N/A
$0.3Q_2$	B	Flat	Oceanside	N/A	0.2200	N/A
$0.3Q_2$	B	Moderate	Oceanside	N/A	0.1800	N/A
$0.3Q_2$	B	Steep	Oceanside	N/A	0.1600	N/A
$0.3Q_2$	C	Flat	Oceanside	N/A	0.1600	N/A
$0.3Q_2$	C	Moderate	Oceanside	N/A	0.1600	N/A
$0.3Q_2$	C	Steep	Oceanside	N/A	0.1400	N/A
$0.3Q_2$	D	Flat	Oceanside	N/A	0.1400	N/A
$0.3Q_2$	D	Moderate	Oceanside	N/A	0.1400	N/A
$0.3Q_2$	D	Steep	Oceanside	N/A	0.1200	N/A
$0.3Q_2$	A	Flat	L Wohlford	N/A	0.1800	N/A
$0.3Q_2$	A	Moderate	L Wohlford	N/A	0.1400	N/A
$0.3Q_2$	A	Steep	L Wohlford	N/A	0.0800	N/A

Sizing Factors for Hydromodification Flow Control Cistern Facilities Designed Using Sizing Factor Method						
Lower Flow Threshold	Soil Group	Slope	Rain Gauge	A	V_1	V_2
$0.3Q_2$	B	Flat	L Wohlford	N/A	0.2600	N/A
$0.3Q_2$	B	Moderate	L Wohlford	N/A	0.2400	N/A
$0.3Q_2$	B	Steep	L Wohlford	N/A	0.1800	N/A
$0.3Q_2$	C	Flat	L Wohlford	N/A	0.1800	N/A
$0.3Q_2$	C	Moderate	L Wohlford	N/A	0.1800	N/A
$0.3Q_2$	C	Steep	L Wohlford	N/A	0.1400	N/A
$0.3Q_2$	D	Flat	L Wohlford	N/A	0.1400	N/A
$0.3Q_2$	D	Moderate	L Wohlford	N/A	0.1400	N/A
$0.3Q_2$	D	Steep	L Wohlford	N/A	0.1000	N/A
$0.1Q_2$	A	Flat	Lindbergh	N/A	0.1200	N/A
$0.1Q_2$	A	Moderate	Lindbergh	N/A	0.1000	N/A
$0.1Q_2$	A	Steep	Lindbergh	N/A	0.1000	N/A
$0.1Q_2$	B	Flat	Lindbergh	N/A	0.5400	N/A
$0.1Q_2$	B	Moderate	Lindbergh	N/A	0.7800	N/A
$0.1Q_2$	B	Steep	Lindbergh	N/A	0.3400	N/A
$0.1Q_2$	C	Flat	Lindbergh	N/A	0.3600	N/A
$0.1Q_2$	C	Moderate	Lindbergh	N/A	0.3600	N/A
$0.1Q_2$	C	Steep	Lindbergh	N/A	0.2400	N/A
$0.1Q_2$	D	Flat	Lindbergh	N/A	0.2600	N/A
$0.1Q_2$	D	Moderate	Lindbergh	N/A	0.2600	N/A
$0.1Q_2$	D	Steep	Lindbergh	N/A	0.1600	N/A
$0.1Q_2$	A	Flat	Oceanside	N/A	0.1600	N/A
$0.1Q_2$	A	Moderate	Oceanside	N/A	0.1400	N/A
$0.1Q_2$	A	Steep	Oceanside	N/A	0.1200	N/A
$0.1Q_2$	B	Flat	Oceanside	N/A	0.5100	N/A
$0.1Q_2$	B	Moderate	Oceanside	N/A	0.3400	N/A
$0.1Q_2$	B	Steep	Oceanside	N/A	0.2400	N/A
$0.1Q_2$	C	Flat	Oceanside	N/A	0.2600	N/A
$0.1Q_2$	C	Moderate	Oceanside	N/A	0.2600	N/A
$0.1Q_2$	C	Steep	Oceanside	N/A	0.2000	N/A
$0.1Q_2$	D	Flat	Oceanside	N/A	0.2000	N/A
$0.1Q_2$	D	Moderate	Oceanside	N/A	0.2000	N/A
$0.1Q_2$	D	Steep	Oceanside	N/A	0.1800	N/A
$0.1Q_2$	A	Flat	L Wohlford	N/A	0.1800	N/A

Sizing Factors for Hydromodification Flow Control Cistern Facilities Designed Using Sizing Factor Method						
Lower Flow Threshold	Soil Group	Slope	Rain Gauge	A	V_1	V_2
$0.1Q_2$	A	Moderate	L Wohlford	N/A	0.1400	N/A
$0.1Q_2$	A	Steep	L Wohlford	N/A	0.0800	N/A
$0.1Q_2$	B	Flat	L Wohlford	N/A	0.4400	N/A
$0.1Q_2$	B	Moderate	L Wohlford	N/A	0.4000	N/A
$0.1Q_2$	B	Steep	L Wohlford	N/A	0.3200	N/A
$0.1Q_2$	C	Flat	L Wohlford	N/A	0.3200	N/A
$0.1Q_2$	C	Moderate	L Wohlford	N/A	0.3200	N/A
$0.1Q_2$	C	Steep	L Wohlford	N/A	0.2200	N/A
$0.1Q_2$	D	Flat	L Wohlford	N/A	0.2400	N/A
$0.1Q_2$	D	Moderate	L Wohlford	N/A	0.2400	N/A
$0.1Q_2$	D	Steep	L Wohlford	N/A	0.1800	N/A

Q_2 = 2-year pre-project flow rate based upon partial duration analysis of long-term hourly rainfall records
A = Bioretention surface area sizing factor (not applicable under this manual standards – use methods presented in Chapter 5 and Appendix B or Appendix F to size bioretention or biofiltration facility for pollutant control)
V_1 = Cistern volume sizing factor

Definitions for "N/A"

- Column V2: N/A in column V2 means there is no V2 element in the cistern BMP
- Column A: N/A in column A means there is no A element in the cistern BMP. Note sizing factors previously created for sizing a bioretention or biofiltration facility downstream of a cistern under the 2007 MS4 Permit are not applicable under the MS4 Permit.

.

ATTACHMENT G

REFERENCE
(ISOPLUVIAL, RAINFALL BASIN, SOIL HYDROLOGIC GROUP, TIME OF CONCETRATION AND RAINFALL INTENSITY CALCULATIONS)

County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 6 Hours

2.7 Isopluvial (inches)

SDSU West Campus Housing

Orange County

Riverside County

Imperial County

Pacific Ocean

Mexico

SITE

OCEANSIDE
VISTA
CARLSBAD
ESCONDIDO
ENCINITAS
SOLANA BEACH
DEL MAR
POWAY
S.D. COUNTY
SANTEE
EL CAJON
LA MESA
LEMON GROVE
CORONADO
SD
CHULA VISTA
IMPERIAL BEACH

33°30'
33°15'
33°00'
32°45'
32°30'
117°30'
117°15'
117°00'
116°45'
116°30'
116°15'

DPW GIS
Department of Public Works
Geographic Information Services

SanGIS
We Have San Diego Covered!

N
W E
S

3 0 3 Miles

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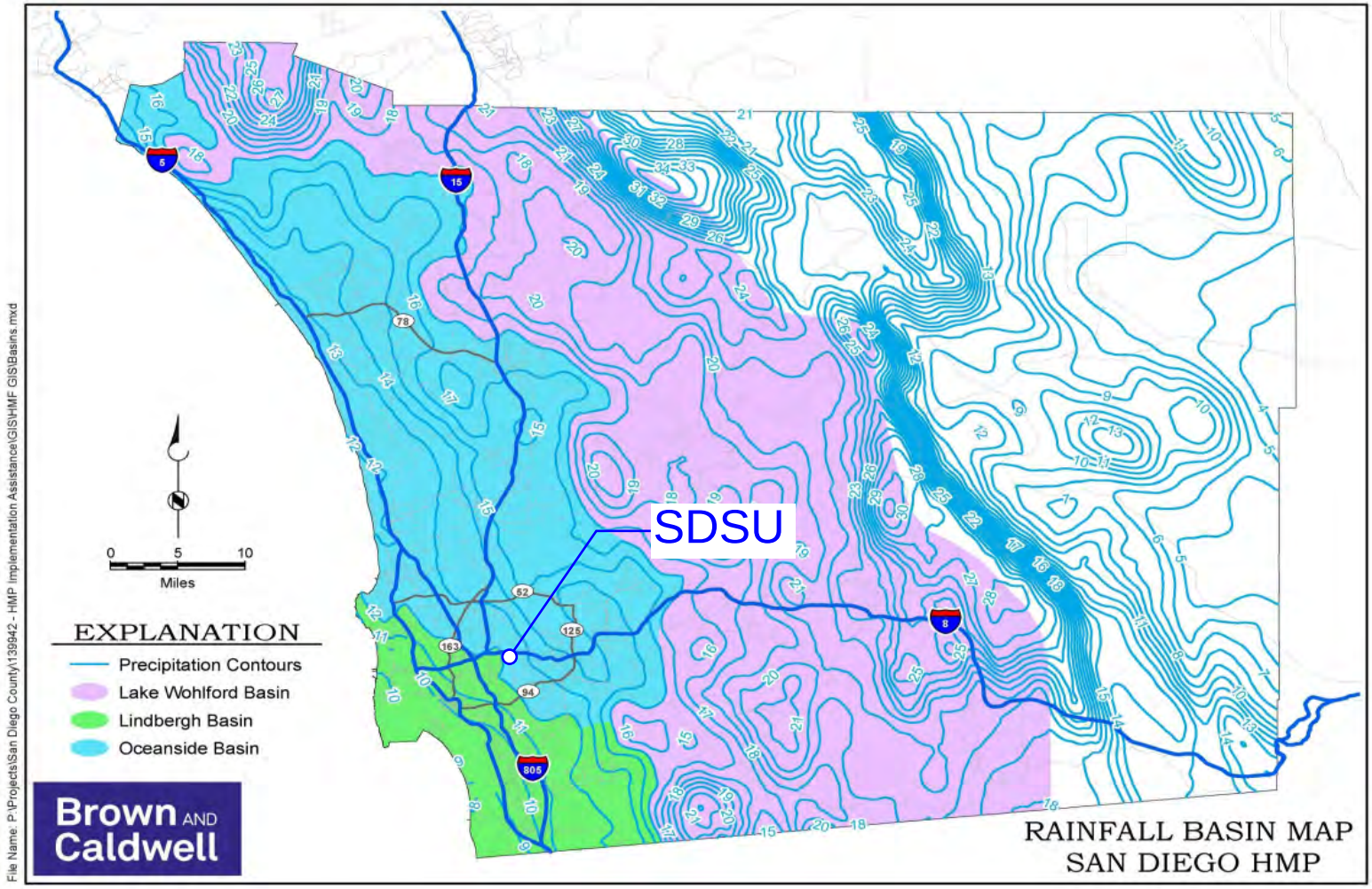

SDSU
0 5 10
Miles
EXPLANATION
Precipitation Contours
Lake Wohlford Basin
Lindbergh Basin
Oceanside Basin
Brown AND Caldwell
RAINFALL BASIN MAP
SAN DIEGO HMP
File Name: P:\Projects\San Diego County\139942 - HMP Implementation Assistance\GIS\HMF GIS\Basins.mxd

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Diego County Area, California
Survey Area Data: Version 7, Nov 15, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 3, 2010—Jun 7, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — San Diego County Area, California (CA638)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
OhF	Olivenhain cobbly loam, 30 to 50 percent slopes	D	3.3	53.5%
OkC	Olivenhain-Urban land complex, 2 to 9 percent slopes	D	2.8	46.5%
Totals for Area of Interest			**6.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—San Diego County Area, California
(SDSU)

Map Scale: 1:1,590 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

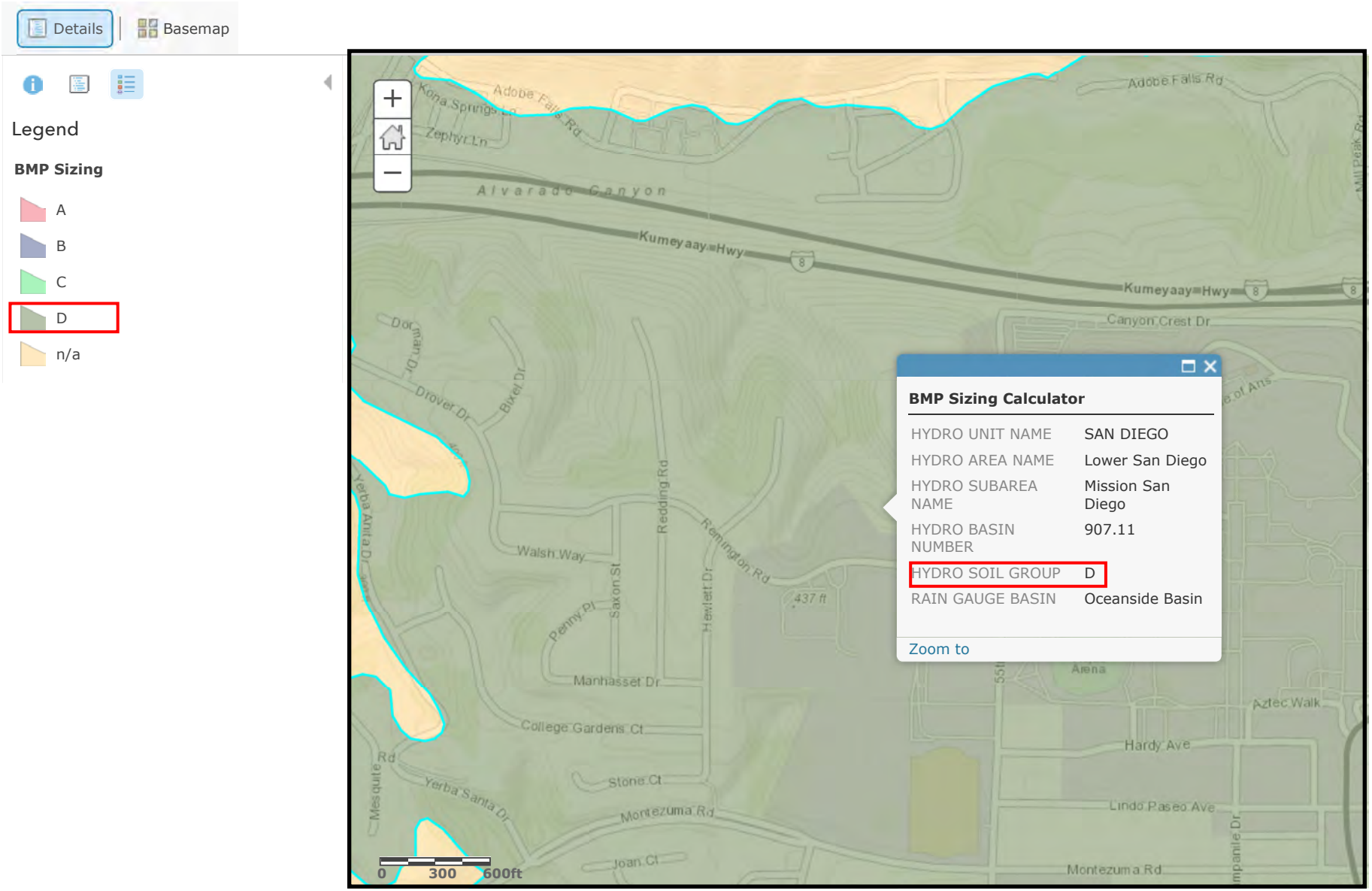
Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

SOIL TYPE

SDSU- WEST CAMPUS HOUSING

~~ArcGIS ▾ BMP Sizing Calculator~~



DETERMINE TIME OF CONCENTRATION & INTENSITY FOR URBAN AREAS

% IMP = Percent of impervious surface

C_p = Pervious runoff coefficient

Soil Group D for Undisturbed Natural Terrain in Table 3-1

C =0.90(% IMP) + Cp(1 - % IMP)

C = Runoff Coefficient

s = Slope of the surface (%)

D = Length of the flowline

T_c = Time of flow overland

FAA Rational Formula - County Hydrology Manual Figure 3-3

$$T_c = [(1.8(1.1 - C) D^{1/2}]/s^{1/3}$$

I= Intensity (Per County Hydrology Manual Figure 3-1)

EQUATION

$I = 7.44 P_6 D^{-0.645}$

I = Intensity (in/hr)

P_6 = 6-Hour Precipitation (in)

D = Duration (min)

POST- DEVELOPMENT								
Basin	**Area**		**%imp**	**Runoff Coefficient**	**Slope (%)**	**D (Feet)**	**Tc (Min)**	**I (in/hr)**
1	2.39	AC	80%	0.79	0.86	1227	20.55	2.86
2	1.44	AC	50%	0.63	1.45	280	12.51	3.94
3	0.48	AC	100%	0.90	0.62	804	12.00	4.04
4	2.15	AC	90%	0.85	1.88	400	7.30	5.57
5	1.27	AC	90%	0.85	5.69	510	5.69	6.54
6	4.3	AC	0%	0.35	18.29	820	14.67	3.55
Total	**12.03**	**AC**						

Snipes-Dye associates

Memo

To: Sarah Lozano, Dudek

From: Matthew Kurtz, PE

CC:

Date: July 28, 2017

Re: SDSU New Student Housing Project – Fire Flow discussion

Introduction

As part of the Draft Environmental Impact Report (EIR; April 2017) prepared for the proposed San Diego State University New Student Housing Project (Project), Snipes-Dye Associates (SDA) analyzed the adequacy of the existing water infrastructure to provide the fire flows necessary to serve the Project. The analysis was conducted at a preliminary, planning level, and determined that the existing infrastructure was not adequate to serve the fire flows required for the Project and, therefore, mitigation was recommended (MM-PUB-1) to upgrade the subject facilities.

Since preparation of the SDA analysis and release of the Draft EIR, the Project has been reduced in size and additional project details have become available, which allow for a more detailed analysis. As a result, a subsequent analysis has been conducted by Michael Baker International (MBI), a member of the Project's design/build team and a sub-consultant to Clark Construction Company. In particular, MBI has been retained by Clark Construction Company to prepare plans and specifications related to demolition, grading, wet utilities, and improvements. The results of the MBI analysis differ from those noted in the Draft EIR. Specifically, the MBI analysis determined that the existing infrastructure has adequate capacity to serve the Project's fire flow needs.

I have reviewed the MBI analysis (copy attached) and now conclude that the Project would not result in a "potential temporary significant impact" as identified in the Draft EIR, and, correspondingly, mitigation measure MM-PUB-1 is no longer required.

A brief description of the analysis conducted by SDA for the Draft EIR is provided below, followed by a summary description of the MBI analysis.

SDA Analysis

In February and March 2017, SDA performed preliminary research pertaining to the existing infrastructure's ability to serve the proposed project's fire flow needs. Based on the information available at the time, SDA utilized preliminary concepts in the analysis.

SDA began its analysis by reviewing concept project information and determined domestic and fire flow demands. Domestic demand was based upon proposed population and fire demand was based upon the square footage for the proposed project and use.

SDA then contacted the City of San Diego Water Department staff to determine the existing infrastructure's ability to serve the proposed project. SDA requested and received current fire flow information from the City. The City's fire flow information was based on modeled conditions for the existing infrastructure near the proposed Project. This information included fire flow data with respect to existing fire hydrants on Remington Road west of 55th Street and north of the intersection of 55th Street and Remington Road. SDA utilized the unadjusted data provided by the City. The fire flow calculations used in the Draft EIR were based on the City's fire flow information. Based on the City's flow reports, existing fire flow is 1,300 gallons per minute (gpm).

However, the fire flow required by the California Fire code is 3,000 gpm. This required fire flow is reduced when a project proposes to install fire sprinklers; in such cases, the Fire Code allows for a 25% reduction in the required flow. Applying the sprinkler reduction thereby reduces the required fire flow from 3,000 gpm to 2,250 gpm. The calculation of required flow (i.e., the reduction from 3,000 gpm to 2,250 gpm) was based solely on California Fire Code provisions.

To further assess the existing and required/adjusted fire flows in the proposed Project area, SDA contacted the City Water Department staff on multiple occasions to request additional data. In response to SDA's requests, the City stated that the existing fire flow pressures (as compared to capacities) were adequate, but also stated that fire flow capacity was limited due to the size of the existing mains. In addition, City staff informed SDA that the City has planned to replace the existing mains with 12" and 8" mains as part of City Group Job 807, which would upsize the existing water main infrastructure in the immediate area of the proposed project.

In response, SDA contacted the City Project Manager for the upsize project (Group Job 807) for additional information. City staff informed SDA that the City intended to complete the upsize project by 2021. City staff further informed SDA that the existing 8" main could provide the proposed Project's domestic (as compared to fire

flow) water demand, but that the existing main was being replaced with a 12" line to provide increased fire flow capacity. According to City staff, the 8" main would provide 2,000 gpm fire flow (less than the proposed project's required fire flow of 2,250 gpm) and the proposed 12" main would provide 4,000 gpm fire flow.

As evidenced by the information set forth above, the conclusion reached in the Draft EIR was based upon fire flow data obtained from the City Water Department, preliminary concepts, and information provided by the City Water Department staff regarding the existing infrastructure's ability to serve the project. No quantitative analysis was conducted.

MBI Analysis

Based on the additional Project details available to it, MBI conducted a detailed hydraulic analysis of the existing water distribution system, and applied the AWWA M-19 formula to assess infrastructure adequacy. MBI also utilized a higher fire sprinkler reduction than SDA because the specific type sprinkler system that would be installed as part of the Project was now available to it. Please see the attached MBI memorandum for details regarding the analysis.

This combination of the availability of updated project information to the design team, revised calculations based on application of AWWA M-19, and an increased percent reduction factor attributable to fire sprinklers, led to the conclusion reached by MBI, which differs from that presented in the Draft EIR. The approach utilized by MBI has been acceptable to the City of San Diego in connection with past projects.

In conclusion, based on the MBI analysis, the water main upsizing is not necessary to be completed prior to occupancy of the proposed Project because the existing water main would provide adequate fire flow capacity and, therefore, the mitigation measure included in the Draft EIR can be removed as it is no longer necessary.

Matthew Kurtz, PE C79546
Principal
Snipes-Dye Associates

Attachment: Michael Baker International, Technical Memo

Michael Baker INTERNATIONAL

We Make a Difference

Technical Memo

TO:	Sarah Lozano, Dudek	**DATE:**	Wednesday, July 26, 2017
FROM:	Joel Bowdan III, P.E. Shirley Reppert, E.I.T.	**SUBJECT:**	SDSU NSRH Fire Flow Study

Project Description

The proposed project involves the expansion of on-campus student housing facilities located adjacent to the existing Chapultepec Hall. Specifically, the proposed project consists of the development of dormitory facilities to accommodate up to 850 student housing beds located on the existing Parking Lot 9 (formerly "U" Parking Lot).

Two new buildings are proposed totaling to 182,290 square feet of area used for the determination of fire area. One building would serve as a dining hall (two stories), while the residence hall consists of five stories. The residence hall contains units with single-, double-, and triple-occupancy. The complex will include outdoor gathering spaces and green space. The proposed project will entail permanent removal of the existing Cholula Community Center, the Aztec Market, and the existing Parking Lot 9. Existing sewer, storm drain, domestic water, and fire services will be cut and capped where required, and new utility connections will be constructed to serve the proposed buildings.

Project Location

The proposed SDSU New Student Residence Hall (NSRH) project site is located on the SDSU main campus, west of the academic buildings and north of the campus athletic fields, APN 462-130-06. The site is defined by Remington Road to the south, 55th Street to the east, open space and private properties to the north and west. SDSU currently owns the land being proposed for development, and the site is located within the existing campus boundary.

The existing site primarily consists of a large parking lot and three buildings: Chapultepec Residence Hall, Cholula Community Center, and Chapultepec Aztec Market. The existing public water system in the vicinity of the project consists of looped cast iron (CI) and asbestos cement (AC) water main ranging in size from 6" diameter through 12". The City of San Diego has planned for a future project that will upsize and replace aging water infrastructure in the surrounding vicinity.

The proposed SDSU NSRH will be fed by the existing 8" AC water main along Remington Road and an existing 8" AC water main along 55th Street and will include a total of five (5) onsite fire hydrants. One (1) existing fire hydrant located near the intersection of Remington Road and 55th Street will be relocated, and two (2) proposed hydrants will be located south of the NSRH on northern Remington Road. A proposed fire hydrant will be located north of the proposed Residential Building, east of 55th Street, and another hydrant north of the proposed Coffee Shop and west of both proposed Residential Buildings.

Fire Flow Analysis and Results

The analysis of the fire service distribution system was performed by first obtaining hydrant test flow data from the City of San Diego for existing hydrants located in the vicinity of the proposed SDSU NSRH Building. The hydrant test data obtain from the City provides useful information regarding hydrant flow along with the static (initial) water pressure prior to the test flow and residual pressure during the test flow. This data provides the hydraulic characteristics or boundary conditions of the existing public water system from which we can further extrapolate and calculate the **available fire flow** at the reduced minimum residual pressure of 20 to 25 psi which is allowed by local and state codes and City guidelines. The available fire flow, in gallons per minute (gpm), at the minimum allowable residual using hydrant test data from the City, is calculated from AWWA Manual of Practice M-19, Eqn. 6-2. The equation is formulated as follows:

$Q_r = Q_f * (h_r^{0.54} / h_f^{0.54})$, where Q_f represents hydrant test flow, h_r represents the pressure drop to the desired residual pressure, and h_f represents the pressure drop during the fire flow test

The City furnished hydrant test data included two (2) existing fire hydrants on Remington Road west of 55th Street, one (1) existing fire hydrant east of intersection of Remington Road and 55th Street, and one (1) existing fire hydrant north of the intersection of Remington Road and 55th Street. The existing fire hydrant located nearest to the southwest corner of Remington Road west of 55th Street was selected for the calculation. The corresponding hydrant flow data is as follows:

Q_f (gpm) = 1,321.0	Hydrant test flow provided by City
P_s (psi) = 83.12	Static pressure provided by City
P_{rf} (psi) = 72.20	Residual pressure provided by City
P_{rd} (psi) = 20.00	Desired residual pressure (20.0 psi minimum)

Based upon the calculation from AWWA M-19, Eqn 6-2, and using the above data, the **available fire flow** was calculated to be 3,407 gpm at the desired residual pressure of 20 psi.

The **required fire flow** was determined from California Fire Code (CFC) Appendix BB, Table BB105.1 to be 4,500 gpm based on the total building area of about 182,290 sq. ft. and Construction Type IB. Since the proposed buildings will have an approved fire sprinkler system, the CFC allows for a reduction in the required fire flow of up to 75%. The typical reduction of 50%, generally acceptable by the industry and local practice, was utilized to reduce the **required fire flow to 2,250 gpm for a duration of 4 hours**.

The result of the calculation determined that the available fire flow exceeds the minimum fire flow requirement under the CFC requirement with the 50% reduction due to the use of an approved sprinkler system. **Based on the forgoing analysis, the existing water system surrounding the SDSU NSRH has adequate existing capacity to deliver in excess of the minimum required fire flow to the proposed project site.**

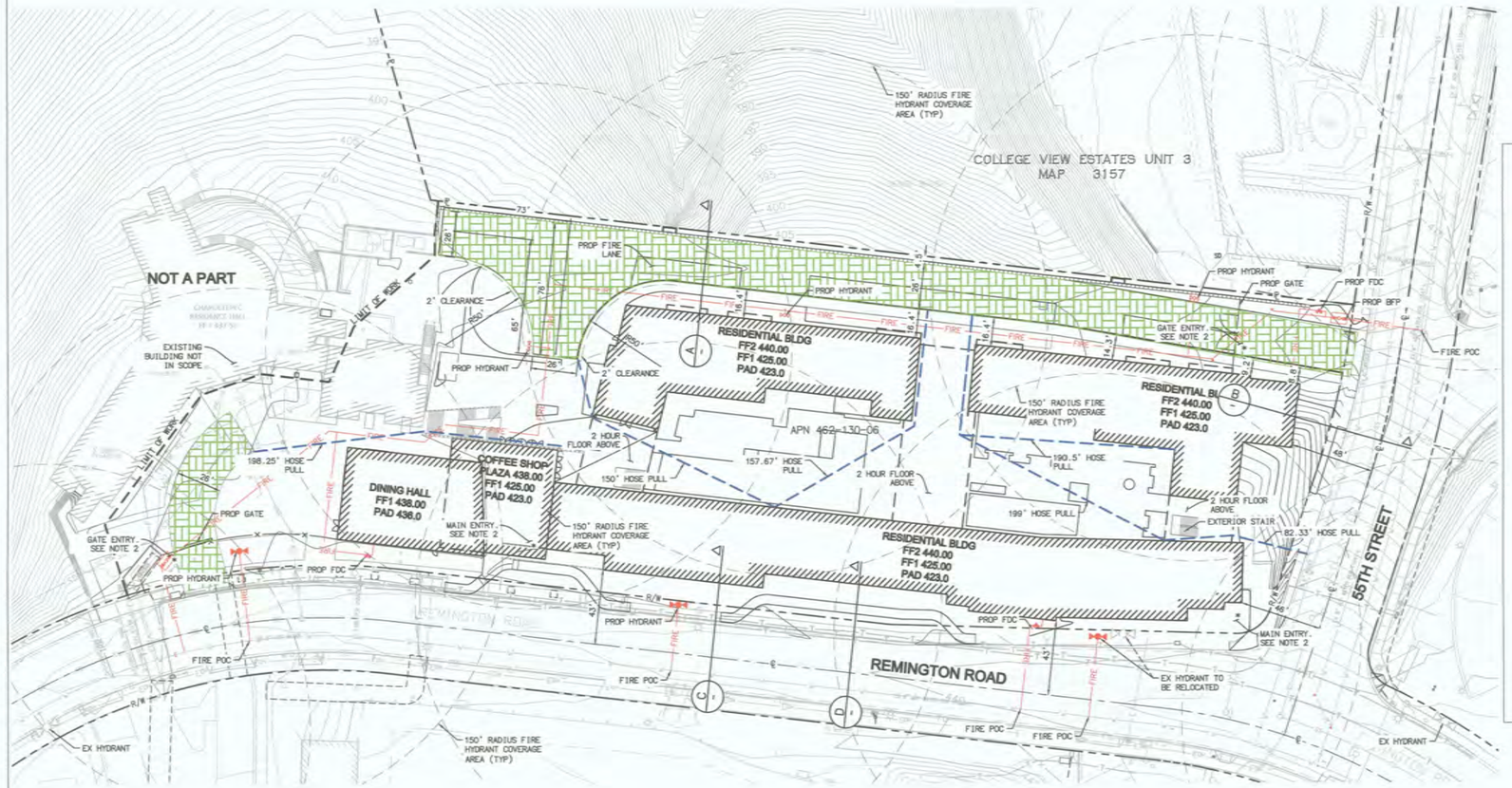
Should you have any questions regarding the fire flow analysis contained in this technical memorandum, please contact Joel Bowdan III at (858) 614-5035 (direct office phone).

Attachments: New Student Residence Hall Fire Access Plan

Hydrant Flow Request from City of San Diego

California Fire Code (CFC) Appendix BB, Table BB105.1

SDSU Fire Flow Calculations



PLAN VIEW

FIRE SITE PLAN

SCALE: 1"=30'

LEGEND

- PROP FIRE LANE
- PROP FIRE HYDRANT
- EX FIRE HYDRANT
- 200' HOSE PULL
- 150' RADIUS
- FIRE LINE

STATE OF CALIFORNIA - NATIONAL RESOURCES AGENCY — Edmund G. Brown Jr., Governor

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL
Fire and Life Safety Division
P.O. Box 944246
SACRAMENTO, CA 94244-2460
(916) 445-8500
Website: www.fire.ca.gov

LOCAL FIRE AUTHORITY – ACCESS APPROVAL

Project: SDSU NSRH

Address: REMINGTON AND 55TH

CSFM File Number: _____ (Only if applicable) DGS Project #: _____ (Only if applicable)

Pursuant to Title 19, California Code of Regulations, Article 3, Section 3.05, Fire Department Access and Egress, it is necessary to provide the California State Fire Marshal with written certification from the local fire authority that the above section is being met to their satisfaction.

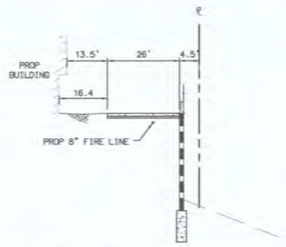
Please return this form with all sections filled in completely. Without this form, California State Fire Marshal approval may be delayed. If you have any questions, please contact the California State Fire Marshal Plan Review Unit at (916) 445-8550.

The local fire authority shall consider the following items.

Approved	Yes	No
Fire Department Access	Yes	
Fire Department Connection	Yes	
Fire Hydrant	Yes	
Fire Alarm Annunciator at main entry	Yes	
Fire Alarm Control Panel Add Suppression	Yes	
Knox Box	Yes	
Emergency Responder Radio Coverage Final	Yes	

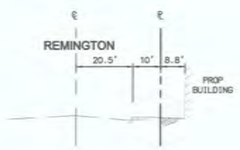
Local Fire Authority: San Diego Fire Rescue
Address: 1010 2nd Ave Ste 200
City/State/ZIP: San Diego, CA 92101

Approval issued by: D. Fletcher
Rank/Title: Deputy Fire Marshal
Phone Number: (619) 533-4179
Signature: _____ Date: 12-28-17

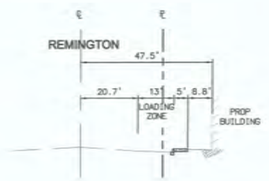


A SECTION
NOT TO SCALE

B SECTION
NOT TO SCALE



C SECTION
NOT TO SCALE



D SECTION
NOT TO SCALE

CONTRACTOR NOTES

1. REFERENCE UTILITY PLANS FOR DEPTHS OF PROPOSED FIRE SERVICE LINES (EXISTING PIPE ASSUMED 3' DEEP). MINIMUM COVER SHALL BE 3'-0" IN TRAFFIC ZONES, 2'-6" IN PEDESTRIAN ZONES.
2. REFERENCE PLUMBING PLANS FOR SPRINKLERS AND STANDPIPE RISERS AT AND INSIDE BUILDINGS.
3. PLACE FIRE DEPARTMENT CONNECTIONS NO FURTHER THAN 40' FROM A FIRE ACCESS ROADWAY.
4. PROPOSED FIRE SERVICE LINES AND STRUCTURES SHOWN FOR REFERENCE ONLY. REFERENCE UTILITY PLANS FOR PROPOSED UTILITY DESIGN.
5. PROPOSED FIRE HYDRANTS SHALL HAVE INDIVIDUALLY VALVED PORTS, ONE 2-1/2" AND TWO 4" FOR ALL OCCUPANCIES EXCEPT R-3.
6. PROPOSED FIRE HYDRANTS SHALL HAVE A SHUT-OFF VALVE LOCATED NO CLOSER THAN 5' FROM THE HYDRANT, AND NO FURTHER THAN 20'.

GENERAL NOTES

1. NO 2-1/2" FIRE DEPARTMENT HOSE VALVES REQUIRED AT GROUND FLOOR PER SAN DIEGO FIRE DEPARTMENT.
2. FIRE DEPARTMENT KEY BOXES (KNOX BOX) TO BE PROVIDED IN ACCORDANCE WITH THE CITY OF SAN DIEGO FPB POLICY K-15-2. AT GATE ENTRANCE, PROVIDE OPTICOM STROBE SENSOR AND MANUAL OVERRIDE.
3. MAINTAIN ACCESSIBLE PEDESTRIAN WALKWAY AND PATHS OF TRAVEL DURING CONSTRUCTION
4. FIRE ACCESS ROADS SHALL EXTEND TO WITHIN 200 FEET IN SPRINKLERED BUILDINGS OF ALL PORTION OF THE FIRST STORY OF THE BUILDING SERVED PER CITY OF SAN DIEGO POLICY A-14-1 (CFC SECTION 503.1.1 EXCEPTION 1.1)
5. FIRE SEPARATION DISTANCE (FSD) MEASURED TO CENTERLINE OF STREET PER CBC SECTION 202
6. MAINTAIN EXITS FROM EXISTING BUILDINGS

FIRE FLOW NOTES

1. MINIMUM REQUIRED FIRE FLOW FOR THIS BUILDING (179,074 SQ. FT. TYPE 1B BUILDING) IS 4,500 GPM AT 20 PSI WITH A FLOW DURATION OF 4 HOURS PER CFC APPENDIX B8 TABLE B8105.1.
2. THIS BUILDING IS PROVIDED WITH AN AUTOMATIC FIRE SPRINKLER SYSTEM. THE REQUIRED FLOW FLOW OF 4,500 GPM CAN BE REDUCED BY 50% = 2,250 GPM AT 20 PSI.

SECTION B8105 FIRE FLOW REQUIREMENTS FOR BUILDINGS
B8105.1 THE MINIMUM FIRE FLOW AND FLOW DURATION FOR SCHOOL BUILDINGS SHALL BE AS SPECIFIED IN TABLE B8105.1. EXCEPTION: A REDUCTION IN REQUIRED FLOW OF UP TO 75% IS ALLOWED WHEN THE BUILDING SYSTEM IS PROVIDED WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM.

AVALABLE FIRE FLOW CALCULATOR

Spreadsheet for calculating available fire flow (gpm) at desired residual from field fire flow testing data. Developed by J.E. Bowdan III, P.E. from AWWA M-19, Eqn. 6-2.

Project: San Diego State University
Hydrant Test Location: City of SD FSN 538254, 5484 Remington Rd, NW Corner of Remington at 55th Street.
Client: San Diego State University
MBI JN: 159313

$$Qr = Qf * (hr^{0.54} / hf^{0.54})$$

Where:

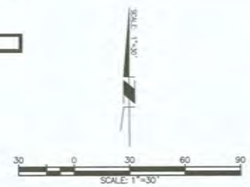
Qr =	Calculated available flow at desired residual pressure	
Qf =	Flow during test	
hr =	pressure drop to desired residual pressure	Use hr = Ps-Prd
hf =	pressure drop during flow test	Use hf = Ps - Prf
Ps =	static pressure observed	
Prd =	residual pressure desired	
Prf =	residual pressure during test	

Enter Data Below:

Qf (gpm):	1,321.0	Enter hydrant test flow observed during test or provided by agency.
Ps (psi):	83.12	Enter static pressure observed during test or provided by agency.
Prd (psi):	20.00	Enter desired residual pressure (20.0 psi minimum)
Prf (psi):	72.20	Enter residual pressure observed during test or provided by agency.

Calculation Result Below:

Qr (calc) =	3,406.8	Calculated available fire flow per AWWA M-19 Equation 6-2



SAN DIEGO STATE UNIVERSITY
Leadership Starts Here

CLARK + ac martin

NEW STUDENT RESIDENCE HALL
San Diego State Univeristy
5500 Campanelle Drive
San Diego, CA 92182

FIRE ACCESS PLAN

C-801

plot date 6/27/2017

ac martin ARCHITECTURE PLANNING INTERIORS ARCHITECTURE RESEARCH
444 South Flower Street, Ste 1200 Los Angeles CA 90071
T/213 683 1900 F/213 614 4802

H:\PDATA\159313\CAD\LAND\LAYOUT-CODE PACKAGE\159313-FA-01.DWG PARKER, ALIA 6/27/2017 1:51:28 PM

City of San Diego
Development Services
Attention: **Hydrant Flow Request**
1222 First Ave., MS-401
San Diego, CA 92101
(619) 446-5000

Hydrant Flow Request

FORM
DS-160
OCTOBER 2016

Fill out the information below completely for all sprinkler system flow requests, including NFPA 13, 13D and 13R systems. E-mail form to: DSDHydrantFlow@sandiego.gov, or mail request to the above address.

Please print or type legibly.

Company Requesting Hydrant Flow:
Michael Baker International (attn Alia Parker)

Telephone No:	Fax No:	E-mail Address:
858-810-1466		alia.parker@mbakerintl.com

Project Number for the Building Permits:
TBD

Location of Hydrants:
Along Remington at 55th. See below.

Cross Street:	City:	State:	ZIP Code:
55th Street	San Diego	CA	92115

FOR CITY USE ONLY

Facility Sequence Number: (FSN): See Attached

Static: See Attached PSI

Elevation: See Attached FEET

Pitot: 0 PSI

Residual: See Attached PSI

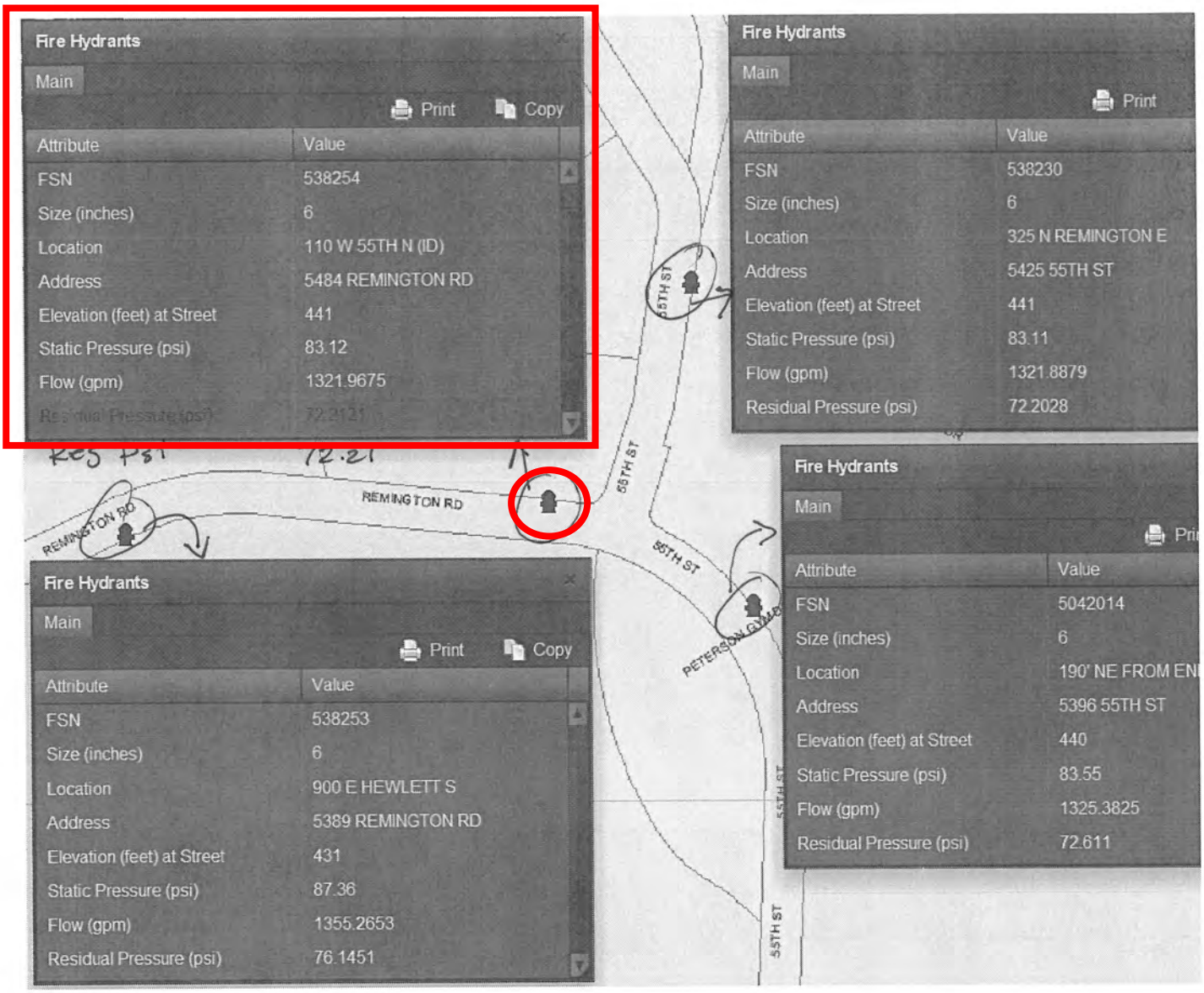
Date: 4/26/17

Flow: See Attached GPM

Researched in database by: A. L.

The information provided above is based upon a water model. It is the contractor's responsibility to confirm the available static pressure at the system point of connection. If a discrepancy is noticed at that time, notify DSDHydrantFlow@sandiego.gov as soon as possible.

Please draw an accurate map for fire hydrant data


Fire Hydrants
Main
Print
Copy
Attribute
Value
FSN
538254
Size (inches)
6
Location
110 W 55TH N (ID)
Address
5484 REMINGTON RD
Elevation (feet) at Street
441
Static Pressure (psi)
83.12
Flow (gpm)
1321.9675
Residual Pressure (psi)
72.2121
Fire Hydrants
Main
Print
Attribute
Value
FSN
538230
Size (inches)
6
Location
325 N REMINGTON E
Address
5425 55TH ST
Elevation (feet) at Street
441
Static Pressure (psi)
83.11
Flow (gpm)
1321.8879
Residual Pressure (psi)
72.2028
Fire Hydrants
Main
Attribute
Value
FSN
5042014
Size (inches)
6
Location
190' NE FROM EN
Address
5396 55TH ST
Elevation (feet) at Street
440
Static Pressure (psi)
83.55
Flow (gpm)
1325.3825
Residual Pressure (psi)
72.611
Fire Hydrants
Main
Print
Copy
Attribute
Value
FSN
538253
Size (inches)
6
Location
900 E HEWLETT S
Address
5389 REMINGTON RD
Elevation (feet) at Street
431
Static Pressure (psi)
87.36
Flow (gpm)
1355.2653
Residual Pressure (psi)
76.1451
Reg Psi
72.21
REMINGTON RD
REMINGTON RD
55TH ST
55TH ST
55TH ST
55TH ST
PETERSON LANE

SDSU NSRH Project:
Building Area: 182,290 sq. ft.
Construction Type: IB, sprinkler system

TABLE BB105.1
MINIMUM REQUIRED FIRE-FLOW AND FLOW DURATION FOR BUILDINGS

FIRE AREA (square feet)					FIRE-FLOW (gallons per minute)b	FLOW DURATION (hours)
Type IA and IB a	Type IIA and IIIA a	Type IV and V-A a	Type IIB and IIIB a	Type V-B a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895kPa.
a. Types of construction are based on the *California Building Code.*
b. Measured at 20 psi.

AVALABLE FIRE FLOW CALCULATOR

Spreadsheet for calculating available fire flow (gpm) at desired residual from field fire flow testing data. Developed by J.E. Bowdan III, P.E. from AWWA M-19, Eqn. 6-2.

Project: San Diego State University
Hydrant Test
Location: City of SD FSN 538254, 5484 Remington Rd, NW Corner of Remington at 55th Street.
Client: San Diego State University
MBI JN: 159313

Qr = Qf * (hr^0.54 / hf^0.54)

Where:

Qr =	Calculated available flow at desired residual pressure	
Qf =	Flow during test	
hr =	pressure drop to desired residual pressure	Use hr = Ps-Prd
hf =	pressure drop during flow test	Use hf = Ps - Prf
Ps =	static pressure observed	
Prd =	residual pressure desired	
Prf =	residual pressure during test	

Enter Data Below:

Qf (gpm):	**1,321.0**	Enter hydrant test flow observed during test or provided by agency.
Ps (psi):	**83.12**	Enter static pressure observed during test or provided by agency.
Prd (psi):	**20.00**	Enter desired residual pressure (20.0 psi minimum)
Prf (psi):	**72.20**	Enter residual pressure obsered during test or provided by agency.

Calculation Result Below:

Qr (calc) =	**3,406.8**	Calculated available fire flow per AWWA M-19 Equation 6-2

MEMORANDUM

To:	Sarah Lozano Dudek	Date:	July 27, 2017
From:	John Boarman, PE Charlene Sadiarin, PE LLG, Engineers	LLG Ref:	3-16-2694
Subject:	SDSU Student Housing – Project Phase I Supplemental Traffic Analysis		

LINSCOTT LAW & GREENSPAN engineers

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INTRODUCTION

Linscott, Law and Greenspan Engineers has prepared this memo to summarize the results of supplemental analyses conducted for Phase I of the SDSU Student Housing Project.

EXISTING + PROJECT PHASE I

Existing and Project Phase I traffic volumes can be found in the *SDSU Student Housing Transportation Impact Analysis* study (dated June 22, 2017). Based on these volumes, peak hour intersection and daily street segment operations were analyzed for the Existing + Project Phase I scenario.

Intersection Analysis

Table 1 summarizes the peak hour intersection operations under Existing + Project Phase I conditions. As shown in *Table 1*, with the addition of Project Phase I traffic, the study area intersections would all operate acceptably at LOS D or better during the AM and PM peak hours with the exception of the following intersections:

- College Avenue / Zura Way (LOS F during the PM peak hour); and
- College Avenue / Montezuma Road (LOS E during the PM peak hour).

Based on both the CSU and City of San Diego significance criteria, the proposed Project would not result in significant impacts at the above intersections as the Project's traffic contribution to these intersections would not exceed the allowable thresholds. Please see ***Attachment A*** for the Existing + Project Phase I peak hour intersection analyses worksheets.

Segment Operations

Table 2 summarizes the Existing + Project Phase I street segment operations. As shown in *Table 2*, with the addition of Project Phase I traffic, the study area street segments would all operate acceptably at LOS C or better with the exception of the following segments:

- Montezuma Road: 55th Street to College Avenue (LOS F);
- College Avenue: Canyon Crest Drive to Zura Way (LOS E); and
- College Avenue: Montezuma Road to Arosa Street (LOS E).

Based on both the CSU and City of San Diego significance criteria, the proposed Project would not result in significant impacts on the above street segments as the Project's traffic contribution to these intersections would not exceed the allowable thresholds.

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TABLE 1
INTERSECTION OPERATIONS - EXISTING + PROJECT PHASE I

Intersection	Control Type	Peak Hour	Existing		Existing + Project Phase I		Δ[c]
			Delay[a]	LOS[b]	Delay	LOS	
1. Montezuma Road / Collwood Blvd	Signal	AM	21.5	C	21.5	C	0.0
		PM	25.3	C	25.8	C	0.5
2. Montezuma Road / Yerba Santa Drive	Signal	AM	9.4	A	9.5	A	0.1
		PM	9.2	A	9.3	A	0.1
3. 55th Street / Canyon Crest Drive	AWSC[d]	AM	17.1	C	18.2	C	1.1
		PM	11.6	B	12.4	B	0.8
4. 55th Street / Remington Road	Signal	AM	9.1	A	9.1	A	0.0
		PM	10.9	B	10.9	B	0.0
5. 55th Street / Hardy Avenue	Signal	AM	27.4	C	27.4	C	0.0
		PM	36.5	D	36.5	D	0.0
6. 55th Street / Montezuma Road	Signal	AM	33.5	C	35.1	D	1.6
		PM	50.0	D	52.9	D	2.9
7. Montezuma Road / Campanile Drive	Signal	AM	31.0	C	31.0	C	0.0
		PM	29.5	C	29.6	C	0.1
8. College Avenue / I-8 WB Ramps	Signal	AM	7.2	A	7.2	A	0.0
		PM	11.2	B	11.3	B	0.1
9. College Avenue / I-8 EB Ramps	Signal	AM	19.2	B	19.2	B	0.0
		PM	15.7	B	15.7	B	0.0
10. College Avenue / Canyon Crest Avenue	Signal	AM	38.4	D	38.5	D	0.1
		PM	50.0	D	50.0	D	0.0
11. College Avenue / Zura Way	OWSC[e]	AM	16.2	C	16.2	C	0.0
		PM	>100	F	>100	F	0.0
12. College Avenue / Montezuma Road	Signal	AM	52.6	D	52.6	D	0.0
		PM	67.7	E	67.8	E	0.1

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes an increase in delay due to project.
d. AWSC – All-Way Stop Controlled intersection
e. OWSC – One-Way Stop Controlled

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

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TABLE 2
SEGMENT OPERATIONS - EXISTING + PROJECT PHASE I

Street Segment	Near Term Capacity (LOS E)[a]	Existing			Existing + Project Phase I			Δ[e]
		ADT[b]	V/C[c]	LOS[d]	ADT	V/C	LOS	
Montezuma Road								
Collwood Boulevard to 55th Street	40,000	28,950	0.724	C	29,587	0.740	C	0.016
55th Street to College Avenue	30,000	32,570	1.086	F	32,793	1.093	F	0.007
East of College Avenue	30,000	21,500	0.717	D	21,601	0.720	D	0.003
Remington Rd								
West of 55th Street	10,000	3,110	0.311	A	3,166	0.317	A	0.006
55th St								
Remington Road to Montezuma Road	30,000	18,110	0.604	C	18,970	0.632	C	0.029
College Ave								
Canyon Crest Drive to Zura Way	40,000	35,850	0.896	E	35,850	0.896	E	0.000
Zura Way to Montezuma Road	40,000	29,790	0.745	C	29,790	0.745	C	0.000
Montezuma Road to Arosa Street	30,000	27,500	0.917	E	27,623	0.921	E	0.004

Footnotes:

a. Capacities based on the City of San Diego's Roadway Classification & LOS table (See *Appendix D* of the SDSU Student Housing Project Transportation Impact Analysis Study).
b. Average Daily Traffic
c. Volume to Capacity ratio
d. Level of Service
e. Δ denotes a project-induced increase in the Volume to Capacity ratio

HORIZON YEAR + PROJECT PHASE I

Horizon Year traffic volumes can be found in the *SDSU Student Housing Transportation Impact Analysis* study (dated June 22, 2017). Based on these volumes, peak hour intersection and daily street segment operations were analyzed for the Horizon Year + Project Phase I scenario. The analysis study area was determined based on the City of San Diego Traffic Impact Study Manual requirements and, therefore, includes the segments and intersections to which the project would add 50 or more peak hour trips.

Intersection Analysis

Table 3 summarizes the peak hour intersection operations under Horizon Year + Project Phase I conditions. As shown in *Table 3*, with the addition of Project Phase I traffic, the following study area intersection would operate at LOS E or F during either the AM or PM peak hours under this scenario:

- 55th Street / Montezuma Road (LOS F during the PM peak hours);

Based on both the CSU and City of San Diego significance criteria, the proposed Project would not result in a significant impact at the 55th Street / Montezuma Road intersection as the Project's traffic contribution would not exceed the allowable thresholds. Please see ***Attachment B*** for the Horizon Year + Project Phase I peak hour intersection analyses worksheets.

Segment Operations

Table 4 summarizes the Horizon Year + Project Phase I street segment operations. As shown in *Table 4*, with the addition of Project Phase I traffic, the study area street segments would all operate acceptably at LOS D. Based on both the CSU and City of San Diego significance criteria, the proposed project would not result in a significant impact.

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TABLE 3
HORIZON YEAR INTERSECTION OPERATIONS

Intersection	Peak Hour	Horizon Year without Project Phase I		Horizon Year with Project Phase I		Delay Increase	Sig?[c]
		Delay[a]	LOS[b]	Delay	LOS		
3. 55th Street / Canyon Crest Drive	AM	20.6	C	22.0	C	1.4	No
	PM	14.4	B	15.5	C	1.1	No
4. 55th Street / Remington Road	AM	10.6	B	12.0	B	14	No
	PM	11.0	B	12.7	B	1.7	No
5. 55th Street / Hardy Avenue	AM	30.4	C	30.4	C	0.0	No
	PM	40.5	D	40.5	D	0.0	No
6. 55th Street / Montezuma Road	AM	52.9	D	54.0	D	1.1	No
	PM	88.6	F	89.1	F	0.5	No

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Sig = Significant project impacts based on Significance Criteria.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

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TABLE 4
HORIZON YEAR STREET SEGMENT OPERATIONS

Street Segment	Capacity (LOS E) [a]	Horizon Year without Project			Horizon Year With Project			Δ[e]	Sig? [f]
		ADT[b]	LOS [c]	V/C [d]	ADT	LOS	V/C		
Remington Rd West of 55th Street	10,000	7,680	D	0.768	7,736	0.774	D	0.006	None
55th St Hardy Avenue to Montezuma Road	30,000	22,250	D	0.742	23,110	0.770	D	0.029	None

Footnotes:

a. Capacities based on the City of San Diego's Roadway Classification & LOS table (See *Appendix D* of the SDSU Student Housing Transportation Impact Analysis Study).

b. Average Daily Traffic.

c. Level of Service.

d. Volume to Capacity.

e. Δ denotes a project-induced increase in the Volume to Capacity (V/C) ratio.

f. Sig = Significant project impact based on Significance Criteria.

TRANSIT CAPACITY ANALYSIS

Table 5 shows the projected Project Phase I trolley ridership based on the mode, peak hour, and directional splits explained in Section 11.2.2 of the transportation impact analysis study.

TABLE 5
PROJECT PHASE I TROLLEY RIDERSHIP CALCULATIONS

Direction	Peak Hour	Daily Project Phase I Ridership (Riders/day)	Peak Hour Project Phase I Ridership (Riders/hr)[a]		
			IN	OUT	TOTAL
Eastbound	AM	124	2	2	4
	PM		3	3	6
Westbound	AM		2	1	3
	PM		2	2	4

Footnotes:

a. The in/out split is consistent with 52:48 (AM) and 54:46 (PM) per trip generation calculation. For EB and WB splits, 60%/40% was calculated based on existing trolley ridership data.

Tables 6, ***7***, and ***8*** report the results of the Green Line trolley analysis under Existing + Project Phase I, Near-Term + Project Phase I, and Horizon Year + Project Phase I conditions, respectively. As shown on the tables, in each case, projected ridership volumes (V) would be lower than projected capacity (C). Thus, even with the addition of trolley riders from the Project, sufficient capacity is projected to be available to accommodate the increased demand. Therefore, no trolley capacity constraints are identified.

TABLE 6
TROLLEY ANALYSIS – EXISTING + PROJECT PHASE I

Direction	**Peak Hour**	**Calculated Capacity (Riders/hr)**	**Existing Volume (Riders/hr)[a]**		**Project Phase I Ridership (Riders/hr)[b]**		**Existing + Project Phase I Volume (Riders/hr)**		**V>C?**	
			IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
Eastbound	AM	1,268	261	144	2	2	263	146	No	No
	PM	1,368	473	446	3	3	476	449	No	No
Westbound	AM	1,239	443	413	2	1	445	414	No	No
	PM	1,181	225	289	2	2	227	291	No	No

Footnotes:

a. Existing trolley ridership data obtained from SANDAG *Assistance to Transit Operations and Planning (ATOP)* program, Year 2016.

g. Project trolley ridership is calculated as shown in *Table 5*, which shows 7 total AM trips and 10 total PM trips. The in/out split is consistent with 52:48 (AM) and 54:46 (PM) per trip generation calculation. For EB and WB splits, 60%/40% was calculated based on existing trolley ridership data.

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TABLE 7
TROLLEY ANALYSIS – NEAR-TERM + PROJECT PHASE I

Direction	Peak Hour	Calculated Capacity (Riders/hr)	Near-Term Volume (Riders/hr)[a]		Project Phase I Ridership (Riders/hr)[b]		Near-Term + Project Phase I Volume (Riders/hr)		V>C?	
			IN	OUT	IN	OUT	IN	OUT	IN	OUT
Eastbound	AM	1,268	366	162	2	2	368	164	No	No
	PM	1,368	551	543	3	3	554	546	No	No
Westbound	AM	1,239	535	456	2	1	537	457	No	No
	PM	1,181	270	403	2	2	272	405	No	No

Footnotes:

a. Trolley ridership data obtained from SANDAG shows a decrease in Green Line ridership of approximately 3.5%/year between 2013 and 2015. However, to be conservative, a 2%/year increase in ridership for 4 years was assumed for the Near-Term scenario.

b. Project trolley ridership is calculated as shown in *Table 5*, which shows 7 total AM trips and 10 total PM trips. The in/out split is consistent with 52:48 (AM) and 54:46 (PM) per trip generation calculation. For EB and WB splits, 60%/40% was calculated based on existing trolley ridership data.

TABLE 8
TROLLEY ANALYSIS – HORIZON YEAR + PROJECT PHASE I

Direction	Peak Hour	Calculated Capacity (Riders/hr)	Horizon Year Volume (Riders/hr)[a]		Project Phase I Ridership (Riders/hr)[b]		Horizon Year + Project Phase I Volume (Riders/hr)		V>C?	
			IN	OUT	IN	OUT	IN	OUT	IN	OUT
Eastbound	AM	1,268	676	232	2	2	678	234	No	No
	PM	1,368	827	864	3	3	830	867	No	No
Westbound	AM	1,239	842	635	2	1	844	636	No	No
	PM	1,181	419	742	2	2	421	744	No	No

Footnotes:

a. Trolley ridership data obtained from SANDAG shows a decrease in Green Line ridership of approximately 3.5%/year between 2013 and 2015. However, to be conservative, a 2%/year increase in ridership for 19 years was assumed for the Horizon Year scenario.

b. Project trolley ridership is calculated as shown in *Table 5*, which shows 7 total AM trips and 10 total PM trips. The in/out split is consistent with 52:48 (AM) and 54:46 (PM) per trip generation calculation. For EB and WB splits, 60%/40% was calculated based on existing trolley ridership data.

cc: File

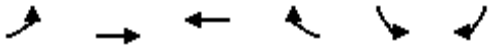
ATTACHMENT A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	959	459	69	1300	955	58
Future Volume (veh/h)	959	459	69	1300	955	58
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	1066	510	77	1444	1061	64
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1748	1276	97	2064	1137	523
Arrive On Green	0.49	0.49	0.11	1.00	0.33	0.33
Sat Flow, veh/h	3632	1524	1774	3632	3442	1583
Grp Volume(v), veh/h	1066	510	77	1444	1061	64
Grp Sat Flow(s),veh/h/ln	1770	1524	1774	1770	1721	1583
Q Serve(g_s), s	27.5	11.1	5.3	0.0	37.6	3.6
Cycle Q Clear(g_c), s	27.5	11.1	5.3	0.0	37.6	3.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1748	1276	97	2064	1137	523
V/C Ratio(X)	0.61	0.40	0.80	0.70	0.93	0.12
Avail Cap(c_a), veh/h	1748	1276	169	2064	1371	631
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.80	0.80	1.00	1.00
Uniform Delay (d), s/veh	23.1	2.9	55.5	0.0	40.9	29.5
Incr Delay (d2), s/veh	1.6	0.9	4.4	1.6	9.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	4.9	2.7	0.5	19.4	1.6
LnGrp Delay(d),s/veh	24.7	3.9	59.9	1.6	50.6	29.5
LnGrp LOS	C	A	E	A	D	C
Approach Vol, veh/h	1576			1521	1125	
Approach Delay, s/veh	18.0			4.5	49.4	
Approach LOS	B			A	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.3	68.7				80.0		46.0
Change Period (Y+Rc), s	4.4	* 6.5				6.5		4.4
Max Green Setting (Gmax), s	12.0	* 49				64.9		50.2
Max Q Clear Time (g_c+I1), s	7.3	29.5				2.0		39.6
Green Ext Time (p_c), s	0.0	18.7				56.8		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Notes



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	977	1251	18	7	118
Future Volume (veh/h)	40	977	1251	18	7	118
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	45	1098	1406	20	8	133
Adj No. of Lanes	1	2	2	0	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	58	2760	2544	36	11	186
Arrive On Green	0.06	1.00	0.71	0.71	0.13	0.13
Sat Flow, veh/h	1774	3632	3664	51	88	1460
Grp Volume(v), veh/h	45	1098	696	730	142	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1852	1559	0
Q Serve(g_s), s	3.1	0.0	23.5	23.6	11.0	0.0
Cycle Q Clear(g_c), s	3.1	0.0	23.5	23.6	11.0	0.0
Prop In Lane	1.00			0.03	0.06	0.94
Lane Grp Cap(c), veh/h	58	2760	1261	1319	199	0
V/C Ratio(X)	0.78	0.40	0.55	0.55	0.71	0.00
Avail Cap(c_a), veh/h	135	2760	1261	1319	395	0
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.5	0.0	8.6	8.6	52.8	0.0
Incr Delay (d2), s/veh	6.4	0.3	1.7	1.7	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.1	12.0	12.6	4.8	0.0
LnGrp Delay(d),s/veh	64.9	0.3	10.3	10.3	54.6	0.0
LnGrp LOS	E	A	B	B	D	
Approach Vol, veh/h		1143	1426		142	
Approach Delay, s/veh		2.9	10.3		54.6	
Approach LOS		A	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		104.8		21.2	8.5	96.4		
Change Period (Y+Rc), s		* 6.6		5.1	4.4	6.6		
Max Green Setting (Gmax), s		* 83		31.9	9.6	68.4		
Max Q Clear Time (g_c+I1), s		2.0		13.0	5.1	25.6		
Green Ext Time (p_c), s		75.3		0.2	0.0	41.0		

Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A

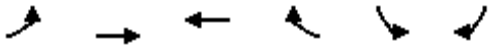
Notes

Intersection	
Intersection Delay, s/veh	18.2
Intersection LOS	C

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	100	9	0	33	489	0	0	44
Future Vol, veh/h	0	100	9	0	33	489	0	0	44
Peak Hour Factor	0.92	0.75	0.75	0.92	0.75	0.75	0.92	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	133	12	0	44	652	0	0	59
Number of Lanes	0	2	0	0	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	10.5	20.6	9.1
HCM LOS	B	C	A

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	79%	0%
Vol Thru, %	100%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	21%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	489	67	42	44
LT Vol	0	0	67	33	0
Through Vol	33	0	0	0	44
RT Vol	0	489	0	9	0
Lane Flow Rate	44	652	89	56	59
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.062	0.79	0.165	0.1	0.09
Departure Headway (Hd)	5.065	4.361	6.663	6.405	5.505
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	707	828	534	555	647
Service Time	2.798	2.094	4.458	4.2	3.577
HCM Lane V/C Ratio	0.062	0.787	0.167	0.101	0.091
HCM Control Delay	8.1	21.4	10.8	9.9	9.1
HCM Lane LOS	A	C	B	A	A
HCM 95th-tile Q	0.2	8.2	0.6	0.3	0.3

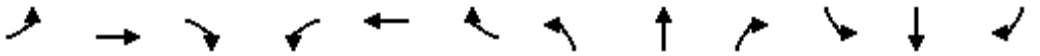


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	33	57	52	536	88	21
Future Volume (veh/h)	33	57	52	536	88	21
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.80	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	38	65	59	609	62	65
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	0
Cap, veh/h	70	616	447	1207	1014	923
Arrive On Green	0.04	0.33	0.24	0.24	0.57	0.57
Sat Flow, veh/h	1774	1863	1863	1260	1774	1615
Grp Volume(v), veh/h	38	65	59	609	62	65
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1260	1774	1615
Q Serve(g_s), s	2.0	2.3	2.4	16.8	1.5	1.7
Cycle Q Clear(g_c), s	2.0	2.3	2.4	16.8	1.5	1.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	70	616	447	1207	1014	923
V/C Ratio(X)	0.54	0.11	0.13	0.50	0.06	0.07
Avail Cap(c_a), veh/h	75	635	471	1223	1014	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	22.1	28.4	3.3	9.0	9.1
Incr Delay (d2), s/veh	2.9	0.0	0.0	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.2	1.2	15.9	0.8	0.0
LnGrp Delay(d),s/veh	47.7	22.1	28.4	3.4	9.2	9.2
LnGrp LOS	D	C	C	A	A	A
Approach Vol, veh/h		103	668		127	
Approach Delay, s/veh		31.5	5.6		9.2	
Approach LOS		C	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				36.3		58.7	8.6	27.7
Change Period (Y+Rc), s				4.9		4.4	4.9	* 4.9
Max Green Setting (Gmax), s				32.4		54.3	4.0	* 24
Max Q Clear Time (g_c+I1), s				4.3		3.7	4.0	18.8
Green Ext Time (p_c), s				0.2		0.3	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	22	96	22	76	107	532	0	0	188	26
Future Volume (vph)	5	0	22	96	22	76	107	532	0	0	188	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9		4.9	4.9	4.9		4.4	4.9			4.9	4.9
Lane Util. Factor	1.00		1.00	0.91	0.91		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00		0.91	1.00	0.94		1.00	1.00			1.00	0.97
Flpb, ped/bikes	1.00		1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00		0.85	1.00	0.91		1.00	1.00			1.00	0.85
Flt Protected	0.95		1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1770		1444	1610	2883		1770	3539			3539	1528
Flt Permitted	0.95		1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1770		1444	1610	2883		1770	3539			3539	1528
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	5	0	24	103	24	82	115	572	0	0	202	28
RTOR Reduction (vph)	0	0	20	0	66	0	0	0	0	0	0	18
Lane Group Flow (vph)	5	0	4	72	71	0	115	572	0	0	202	10
Confl. Peds. (#/hr)			51			55						10
Confl. Bikes (#/hr)			10			10						10
Turn Type	Prot		Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	7			8	8		5	2			6	
Permitted Phases			7									6
Actuated Green, G (s)	23.2		23.2	24.3	24.3		12.6	63.8			46.8	46.8
Effective Green, g (s)	23.2		23.2	24.3	24.3		12.6	63.8			46.8	46.8
Actuated g/C Ratio	0.18		0.18	0.19	0.19		0.10	0.51			0.37	0.37
Clearance Time (s)	4.9		4.9	4.9	4.9		4.4	4.9			4.9	4.9
Vehicle Extension (s)	2.0		2.0	2.0	2.0		2.0	3.3			3.4	3.4
Lane Grp Cap (vph)	325		265	310	556		177	1791			1314	567
v/s Ratio Prot	0.00			c0.04	0.02		c0.06	c0.16			0.06	
v/s Ratio Perm			c0.00									0.01
v/c Ratio	0.02		0.02	0.23	0.13		0.65	0.32			0.15	0.02
Uniform Delay, d1	42.1		42.1	43.0	42.1		54.6	18.3			26.4	25.1
Progression Factor	1.00		1.00	1.00	1.00		1.37	0.58			1.00	1.00
Incremental Delay, d2	0.0		0.0	0.1	0.0		4.7	0.4			0.2	0.1
Delay (s)	42.1		42.1	43.1	42.1		79.4	11.0			26.6	25.1
Level of Service	D		D	D	D		E	B			C	C
Approach Delay (s)		42.1			42.5			22.5			26.5	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	126.0	Sum of lost time (s)	19.1
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	510	330	13	4	829	294	45	19	19	77	1	127
Future Volume (veh/h)	510	330	13	4	829	294	45	19	19	77	1	127
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.91	1.00		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	554	359	14	4	901	320	49	21	21	85	0	138
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	2	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	615	2158	84	7	1586	684	124	53	53	284	0	109
Arrive On Green	0.18	0.62	0.62	0.01	0.90	0.90	0.14	0.14	0.14	0.08	0.00	0.08
Sat Flow, veh/h	3442	3466	135	1774	3539	1526	916	393	393	3548	0	1354
Grp Volume(v), veh/h	554	183	190	4	901	320	91	0	0	85	0	138
Grp Sat Flow(s),veh/h/ln	1721	1770	1831	1774	1770	1526	1701	0	0	1774	0	1354
Q Serve(g_s), s	19.9	5.5	5.5	0.3	6.8	4.7	6.2	0.0	0.0	2.8	0.0	10.1
Cycle Q Clear(g_c), s	19.9	5.5	5.5	0.3	6.8	4.7	6.2	0.0	0.0	2.8	0.0	10.1
Prop In Lane	1.00		0.07	1.00		1.00	0.54		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	615	1102	1140	7	1586	684	231	0	0	284	0	109
V/C Ratio(X)	0.90	0.17	0.17	0.54	0.57	0.47	0.39	0.00	0.00	0.30	0.00	1.27
Avail Cap(c_a), veh/h	699	1102	1140	56	1586	684	405	0	0	284	0	109
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.45	0.45	0.45	1.00	0.00	0.00	0.99	0.00	0.99
Uniform Delay (d), s/veh	50.6	10.0	10.0	62.4	4.0	3.8	49.7	0.0	0.0	54.6	0.0	58.0
Incr Delay (d2), s/veh	12.7	0.3	0.3	10.0	0.7	1.0	0.4	0.0	0.0	0.6	0.0	175.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	2.7	2.9	0.2	3.1	2.0	2.9	0.0	0.0	1.4	0.0	9.1
LnGrp Delay(d),s/veh	63.4	10.3	10.3	72.3	4.6	4.9	50.1	0.0	0.0	55.2	0.0	233.6
LnGrp LOS	E	B	B	E	A	A	D			E		F
Approach Vol, veh/h		927			1225			91			223	
Approach Delay, s/veh		42.0			4.9			50.1			165.6	
Approach LOS		D			A			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	84.1		15.0	26.9	62.1		22.0
Change Period (Y+Rc), s	4.4	5.6		4.9	4.4	* 5.6		4.9
Max Green Setting (Gmax), s	4.0	62.1		10.1	25.6	* 41		30.0
Max Q Clear Time (g_c+I1), s	2.3	7.5		12.1	21.9	8.8		8.2
Green Ext Time (p_c), s	0.0	19.0		0.0	0.7	15.6		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	35.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	389	11	65	1036	303	36	13	91	97	9	55
Future Volume (veh/h)	82	389	11	65	1036	303	36	13	91	97	9	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.92	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	89	423	12	71	1126	329	39	14	99	105	10	60
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1721	49	90	1342	387	64	23	161	240	23	280
Arrive On Green	0.08	0.98	0.98	0.07	0.66	0.66	0.16	0.16	0.16	0.15	0.15	0.15
Sat Flow, veh/h	1774	3508	99	1774	2689	774	400	144	1016	1627	155	1448
Grp Volume(v), veh/h	89	213	222	71	735	720	152	0	0	115	0	60
Grp Sat Flow(s),veh/h/ln	1774	1770	1838	1774	1770	1694	1559	0	0	1781	0	1448
Q Serve(g_s), s	5.3	0.4	0.4	5.0	39.3	41.4	11.4	0.0	0.0	7.4	0.0	4.4
Cycle Q Clear(g_c), s	5.3	0.4	0.4	5.0	39.3	41.4	11.4	0.0	0.0	7.4	0.0	4.4
Prop In Lane	1.00		0.05	1.00		0.46	0.26		0.65	0.91		1.00
Lane Grp Cap(c), veh/h	75	868	902	90	883	846	248	0	0	263	0	280
V/C Ratio(X)	1.19	0.25	0.25	0.79	0.83	0.85	0.61	0.00	0.00	0.44	0.00	0.21
Avail Cap(c_a), veh/h	75	868	902	121	883	846	359	0	0	438	0	423
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	0.50	0.50	0.50	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.7	0.6	0.6	58.1	17.2	17.6	49.4	0.0	0.0	49.0	0.0	43.2
Incr Delay (d2), s/veh	164.6	0.7	0.6	8.1	4.7	5.6	0.9	0.0	0.0	0.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.3	0.3	2.6	20.1	20.4	5.0	0.0	0.0	3.7	0.0	1.8
LnGrp Delay(d),s/veh	222.3	1.3	1.3	66.2	21.9	23.1	50.3	0.0	0.0	49.4	0.0	43.3
LnGrp LOS	F	A	A	E	C	C	D			D		D
Approach Vol, veh/h		524			1526			152			175	
Approach Delay, s/veh		38.8			24.6			50.3			47.3	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.8	66.8		23.5	9.7	67.9		24.9
Change Period (Y+Rc), s	4.4	* 5		4.9	4.4	5.0		4.9
Max Green Setting (Gmax), s	8.6	* 38		31.0	5.3	41.5		29.0
Max Q Clear Time (g_c+I1), s	7.0	2.4		9.4	7.3	43.4		13.4
Green Ext Time (p_c), s	0.0	30.6		0.4	0.0	0.0		0.3

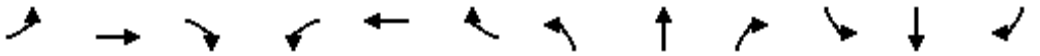
Intersection Summary	
HCM 2010 Ctrl Delay	31.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	223	0	90	0	870	306	0	1001	671
Future Volume (veh/h)	0	0	0	223	0	90	0	870	306	0	1001	671
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				242	0	0	0	946	0	0	1088	0
Adj No. of Lanes				2	0	1	0	2	1	0	2	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				312	0	144	0	2846	1273	0	2846	1273
Arrive On Green				0.09	0.00	0.00	0.00	1.00	0.00	0.00	0.80	0.00
Sat Flow, veh/h				3442	0	1583	0	3632	1583	0	3632	1583
Grp Volume(v), veh/h				242	0	0	0	946	0	0	1088	0
Grp Sat Flow(s),veh/h/ln				1721	0	1583	0	1770	1583	0	1770	1583
Q Serve(g_s), s				6.9	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0
Cycle Q Clear(g_c), s				6.9	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				312	0	144	0	2846	1273	0	2846	1273
V/C Ratio(X)				0.77	0.00	0.00	0.00	0.33	0.00	0.00	0.38	0.00
Avail Cap(c_a), veh/h				375	0	173	0	2846	1273	0	2846	1273
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.00	0.88	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				44.5	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0
Incr Delay (d2), s/veh				8.1	0.0	0.0	0.0	0.3	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.0	0.0	0.0	0.1	0.0	0.0	4.2	0.0
LnGrp Delay(d),s/veh				52.6	0.0	0.0	0.0	0.3	0.0	0.0	3.2	0.0
LnGrp LOS				D				A			A	
Approach Vol, veh/h					242			946			1088	
Approach Delay, s/veh					52.6			0.3			3.2	
Approach LOS					D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		85.8				85.8		14.2
Change Period (Y+Rc), s		5.4				5.4		5.1
Max Green Setting (Gmax), s		78.6				78.6		10.9
Max Q Clear Time (g_c+I1), s		2.0				10.7		8.9
Green Ext Time (p_c), s		16.2				16.1		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	347	0	1213	0	0	0	0	829	209	0	945	279
Future Volume (vph)	347	0	1213	0	0	0	0	829	209	0	945	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1		6.1					6.1	4.0		6.4	4.0
Lane Util. Factor	0.97		0.76					0.95	1.00		0.95	1.00
Frpb, ped/bikes	1.00		1.00					1.00	0.97		1.00	0.97
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		3610					3539	1536		3539	1536
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		3610					3539	1536		3539	1536
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	377	0	1318	0	0	0	0	901	227	0	1027	303
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	377	0	1318	0	0	0	0	901	227	0	1027	303
Confl. Peds. (#/hr)	20		20						20			20
Turn Type	Prot		Prot					NA	Free		NA	Free
Protected Phases	1		6					2 4			8	
Permitted Phases									Free			Free
Actuated Green, G (s)	14.8		47.9					72.7	100.0		39.6	100.0
Effective Green, g (s)	14.8		47.9					72.7	100.0		39.6	100.0
Actuated g/C Ratio	0.15		0.48					0.73	1.00		0.40	1.00
Clearance Time (s)	6.1		6.1								6.4	
Vehicle Extension (s)	2.0		2.0								3.0	
Lane Grp Cap (vph)	508		1729					2572	1536		1401	1536
v/s Ratio Prot	0.11		c0.37					0.25			c0.29	
v/s Ratio Perm									0.15			0.20
v/c Ratio	0.74		0.76					0.35	0.15		0.73	0.20
Uniform Delay, d1	40.8		21.4					5.0	0.0		25.7	0.0
Progression Factor	1.00		1.00					0.23	1.00		1.02	1.00
Incremental Delay, d2	5.1		1.8					0.3	0.2		3.1	0.3
Delay (s)	45.9		23.2					1.4	0.2		29.5	0.3
Level of Service	D		C					A	A		C	A
Approach Delay (s)		28.3			0.0			1.2			22.8	
Approach LOS		C			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	19	16	66	61	227	90	733	53	502	1249	407
Future Volume (veh/h)	78	19	16	66	61	227	90	733	53	502	1249	407
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	62	54	17	72	66	247	98	797	58	546	1358	442
Adj No. of Lanes	1	1	0	0	1	1	1	2	1	2	3	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	166	52	91	83	394	117	1488	656	527	2606	1744
Arrive On Green	0.12	0.12	0.12	0.10	0.10	0.10	0.07	0.42	0.42	0.05	0.17	0.17
Sat Flow, veh/h	1774	1341	422	947	868	1583	1774	3539	1561	3442	5085	2732
Grp Volume(v), veh/h	62	0	71	138	0	247	98	797	58	546	1358	442
Grp Sat Flow(s),veh/h/ln	1774	0	1763	1815	0	1583	1774	1770	1561	1721	1695	1366
Q Serve(g_s), s	3.2	0.0	3.7	7.4	0.0	9.6	5.5	16.8	2.2	15.3	24.3	10.6
Cycle Q Clear(g_c), s	3.2	0.0	3.7	7.4	0.0	9.6	5.5	16.8	2.2	15.3	24.3	10.6
Prop In Lane	1.00		0.24	0.52		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	0	218	174	0	394	117	1488	656	527	2606	1744
V/C Ratio(X)	0.28	0.00	0.33	0.79	0.00	0.63	0.84	0.54	0.09	1.04	0.52	0.25
Avail Cap(c_a), veh/h	568	0	564	174	0	394	117	1488	656	527	2606	1744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	39.8	0.0	40.0	44.2	0.0	33.4	46.2	21.7	17.4	47.5	30.4	14.6
Incr Delay (d2), s/veh	0.3	0.0	0.3	20.0	0.0	2.4	38.5	1.4	0.3	39.8	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.8	4.7	0.0	6.3	3.9	8.5	1.0	10.2	11.6	5.4
LnGrp Delay(d),s/veh	40.1	0.0	40.3	64.2	0.0	35.8	84.7	23.1	17.7	87.3	30.8	14.8
LnGrp LOS	D		D	E		D	F	C	B	F	C	B
Approach Vol, veh/h		133			385			953			2346	
Approach Delay, s/veh		40.2			46.0			29.1			40.9	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.2	48.1		17.2	11.0	57.3		14.5
Change Period (Y+Rc), s	4.9	6.0		4.9	4.4	* 6		4.9
Max Green Setting (Gmax), s	15.3	22.4		32.0	6.6	* 32		9.6
Max Q Clear Time (g_c+I1), s	17.3	18.8		5.7	7.5	26.3		11.6
Green Ext Time (p_c), s	0.0	3.4		0.4	0.0	5.4		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		38.5
HCM 2010 LOS		D

Notes

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	92	934	68	311	1001
Future Vol, veh/h	0	92	934	68	311	1001
Conflicting Peds, #/hr	0	20	0	20	20	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	200	360	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	100	1015	74	338	1088

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2255	548	0	0	1035	0
Stage 1	1035	-	-	-	-	-
Stage 2	1220	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	35	480	-	-	667	-
Stage 1	303	-	-	-	-	-
Stage 2	242	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	16	464	-	-	656	-
Mov Cap-2 Maneuver	16	-	-	-	-	-
Stage 1	298	-	-	-	-	-
Stage 2	115	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	3.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	464	656	-
HCM Lane V/C Ratio	-	-	0.216	0.515	-
HCM Control Delay (s)	-	-	14.9	16.2	-
HCM Lane LOS	-	-	B	C	-
HCM 95th %tile Q(veh)	-	-	0.8	3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	290	84	21	683	183	572	885	51	90	431	286
Future Volume (veh/h)	163	290	84	21	683	183	572	885	51	90	431	286
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	177	315	91	23	742	199	622	962	55	98	468	311
Adj No. of Lanes	1	2	1	1	2	1	2	2	0	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	200	1311	561	56	1024	434	674	1096	63	432	503	332
Arrive On Green	0.23	0.74	0.74	0.03	0.29	0.29	0.20	0.32	0.32	0.13	0.25	0.25
Sat Flow, veh/h	1774	3539	1513	1774	3539	1499	3442	3392	194	3442	1989	1314
Grp Volume(v), veh/h	177	315	91	23	742	199	622	502	515	98	416	363
Grp Sat Flow(s),veh/h/ln	1774	1770	1513	1774	1770	1499	1721	1770	1817	1721	1770	1534
Q Serve(g_s), s	12.2	3.5	1.3	1.6	23.8	9.9	22.4	33.8	33.8	3.2	28.9	29.2
Cycle Q Clear(g_c), s	12.2	3.5	1.3	1.6	23.8	9.9	22.4	33.8	33.8	3.2	28.9	29.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.86
Lane Grp Cap(c), veh/h	200	1311	561	56	1024	434	674	572	587	432	447	388
V/C Ratio(X)	0.88	0.24	0.16	0.41	0.72	0.46	0.92	0.88	0.88	0.23	0.93	0.94
Avail Cap(c_a), veh/h	220	1311	561	83	1024	434	699	666	683	432	449	389
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	10.7	3.5	59.8	40.2	19.0	49.7	40.3	40.3	49.6	46.0	46.1
Incr Delay (d2), s/veh	28.2	0.4	0.6	1.8	4.5	3.5	17.1	12.1	11.8	0.1	26.0	30.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	1.7	0.6	0.8	12.3	4.5	12.2	18.4	18.8	1.5	17.3	15.6
LnGrp Delay(d),s/veh	76.2	11.2	4.1	61.6	44.7	22.5	66.9	52.4	52.1	49.7	72.0	76.1
LnGrp LOS	E	B	A	E	D	C	E	D	D	D	E	E
Approach Vol, veh/h		583			964			1639			877	
Approach Delay, s/veh		29.8			40.5			57.8			71.2	
Approach LOS		C			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	45.8	8.4	51.6	29.1	37.0	18.6	41.4
Change Period (Y+Rc), s	4.4	5.1	4.4	4.9	4.4	5.1	4.4	4.9
Max Green Setting (Gmax), s	10.2	47.4	5.9	43.7	25.6	32.0	15.6	34.0
Max Q Clear Time (g_c+I1), s	5.2	35.8	3.6	5.5	24.4	31.2	14.2	25.8
Green Ext Time (p_c), s	1.1	4.9	0.0	21.1	0.3	0.4	0.1	6.6

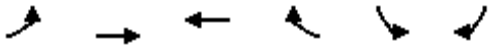
Intersection Summary	
HCM 2010 Ctrl Delay	52.6
HCM 2010 LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1922	999	127	1430	585	65
Future Volume (veh/h)	1922	999	127	1430	585	65
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	2023	1052	134	1505	616	68
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2160	1247	138	2551	681	313
Arrive On Green	0.61	0.61	0.16	1.00	0.20	0.20
Sat Flow, veh/h	3632	1529	1774	3632	3442	1583
Grp Volume(v), veh/h	2023	1052	134	1505	616	68
Grp Sat Flow(s),veh/h/ln	1770	1529	1774	1770	1721	1583
Q Serve(g_s), s	69.7	56.6	10.1	0.0	23.4	4.8
Cycle Q Clear(g_c), s	69.7	56.6	10.1	0.0	23.4	4.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2160	1247	138	2551	681	313
V/C Ratio(X)	0.94	0.84	0.97	0.59	0.90	0.22
Avail Cap(c_a), veh/h	2160	1247	138	2551	884	406
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.66	0.66	1.00	1.00
Uniform Delay (d), s/veh	23.7	7.9	56.5	0.0	52.5	45.0
Incr Delay (d2), s/veh	9.3	7.1	54.3	0.7	9.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	36.5	25.7	7.0	0.2	12.0	2.1
LnGrp Delay(d),s/veh	33.0	15.0	110.8	0.7	61.7	45.2
LnGrp LOS	C	B	F	A	E	D
Approach Vol, veh/h	3075			1639	684	
Approach Delay, s/veh	26.9			9.7	60.0	
Approach LOS	C			A	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.8	88.3				103.1		30.9
Change Period (Y+Rc), s	4.4	* 6.5				6.5		4.4
Max Green Setting (Gmax), s	10.4	* 74				88.7		34.4
Max Q Clear Time (g_c+I1), s	12.1	71.7				2.0		25.4
Green Ext Time (p_c), s	0.0	2.6				86.1		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

Notes



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	124	1863	1487	20	12	70
Future Volume (veh/h)	124	1863	1487	20	12	70
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	133	2003	1599	22	13	75
Adj No. of Lanes	1	2	2	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	155	2891	2488	34	22	127
Arrive On Green	0.17	1.00	0.70	0.70	0.10	0.10
Sat Flow, veh/h	1774	3632	3666	49	229	1321
Grp Volume(v), veh/h	133	2003	791	830	89	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1852	1568	0
Q Serve(g_s), s	9.8	0.0	32.9	33.0	7.3	0.0
Cycle Q Clear(g_c), s	9.8	0.0	32.9	33.0	7.3	0.0
Prop In Lane	1.00			0.03	0.15	0.84
Lane Grp Cap(c), veh/h	155	2891	1232	1290	150	0
V/C Ratio(X)	0.86	0.69	0.64	0.64	0.59	0.00
Avail Cap(c_a), veh/h	207	2891	1232	1290	363	0
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.16	0.16	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.5	0.0	11.2	11.2	58.1	0.0
Incr Delay (d2), s/veh	3.6	0.2	2.6	2.5	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.1	16.7	17.5	3.2	0.0
LnGrp Delay(d),s/veh	58.0	0.2	13.7	13.7	59.4	0.0
LnGrp LOS	E	A	B	B	E	
Approach Vol, veh/h		2136	1621		89	
Approach Delay, s/veh		3.8	13.7		59.4	
Approach LOS		A	B		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		116.0		18.0	16.1	99.9		
Change Period (Y+Rc), s		* 6.6		5.1	4.4	6.6		
Max Green Setting (Gmax), s		* 92		31.0	15.6	71.3		
Max Q Clear Time (g_c+I1), s		2.0		9.3	11.8	35.0		
Green Ext Time (p_c), s		89.8		0.1	0.1	36.2		

Intersection Summary	
HCM 2010 Ctrl Delay	9.3
HCM 2010 LOS	A

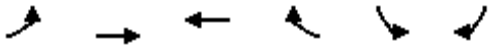
Notes

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	408	11	0	61	200	0	0	82
Future Vol, veh/h	0	408	11	0	61	200	0	0	82
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	469	13	0	70	230	0	0	94
Number of Lanes	0	2	0	0	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	14	10.5	10.3
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	93%	0%
Vol Thru, %	100%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	7%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	200	272	147	82
LT Vol	0	0	272	136	0
Through Vol	61	0	0	0	82
RT Vol	0	200	0	11	0
Lane Flow Rate	70	230	313	169	94
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.117	0.338	0.533	0.284	0.16
Departure Headway (Hd)	6.109	5.4	6.132	6.041	6.094
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	590	669	591	598	590
Service Time	3.809	3.1	3.837	3.746	4.116
HCM Lane V/C Ratio	0.119	0.344	0.53	0.283	0.159
HCM Control Delay	9.6	10.8	15.6	11.1	10.3
HCM Lane LOS	A	B	C	B	B
HCM 95th-tile Q	0.4	1.5	3.1	1.2	0.6



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	62	73	243	460	36
Future Volume (veh/h)	21	62	73	243	460	36
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.70	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	23	69	81	270	548	0
Adj No. of Lanes	1	1	1	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	0
Cap, veh/h	72	616	447	1158	1999	910
Arrive On Green	0.04	0.33	0.24	0.24	0.56	0.00
Sat Flow, veh/h	1774	1863	1863	1104	3548	1615
Grp Volume(v), veh/h	23	69	81	270	548	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1104	1774	1615
Q Serve(g_s), s	1.1	2.3	3.0	5.6	7.0	0.0
Cycle Q Clear(g_c), s	1.1	2.3	3.0	5.6	7.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	72	616	447	1158	1999	910
V/C Ratio(X)	0.32	0.11	0.18	0.23	0.27	0.00
Avail Cap(c_a), veh/h	173	785	510	1195	1999	910
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.0	20.5	26.6	2.2	9.9	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.1	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.2	1.6	6.5	3.5	0.0
LnGrp Delay(d),s/veh	42.0	20.5	26.6	2.3	10.3	0.0
LnGrp LOS	D	C	C	A	B	
Approach Vol, veh/h		92	351		548	
Approach Delay, s/veh		25.9	7.9		10.3	
Approach LOS		C	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				34.0		54.0	8.0	26.0
Change Period (Y+Rc), s				4.9		4.4	4.4	4.9
Max Green Setting (Gmax), s				37.1		49.6	8.6	24.1
Max Q Clear Time (g_c+I1), s				4.3		9.0	3.1	7.6
Green Ext Time (p_c), s				1.6		1.7	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	0	137	177	14	50	63	265	0	0	560	9
Future Volume (vph)	16	0	137	177	14	50	63	265	0	0	560	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9		4.9	4.9	4.9		4.4	4.9			4.9	4.9
Lane Util. Factor	1.00		1.00	0.91	0.91		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00		0.87	1.00	0.96		1.00	1.00			1.00	0.96
Flpb, ped/bikes	1.00		1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00		0.85	1.00	0.95		1.00	1.00			1.00	0.85
Flt Protected	0.95		1.00	0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1770		1383	1610	3012		1770	3539			3539	1527
Flt Permitted	0.95		1.00	0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1770		1383	1610	3012		1770	3539			3539	1527
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	18	0	156	201	16	57	72	301	0	0	636	10
RTOR Reduction (vph)	0	0	122	0	42	0	0	0	0	0	0	6
Lane Group Flow (vph)	18	0	34	100	132	0	72	301	0	0	636	4
Confl. Peds. (#/hr)			78			70						10
Confl. Bikes (#/hr)			10			10						10
Turn Type	Prot		Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	7			8	8		5	2			6	
Permitted Phases			7									6
Actuated Green, G (s)	29.0		29.0	24.7	24.7		8.7	65.6			52.5	52.5
Effective Green, g (s)	29.0		29.0	24.7	24.7		8.7	65.6			52.5	52.5
Actuated g/C Ratio	0.22		0.22	0.18	0.18		0.06	0.49			0.39	0.39
Clearance Time (s)	4.9		4.9	4.9	4.9		4.4	4.9			4.9	4.9
Vehicle Extension (s)	2.0		2.0	2.0	2.0		2.0	3.3			3.4	3.4
Lane Grp Cap (vph)	383		299	296	555		114	1732			1386	598
v/s Ratio Prot	0.01			c0.06	0.04		c0.04	0.09			c0.18	
v/s Ratio Perm			c0.02									0.00
v/c Ratio	0.05		0.11	0.34	0.24		0.63	0.17			0.46	0.01
Uniform Delay, d1	41.6		42.2	47.5	46.6		61.1	19.1			30.2	24.8
Progression Factor	1.00		1.00	1.00	1.00		1.00	1.42			1.00	1.00
Incremental Delay, d2	0.0		0.1	0.2	0.1		7.1	0.2			1.1	0.0
Delay (s)	41.6		42.2	47.8	46.7		68.0	27.3			31.3	24.9
Level of Service	D		D	D	D		E	C			C	C
Approach Delay (s)		42.2			47.1			35.1			31.2	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	134.0	Sum of lost time (s)	19.1
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	336	808	74	24	551	191	49	11	11	263	23	424
Future Volume (veh/h)	336	808	74	24	551	191	49	11	11	263	23	424
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.95	1.00		0.90	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	365	878	80	26	599	208	53	12	12	304	0	461
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	2	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	1373	125	33	1123	479	151	34	34	1011	0	429
Arrive On Green	0.12	0.42	0.42	0.02	0.32	0.32	0.13	0.13	0.13	0.29	0.00	0.29
Sat Flow, veh/h	3442	3259	297	1774	3539	1510	1186	268	268	3548	0	1504
Grp Volume(v), veh/h	365	477	481	26	599	208	77	0	0	304	0	461
Grp Sat Flow(s),veh/h/ln	1721	1770	1787	1774	1770	1510	1722	0	0	1774	0	1504
Q Serve(g_s), s	14.0	28.6	28.6	2.0	18.6	14.6	5.5	0.0	0.0	9.0	0.0	38.2
Cycle Q Clear(g_c), s	14.0	28.6	28.6	2.0	18.6	14.6	5.5	0.0	0.0	9.0	0.0	38.2
Prop In Lane	1.00		0.17	1.00		1.00	0.69		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	421	745	753	33	1123	479	220	0	0	1011	0	429
V/C Ratio(X)	0.87	0.64	0.64	0.79	0.53	0.43	0.35	0.00	0.00	0.30	0.00	1.08
Avail Cap(c_a), veh/h	524	745	753	74	1123	479	386	0	0	1011	0	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	0.00	0.00	0.91	0.00	0.91
Uniform Delay (d), s/veh	57.7	30.7	30.7	65.5	37.6	36.2	53.4	0.0	0.0	37.5	0.0	47.9
Incr Delay (d2), s/veh	10.5	4.2	4.1	13.2	1.6	2.6	0.4	0.0	0.0	0.2	0.0	63.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	14.8	14.9	1.1	9.3	6.4	2.6	0.0	0.0	4.4	0.0	23.3
LnGrp Delay(d),s/veh	68.2	34.9	34.9	78.7	39.2	38.8	53.7	0.0	0.0	37.6	0.0	111.1
LnGrp LOS	E	C	C	E	D	D	D			D		F
Approach Vol, veh/h		1323			833			77			765	
Approach Delay, s/veh		44.1			40.4			53.7			81.9	
Approach LOS		D			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	62.0		43.1	20.8	48.1		22.0
Change Period (Y+Rc), s	4.4	5.6		4.9	4.4	* 5.6		4.9
Max Green Setting (Gmax), s	5.6	40.4		38.2	20.4	* 26		30.0
Max Q Clear Time (g_c+I1), s	4.0	30.6		40.2	16.0	20.6		7.5
Green Ext Time (p_c), s	0.0	7.7		0.0	0.4	4.7		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	52.9
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	948	14	93	598	160	21	8	118	191	5	147
Future Volume (veh/h)	59	948	14	93	598	160	21	8	118	191	5	147
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.92	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	64	1030	15	101	650	174	23	9	128	208	5	160
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	1658	24	122	1335	357	34	13	190	299	7	326
Arrive On Green	0.05	0.46	0.46	0.14	0.97	0.97	0.16	0.16	0.16	0.17	0.17	0.17
Sat Flow, veh/h	1774	3567	52	1774	2740	732	217	85	1210	1734	42	1465
Grp Volume(v), veh/h	64	511	534	101	420	404	160	0	0	213	0	160
Grp Sat Flow(s),veh/h/ln	1774	1770	1850	1774	1770	1703	1513	0	0	1776	0	1465
Q Serve(g_s), s	5.0	30.4	30.4	7.8	1.6	1.6	14.0	0.0	0.0	15.8	0.0	13.4
Cycle Q Clear(g_c), s	5.0	30.4	30.4	7.8	1.6	1.6	14.0	0.0	0.0	15.8	0.0	13.4
Prop In Lane	1.00		0.03	1.00		0.43	0.14		0.80	0.98		1.00
Lane Grp Cap(c), veh/h	82	823	860	122	863	830	237	0	0	306	0	326
V/C Ratio(X)	0.78	0.62	0.62	0.83	0.49	0.49	0.67	0.00	0.00	0.70	0.00	0.49
Avail Cap(c_a), veh/h	139	823	860	147	863	830	314	0	0	395	0	398
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.75	0.75	0.75	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.1	28.2	28.2	59.6	0.9	0.9	55.6	0.0	0.0	54.5	0.0	48.0
Incr Delay (d2), s/veh	5.2	3.0	2.9	18.5	1.5	1.5	1.5	0.0	0.0	2.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	15.6	16.3	4.4	0.8	0.8	5.9	0.0	0.0	7.9	0.0	5.5
LnGrp Delay(d),s/veh	71.3	31.2	31.1	78.2	2.4	2.5	57.1	0.0	0.0	56.5	0.0	48.4
LnGrp LOS	E	C	C	E	A	A	E			E		D
Approach Vol, veh/h		1109			925			160			373	
Approach Delay, s/veh		33.5			10.7			57.1			53.0	
Approach LOS		C			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	70.1		29.1	10.8	73.2		26.9
Change Period (Y+Rc), s	4.4	* 5		4.9	4.4	5.0		4.9
Max Green Setting (Gmax), s	11.6	* 49		31.1	11.0	49.6		29.1
Max Q Clear Time (g_c+I1), s	9.8	32.4		17.8	7.0	3.6		16.0
Green Ext Time (p_c), s	0.0	14.2		0.8	0.0	32.2		0.3

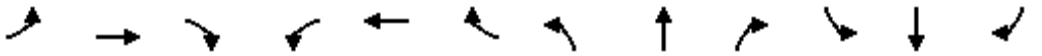
Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	436	0	352	0	876	1186	0	593	435
Future Volume (veh/h)	0	0	0	436	0	352	0	876	1186	0	593	435
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				474	0	0	0	952	0	0	645	0
Adj No. of Lanes				2	0	1	0	2	1	0	2	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				596	0	274	0	2554	1143	0	2554	1143
Arrive On Green				0.17	0.00	0.00	0.00	1.00	0.00	0.00	0.72	0.00
Sat Flow, veh/h				3442	0	1583	0	3632	1583	0	3632	1583
Grp Volume(v), veh/h				474	0	0	0	952	0	0	645	0
Grp Sat Flow(s),veh/h/ln				1721	0	1583	0	1770	1583	0	1770	1583
Q Serve(g_s), s				13.2	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0
Cycle Q Clear(g_c), s				13.2	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				596	0	274	0	2554	1143	0	2554	1143
V/C Ratio(X)				0.79	0.00	0.00	0.00	0.37	0.00	0.00	0.25	0.00
Avail Cap(c_a), veh/h				1132	0	521	0	2554	1143	0	2554	1143
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.00	0.61	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				39.6	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0
Incr Delay (d2), s/veh				2.5	0.0	0.0	0.0	0.3	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.5	0.0	0.0	0.0	0.1	0.0	0.0	3.0	0.0
LnGrp Delay(d),s/veh				42.1	0.0	0.0	0.0	0.3	0.0	0.0	5.0	0.0
LnGrp LOS				D				A			A	
Approach Vol, veh/h					474			952			645	
Approach Delay, s/veh					42.1			0.3			5.0	
Approach LOS					D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		77.6				77.6		22.4
Change Period (Y+Rc), s		5.4				5.4		5.1
Max Green Setting (Gmax), s		56.6				56.6		32.9
Max Q Clear Time (g_c+I1), s		2.0				8.2		15.2
Green Ext Time (p_c), s		10.3				10.2		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	562	0	714	0	0	0	0	1500	355	0	776	253
Future Volume (vph)	562	0	714	0	0	0	0	1500	355	0	776	253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1		6.1					6.1	4.0		6.4	4.0
Lane Util. Factor	0.97		0.76					0.95	1.00		0.95	1.00
Frpb, ped/bikes	1.00		1.00					1.00	0.97		1.00	0.97
Flpb, ped/bikes	1.00		1.00					1.00	1.00		1.00	1.00
Frt	1.00		0.85					1.00	0.85		1.00	0.85
Flt Protected	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (prot)	3433		3610					3539	1536		3539	1536
Flt Permitted	0.95		1.00					1.00	1.00		1.00	1.00
Satd. Flow (perm)	3433		3610					3539	1536		3539	1536
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	611	0	776	0	0	0	0	1630	386	0	843	275
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	611	0	776	0	0	0	0	1630	386	0	843	275
Confl. Peds. (#/hr)	20		20						20			20
Turn Type	Prot		Prot					NA	Free		NA	Free
Protected Phases	1		6					2 4			8	
Permitted Phases									Free			Free
Actuated Green, G (s)	21.2		53.9					66.3	100.0		33.6	100.0
Effective Green, g (s)	21.2		53.9					66.3	100.0		33.6	100.0
Actuated g/C Ratio	0.21		0.54					0.66	1.00		0.34	1.00
Clearance Time (s)	6.1		6.1								6.4	
Vehicle Extension (s)	2.0		2.0								3.0	
Lane Grp Cap (vph)	727		1945					2346	1536		1189	1536
v/s Ratio Prot	c0.18		0.21					c0.46			0.24	
v/s Ratio Perm									0.25			0.18
v/c Ratio	0.84		0.40					0.69	0.25		0.71	0.18
Uniform Delay, d1	37.8		13.5					10.5	0.0		28.9	0.0
Progression Factor	1.00		1.00					0.55	1.00		0.79	1.00
Incremental Delay, d2	8.3		0.0					0.4	0.1		3.5	0.2
Delay (s)	46.1		13.6					6.2	0.1		26.3	0.2
Level of Service	D		B					A	A		C	A
Approach Delay (s)		27.9			0.0			5.0			19.9	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	39	24	56	10	292	23	1211	57	252	1137	101
Future Volume (veh/h)	352	39	24	56	10	292	23	1211	57	252	1137	101
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1900	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	437	0	0	61	11	317	25	1316	62	274	1236	110
Adj No. of Lanes	2	1	0	0	1	1	1	2	1	2	3	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	671	352	0	74	13	206	36	1677	741	279	2745	2004
Arrive On Green	0.19	0.00	0.00	0.05	0.05	0.05	0.02	0.47	0.47	0.11	0.72	0.72
Sat Flow, veh/h	3548	1863	0	1514	273	1583	1774	3539	1563	3442	5085	2735
Grp Volume(v), veh/h	437	0	0	72	0	317	25	1316	62	274	1236	110
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1787	0	1583	1774	1770	1563	1721	1695	1368
Q Serve(g_s), s	11.4	0.0	0.0	4.0	0.0	4.9	1.4	31.1	2.2	7.9	10.1	0.7
Cycle Q Clear(g_c), s	11.4	0.0	0.0	4.0	0.0	4.9	1.4	31.1	2.2	7.9	10.1	0.7
Prop In Lane	1.00		0.00	0.85		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	671	352	0	88	0	206	36	1677	741	279	2745	2004
V/C Ratio(X)	0.65	0.00	0.00	0.82	0.00	1.54	0.70	0.78	0.08	0.98	0.45	0.05
Avail Cap(c_a), veh/h	1135	596	0	88	0	206	101	1677	741	279	2745	2004
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	37.5	0.0	0.0	47.1	0.0	43.5	48.7	22.0	14.4	44.5	7.9	2.3
Incr Delay (d2), s/veh	0.4	0.0	0.0	42.0	0.0	265.8	22.3	3.8	0.2	43.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	0.0	3.0	0.0	20.9	0.9	16.0	1.0	5.4	4.7	0.5
LnGrp Delay(d),s/veh	37.9	0.0	0.0	89.1	0.0	309.3	71.0	25.8	14.6	88.1	8.3	2.4
LnGrp LOS	D			F		F	E	C	B	F	A	A
Approach Vol, veh/h		437			389			1403			1620	
Approach Delay, s/veh		37.9			268.6			26.1			21.4	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	53.4		23.8	6.4	60.0		9.8
Change Period (Y+Rc), s	4.9	6.0		4.9	4.4	* 6		4.9
Max Green Setting (Gmax), s	8.1	34.3		32.0	5.7	* 38		4.9
Max Q Clear Time (g_c+I1), s	9.9	33.1		13.4	3.4	12.1		6.9
Green Ext Time (p_c), s	0.0	1.1		1.2	0.0	20.2		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		50.0
HCM 2010 LOS		D

Notes

Intersection	
Int Delay, s/veh	18.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	437	1048	38	153	1064
Future Vol, veh/h	0	437	1048	38	153	1064
Conflicting Peds, #/hr	0	20	0	20	20	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	200	360	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	475	1139	41	166	1157

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2070	610	0	0	1159	0
Stage 1	1159	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	47	~ 437	-	-	599	-
Stage 1	261	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	33	~ 423	-	-	589	-
Mov Cap-2 Maneuver	33	-	-	-	-	-
Stage 1	257	-	-	-	-	-
Stage 2	249	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	112.3	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	423	589	-
HCM Lane V/C Ratio	-	-	1.123	0.282	-
HCM Control Delay (s)	-	-	112.3	13.5	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	17	1.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	908	439	176	384	165	319	562	47	191	707	274
Future Volume (veh/h)	290	908	439	176	384	165	319	562	47	191	707	274
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.94	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	315	987	477	191	417	179	347	611	51	208	768	298
Adj No. of Lanes	1	2	1	1	2	1	2	2	0	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	1284	548	215	1045	443	395	745	62	535	654	254
Arrive On Green	0.38	0.73	0.73	0.12	0.30	0.30	0.11	0.23	0.23	0.16	0.27	0.27
Sat Flow, veh/h	1774	3539	1512	1774	3539	1500	3442	3288	274	3442	2448	949
Grp Volume(v), veh/h	315	987	477	191	417	179	347	328	334	208	555	511
Grp Sat Flow(s),veh/h/ln	1774	1770	1512	1774	1770	1500	1721	1770	1792	1721	1770	1628
Q Serve(g_s), s	24.0	24.3	23.5	14.8	13.2	9.2	13.9	24.7	24.8	7.6	37.4	37.4
Cycle Q Clear(g_c), s	24.0	24.3	23.5	14.8	13.2	9.2	13.9	24.7	24.8	7.6	37.4	37.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.58
Lane Grp Cap(c), veh/h	334	1284	548	215	1045	443	395	401	406	535	473	435
V/C Ratio(X)	0.94	0.77	0.87	0.89	0.40	0.40	0.88	0.82	0.82	0.39	1.17	1.18
Avail Cap(c_a), veh/h	400	1284	548	248	1045	443	423	417	422	535	473	435
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	15.6	8.6	60.6	39.4	18.5	61.0	51.4	51.4	53.2	51.3	51.3
Incr Delay (d2), s/veh	22.7	3.6	14.1	25.6	1.1	2.7	16.8	12.3	12.5	0.2	98.6	100.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	12.1	11.4	8.8	6.6	4.1	7.5	13.4	13.6	3.6	31.2	28.9
LnGrp Delay(d),s/veh	65.6	19.2	22.7	86.2	40.5	21.3	77.8	63.7	63.9	53.3	149.9	151.9
LnGrp LOS	E	B	C	F	D	C	E	E	E	D	F	F
Approach Vol, veh/h		1779			787			1009			1274	
Approach Delay, s/veh		28.4			47.2			68.6			134.9	
Approach LOS		C			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.1	36.8	21.3	55.7	20.5	42.5	30.8	46.2
Change Period (Y+Rc), s	4.4	5.1	4.4	4.9	4.4	5.1	4.4	4.9
Max Green Setting (Gmax), s	21.6	33.0	19.6	47.0	17.2	37.4	31.6	35.0
Max Q Clear Time (g_c+I1), s	9.6	26.8	16.8	26.3	15.9	39.4	26.0	15.2
Green Ext Time (p_c), s	1.3	2.1	0.1	18.2	0.2	0.0	0.4	17.5

Intersection Summary	
HCM 2010 Ctrl Delay	67.8
HCM 2010 LOS	E

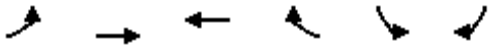
ATTACHMENT B

Intersection	
Intersection Delay, s/veh	22
Intersection LOS	C

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	127	20	0	50	637	0	0	60
Future Vol, veh/h	0	127	20	0	50	637	0	0	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	138	22	0	54	692	0	0	65
Number of Lanes	0	2	0	0	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	10.7	25.5	9.3
HCM LOS	B	D	A

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	68%	0%
Vol Thru, %	100%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	32%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	637	85	62	60
LT Vol	0	0	85	42	0
Through Vol	50	0	0	0	60
RT Vol	0	637	0	20	0
Lane Flow Rate	54	692	92	68	65
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.077	0.85	0.176	0.122	0.102
Departure Headway (Hd)	5.12	4.417	6.897	6.507	5.605
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	697	817	524	554	633
Service Time	2.867	2.163	4.597	4.207	3.698
HCM Lane V/C Ratio	0.077	0.847	0.176	0.123	0.103
HCM Control Delay	8.3	26.8	11.1	10.1	9.3
HCM Lane LOS	A	D	B	B	A
HCM 95th-tile Q	0.2	10.2	0.6	0.4	0.3

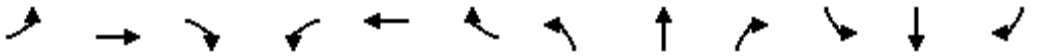


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	59	61	684	117	30
Future Volume (veh/h)	50	59	61	684	117	30
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.44	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	54	64	66	743	80	83
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	0
Cap, veh/h	74	635	463	1065	998	909
Arrive On Green	0.04	0.34	0.25	0.25	0.56	0.56
Sat Flow, veh/h	1774	1863	1863	701	1774	1615
Grp Volume(v), veh/h	54	64	66	743	80	83
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	701	1774	1615
Q Serve(g_s), s	2.9	2.3	2.7	24.0	2.0	2.3
Cycle Q Clear(g_c), s	2.9	2.3	2.7	24.0	2.0	2.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	74	635	463	1065	998	909
V/C Ratio(X)	0.73	0.10	0.14	0.70	0.08	0.09
Avail Cap(c_a), veh/h	74	635	463	1065	998	909
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	21.7	28.2	4.0	9.7	9.7
Incr Delay (d2), s/veh	28.0	0.0	0.1	1.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.2	1.4	20.1	1.0	3.2
LnGrp Delay(d),s/veh	73.8	21.7	28.3	5.7	9.8	9.9
LnGrp LOS	E	C	C	A	A	A
Approach Vol, veh/h		118	809		163	
Approach Delay, s/veh		45.5	7.5		9.9	
Approach LOS		D	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				37.8		58.7	8.9	28.9
Change Period (Y+Rc), s				4.9		4.4	4.9	* 4.9
Max Green Setting (Gmax), s				32.4		54.3	4.0	* 24
Max Q Clear Time (g_c+I1), s				4.3		4.3	4.9	26.0
Green Ext Time (p_c), s				0.2		0.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.0
HCM 2010 LOS	B

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	0	40	130	30	90	160	679	0	0	217	40
Future Volume (vph)	10	0	40	130	30	90	160	679	0	0	217	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9		4.9	4.9	4.9		4.4	4.9			4.9	4.9
Lane Util. Factor	1.00		1.00	0.91	0.91		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00		0.91	1.00	0.95		1.00	1.00			1.00	0.96
Flpb, ped/bikes	1.00		1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00		0.85	1.00	0.92		1.00	1.00			1.00	0.85
Flt Protected	0.95		1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1770		1444	1610	2915		1770	3539			3539	1528
Flt Permitted	0.95		1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1770		1444	1610	2915		1770	3539			3539	1528
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	11	0	43	140	32	97	172	730	0	0	233	43
RTOR Reduction (vph)	0	0	35	0	78	0	0	0	0	0	0	28
Lane Group Flow (vph)	11	0	8	92	99	0	172	730	0	0	233	15
Confl. Peds. (#/hr)			51			55						10
Confl. Bikes (#/hr)			10			10						10
Turn Type	Prot		Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	7			8	8		5	2			6	
Permitted Phases			7									6
Actuated Green, G (s)	23.2		23.2	24.5	24.5		16.5	63.6			42.7	42.7
Effective Green, g (s)	23.2		23.2	24.5	24.5		16.5	63.6			42.7	42.7
Actuated g/C Ratio	0.18		0.18	0.19	0.19		0.13	0.50			0.34	0.34
Clearance Time (s)	4.9		4.9	4.9	4.9		4.4	4.9			4.9	4.9
Vehicle Extension (s)	2.0		2.0	2.0	2.0		2.0	3.3			3.4	3.4
Lane Grp Cap (vph)	325		265	313	566		231	1786			1199	517
v/s Ratio Prot	c0.01			c0.06	0.03		c0.10	c0.21			0.07	
v/s Ratio Perm			0.01									0.01
v/c Ratio	0.03		0.03	0.29	0.17		0.74	0.41			0.19	0.03
Uniform Delay, d1	42.2		42.2	43.4	42.3		52.7	19.5			29.5	27.8
Progression Factor	1.00		1.00	1.00	1.00		1.42	0.64			1.00	1.00
Incremental Delay, d2	0.0		0.0	0.2	0.1		7.7	0.5			0.4	0.1
Delay (s)	42.2		42.2	43.6	42.4		82.4	12.9			29.8	27.9
Level of Service	D		D	D	D		F	B			C	C
Approach Delay (s)		42.2			42.8			26.2			29.5	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	30.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	126.0	Sum of lost time (s)	19.1
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	687	460	30	20	1067	408	80	30	30	102	20	165
Future Volume (veh/h)	687	460	30	20	1067	408	80	30	30	102	20	165
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.92	1.00		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	747	500	33	22	1160	443	87	33	33	127	0	179
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	2	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	713	1975	130	30	1409	605	153	58	58	284	0	109
Arrive On Green	0.21	0.59	0.59	0.03	0.80	0.80	0.16	0.16	0.16	0.08	0.00	0.08
Sat Flow, veh/h	3442	3358	221	1774	3539	1521	973	369	369	3548	0	1354
Grp Volume(v), veh/h	747	263	270	22	1160	443	153	0	0	127	0	179
Grp Sat Flow(s),veh/h/ln	1721	1770	1810	1774	1770	1521	1711	0	0	1774	0	1354
Q Serve(g_s), s	26.1	9.0	9.1	1.5	24.4	17.9	10.4	0.0	0.0	4.3	0.0	10.1
Cycle Q Clear(g_c), s	26.1	9.0	9.1	1.5	24.4	17.9	10.4	0.0	0.0	4.3	0.0	10.1
Prop In Lane	1.00		0.12	1.00		1.00	0.57		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	713	1041	1064	30	1409	605	269	0	0	284	0	109
V/C Ratio(X)	1.05	0.25	0.25	0.73	0.82	0.73	0.57	0.00	0.00	0.45	0.00	1.65
Avail Cap(c_a), veh/h	713	1041	1064	56	1409	605	407	0	0	284	0	109
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	0.00	0.99	0.00	0.99
Uniform Delay (d), s/veh	49.9	12.5	12.6	60.6	10.2	9.6	49.1	0.0	0.0	55.3	0.0	58.0
Incr Delay (d2), s/veh	46.9	0.6	0.6	1.1	0.5	0.7	0.7	0.0	0.0	1.1	0.0	328.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.0	4.5	4.7	0.8	11.4	7.2	5.0	0.0	0.0	2.2	0.0	13.7
LnGrp Delay(d),s/veh	96.9	13.1	13.1	61.7	10.8	10.3	49.8	0.0	0.0	56.4	0.0	386.8
LnGrp LOS	F	B	B	E	B	B	D			E		F
Approach Vol, veh/h		1280			1625			153			306	
Approach Delay, s/veh		62.0			11.3			49.8			249.7	
Approach LOS		E			B			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.5	79.7		15.0	30.5	55.8		24.7
Change Period (Y+Rc), s	4.4	5.6		4.9	4.4	* 5.6		4.9
Max Green Setting (Gmax), s	4.0	62.1		10.1	26.1	* 41		30.0
Max Q Clear Time (g_c+I1), s	3.5	11.1		12.1	28.1	26.4		12.4
Green Ext Time (p_c), s	0.0	29.2		0.0	0.0	11.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	54.0
HCM 2010 LOS	D

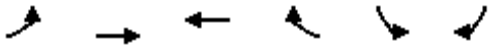
Notes

Intersection	
Intersection Delay, s/veh	15.5
Intersection LOS	C

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	504	20	0	90	288	0	0	100
Future Vol, veh/h	0	504	20	0	90	288	0	0	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	548	22	0	98	313	0	0	109
Number of Lanes	0	2	0	0	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	18	13.1	11.2
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	89%	0%
Vol Thru, %	100%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	11%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	288	336	188	100
LT Vol	0	0	336	168	0
Through Vol	90	0	0	0	100
RT Vol	0	288	0	20	0
Lane Flow Rate	98	313	365	204	109
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.174	0.495	0.66	0.362	0.197
Departure Headway (Hd)	6.407	5.697	6.505	6.376	6.524
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	560	632	555	566	550
Service Time	4.151	3.441	4.234	4.105	4.569
HCM Lane V/C Ratio	0.175	0.495	0.658	0.36	0.198
HCM Control Delay	10.5	13.9	21	12.7	11.2
HCM Lane LOS	B	B	C	B	B
HCM 95th-tile Q	0.6	2.7	4.8	1.6	0.7

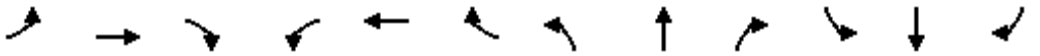


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	41	88	115	340	484	50
Future Volume (veh/h)	41	88	115	340	484	50
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.42	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	45	96	125	370	576	0
Adj No. of Lanes	1	1	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	0
Cap, veh/h	82	693	513	1010	1850	842
Arrive On Green	0.05	0.37	0.28	0.28	0.52	0.00
Sat Flow, veh/h	1774	1863	1863	668	3548	1615
Grp Volume(v), veh/h	45	96	125	370	576	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	668	1774	1615
Q Serve(g_s), s	2.2	3.0	4.6	22.1	8.1	0.0
Cycle Q Clear(g_c), s	2.2	3.0	4.6	22.1	8.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	82	693	513	1010	1850	842
V/C Ratio(X)	0.55	0.14	0.24	0.37	0.31	0.00
Avail Cap(c_a), veh/h	256	875	513	1010	1850	842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.8	18.2	24.6	4.0	12.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	0.1	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.5	2.3	8.9	4.0	0.0
LnGrp Delay(d),s/veh	42.9	18.2	24.7	4.1	12.4	0.0
LnGrp LOS	D	B	C	A	B	
Approach Vol, veh/h		141	495		576	
Approach Delay, s/veh		26.1	9.3		12.4	
Approach LOS		C	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				37.5		50.0	8.5	29.0
Change Period (Y+Rc), s				4.9		4.4	4.4	4.9
Max Green Setting (Gmax), s				41.1		45.6	12.6	24.1
Max Q Clear Time (g_c+I1), s				5.0		10.1	4.2	24.1
Green Ext Time (p_c), s				4.4		1.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	0	190	230	20	60	100	379	0	0	684	20
Future Volume (vph)	30	0	190	230	20	60	100	379	0	0	684	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9		4.9	4.9	4.9		4.4	4.9			4.9	4.9
Lane Util. Factor	1.00		1.00	0.91	0.91		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00		0.87	1.00	0.96		1.00	1.00			1.00	0.96
Flpb, ped/bikes	1.00		1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00		0.85	1.00	0.95		1.00	1.00			1.00	0.85
Flt Protected	0.95		1.00	0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1770		1383	1610	3029		1770	3539			3539	1525
Flt Permitted	0.95		1.00	0.95	0.97		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1770		1383	1610	3029		1770	3539			3539	1525
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	34	0	216	261	23	68	114	431	0	0	777	23
RTOR Reduction (vph)	0	0	169	0	36	0	0	0	0	0	0	16
Lane Group Flow (vph)	34	0	47	130	186	0	114	431	0	0	777	7
Confl. Peds. (#/hr)			78			70						10
Confl. Bikes (#/hr)			10			10						10
Turn Type	Prot		Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	7			8	8		5	2			6	
Permitted Phases			7									6
Actuated Green, G (s)	29.0		29.0	25.0	25.0		19.8	65.3			41.1	41.1
Effective Green, g (s)	29.0		29.0	25.0	25.0		19.8	65.3			41.1	41.1
Actuated g/C Ratio	0.22		0.22	0.19	0.19		0.15	0.49			0.31	0.31
Clearance Time (s)	4.9		4.9	4.9	4.9		4.4	4.9			4.9	4.9
Vehicle Extension (s)	2.0		2.0	2.0	2.0		2.0	3.3			3.4	3.4
Lane Grp Cap (vph)	383		299	300	565		261	1724			1085	467
v/s Ratio Prot	0.02			c0.08	0.06		c0.06	0.12			c0.22	
v/s Ratio Perm			c0.03									0.00
v/c Ratio	0.09		0.16	0.43	0.33		0.44	0.25			0.72	0.02
Uniform Delay, d1	41.9		42.6	48.2	47.2		52.0	20.1			41.3	32.4
Progression Factor	1.00		1.00	1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.0		0.1	0.4	0.1		5.2	0.3			4.1	0.1
Delay (s)	42.0		42.7	48.6	47.4		57.3	20.4			45.3	32.4
Level of Service	D		D	D	D		E	C			D	C
Approach Delay (s)		42.6			47.8			28.1			45.0	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	40.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	134.0	Sum of lost time (s)	19.1
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	442	1115	120	41	770	253	80	30	30	356	40	568
Future Volume (veh/h)	442	1115	120	41	770	253	80	30	30	356	40	568
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.95	1.00		0.92	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	480	1212	130	45	837	275	87	33	33	418	0	617
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	2	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	524	1311	140	58	1025	436	147	56	56	943	0	398
Arrive On Green	0.15	0.41	0.41	0.06	0.58	0.58	0.15	0.15	0.15	0.27	0.00	0.27
Sat Flow, veh/h	3442	3202	342	1774	3539	1505	972	369	369	3548	0	1499
Grp Volume(v), veh/h	480	668	674	45	837	275	153	0	0	418	0	617
Grp Sat Flow(s),veh/h/ln	1721	1770	1775	1774	1770	1505	1709	0	0	1774	0	1499
Q Serve(g_s), s	19.2	50.1	50.7	3.5	26.4	17.0	11.7	0.0	0.0	13.7	0.0	37.2
Cycle Q Clear(g_c), s	19.2	50.1	50.7	3.5	26.4	17.0	11.7	0.0	0.0	13.7	0.0	37.2
Prop In Lane	1.00		0.19	1.00		1.00	0.57		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	524	725	727	58	1025	436	258	0	0	943	0	398
V/C Ratio(X)	0.92	0.92	0.93	0.78	0.82	0.63	0.59	0.00	0.00	0.44	0.00	1.55
Avail Cap(c_a), veh/h	531	725	727	62	1025	436	366	0	0	943	0	398
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.69	0.69	0.69	1.00	0.00	0.00	0.73	0.00	0.73
Uniform Delay (d), s/veh	58.5	39.2	39.4	65.0	26.5	24.5	55.4	0.0	0.0	42.8	0.0	51.4
Incr Delay (d2), s/veh	20.2	19.0	19.8	29.2	5.0	4.7	0.8	0.0	0.0	0.3	0.0	255.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	28.3	28.7	2.2	13.5	7.4	5.6	0.0	0.0	6.8	0.0	43.7
LnGrp Delay(d),s/veh	78.7	58.2	59.2	94.2	31.5	29.2	56.2	0.0	0.0	43.0	0.0	307.3
LnGrp LOS	E	E	E	F	C	C	E			D		F
Approach Vol, veh/h		1822			1157			153			1035	
Approach Delay, s/veh		64.0			33.4			56.2			200.6	
Approach LOS		E			C			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.9	62.9		42.1	25.7	46.2		26.0
Change Period (Y+Rc), s	4.4	5.6		4.9	4.4	* 5.6		4.9
Max Green Setting (Gmax), s	4.9	48.1		37.2	21.6	* 32		30.0
Max Q Clear Time (g_c+I1), s	5.5	52.7		39.2	21.2	28.4		13.7
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	3.5		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	89.1
HCM 2010 LOS	F

Notes