

West Valley Feeder No. 1 Stage 3 Improvements Project

Proposed Initial Study-Mitigated Negative Declaration



Appendices H through J

Metropolitan Report No. 1582

June 2024

West Valley Feeder No. 1 Stage 3 Improvements Project

Proposed Initial Study-Mitigated Negative Declaration

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The Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, California 90012

Report No. 1582

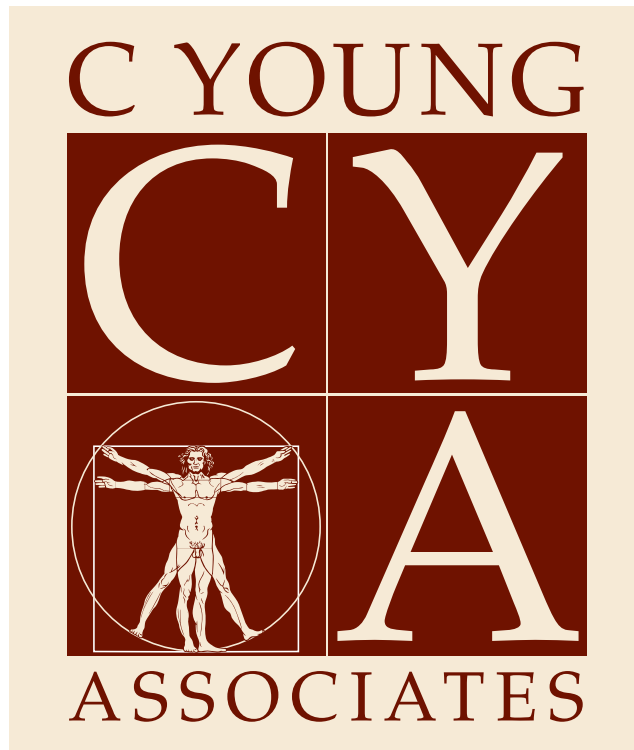
June 2024

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APPENDIX H
PHASE I ENVIRONMENTAL SITE ASSESSMENT



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Metropolitan Water District of Southern California
West Valley Feeder No. 1 Stage 3 Improvements Project

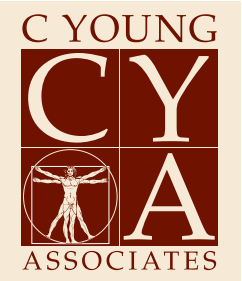
July 27, 2018 (Revised August 24, 2018)

Prepared for:

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July 27, 2018 (Revised August 24, 2018)

Jennifer Y. Marks
PSOMAS
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Santa Ana, CA 92807

Subject: **Phase I Environmental Site Assessment
Metropolitan Water District of Southern California
West Valley Feeder No. 1 Stage 3 Improvements Project
Los Angeles County, California**

Dear Ms. Marks:

C Young Associates (CYA) has performed a Phase I Environmental Site Assessment (ESA) of the above-referenced property in conformance with the scope and limitations of American Society for Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM Designation E1527-13 and Title 40 of the Code of Federal Regulations (40 CFR) Part 312. This ESA included public environmental agency and historical record reviews, interviews, site observations and this report preparation.

We appreciate the opportunity to be of service to you on this project. If you should have any questions regarding this report, or if we can be of further assistance, please contact us at (858) 945-7029.

C YOUNG ASSOCIATES

A handwritten signature in black ink, appearing to read 'Colin P. Young'.

Colin P. Young, CIH
Principal

A handwritten signature in black ink, appearing to read 'Daniel Weis'.

Daniel Weis, R.E.H.S.
Associate Environmental Scientist

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EXECUTIVE SUMMARY

At the request of PSOMAS, C Young Associates (CYA) conducted a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Standard Practice E1527-13 and Title 40 of the Code of Federal Regulations (40 CFR) Part 312 at the property identified as the Metropolitan Water District of Southern California (MWD) West Valley Feeder No. 1 Stage 3 Improvements Project in the Chatsworth community of Los Angeles, California (the Site). The findings of this ESA revealed the following:

- The Site is situated within Chatsworth Park South, which has a physical address of 22360 West Devonshire Street. The Site is situated in the central portion of the park generally between two water pump stations. These stations include the Twin Lakes pump station (Las Virgines Municipal Water District) to the east and a pump station operated by the Calleguas Municipal Water District to the west. The Site is further identified as portions of four legal parcels that include Assessor's Parcel Numbers (APNs) 2723-010-094, 2723-010-270, 2723-010-902 and 2723-010-903.
- The Site consists of multiple areas of varying sizes where future water infrastructure-related work is proposed. These areas are situated in the central portion of Chatsworth Park South between two water pump stations. The majority of the areas are unimproved, vacant land. Remaining areas are portions of access roads and trails or consist of existing infrastructure including air releases and blow-off valves. Portions of the Site are also underlain by the West Valley Feeder No. 1 and No. 2 water pipelines and a, reportedly abandoned, six-inch oil pipeline near the southwestern perimeter of the Site. The Site has remained predominately vacant and undeveloped over time. No significant environmental concerns were noted during our reconnaissance of the Site.
- The Chatsworth Park South property (of which the Site is a part) is listed on the Envirostor and Voluntary Cleanup Program (VCP) standard regulatory databases. The park is referenced as an active voluntary cleanup facility with a past use of a small arms firing range. The overall park property is under the regulatory agency oversight of the California Department of Toxic Substances Control (DTSC). There are no off-Site properties listed on regulatory databases that are considered to be environmental concerns to the Site.
- Section 4.2 of this report includes information pertaining to prior assessment and remedial activities completed at the Chatsworth South Park property, of which the Site is a part. The overall 72-acre park property was subject to DTSC regulatory agency oversight beginning in 2008 due to environmental impacts resulting from a former small arms firing range in the southern portion of the park. This use reportedly occurred from the early to mid-1950s until sometime in the mid-1960s. The operation of the firing range resulted in wide surficial spreading of lead shot and clay pigeon debris. Following the completion of the investigation

work, a Remedial Action Plan (RAP) for the park property was prepared in 2013. In the RAP, the overall park property was divided into 14 remedial areas identified as Areas "A" through "N." The various portions of the park property that comprise the Site (subject to our current Phase I ESA) are not mapped in any of the Remedial Areas, thus indicating that significant environmental impacts did not result at the Site from the former firing range activities that occurred to the south. However, being that the Site is situated within the overall park property that was subject to DTSC regulatory oversight and that a land use covenant (LUC) has yet to be negotiated with the City of Los Angeles, compliance with any and all DTSC directives relative to the RAP and the park will be required. The DTSC approved the RAP for the park and the RAP was implemented during the period of April 5, 2016 through December 30, 2016.

- Following completion of the RAP implementation, a Remedial Action Completion Report (RACR) was issued in December 2016. The RACR described in detail the implementation of the RAP. Because impacted soil remains beneath the engineered surface cap at depths ranging from one to four feet in the remedial areas at the park property, it was stated in the RACR that the City of Los Angeles and the DTSC will execute an LUC pertaining to the park property. The LUC would incorporate an Operations and Maintenance Plan (OMP) that will outline the requirements for future site work in order to maintain the constructed remedial components (i.e., engineered cap, fencing, etc.) and the requirements for future invasive work that could expose workers to residual contaminants. The DTSC reviewed the RACR and concurred with its findings as stated in a letter dated April 20, 2017. According to a DTSC representative, and as referenced above, the finalization and execution of the LUC and OMP is pending at this time.

In summary, this ESA has revealed no evidence of current *recognized environmental conditions* in connection with the Site. Historical impacts at the Site and its adjacent properties resulting from the former firing range activity to the south of the Site are considered to be a *controlled recognized environmental condition* that does not warrant additional assessment at this time.

As stated previously, although the subject Site was not considered to be significantly impacted and was not subject to remedial activities, the forthcoming LUC and OMP to be executed between the City and the DTSC may still apply to the Site, as it is part of the overall Chatsworth Park South property. Until such time that the Site is formally excluded from the LUC and OMP, all work performed in support of the Valley West Feeder No. 1 Access Road project shall comply with DTSCs directives relative to the RAP and the park.

In addition, while the reportedly abandoned six-inch oil pipeline in proximity to the Site limits was not deemed to be of environmental concern during prior assessment and remedial work completed under DTSC oversight, and no reports of a release of petroleum products from the pipeline have been reported, CYA cannot comment on actual subsurface conditions in the area of the pipeline. While CYA does not consider the pipeline to be a "recognized environmental condition" in connection with the Site, the client may desire a higher level of confidence regarding underlying subsurface

conditions in its vicinity. If so, it should consider additional evaluation. CYA has confirmed that the pipeline is maintained by Crimson Pipeline L.P. (Crimson), and Crimson has provided support documentation relative to the location of the pipeline. Crimson recommends that it be contacted either directly or via Underground Service Alert (USA) when Site construction activities begin in the area.

1.0 INTRODUCTION

1.1 Purpose

The purpose of this Phase I ESA is to provide a professional opinion on the presence of “recognized environmental conditions” and other suspect environmental conditions in connection with the Site, as they existed on the date of the site inspection, and to recommend whether further assessment is warranted. ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (hereinafter referred to as the “ASTM Standard”), specifies minimum requirements for conducting a Phase I ESA of a parcel of commercial real estate with respect to the range of contaminants pertinent to the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as well as petroleum products. As such, this Phase I ESA is intended to satisfy one of the threshold criteria for satisfying the landowner liability protections to CERCLA liability assuming compliance with other elements of the defense. In other words, this Phase I ESA represents one of the practices that constitute “all appropriate inquiry” into the previous ownership and uses of the property consistent with good commercial or customary practice, as defined in Title 42 of the United States Code (42 USC) Section 9601(35)(B) and 40 CFR Part 312, *Standards and Practices for All Appropriate Inquiry: Final Rule*.

The goal of the process is to identify “recognized environmental conditions,” which are defined by the ASTM Standard as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment, or; 3) under conditions that pose a material threat of a future release to the environment.” The term “recognized environmental condition” includes hazardous substances or petroleum products even under conditions in compliance with laws. In addition, the term also included *historical recognized environmental conditions* and “controlled recognized environmental conditions.” A “historical recognized environmental condition” is defined by the ASTM Standard as “a past release of hazardous substances or petroleum products that has occurred in connection with a property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).” A “controlled recognized environmental condition” is defined by the ASTM Standard as “a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).” The term “recognized environmental condition” is not intended to include *de minimis* conditions that generally do not present a material risk of harm to

public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

The term "environment" is defined in CERCLA 42 USC 9601(8) as "(A) the navigable waters, the water of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the United States under the Magnuson-Stevens Fishery Conservation and Management Act", and "(B) any other surface water, groundwater, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States."

The term "release" means any "spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant)", but excludes "(A) any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons, (B) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine, (C) release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954 [42 USC 2011 et seq.], if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such Act [42 USC 2210], or, for the purposes of 42 USC 9604 or any other response action, any release of source byproduct, or special nuclear material from any processing site designated under section 7912(a)(1) or 7942(a) of this title, and (D) the normal application of fertilizer."

1.2 Detailed Scope of Services

The Phase I ESA was conducted in accordance with the above-referenced ASTM Standard, 40 CFR Part 312 and CYA's Agreement by and between CYA and the client. The following services were provided for this assessment:

- A search for environmental liens recorded against the Site.
- An evaluation of standard environmental record sources contained within Federal, State and local environmental databases within specific search distances.
- An evaluation of additional environmental record sources obtained from local regulatory departments/agencies.
- A qualitative evaluation of the physical characteristics of the Site through a review of: published topographic, geologic, and hydrogeologic maps; published groundwater data, and; area observations to characterize surface water flow in the Site area.

-
- An evaluation of past Site and adjacent/nearby property uses through a review of historical resources including aerial photographs, topographic maps and city directories.
 - A physical inspection of the Site conducted to search for conditions indicative of potential environmental concerns including USTs, aboveground storage tanks (ASTs), associated tank piping, stained soil or pavement, equipment that may contain or have historically contained polychlorinated biphenyls (PCBs), and other potential environmental concerns as defined in the ASTM Standard.
 - A physical assessment of indications of past uses and visual observations of adjacent and surrounding properties (from curbside or public spaces) to assess potential impacts to the Site.
 - Interviews completed with the client, the Site owner(s) and local regulatory officials.
 - The preparation of this Phase I ESA report, which includes the findings of the assessment, our opinion (i.e., conclusions) regarding their respective levels of significance, and recommendations, as appropriate.

1.3 Significant Assumptions

This Phase I ESA was conducted in accordance with the scope and terms referenced above. No other warranty, express or implied, is made by CYA. CYA's evaluations, analyses, and opinions should not be taken as representations regarding subsurface conditions or the actual value of the Site. Subsurface conditions may differ from the conditions implied by the surficial observations and the data resources reviewed, and can only be reliably evaluated through intrusive techniques.

Documentation and data provided by the client, designated representatives of the client, other interested third parties, or from the public domain, and referred to in the preparation of this assessment, are assumed to be complete and correct and have been used and referenced with the understanding that CYA assumes no responsibility or liability for their accuracy. CYA's conclusions are based upon such information and documentation and on our observations of Site conditions, as they existed on the date of the site inspection. Because Site conditions may change significantly over a short period of time and additional data may become available, data reported and conclusions drawn in this report are limited to current conditions and should be considered less reliable with passing time.

1.4 Limitations and Exceptions

Reasonable efforts have been made during this assessment to uncover evidence of USTs, ASTs, ancillary equipment associated with such tanks, and other subsurface structures. "Reasonable efforts" are limited to information gained from visual

observation of unobstructed areas, recorded database information held in public record, and available information gathered from interviews. Such methods may not identify subsurface equipment that may have been hidden from view due to paving, construction or debris pile storage, or incorrect information from sources.

This investigation was not an environmental compliance audit. While some observations and discussion in this report may address conditions and/or operations that may be regulated, the regulatory compliance of those conditions and/or operations is outside the scope of this investigation. Nothing in this report constitutes a legal opinion or legal advice. For information regarding specific individual or organizational liability, CYA recommends consultation with independent legal counsel.

According to 40 CFR Part 312, CERCLA liability rests with the owner or operator of a property and not with an environmental professional hired by the prospective landowner and who is not involved with the ownership or operation of the property. This report meets the requirements set forth in 40 CFR Part 312. However, in order to qualify for certain landowner liability protections under CERCLA, “Bona Fide Prospective Purchasers, Contiguous Property Owners, and/or Innocent Landowners” must meet additional requirements of CERCLA (42 USC 9601 (35)(B)).

This ESA does not address non-ASTM scope considerations, including asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, protected environments and habitat, industrial hygiene concerns, indoor air quality (unrelated to releases of hazardous substances or petroleum products into the environment) and high voltage power lines.

1.5 Special Terms and Conditions

No special terms and conditions between CYA pertinent to the findings of this Phase I ESA or methodology used to complete this assessment are noted. In addition, CYA does not have a financial interest in the Site.

1.6 User Reliance

This report was prepared for the sole and exclusive use of the client and its client, and is not for the use or benefit of, nor may it be relied upon by, any other person or entity for any purpose without the advance written consent of CYA and the client. CYA makes no representation to any third party except that it has used the degree of care and skill ordinarily exercised by a reasonably prudent qualified environmental professional in the same community and in the same time frame given the same or similar facts and circumstances. No other use or disclosure is intended or authorized by CYA. In the preparation of this Phase I ESA, CYA has used the degree of care and skill ordinarily exercised by a reasonably prudent environmental professional in the same community and in the same time frame given the same or similar facts and circumstances. No other warranties are made, express or implied.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The Site is known as the West Valley Feeder No. 1 Stage 3 Improvements Project in the Chatsworth community of Los Angeles, California. The Site is situated within Chatsworth Park South, which has a physical address of 22360 West Devonshire Street. The Site is situated in the central portion of the park, generally between two water pump stations. These stations include the Twin Lakes pump station operated by the Las Virgines Municipal Water District to the east, and a pump station operated by the Calleguas Municipal Water District to the west. The Site is further identified as portions of four legal parcels that include APNs 2723-010-094, 2723-010-270, 2723-010-902 and 2723-010-903. A Vicinity Map and Topographic Map depicting the general location of the Site are included in Appendix A.

2.2 Site and Vicinity General Characteristics

The Site and its adjacent/nearby properties are situated within the Chatsworth community of Los Angeles, California and, more specifically, within Chatsworth Park South, which is owned and managed by the City of Los Angeles. The general Site vicinity consists of other portions of Chatsworth Park South, open space and residential development.

2.3 Current Use of the Site

The majority of the Site is vacant land situated in the central portion of Chatsworth Park south between the above-referenced two water pump stations. Limited areas of the Site consist of portions of access roads and trails or consist of existing water infrastructure.

2.4 Description of Structures, Roads, Other Improvements on the Site

The majority of the Site is unimproved. Some areas of the Site are situated between existing access roads and trails or consist of existing water infrastructure. Portions of the Site are also underlain by the West Valley Feeder No. 1 and No. 2 water pipelines and a, reportedly abandoned, six-inch oil pipeline near the southwestern perimeter of the Site. Please refer to Section 4.2 for additional information pertaining to the noted oil pipeline. Potable water and sanitary sewer services in the area are provided by the Los Angeles Department of Water and Power. Electrical service in the area is also provided by the Los Angeles Department of Water and Power and natural gas services are provided by Southern California Gas Company. Site Plans are included in Appendix B. Photographs taken of the Site are included in Appendix C.

2.5 Current Uses of the Adjoining Properties

CYA performed a visual inspection of adjoining properties from adjacent roadways and public right-of-ways. The following table identifies the adjacent property uses:

General Direction	Adjoining Property Use
North	Vacant land (Chatsworth Park South) and railroad tracks
South	Chatsworth Park South (vacant and improved portions)
West	Water pump station and vacant land (Chatsworth Park South)
East	Chatsworth Park South (vacant and improved portions) and residential development

None of the adjoining properties were observed to be a significant environmental concern to the Site based on CYA's visual inspection from public right-of-ways.

3.0 USER PROVIDED INFORMATION

3.1 Title Records

No current environmentally related liens, deed restrictions or activity and use limitations pertaining to the Site were noted during research conducted with the County of Los Angeles Tax Assessor. In addition, the client is unaware of such encumbrances recorded against the Site.

3.2 Environmental Liens or Activity and Use Limitations

The client reportedly has no knowledge of any environmental related liens or activity and use limitations (i.e. engineering or institutional controls) that are related to potential environmental issues at the Site.

3.3 Specialized Knowledge

The client reportedly has no specialized knowledge pertinent to potential “recognized environmental conditions” at the Site.

3.4 Commonly Known or Reasonably Ascertainable Information

The client has no other knowledge of commonly known or reasonably ascertainable information pertinent to potential “recognized environmental conditions” at the Site.

3.5 Valuation Reduction for Environmental Issues

As of the date of this report, the client reportedly has no information pertaining to the relationship of the appraised value of the Site to the estimated fair market value of the Site that might indicate that significant contamination exists.

3.6 Owner, Property Manager, and Occupant Information

As stated previously, the Site includes portions of Los Angeles County APNs 2723-010-094, 2723-010-270, 2723-010-902 and 2723-010-903. Ownership of these parcels is as follows:

- APN 2723-010-094 - City of Los Angeles
- APN 2723-010-270 - Calleguas Municipal Water District
- APN 2723-010-902 - Metropolitan Water District
- APN 2723-010-903 - Metropolitan Water District

The Site owners are also considered to be the Site managers. The Site has no known occupants.

3.7 Reason for Performing Phase I ESA

CYA, as an independent consultancy, has been retained to conduct this Phase I ESA to identify environmental issues that may be present and to comply with 40 CFR Part 312.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

CYA reviewed Federal and State environmental databases provided by EDR of Shelton, Connecticut for information pertaining to documented and/or suspected releases of regulated hazardous substances and/or petroleum products within specified search distances. A copy of the EDR report is included in Appendix D.

CYA also reviewed unmappable sites listed in the environmental database report by cross-referencing addresses and site names. Unmappable sites are sites that cannot be plotted with confidence but can be located by zip code or city name. In general, a site cannot be mapped because of inaccurate or missing location information in the record provided by the regulatory agency. Any unmappable sites that CYA identifies within the specified search radii were evaluated as part of the preparation of this report.

The following Federal databases related to potential on-site and off-site sources of contamination were reviewed and interpreted by CYA:

Federal Databases	Search Distance From Site
National Priorities List (NPL)	One mile
Proposed NPL	One mile
NPL Liens	Target Property
Delisted NPL	One mile
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) – FEDERAL FACILITY AND SEMS	One-half mile
CERCLIS No Further Remedial Action Planned (NFRAP) – SEMS ARCHIVE	One-half mile
Resource Conservation and Recovery Act (RCRA) CORRACTS Facilities List	One mile
RCRA NON-CORRACTS Hazardous Waste Treatment, Storage and Disposal (TSD) Facilities	One-half mile
RCRA Hazardous Waste Generators (RCRA GEN) – Large Quantity Generators (LQG), Small Quantity Generators (SQG) and Conditionally Exempt Small Quantity Generators (CESQG)	One-eighth mile
Federal Institutional/Engineering Control Registries (IC/EC) – LUCIS, US ENG CONTROLS, and US INST CONTROLS	One-half mile
Emergency Response Notification System (ERNS)	One-eighth mile

The following State/local databases related to potential on-site and off-site sources of contamination were also searched and reviewed:

State/Local Databases	Search Distance From Site
State Equivalent NPL and CERCLIS (RESPONSE and Envirostor)	One mile
Inactive, Active, and/or Permitted Solid Waste/Landfill Facilities (SWF/LF)	One-half mile
San Diego County DEH Site Assessment and Mitigation (SAM)	One-half mile
Leaking Underground Storage Tanks (LUST)	One-half mile
Spills, Leaks, Investigations, and cleanup (SLIC)	One-half mile

State/Local Databases	Search Distance From Site
Registered Storage Tanks (UST/AST)	One-eighth mile
State Voluntary Cleanup Program (VCP)	One-half mile
State Brownfield Sites (BROWNFIELDS)	One-half mile

Descriptions/sources of each of the above-referenced regulatory databases and the dates these databases were last updated by the applicable regulatory agencies are included in the EDR report.

Site

The Chatsworth Park South property (of which the Site is a part) is listed on the Envirostor and VCP standard regulatory databases. The park is referenced as an active voluntary cleanup facility with a past use of a small arms firing range. The overall park property is under the regulatory agency oversight of the DTSC. Please refer to Section 4.2 below for information pertaining to prior assessment and remedial activities completed at the park property.

Adjoining and Nearby Properties

One property was identified in the standard regulatory databases mapped within one mile of the Site. The property is identified as Chime Charter Middle School and is mapped approximately one-half mile to the east-southeast at 22280 Devonshire Street. The property was issued a no further action status in 2007. This property is not considered to be an environmental concern to the Site.

Non-ASTM Database Reviews

Below is a list of non-ASTM databases searched by EDR and reviewed by CYA during the preparation of this assessment. The descriptions of each database and their data release frequency are included in the EDR report, included in Appendix D.

Local Brownfield Lists

US BROWNFIELDS - A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT - Waste Management Unit Database

SWRCY - Recycler Database

HAULERS - Registered Waste Tire Haulers Listing

INDIAN ODI - Report on the Status of Open Dumps on Indian Lands

ODI - Open Dump Inventory

DEBRIS REGION 9 - Torres Martinez Reservation Illegal Dump Site Locations

IHS OPEN DUMPS - Open Dumps on Indian Land

Local Lists of Hazardous Waste / Contaminated Sites

AOCONCERN - San Gabriel Valley Areas of Concern

US HIST CDL - National Clandestine Laboratory Register
HIST Cal-Sites - Historical Cal-Sites Database
SCH - School Property Evaluation Program
CDL - Clandestine Drug Labs
Toxic Pits - Toxic Pits Cleanup Act Sites
US CDL - Clandestine Drug Labs

Local Lists of Registered Storage Tanks

SWEEPS UST - SWEEPS UST Listing
HIST UST - Hazardous Substance Storage Container Database
CA FID UST - Facility Inventory Database

Local Land Records

LIENS - Environmental Liens Listing
LIENS 2 - CERCLA Lien Information
DEED - Deed Restriction Listing

Records of Emergency Release Reports

HMIRS - Hazardous Materials Information Reporting System
CHMIRS - California Hazardous Material Incident Report System
LDS - Land Disposal Sites Listing
MCS - Military Cleanup Sites Listing
SPILLS 90 - SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA - NonGen - RCRA - Non-Generators
FUDS - Formerly Used Defense Sites
DOD - Department of Defense Sites
SCRD DRYCLEANERS - State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR - Financial Assurance Information
EPA WATCH LIST - EPA WATCH LIST
2020 COR ACTION - 2020 Corrective Action Program List
TSCA - Toxic Substances Control Act
TRIS - Toxic Chemical Release Inventory System
SSTS - Section 7 Tracking Systems
ROD - Records Of Decision
RMP - Risk Management Plans
RAATS - RCRA Administrative Action Tracking System
PRP - Potentially Responsible Parties
PADS - PCB Activity Database System
ICIS - Integrated Compliance Information System
FTTS - FIFRA/TSCA Tracking System – FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS - Material Licensing Tracking System
COAL ASDH DOE - Sleam Electric Plan Operation Data Listing
COAL ASH EPA - Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER - PCB Transformer Registration Database
RADINFO - Radiation Information Database

HIST FTTS - FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS - Incident and Accident Data
CONSENT - Superfund (CERCLA) Consent Decrees
INDIAN RESERV - Indian Reservations
FUSRAP - Formerly Utilized Sites Remedial Action Program
UMTRA - Uranium Mill Tailings Sites
LEAD SMELTERS - Lead Smelter Sites
US AIRS - Aerometric Information Retrieval System Facility Subsystem
US MINES - Mines Master Index File
ABANDONED MINES - Abandoned Mines
FINDS - Facility Index System/Facility Registry System
UXO - Unexploded Ordnance Sites
DOCKET HWC - Hazardous Waste Compliance Docket Listing
ECHO - Enforcement and Compliance History Information
FUELS PROGRAM - EPA Fuels Program Registered Listing
CA BOND EXP. PLAN - Bond Expenditure Plan
Cortese - "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings - CUPA Resources List
DRYCLEANERS - Cleaner Facilities
EMI - Emissions Inventory Data
ENF - Enforcement Action List
Financial Assurance - Financial Assurance Information Listing
ICE
HIST CORTESE - Hazardous Waste & Substance Site List
HAZNET - Facility and Manifest Data
LOS ANGELES CO. HMS - HMS: Street Number List
HWP - Envirostor Permitted Facilities List
HWT - Registered Hazardous Waste Transporter Database
MINES - Mines Master Index File
MWMP - Medical Waste Management Program Listing
NPDES - NPDES Permits Listing
PEST LIC - Pesticide Regulation Licenses Listing
PROC - Certified Processors Database
Notify 65 - Proposition 65 Records
LA Co. Site Mitigation - Site Mitigation List
UIC - UIC Listing
WASTEWATER PITS - Oil Wastewater Pits Listing
WDS - Waste Discharge System
WIP - Well Investigation Program Case List
NON-CASE INFO
SAMPLING POINT
PROD WATER PONDS
MILITARY PRIV SITES
OTHER OIL GAS
WELL STIM PROJ - Well Stimulation Project
UIC GEO
PROJECT
CIWQS - The California Integrated Water Quality System

The Chatsworth Park South property (of which the Site is a part) is listed on the non-ASTM Haznet, CIWQS and NPDES databases. The park property is referenced on the Haznet database for the disposal of hazardous waste generated during cleanup activities. Please refer to Section 4.2 below for information pertaining to prior assessment and recent remedial activities completed at the park property. The park property appears on the CIWQS and NPDES databases for stormwater permit and control related requirements. The permits are noted as being held by the City of Los Angeles Department of Recreation and Parks.

One property was identified in the non-ASTM regulatory databases mapped within one mile of the Site. The property is identified as Chime Charter Middle School and is located at 22280 Devonshire Street. As stated previously, this property is not considered to be an environmental concern to the Site.

4.2 Additional Environmental Record Sources

California Department of Toxic Substances Control

The overall Chatsworth Park South property was subject to DTSC regulatory agency oversight beginning in 2008 due to environmental impacts resulting from a former small arms firing range in the southern portion of the park. This use reportedly occurred from the early to mid-1950s until sometime in the mid-1960s. The operation of the firing range resulted in wide surficial spreading of lead shot and clay pigeon debris. The City of Los Angeles acquired the park property in 1973 and developed the relatively level portions of the park area with recreational improvements. The development and grading activities occurred during the 1970s and 1980s. The grading activities were associated with the leveling of the former skeet range area, planting of trees, soil removal and compaction for development of an existing recreation building, and preparation for a parking area, play areas, a basketball court, and tennis courts. Grading also occurred during placement of water/oil transmission pipelines at the property.

Multiple environmental investigations throughout the park property were conducted between 2008 and 2012. The investigations included the drilling of multiple soil borings and the collection of soil and groundwater samples. A human health risk assessment was also conducted. During the investigation work, the overall park property was divided into seven areas of environmental concern. Of the seven areas, two appear to have been situated within portions of the Site. These areas were identified as Area Four (Visible Lead Pellet Accumulation Area) and Area 5 (Former Fish Pond). Contaminants of potential concern in these areas included lead, arsenic and polycyclic aromatic hydrocarbons (PAHs). The contaminant concentrations in such areas were noted as being relatively low and not of significant concern to human health.

Following the completion of the investigation work, a RAP for the park property was prepared in 2013. The objective of the RAP was to mitigate potential risk from contaminants in soil that may pose a threat to human health and the environment. Based on the comparative evaluation of the three alternatives considered in the RAP, Containment Through Surface Capping was selected as the remedial action alternative

for addressing the metal and PAH-impacted shallow soils at the park property. This alternative was selected because it was determined to be effective, implementable, and cost effective. In the RAP, the overall park property was divided into 14 remedial areas identified as Areas "A" through "N." The various portions of the park property that comprise the Site (subject to our current Phase I ESA), including the two areas referenced above, are not mapped in any of the Remedial Areas as remedial work within the limits of the Site was not deemed warranted based on the results of the investigation activities. This indicates that significant environmental impacts did not result at the Site from the former firing range activities that occurred to the south. However, being that the Site is situated within the overall park property that was subject to DTSC regulatory oversight and that an LUC has yet to be negotiated with the City of Los Angeles, compliance with any and all DTSC directives relative to the RAP and the park will be required.

The DTSC approved the RAP for the park and the RAP was implemented during the period of April 5, 2016 through December 30, 2016. The RAP implementation included the following:

- Manually removing readily visible lead pellets with vacuums, rakes, and/or shovels.
- Removing all short shrubs and seasonal vegetation to expose the underlying surface.
- Removing remaining visible lead pellets and surficial soil using manual labor equipped with vacuums, rakes, and shovels.
- Containing all recovered lead pellets and any associated soil or debris in appropriate containers.
- Profiling the waste and disposing of approximately 500 tons of hazardous waste at off-property locations.
- Hydro-seeding an impacted rocky outcrop with native grasses.
- Completion of controlled rough and fine grading (one foot surface cap construction).
- Export of non-hazardous and hazardous waste soils (approximately 6,000 tons).
- Sampling and analysis of clean import aggregate base and soil.
- Import of clean import aggregate base and soil.
- Revegetation of the surface cap area.
- Improving the stormwater drainage system.

Following completion of the RAP implementation, a RACR was issued in December 2016. The RACR described in detail the implementation of the RAP. Because impacted soil remains beneath the engineered surface cap at depths ranging from one to four feet in the remedial areas at the park property, it was stated in the RACR that the City of Los Angeles and the DTSC will execute an LUC pertaining to the park property. This institutional control will limit the potential for future exposure of receptors to contaminated soils through controlling and limiting future excavation, routine maintenance and any other disturbances to the cap in an effort to protect human health and the environment. The LUC would incorporate an OMP that will outline the requirements for future site work in order to maintain the constructed remedial

components (i.e., engineered cap, fencing, etc.) and the requirements for future invasive work that could expose workers to residual contaminants.

The DTSC reviewed the RACR and concurred with its findings as stated in a letter dated April 20, 2017. A copy of the letter is included in Appendix E. At the time of this report, finalization and execution of the LUC and OMP is pending at this time.

Although the subject Site of this Phase I ESA was not considered to be significantly impacted and was not subject to remedial activities, the forthcoming LUC and OMP between the City and the DTSC may still apply to the Site, as it is part of the overall Chatsworth Park South property. Until such time that the Site is formally excluded from the LUC and OMP, all work performed in support of the Valley West Feeder No. 1 Access Road project shall comply with DTSCs directives relative to the RAP and the park.

As stated previously and according to the URS RAP and RACR documents, a portion of a reportedly abandoned six-inch oil pipeline appears to be present near the southwestern perimeter of the Site. While the pipeline was not deemed to be of environmental concern during prior assessment and remedial work completed under DTSC oversight, and no reports of a release of petroleum products from the pipeline have been reported, CYA cannot comment on actual subsurface conditions in the area of the pipeline. While CYA does not consider the pipeline to be a “recognized environmental condition” in connection with the Site, the client may desire a higher level of confidence regarding underlying subsurface conditions in its vicinity. If so, it should consider additional evaluation.

CYA has confirmed that the pipeline is maintained by Crimson, and Crimson has provided support documentation relative to the location of the pipeline (Appendix F). In the referenced correspondence, Crimson recommends that it be contacted either directly or via Underground Service Alert (USA) when Site construction activities begin in the area

Other Agency Records

Based on DTSC involvement with the Chatsworth Park South Property and documentation of prior subsurface assessment activities and remedial work at the park property, additional public agency records searches were not deemed warranted by CYA.

4.3 Physical Setting Sources

The following physical setting sources were reviewed to provide information about the topographic, hydrologic, geologic and/or hydrogeologic characteristics of the Site.

4.3.1 Topography and Hydrology

USGS Topographic Quadrangle

According to the U.S. Geological Survey topographic map for the Los Angeles California 7.5 minute Oat Mountain quadrangle (2015), the Site is situated at elevations ranging from approximately 1,000 feet to 1,100 feet above mean sea level. Site topography trends generally downward toward the east and southeast. Streets/roadways bordering the Site are shown similar to their current configurations on the map.

Hydrology/Storm Water Management

The Site slopes downward generally to the east and southeast toward municipal storm drain systems maintained by the City of Los Angeles. The Site may receive drainage from up-gradient, off-Site properties during significant rain events.

4.3.2 Geology

The Site is located in the western portion of the Transverse Ranges Geomorphic Province at the extreme west end of the San Fernando Valley. The ranges extend from west of Point Conception eastward approximately 500 kilometers into the Mojave and Colorado Desert. The geology and topography of the ranges express three distinct segments that have contrasting elevations, rock types, and vegetation. Sedimentary rocks of the Cretaceous Chatsworth Formation are exposed in the area. There is also alluvium present in the general Site vicinity and potentially at the Site.

4.3.3 Hydrogeology

According to the Water Quality Control Plan for the Los Angeles Basin (Region 4) published by the California Regional Water Quality Control Board (RWQCB), the Site is located within the Bull Canyon Hydrologic Sub Area of the San Fernando Hydrologic Area of the Los Angeles-San Gabriel Hydrologic Unit. The basin has been classified as having existing beneficial uses for municipal, agricultural and industrial service supply. Groundwater beneath the Site is expected to be present at a depth greater than approximately 10 feet below the ground surface with an anticipated flow direction to the east.

4.4 Historical Use Information on the Subject Site

CYA reviewed historical sources (as described in the following sections) to develop a history of the previous uses of the Site, in order to help identify the likelihood of past uses having led to “recognized environmental conditions” in connection with the Site. Only historical aerial photographs, topographic maps and oil/gas records were selected as pertinent historical sources to be reviewed during the completion of this Phase I ESA. Other historical resources such as city directories and fire insurance maps would not be useful in rendering an opinion regarding environmental conditions at the Site.

4.4.1 Aerial Photographs and Topographic Maps

CYA reviewed historical aerial photographs from the years 1947, 1952, 1959, 1967, 1969, 1977, 1980, 1994, 2003, 2005, 2009, 2010, 2012, and 2014 and topographic maps from the years 1903, 1908, 1916, 1924, 1925, 1927, 1929, 1930, 1933, 1939, 1940, 1943, 1948, 1953, 1958, 1964, 1965, 1967, 1970, 1980, 1984, 1992 and 2012, provided via online resources. On all of the aerial photographs and topographic maps, the Site appears to be vacant and undeveloped with no discernable feature except for portions of a few unimproved roads and/or trails. No significant environmental concerns in connection to the Site were noted during CYA's review of the historical aerial photographs and topographic maps.

4.4.2 State of California Division of Oil and Gas Records

According to online resources provided by the California Department of Conservation, Division of Oil, Gas and Geothermal Resources, there are no oil, gas or geothermal wells located on the Site.

4.5 Historical Use Information on Adjoining Properties

CYA also reviewed historical sources (as described in the following sections) to develop a history of the previous uses of adjoining properties and the surrounding area, in order to help identify the likelihood of past uses having led to "recognized environmental conditions" in connection with the Site.

4.5.1 Aerial Photographs and Topographic Maps

As stated previously, CYA reviewed historical aerial photographs from the years 1947, 1952, 1959, 1967, 1969, 1977, 1980, 1994, 2003, 2005, 2009, 2010, 2012, and 2014 and topographic maps from the years 1903, 1908, 1916, 1924, 1925, 1927, 1929, 1930, 1933, 1939, 1940, 1943, 1948, 1953, 1958, 1964, 1965, 1967, 1970, 1980, 1984, 1992 and 2012, provided via online resources. In the aerial photographs from 1947 to 1952, the surrounding properties appear vacant and undeveloped. In the 1959 to 1969 aerial photographs, a reservoir and a shooting range appear in the near vicinity to the west and south, respectively. Two pump stations (or ground disturbance in these areas) situated adjacent to the east and west of the Site, first appear in the 1967 aerial photograph. In the 1977 to 2014 aerial photographs, the adjacent properties appear generally in their current configurations.

The adjacent and surrounding properties appear predominantly vacant and undeveloped with a small track and limited structures on the topographic maps from 1903 to 1924. Structures are depicted in the vicinity of the two current pump stations situated adjacent to the east and west of the Site on the topographic maps from 1970 to 2012. No significant environmental concerns to the Site relative to adjacent and nearby properties were noted during the historical aerial photograph and topographic map review.

4.5.2 State of California Division of Oil and Gas Records

According to online resources provided by the California Department of Conservation, Division of Oil, Gas and Geothermal Resources, there are no oil, gas or geothermal wells located on adjoining properties of the Site.

5.0 SITE RECONNAISSANCE

The objective of the Site reconnaissance was to obtain information indicating the likelihood of “recognized environmental conditions” in connection with the Site. The reconnaissance was conducted on June 5, 2018, by CYA. CYA was unescorted during the Site reconnaissance.

5.1 Methodology and Limiting Conditions

The Site reconnaissance consisted of walking the Site and along public access roads (for viewing of adjacent/nearby properties). CYA was granted full access to the Site. However, the ground surface of some areas of the Site was obstructed from view by dense vegetation. Given the existing land uses of the Site, the lack of complete visibility of the surface area of the Site is not considered to be a data gap of significance. As stated previously, Site Plans are included in Appendix B. Photographs of the Site were taken to document existing Site conditions and several are included and described in Appendix C.

5.2 General Site Setting

The Site and its adjacent/nearby properties are situated within the Chatsworth community of Los Angeles, California and more specifically within Chatsworth Park South, which is owned and managed by the City of Los Angeles. The Site consists of multiple areas of varying sizes where future water infrastructure related work is proposed. These areas are situated in the central portion of Chatsworth Park south between the two aforementioned water pump stations. The majority of the areas are unimproved, vacant land. Remaining areas are portions of access roads and trails or consist of existing plumbing infrastructure. The current uses of the Site and its adjoining properties are not ones that are indicative of the use, treatment, storage, disposal or generation of significant quantities of hazardous substances or petroleum products that are resulting in active impacts to the Site.

5.3 Site Observations

CYA examined the Site for evidence of the following potential environmental concerns:

Conditions	Observed or Noted	Significant Concern?
Hazardous Substances/Petroleum Products	No	Not Applicable
Waste Generation/Storage/Disposal	No	Not Applicable
ASTs	No	Not Applicable
USTs	No	Not Applicable
PCB-Containing Equipment	No	Not Applicable
Chemical/Petroleum Odors	No	Not Applicable
Pools of Liquid	No	Not Applicable
Floor Drains/Sumps/Wells	No	Not Applicable
Drums	No	Not Applicable
Stains or Corrosion	No	Not Applicable

Conditions	Observed or Noted	Significant Concern?
Unidentified Substance Containers	No	Not Applicable
Stained Soil or Pavement	No	Not Applicable
Stressed Vegetation	No	Not Applicable
Pits, Ponds or Lagoons	No	Not Applicable
Wastewater Discharges/Disposal Systems	No	Not Applicable
Septic Systems/Cesspools	No	Not Applicable
Non-Hazardous Solid Waste Disposal Areas	No	Not Applicable
Drinking Water Systems/Water Wells/Other Wells	No	Not Applicable

No remarkable observations relative to potential environmental concerns were noted during the Site reconnaissance.

6.0 INTERVIEW INFORMATION

6.1 Interview With Owner

As stated previously, ownership of the Site parcels is as follows:

- APN 2723-010-094 - City of Los Angeles
- APN 2723-010-270 - Calleguas Municipal Water District
- APN 2723-010-902 - Metropolitan Water District
- APN 2723-010-903 - Metropolitan Water District

During the completion of this Phase I ESA, environmental questionnaires were provided to the Site owners for completion. At the time of this report, completed questionnaires have not been returned to CYA. Given the information available pertaining to the historical assessment and remedial work completed at the overall park property, of which the Site is a part, the lack of interviews with Site owners is not anticipated to be a data gap of significance. However, in the event that the Site owners are available to be interviewed verbally or by way of environmental questionnaires in the future, CYA can and will conduct the interviews at the request of the client.

6.2 Interview With Site Manager

The Site owners are also considered to be the Site Managers. Please refer to Section 6.1 above.

6.3 Interviews With Occupants

The Site has no known long-term occupants.

6.4 Interview With Local Government Official

During the preparation of this assessment, a representative of the DTSC was contacted regarding the status of the regulatory case for the overall park property of which the Site is a part. CYA was informed that while the RACR for the property has been accepted and approved, the LUC has yet to be executed by the City of Los Angeles and the DTSC.

6.5 Interview With Others

No other interviews were conducted as a part of this assessment.

7.0 FINDINGS, OPINION AND CONCLUSIONS AND RECOMMENDATIONS

This ESA has revealed no evidence of current “recognized environmental conditions” in connection with the Site and no basis to consider non-ASTM scope issues (e.g., asbestos containing materials, lead-based paint, etc.). Historical impacts at the Site and its adjacent properties resulting from the former firing range activity to the south of the Site are considered to be a “controlled recognized environmental condition” that does not warrant additional assessment at this time.

As stated previously, although the subject Site was not considered to be significantly impacted and was not subject to remedial activities, the forthcoming LUC and OMP to be executed between the City and the DTSC may still apply to the Site as it is part of the overall Chatsworth Park South property. Until such time that the Site is formally excluded from the LUC and OMP, all work performed in support of the Valley West Feeder No. 1 Access Road project shall comply with DTSCs directives relative to the RAP and the park.

In addition, while the reportedly abandoned six-inch oil pipeline in proximity to the Site limits was not deemed to be of environmental concern during prior assessment and remedial work completed under DTSC oversight, and no reports of a release of petroleum products from the pipeline have been reported, CYA cannot comment on actual subsurface conditions in the area of the pipeline. While CYA does not consider the pipeline to be a “recognized environmental condition” in connection with the Site, the client may desire a higher level of confidence regarding underlying subsurface conditions in its vicinity. If so, it should consider additional evaluation. CYA has confirmed that the pipeline is maintained by Crimson Pipeline L.P. (Crimson), and Crimson has provided support documentation relative to the location of the pipeline. Crimson recommends that it be contacted either directly or via USA when Site construction activities begin in the area.

8.0 DEVIATIONS AND DATA GAPS

No deviations or data gaps of significance as defined in the ASTM Standard are noted.

REFERENCES

“All Appropriate Inquiry” as necessary to satisfy the defenses available under 42 USC §§ 9607(b)(3), 9607(r)(1), and 9607(q), relying on definitions provided at 42 USC §§ 9601(35)(B); and as further explained in 40 CFR §§ 312.1 - 312.31.

ASTM International, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM Designation E1527-13, Published November 2013.

California State Water Resources Control Board, GeoTracker online database: <http://www.geotracker.swrcb.ca.gov>.

EDR Radius Map Report dated June 4, 2018.

State of California Department of Conservation, Division of Oil and Gas and Geothermal Resources: http://www.consrv.ca.gov/DOG/maps/index_map.htm.

USGS Topographic Map, Los Angeles, California Oat Mountain Quadrangle (2015).

California State Water Resources Control Board, Water Quality Control Plan for the Los Angeles Basin (4), Los Angeles, California, Published 1994.

URS, Remedial Action Plan, Chatsworth Park South, Chatsworth, California, dated Feb 15, 2013 (Revised March 15, 2013).

URS, Remedial Action Completion Report, Chatsworth Park South, Chatsworth, California, dated December 20, 2016.

SIGNATURES AND QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of “Environmental Professional” as defined in 40 CFR 312.10. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject Site. We have developed and performed the “all appropriate inquiries” in conformance with the standards and practices set forth in 40 CFR Part 312.



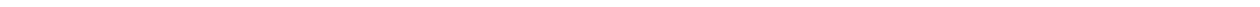
Colin P. Young, CIH
Principal



Daniel Weis, R.E.H.S.
Associate Environmental Scientist

Environmental professional qualifications are included in Appendix G.

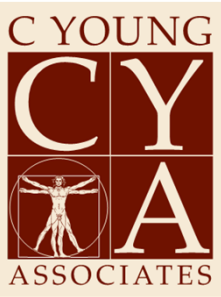
APPENDICES



Appendix A
Vicinity Map and Topographic Map

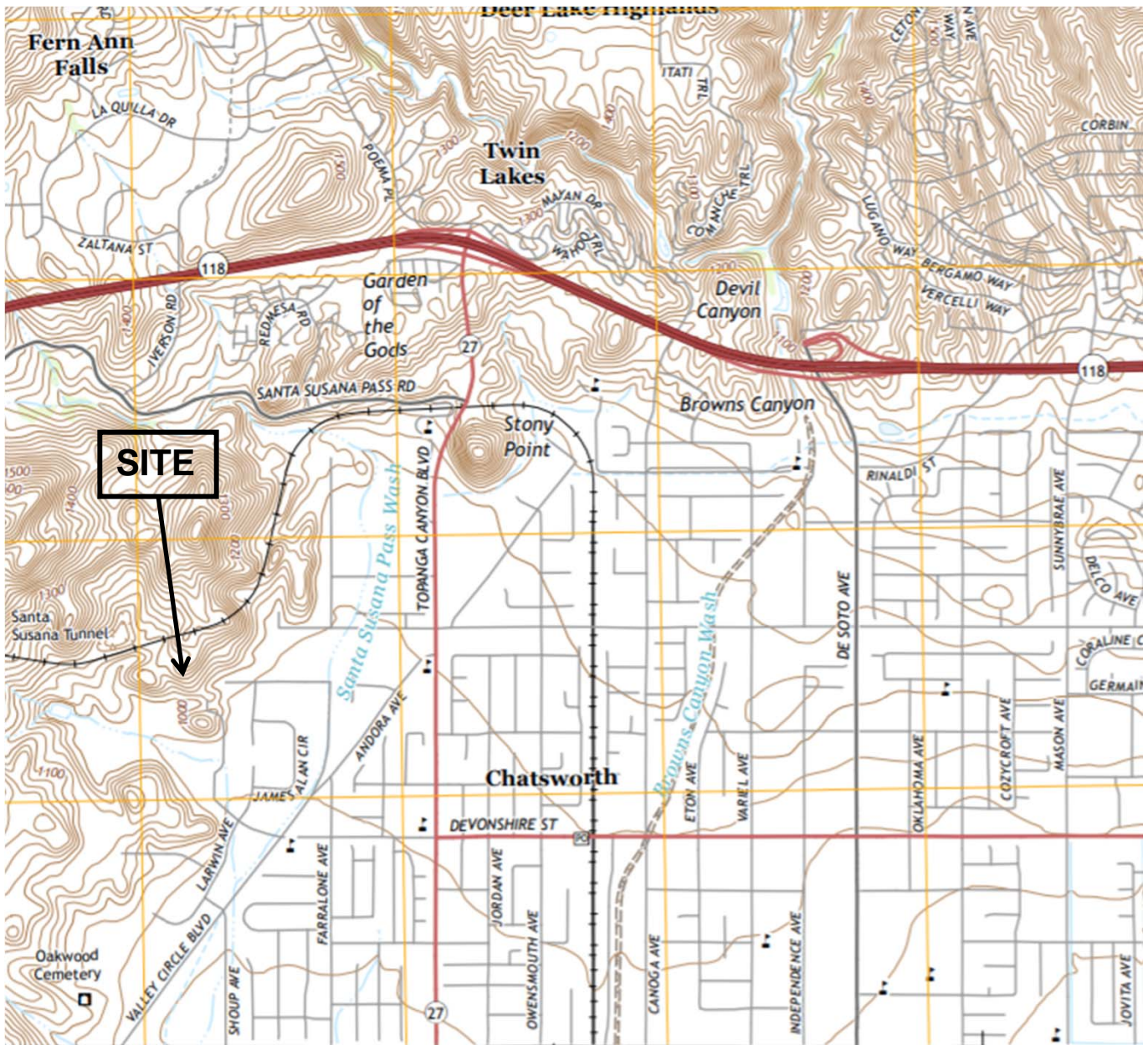


N ↑
Not to Scale



C Young Associates
1042 Skylark Drive
La Jolla, CA 92037

Vicinity Map
West Valley Feeder No. 1 Stage 3 Improvements
Los Angeles County, California



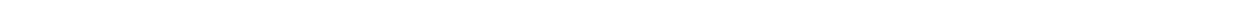
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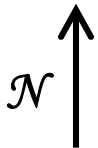


C Young Associates
 1042 Skylark Drive
 La Jolla, CA 92037

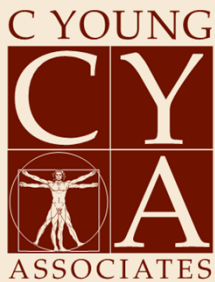
Topographic Map
 West Valley Feeder No. 1 Stage 3 Improvements
 Los Angeles County, California

Appendix B
Site Plans





Not to Scale

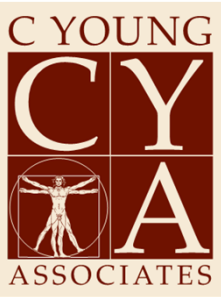


C Young Associates
 1042 Skylark Drive
 La Jolla, CA 92037

Site Plan #1
 West Valley Feeder No. 1 Stage 3 Improvements
 Los Angeles County, California



N ↑
Not to Scale



C Young Associates
1042 Skylark Drive
La Jolla, CA 92037

Site Plan #2
West Valley Feeder No. 1 Stage 3 Improvements
Los Angeles County, California

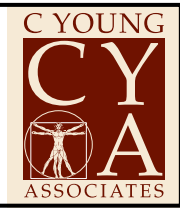


Aerial Source: Google Earth, 12/31/17

Site Plan #3 - West Valley Feeder No. 1 Stage 3 Improvements, Los Angeles County, California

▼24 Photograph Reference

C Young Associates
 1042 Skylark Drive
 La Jolla, CA 92037



Appendix C
Site Photographs

PHOTO 1.

View west at Contractor's Laydown Area
40' X 50' (Partially Undisturbed Area).



PHOTO 2.

View north at Contractor's Laydown Area
40' X 50' (Partially Undisturbed Area).



PHOTO 3.

View east at Contractor's Laydown Area
40' X 50' (Partially Undisturbed Area).



PHOTO 4.

View northwest along West Valley Feeder No. 1
Near WVF1 STA 1405+23.



PHOTO 5.

View west at WVF1 STA 1405+23 Existing air
release.



PHOTO 6.

View northeast at the Contractor's Laydown Area
20' X 120'.



PHOTO 7.

View west along asphalt paved access to WVF1
STA 1407+45 Existing Blowoff.



PHOTO 8.

View of WVF1 STA 1407+45 Existing Blowoff



PHOTO 9.

View west along West Valley Feeder No. 1.



PHOTO 10.

Off-Site signage indicating the presence of hazardous substances in the area.



PHOTO 11.

View southeast along West Valley Feeder No. 1 near the permanent access road/turnaround area.



PHOTO 12.

View southwest along West Valley Feeder No. 1, facing WVF1 STA 1415+42.



PHOTO 13.

View southwest along proposed new permanent access road.



PHOTO 14.

View southwest along West Valley Feeder No. 1, facing WWF1 STA 1415+42.



PHOTO 15.

View south near WWF1 STA 1415+42, existing air release and vacuum valve.



PHOTO 16.

View north near WVF1 STA 1415+42, proposed vault and pump well.



PHOTO 17.

View northeast along proposed new permanent access road.



PHOTO 18.

View east along proposed new permanent access road.



PHOTO 19.

View west near WVF1 1416+33, existing blowoff (to be abandoned).



PHOTO 20.

View north at contractor's laydown area 12' X 35'



PHOTO 21.

View north at contractor's laydown area 20' X 80'



PHOTO 22.

View northeast along proposed new permanent access road.



PHOTO 23.

View east along West Valley Feeder No. 2 near contractor's laydown area 20' X 80'.



PHOTO 24.

View west along West Valley Feeder No. 2.



Appendix D
Regulatory Database Report

West Valley Feeder No. 1 Stage 3 Improvements Project

22360 West Devonshire Street

Chatsworth, CA 91311

Inquiry Number: 5375619.1s

July 27, 2018

The EDR Radius Map™ Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

22360 WEST DEVONSHIRE STREET
CHATSWORTH, CA 91311

COORDINATES

Latitude (North): 34.2619540 - 34° 15' 43.03"
Longitude (West): 118.6210480 - 118° 37' 15.77"
Universal Transverse Mercator: Zone 11
UTM X (Meters): 350750.1
UTM Y (Meters): 3792195.0
Elevation: 1035 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5630759 OAT MOUNTAIN, CA
Version Date:	2012
Southeast Map:	5630737 CANOGA PARK, CA
Version Date:	2012
Southwest Map:	5630735 CALABASAS, CA
Version Date:	2012
Northwest Map:	5630769 SIMI VALLEY EAST, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140531
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
 22360 WEST DEVONSHIRE STREET
 CHATSWORTH, CA 91311

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	CHATSWORTH PARK SOUT	22360 DEVONSHIRE STR	NPDES		TP
A2	CHATSWORTH PARK SOUT	22360 DEVONSHIRE ST	ENVIROSTOR, VCP, HAZNET, CIWQS		TP
3	CHIME CHARTER MIDDLE	22280 DEVONSHIRE STR	ENVIROSTOR, SCH	Lower	2616, 0.495, ESE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
CHATSWORTH PARK SOUT 22360 DEVONSHIRE STR CHATSWORTH, CA 91311	NPDES Facility Status: Active	N/A
CHATSWORTH PARK SOUT 22360 DEVONSHIRE ST CHATSWORTH, CA 91311	ENVIROSTOR Facility Id: 60000893 Status: Active VCP Status: Active Facility Id: 60000893 HAZNET GEPAID: CAP000263467 GEPAID: CAC002721760 CIWQS	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
 Proposed NPL..... Proposed National Priority List Sites
 NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
 SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

EXECUTIVE SUMMARY

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators

RCRA-SQG..... RCRA - Small Quantity Generators

RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System

US ENG CONTROLS..... Engineering Controls Sites List

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST..... Geotracker's Leaking Underground Fuel Tank Report

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

CPS-SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

UST..... Active UST Facilities

AST..... Aboveground Petroleum Storage Tank Facilities

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

EXECUTIVE SUMMARY

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT.....	Waste Management Unit Database
SWRCY.....	Recycler Database
HAULERS.....	Registered Waste Tire Haulers Listing
INDIAN ODI.....	Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9.....	Torres Martinez Reservation Illegal Dump Site Locations
ODI.....	Open Dump Inventory
IHS OPEN DUMPS.....	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL.....	Delisted National Clandestine Laboratory Register
AOCONCERN.....	San Gabriel Valley Areas of Concern
HIST Cal-Sites.....	Historical Calsites Database
SCH.....	School Property Evaluation Program
CDL.....	Clandestine Drug Labs
Toxic Pits.....	Toxic Pits Cleanup Act Sites
US CDL.....	National Clandestine Laboratory Register
CERS HAZ WASTE.....	CERS HAZ WASTE

Local Lists of Registered Storage Tanks

SWEEPS UST.....	SWEEPS UST Listing
HIST UST.....	Hazardous Substance Storage Container Database
CA FID UST.....	Facility Inventory Database
CERS TANKS.....	California Environmental Reporting System (CERS) Tanks

Local Land Records

LIENS.....	Environmental Liens Listing
LIENS 2.....	CERCLA Lien Information
DEED.....	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS.....	Hazardous Materials Information Reporting System
CHMIRS.....	California Hazardous Material Incident Report System
LDS.....	Land Disposal Sites Listing
MCS.....	Military Cleanup Sites Listing
SPILLS 90.....	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR.....	RCRA - Non Generators / No Longer Regulated
FUDS.....	Formerly Used Defense Sites
DOD.....	Department of Defense Sites
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
TSCA.....	Toxic Substances Control Act
TRIS.....	Toxic Chemical Release Inventory System
SSTS.....	Section 7 Tracking Systems

EXECUTIVE SUMMARY

ROD.....	Records Of Decision
RMP.....	Risk Management Plans
RAATS.....	RCRA Administrative Action Tracking System
PRP.....	Potentially Responsible Parties
PADS.....	PCB Activity Database System
ICIS.....	Integrated Compliance Information System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
FINDS.....	Facility Index System/Facility Registry System
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
ECHO.....	Enforcement & Compliance History Information
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN.....	Bond Expenditure Plan
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings.....	CUPA Resources List
DRYCLEANERS.....	Cleaner Facilities
EMI.....	Emissions Inventory Data
ENF.....	Enforcement Action Listing
Financial Assurance.....	Financial Assurance Information Listing
ICE.....	ICE
HIST CORTESE.....	Hazardous Waste & Substance Site List
LOS ANGELES CO. HMS.....	HMS: Street Number List
HWP.....	EnviroStor Permitted Facilities Listing
HWT.....	Registered Hazardous Waste Transporter Database
MINES.....	Mines Site Location Listing
MWMP.....	Medical Waste Management Program Listing
PEST LIC.....	Pesticide Regulation Licenses Listing
PROC.....	Certified Processors Database
Notify 65.....	Proposition 65 Records
LA Co. Site Mitigation.....	Site Mitigation List
UIC.....	UIC Listing
WASTEWATER PITS.....	Oil Wastewater Pits Listing
WDS.....	Waste Discharge System
WIP.....	Well Investigation Program Case List
MILITARY PRIV SITES.....	MILITARY PRIV SITES (GEOTRACKER)
UIC GEO.....	UIC GEO (GEOTRACKER)
CERS.....	CERS
WELL STIM PROJ.....	Well Stimulation Project (GEOTRACKER)
SAMPLING POINT.....	SAMPLING POINT (GEOTRACKER)

EXECUTIVE SUMMARY

OTHER OIL GAS..... OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS..... PROD WATER PONDS (GEOTRACKER)
PROJECT..... PROJECT (GEOTRACKER)
NON-CASE INFO..... NON-CASE INFO (GEOTRACKER)

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR Hist Auto..... EDR Exclusive Historical Auto Stations
EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 04/30/2018 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CHIME CHARTER MIDDLE Facility Id: 70000135 Status: No Further Action	22280 DEVONSHIRE STR	ESE 1/4 - 1/2 (0.495 mi.)	3	23

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

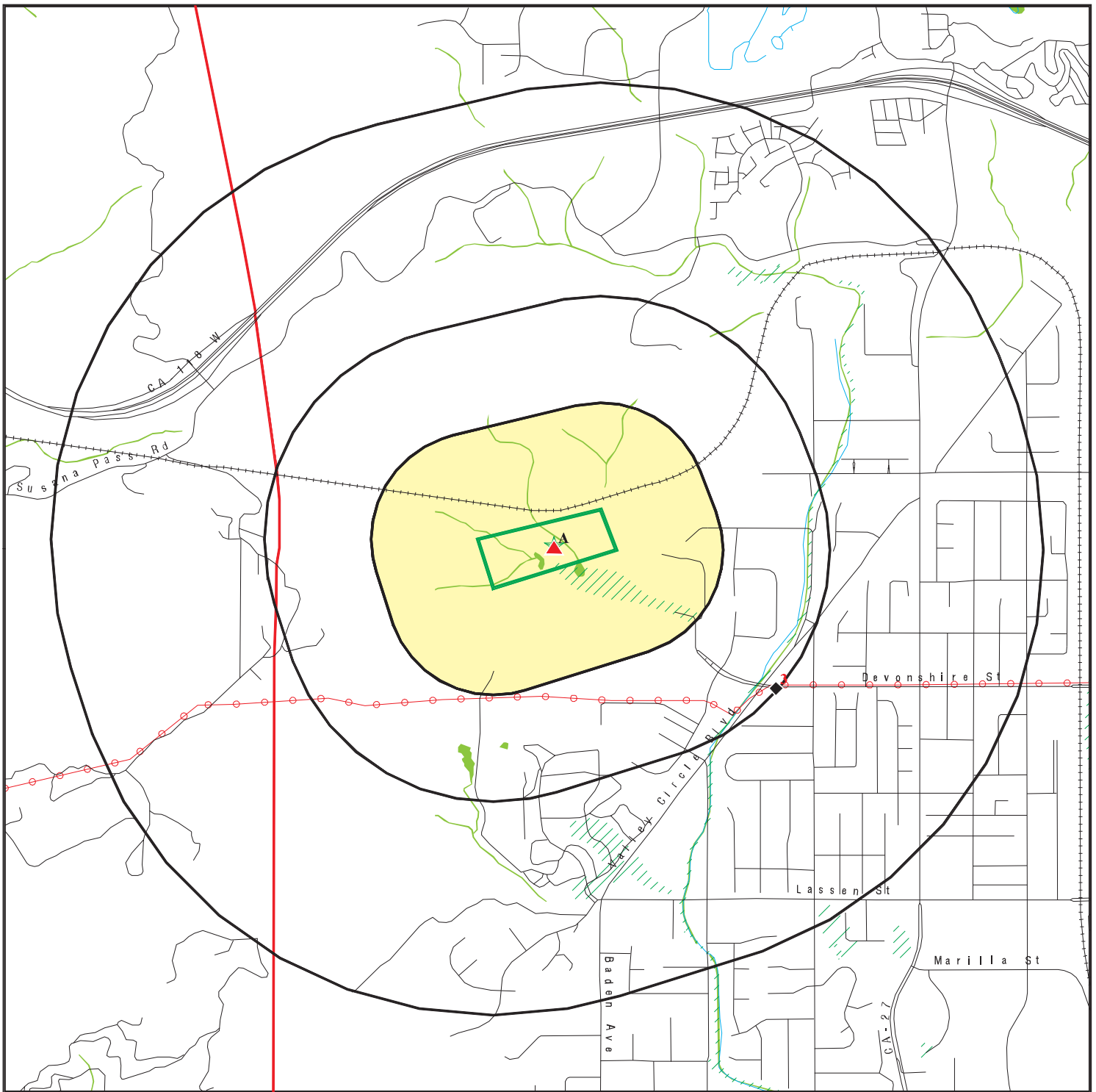
Site Name

JIM DANDY DRY CLEANERS,JULIUS ALLI

Database(s)

DRYCLEANERS

OVERVIEW MAP - 5375619.1S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

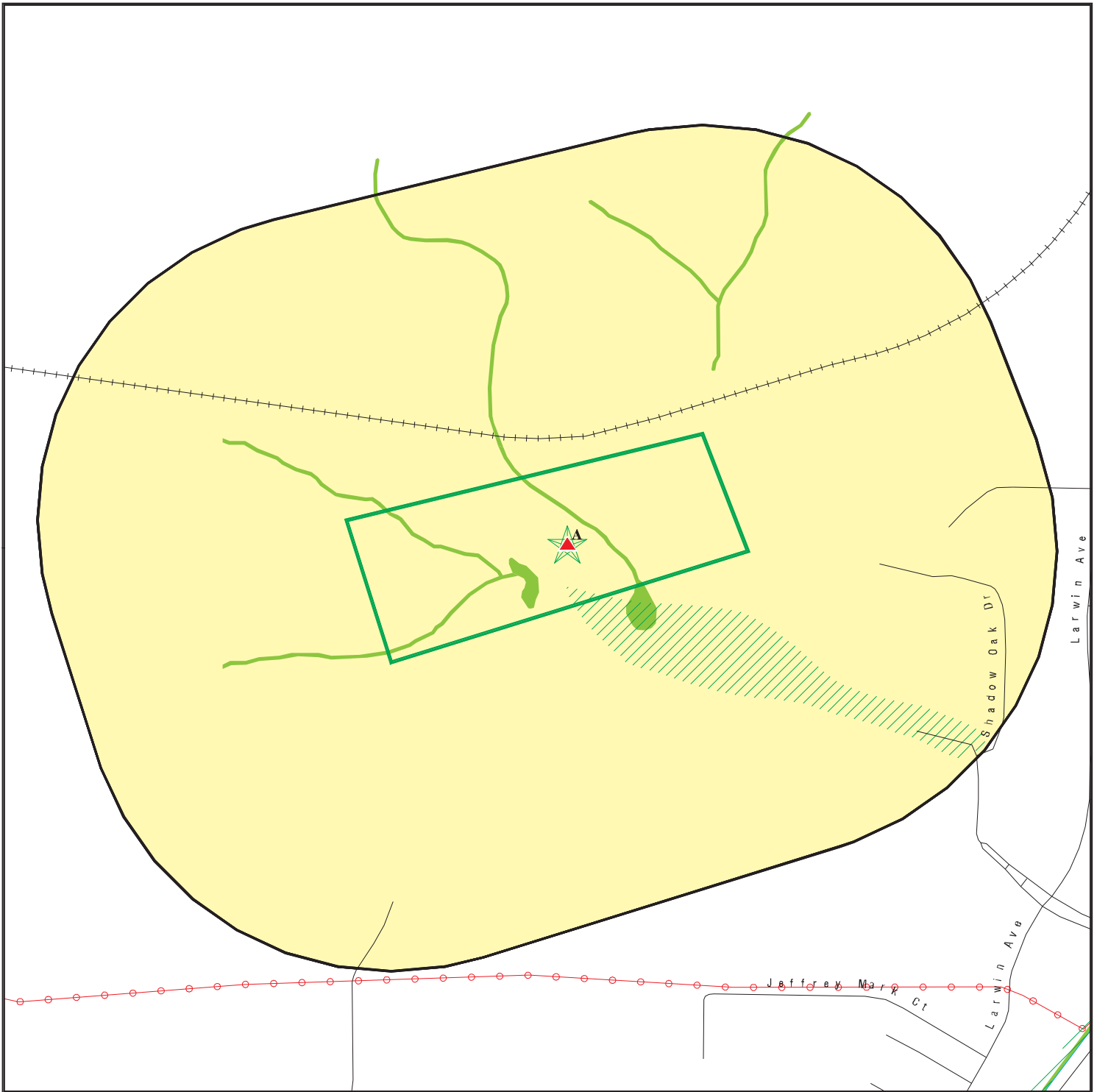


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: West Valley Feeder No. 1 Stage 3 Improvements Project
 ADDRESS: 22360 West Devonshire Street
 Chatsworth CA 91311
 LAT/LONG: 34.261954 / 118.621048

CLIENT: C Young Associates
 CONTACT: Daniel Weis
 INQUIRY #: 5375619.1s
 DATE: July 27, 2018 5:29 pm

DETAIL MAP - 5375619.1S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites



Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: West Valley Feeder No. 1 Stage 3 Improvements Project
 ADDRESS: 22360 West Devonshire Street
 Chatsworth CA 91311
 LAT/LONG: 34.261954 / 118.621048

CLIENT: C Young Associates
 CONTACT: Daniel Weis
 INQUIRY #: 5375619.1s
 DATE: July 27, 2018 5:31 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	0.001		0	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL RESPONSE</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS ENVIROSTOR</i>								
ENVIROSTOR	1.000	1	0	0	1	0	NR	2
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500	1	0	0	0	NR	NR	1
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
AOCONCERN	1.000		0	0	0	0	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	1	0	NR	NR	NR	NR	1
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
LOS ANGELES CO. HMS	0.001		0	NR	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001	1	0	NR	NR	NR	NR	1
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
LA Co. Site Mitigation	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
CIWQS	0.001	1	0	NR	NR	NR	NR	1
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0

- Totals -- 5 0 0 1 0 0 6

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1 CHATSWORTH PARK SOUTH
Target 22360 DEVONSHIRE STREET
Property CHATSWORTH, CA 91311

NPDES S118590651
N/A

Site 1 of 2 in cluster A

Actual:
1035 ft.

NPDES:
Facility Status: Active
NPDES Number: CAS000002
Region: 4
Agency Number: 0
Regulatory Measure ID: 471130
Place ID: Not reported
Order Number: 2009-0009-DWQ
WDID: 4 19C375884
Regulatory Measure Type: Enrollee
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 04/05/2016
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: 221 N Figueroa Street
Discharge Name: Department of Recreation and Parks
Discharge City: Los Angeles
Discharge State: California
Discharge Zip: 90012
Status: Not reported
Status Date: Not reported
Operator Name: Not reported
Operator Address: Not reported
Operator City: Not reported
Operator State: Not reported
Operator Zip: Not reported

NPDES as of 03/2018:
NPDES Number: Not reported
Status: Not reported
Agency Number: Not reported
Region: 4
Regulatory Measure ID: 471130
Order Number: Not reported
Regulatory Measure Type: Construction
Place ID: Not reported
WDID: 4 19C375884
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Not reported
Discharge Address: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
Received Date: 03/31/2016
Processed Date: 04/05/2016
Status: Active
Status Date: 04/05/2016
Place Size: 81
Place Size Unit: Acres

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S118590651

Contact: Paul Davis
Contact Title: Not reported
Contact Phone: 213-202-2667
Contact Phone Ext: Not reported
Contact Email: Paul.J.Davis@lacity.org
Operator Name: Department of Recreation and Parks
Operator Address: 221 N Figueroa Street
Operator City: Los Angeles
Operator State: California
Operator Zip: 90012
Operator Contact: Paul Davis
Operator Contact Title: Environmental Supervisor
Operator Contact Phone: 213-202-2681
Operator Contact Phone Ext: Not reported
Operator Contact Email: Paul.J.Davis@lacity.org
Operator Type: County Agency
Developer: American Integrated Services Inc
Developer Address: 1502 Opp Street
Developer City: Wilmington
Developer State: California
Developer Zip: 90744
Developer Contact: Nathan Stanley
Developer Contact Title: Dir. of Preconstruction
Constype Linear Utility Ind: N
Emergency Phone: 951-907-8952
Emergency Phone Ext: Not reported
Constype Above Ground Ind: N
Constype Below Ground Ind: N
Constype Cable Line Ind: N
Constype Comm Line Ind: N
Constype Commercial Ind: N
Constype Electrical Line Ind: N
Constype Gas Line Ind: N
Constype Industrial Ind: N
Constype Other Description: Remediation and park
Constype Other Ind: N
Constype Recons Ind: N
Constype Residential Ind: N
Constype Transport Ind: N
Constype Utility Description: Not reported
Constype Utility Ind: N
Constype Water Sewer Ind: N
Dir Discharge Uswater Ind: N
Receiving Water Name: Indirect discharge
Certifier: Paul Davis
Certifier Title: Environmental Supervisor
Certification Date: 30-NOV-16
Primary Sic: Not reported
Secondary Sic: Not reported
Tertiary Sic: Not reported

NPDES Number: CAS000002
Status: Active
Agency Number: 0
Region: 4
Regulatory Measure ID: 471130
Order Number: 2009-0009-DWQ

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S118590651

Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	4 19C375884
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/05/2016
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Department of Recreation and Parks
Discharge Address:	221 N Figueroa Street
Discharge City:	Los Angeles
Discharge State:	California
Discharge Zip:	90012
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S118590651

Constype Transport Ind: Not reported
Constype Utility Description: Not reported
Constype Utility Ind: Not reported
Constype Water Sewer Ind: Not reported
Dir Discharge Uswater Ind: Not reported
Receiving Water Name: Not reported
Certifier: Not reported
Certifier Title: Not reported
Certification Date: Not reported
Primary Sic: Not reported
Secondary Sic: Not reported
Tertiary Sic: Not reported

Facility Status: Not reported
NPDES Number: Not reported
Region: Not reported
Agency Number: Not reported
Regulatory Measure ID: Not reported
Place ID: Not reported
Order Number: Not reported
WDID: 4 19C375884
Regulatory Measure Type: Construction
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: Not reported
Discharge Name: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
Status: Active
Status Date: 09/14/2017
Operator Name: Department of Recreation and Parks
Operator Address: 221 N Figueroa Street
Operator City: Los Angeles
Operator State: California
Operator Zip: 90012

NPDES as of 03/2018:

NPDES Number: Not reported
Status: Not reported
Agency Number: Not reported
Region: 4
Regulatory Measure ID: 471130
Order Number: Not reported
Regulatory Measure Type: Construction
Place ID: Not reported
WDID: 4 19C375884
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Not reported
Discharge Address: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S118590651

Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	03/31/2016
Processed Date:	04/05/2016
Status:	Active
Status Date:	04/05/2016
Place Size:	81
Place Size Unit:	Acres
Contact:	Paul Davis
Contact Title:	Not reported
Contact Phone:	213-202-2667
Contact Phone Ext:	Not reported
Contact Email:	Paul.J.Davis@lacity.org
Operator Name:	Department of Recreation and Parks
Operator Address:	221 N Figueroa Street
Operator City:	Los Angeles
Operator State:	California
Operator Zip:	90012
Operator Contact:	Paul Davis
Operator Contact Title:	Environmental Supervisor
Operator Contact Phone:	213-202-2681
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Paul.J.Davis@lacity.org
Operator Type:	County Agency
Developer:	American Integrated Services Inc
Developer Address:	1502 Opp Street
Developer City:	Wilmington
Developer State:	California
Developer Zip:	90744
Developer Contact:	Nathan Stanley
Developer Contact Title:	Dir. of Preconstruction
Constype Linear Utility Ind:	N
Emergency Phone:	951-907-8952
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commercial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Remediation and park
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	Indirect discharge
Certifier:	Paul Davis
Certifier Title:	Environmental Supervisor
Certification Date:	30-NOV-16
Primary Sic:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S118590651

Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	CAS000002
Status:	Active
Agency Number:	0
Region:	4
Regulatory Measure ID:	471130
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	4 19C375884
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/05/2016
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Department of Recreation and Parks
Discharge Address:	221 N Figueroa Street
Discharge City:	Los Angeles
Discharge State:	California
Discharge Zip:	90012
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S118590651

Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

**A2
 Target
 Property**

**CHATSWORTH PARK SOUTH
 22360 DEVONSHIRE ST
 CHATSWORTH, CA 91311**

**ENVIROSTOR
 VCP
 HAZNET
 CIWQS**

**S109034309
 N/A**

Site 2 of 2 in cluster A

**Actual:
 1035 ft.**

ENVIROSTOR:

Facility ID:	60000893
Status:	Active
Status Date:	03/03/2010
Site Code:	301384
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	81
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Chand Sultana
Supervisor:	Allan Plaza
Division Branch:	Cleanup Chatsworth
Assembly:	38
Senate:	27
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	34.25814
Longitude:	-118.6148
APN:	NONE SPECIFIED
Past Use:	FIRING RANGE - SMALL ARMS ETC...
Potential COC:	Under Investigation Arsenic Dioxin (as 2,3,7,8-TCDD TEQ Lead Polynuclear aromatic hydrocarbons (PAHs)
Confirmed COC:	30001-NO 30009-NO Lead Polynuclear aromatic hydrocarbons (PAHs) 31001-NO
Potential Description:	SOIL, SURFW

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S109034309

Alias Name: 301384
Alias Type: Project Code (Site Code)
Alias Name: 60000893
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 09/08/2008
Comments: Proponent signed VCA

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Responsible Agency Review
Completed Date: 07/23/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract
Completed Date: 04/30/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/25/2014
Comments: 2014-2015 Estimated Oversight Costs

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/11/2015
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/15/2016
Comments: Annual Cost Estimate Letter sent out

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/28/2017
Comments: 2017-2018 Annual Oversight Cost Estimate

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Work Order
Completed Date: 01/25/2010
Comments: Start Work issued.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 03/04/2010

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S109034309

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 01/10/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 09/28/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 03/30/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 04/28/2010
Comments: HHRA Report approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 09/23/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 07/23/2013
Comments: The RAP has specified remedial action objectives, evaluated alternatives, and described the alternative proposed for the Site. The objective of the RAP is to mitigate potential risk from the contaminants in soil that may pose a threat to human health and the environment. DTSC received 50 comments during the public comment period held between March 21, 2013 to April 22, 2013 and at the public meeting held on April 2, 2013. Subsequently, a Responses to Comments (RTCs) document was prepared and sent to each commenter who provided an e-mail or a physical address. In addition, as a part of the approval process, DTSC prepared Responsible Agency Checklist and filed a Notice of Determination (NOD) document with the Office of Planning and Research to comply with the California Environmental Quality Act (CEQA) requirements for this project. However, the City was the lead agency who fulfilled the requirements for the CEQA and prepared Initial Study/Mitigation Negative Declaration (IS/MND) documents and filed a NOD to adopt MND. They were also responsible for responding to public and agencies comments received on the IS/MND. Modification to the draft RAP was not necessary based on the comments received. DTSC approved the Report.

Completed Area Name: PROJECT WIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S109034309

Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 12/27/2012
Comments: Community Profile ready for public review.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 03/18/2013
Comments: Fact Sheet sent to the public. No formal DTSC letter required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/30/2014
Comments: Tree removal done. Plan was submitted to DTSC for the record.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 10/25/2012
Comments: DTSC approved the Interim Action Plan for opening the recreation building.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 04/18/2017
Comments: RACR approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 03/18/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/30/2016
Comments: Field work completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 04/02/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 04/04/2016
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Land Use Restriction

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S109034309

Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Certification
Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Plan
Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2022
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:

Facility ID: 60000893
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 81
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Chand Sultana
Supervisor: Allan Plaza
Division Branch: Cleanup Chatsworth
Site Code: 301384
Assembly: 38
Senate: 27
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 03/03/2010
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 34.25814 / -118.6148
APN: NONE SPECIFIED
Past Use: FIRING RANGE - SMALL ARMS ETC...
Potential COC: 31001, 30001, 30009, 30013, 30472
Confirmed COC: 30001-NO,30009-NO,30013,30472,31001-NO
Potential Description: SOIL, SURFW
Alias Name: 301384
Alias Type: Project Code (Site Code)
Alias Name: 60000893
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 09/08/2008
Comments: Proponent signed VCA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S109034309

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Responsible Agency Review
Completed Date: 07/23/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract
Completed Date: 04/30/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/25/2014
Comments: 2014-2015 Estimated Oversight Costs

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/11/2015
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/15/2016
Comments: Annual Cost Estimate Letter sent out

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/28/2017
Comments: 2017-2018 Annual Oversight Cost Estimate

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Work Order
Completed Date: 01/25/2010
Comments: Start Work issued.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 03/04/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 01/10/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S109034309

Completed Date: 09/28/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 03/30/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 04/28/2010
Comments: HHRA Report approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 09/23/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 07/23/2013
Comments: The RAP has specified remedial action objectives, evaluated alternatives, and described the alternative proposed for the Site. The objective of the RAP is to mitigate potential risk from the contaminants in soil that may pose a threat to human health and the environment. DTSC received 50 comments during the public comment period held between March 21, 2013 to April 22, 2013 and at the public meeting held on April 2, 2013. Subsequently, a Responses to Comments (RTCs) document was prepared and sent to each commenter who provided an e-mail or a physical address. In addition, as a part of the approval process, DTSC prepared Responsible Agency Checklist and filed a Notice of Determination (NOD) document with the Office of Planning and Research to comply with the California Environmental Quality Act (CEQA) requirements for this project. However, the City was the lead agency who fulfilled the requirements for the CEQA and prepared Initial Study/Mitigation Negative Declaration (IS/MND) documents and filed a NOD to adopt MND. They were also responsible for responding to public and agencies comments received on the IS/MND. Modification to the draft RAP was not necessary based on the comments received. DTSC approved the Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 12/27/2012
Comments: Community Profile ready for public review.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 03/18/2013
Comments: Fact Sheet sent to the public. No formal DTSC letter required.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S109034309

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/30/2014
Comments: Tree removal done. Plan was submitted to DTSC for the record.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 10/25/2012
Comments: DTSC approved the Interim Action Plan for opening the recreation building.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 04/18/2017
Comments: RACR approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 03/18/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/30/2016
Comments: Field work completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 04/02/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 04/04/2016
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Land Use Restriction
Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Certification
Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Plan
Future Due Date: 2018
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S109034309

Future Document Type: 5 Year Review Reports
Future Due Date: 2022
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

HAZNET:

envid: S109034309
Year: 2016
GEPaid: CAP000263467
Contact: PAUL DAVIS
Telephone: 2132022667
Mailing Name: Not reported
Mailing Address: 221 N FIGUEROA ST FL 4
Mailing City,St,Zip: LOS ANGELES, CA 900122639
Gen County: Los Angeles
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Contaminated soil from site clean-up
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration,
Organics Recovery Ect
Tons: 455.43
Cat Decode: Contaminated soil from site clean-up
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration,
Organics Recovery Ect
Facility County: Los Angeles

envid: S109034309
Year: 2013
GEPaid: CAC002721760
Contact: EMMANUEL AMESI
Telephone: 2139783798
Mailing Name: Not reported
Mailing Address: 111 E FIRST ST RM 600
Mailing City,St,Zip: LOS ANGELES, CA 900120000
Gen County: Los Angeles
TSD EPA ID: CAD980675276
TSD County: Kern
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To
Include On-Site Treatment And/Or Stabilization)
Tons: 0.42
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

CIWQS:

Agency: Department of Recreation and Parks
Agency Address: 221 N Figueroa Street Suite 100, Los Angeles, CA 90012
Place/Project Type: Construction
SIC/NAICS: Not reported
Region: 4
Program: CONSTW
Regulatory Measure Status: Terminated

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATSWORTH PARK SOUTH (Continued)

S109034309

Regulatory Measure Type: Storm water construction
Order Number: 2009-0009-DWQ
WDID: 4 19C375884
NPDES Number: CAS000002
Adoption Date: Not reported
Effective Date: 04/05/2016
Termination Date: 09/06/2017
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 34.25789
Longitude: -118.614375

3
ESE
1/4-1/2
0.495 mi.
2616 ft.

CHIME CHARTER MIDDLE SCHOOL
22280 DEVONSHIRE STREET
CHATSWORTH, CA 91311

ENVIROSTOR S107736119
SCH N/A

Relative:
Lower
Actual:
957 ft.

ENVIROSTOR:
Facility ID: 70000135
Status: No Further Action
Status Date: 04/27/2007
Site Code: 304518
Site Type: School Investigation
Site Type Detailed: School
Acres: 2.7
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 38
Senate: 27
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.25668
Longitude: -118.6120
APN: NONE SPECIFIED
Past Use: NONE
Potential COC: Chlordane Lead Methane
Confirmed COC: NONE SPECIFIED
Potential Description: IA, SOIL, SV
Alias Name: 304518
Alias Type: Project Code (Site Code)
Alias Name: 70000135
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHIME CHARTER MIDDLE SCHOOL (Continued)

S107736119

Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/07/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 06/07/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/09/2006
Comments: PEAR for potential methane and LBP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/25/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/27/2007
Comments: Public review and comment from March 1, 2007 through March 30, 2007 and a public hearing was held on April 18, 2007

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Facility ID: 70000135
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 2.7
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304518
Assembly: 38
Senate: 27
Special Program Status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHIME CHARTER MIDDLE SCHOOL (Continued)

S107736119

Status: No Further Action
Status Date: 04/27/2007
Restricted Use: NO
Funding: School District
Latitude: 34.25668
Longitude: -118.6120
APN: NONE SPECIFIED
Past Use: NONE
Potential COC: Chlordane, Lead, Methane
Confirmed COC: NONE SPECIFIED
Potential Description: IA, SOIL, SV
Alias Name: 304518
Alias Type: Project Code (Site Code)
Alias Name: 70000135
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/07/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 06/07/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/09/2006
Comments: PEAR for potential methane and LBP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/25/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/27/2007
Comments: Public review and comment from March 1, 2007 through March 30, 2007 and a public hearing was held on April 18, 2007

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CHATSWORTH	S121700613	JIM DANDY DRY CLEANERS,JULIUS ALLI	17505 CHATSWORTH ST	91311	DRYCLEANERS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: N/A
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: N/A
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: N/A
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/05/2017	Telephone: 703-603-8704
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 07/06/2018
Number of Days to Update: 92	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 05/18/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 05/18/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018	Source: EPA
Date Data Arrived at EDR: 03/28/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/14/2018	Source: Department of the Navy
Date Data Arrived at EDR: 05/18/2018	Telephone: 843-820-7326
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/09/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/27/2018
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/27/2018	Telephone: 703-603-0695
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 05/29/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/27/2018	Telephone: 703-603-0695
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 05/29/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/19/2018

Date Data Arrived at EDR: 03/27/2018

Date Made Active in Reports: 06/08/2018

Number of Days to Update: 73

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 06/27/2018

Next Scheduled EDR Contact: 10/08/2018

Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 04/30/2018

Date Data Arrived at EDR: 05/02/2018

Date Made Active in Reports: 06/22/2018

Number of Days to Update: 51

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 05/02/2018

Next Scheduled EDR Contact: 08/13/2018

Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 04/30/2018

Date Data Arrived at EDR: 05/02/2018

Date Made Active in Reports: 06/22/2018

Number of Days to Update: 51

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 05/02/2018

Next Scheduled EDR Contact: 08/13/2018

Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/14/2018

Date Data Arrived at EDR: 05/16/2018

Date Made Active in Reports: 06/22/2018

Number of Days to Update: 37

Source: Department of Resources Recycling and Recovery

Telephone: 916-341-6320

Last EDR Contact: 05/16/2018

Next Scheduled EDR Contact: 08/27/2018

Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004	Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Date Data Arrived at EDR: 02/26/2004	Telephone: 760-776-8943
Date Made Active in Reports: 03/24/2004	Last EDR Contact: 08/01/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/11/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/13/2018	Telephone: see region list
Date Made Active in Reports: 07/17/2018	Last EDR Contact: 06/13/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 04/23/2001	Telephone: 858-637-5595
Date Made Active in Reports: 05/21/2001	Last EDR Contact: 09/26/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/09/2012
	Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: Varies

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018	Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018	Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-6597
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018	Source: EPA Region 4
Date Data Arrived at EDR: 05/18/2018	Telephone: 404-562-8677
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/16/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018	Source: EPA Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/12/2018	Source: EPA, Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-7439
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018	Source: EPA Region 10
Date Data Arrived at EDR: 05/18/2018	Telephone: 206-553-2857
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/11/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/13/2018	Telephone: 866-480-1028
Date Made Active in Reports: 07/17/2018	Last EDR Contact: 12/12/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/11/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/10/2018
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/13/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/11/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 26

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/13/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 06/11/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/18/2018
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/21/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018	Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018	Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-7591
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018	Source: EPA, Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018	Source: EPA Region 4
Date Data Arrived at EDR: 05/18/2018	Telephone: 404-562-9424
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/16/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-6136
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/30/2018
Date Data Arrived at EDR: 05/02/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 51

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/02/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/22/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/26/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 38

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/27/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/19/2018
Date Data Arrived at EDR: 03/21/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/20/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 07/24/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 51

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/13/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 05/29/2018
Date Data Arrived at EDR: 05/30/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 48

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/22/2018
Next Scheduled EDR Contact: 08/27/2018
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/30/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 05/04/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/22/2018	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 03/01/2018	Telephone: 202-307-1000
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 05/30/2018
Number of Days to Update: 71	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 21	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 04/30/2018	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/02/2018	Telephone: 916-323-3400
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 05/02/2018
Number of Days to Update: 51	Next Scheduled EDR Contact: 08/13/2018
	Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2017	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/18/2017	Telephone: 916-255-6504
Date Made Active in Reports: 09/21/2017	Last EDR Contact: 07/05/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/30/1995	Telephone: 916-227-4364
Date Made Active in Reports: 09/26/1995	Last EDR Contact: 01/26/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/27/2009
	Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 05/11/2018
Number of Days to Update: 71

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Quarterly

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/07/2018
Number of Days to Update: 44

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 07/25/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 03/28/2018
Date Data Arrived at EDR: 05/25/2018
Date Made Active in Reports: 07/10/2018
Number of Days to Update: 46

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/22/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 04/19/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 10

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 05/02/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/07/2018
Number of Days to Update: 44

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/25/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/05/2018
Date Made Active in Reports: 07/18/2018
Number of Days to Update: 43

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/31/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 05/13/2018
Date Data Arrived at EDR: 05/30/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 30

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/04/2018
Date Data Arrived at EDR: 06/06/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 41

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 06/06/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/26/2018	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/27/2018	Telephone: 202-366-4555
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 03/27/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 07/09/2018
	Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 04/06/2018	Source: Office of Emergency Services
Date Data Arrived at EDR: 04/24/2018	Telephone: 916-845-8400
Date Made Active in Reports: 06/14/2018	Last EDR Contact: 04/24/2018
Number of Days to Update: 51	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/11/2018	Source: State Water Quality Control Board
Date Data Arrived at EDR: 06/13/2018	Telephone: 866-480-1028
Date Made Active in Reports: 07/17/2018	Last EDR Contact: 12/12/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/11/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/13/2018	Telephone: 866-480-1028
Date Made Active in Reports: 07/17/2018	Last EDR Contact: 12/12/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/25/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/13/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/15/2018
Next Scheduled EDR Contact: 08/27/2018
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/27/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 05/07/2018
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/20/2018
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/08/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 08/20/2018
	Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/21/2017	Telephone: 202-260-5521
Date Made Active in Reports: 01/05/2018	Last EDR Contact: 06/22/2018
Number of Days to Update: 198	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 01/10/2018	Telephone: 202-566-0250
Date Made Active in Reports: 01/12/2018	Last EDR Contact: 05/25/2018
Number of Days to Update: 2	Next Scheduled EDR Contact: 09/03/2018
	Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 04/09/2018
Number of Days to Update: 77	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: 703-416-0223
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/17/2017	Telephone: 202-564-8600
Date Made Active in Reports: 12/08/2017	Last EDR Contact: 07/20/2018
Number of Days to Update: 21	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 07/06/2018
Number of Days to Update: 3	Next Scheduled EDR Contact: 08/20/2018
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: 202-566-0500
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 07/13/2018
Number of Days to Update: 126	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 07/09/2018
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 07/23/2018
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 06/07/2018
Number of Days to Update: 76	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 06/04/2018
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 04/27/2018
Number of Days to Update: 15	Next Scheduled EDR Contact: 08/06/2018
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/03/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/05/2018	Telephone: 202-343-9775
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 07/05/2018
Number of Days to Update: 85	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/07/2012	Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 05/03/2018
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/13/2018
	Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/31/2018
Date Data Arrived at EDR: 04/16/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 74

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/09/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/07/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/18/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/13/2018
Date Data Arrived at EDR: 05/30/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 30

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2018
Date Data Arrived at EDR: 05/31/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/31/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/08/2018	Source: Department of Interior
Date Data Arrived at EDR: 03/13/2018	Telephone: 202-208-2609
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 06/20/2018
Number of Days to Update: 87	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/21/2018	Source: EPA
Date Data Arrived at EDR: 02/23/2018	Telephone: (415) 947-8000
Date Made Active in Reports: 03/23/2018	Last EDR Contact: 06/06/2018
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 02/25/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/17/2018	Telephone: 202-564-2280
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 06/06/2018
Number of Days to Update: 83	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 01/04/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/19/2018	Telephone: 202-564-0527
Date Made Active in Reports: 04/13/2018	Last EDR Contact: 06/01/2018
Number of Days to Update: 84	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016	Source: Department of Defense
Date Data Arrived at EDR: 10/31/2017	Telephone: 703-704-1564
Date Made Active in Reports: 01/12/2018	Last EDR Contact: 07/13/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/21/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 30

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/23/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/26/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 38

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/27/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

CUPA SAN FRANCISCO CO: CUPA SAN FRANCISCO CO

Cupa facilities

Date of Government Version: 04/20/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 10

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 05/02/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Varies

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 04/03/2018
Date Data Arrived at EDR: 05/07/2018
Date Made Active in Reports: 06/15/2018
Number of Days to Update: 39

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/07/2018
Next Scheduled EDR Contact: 08/27/2018
Data Release Frequency: Varies

DRYCLEAN AVAQMD: DRYCLEAN AVAQMD

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 03/08/2018
Date Data Arrived at EDR: 03/13/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 52

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 06/22/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/27/2018
Date Data Arrived at EDR: 03/29/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 36

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: DRYCLEAN SOUTH COAST

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/16/2018
Date Data Arrived at EDR: 03/20/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 45

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 06/11/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 147

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/20/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 07/06/2018
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/20/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 60

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/14/2018
Date Data Arrived at EDR: 05/15/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 38

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/09/2018
Next Scheduled EDR Contact: 08/27/2018
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/12/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 97

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/13/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 05/21/2018
Date Data Arrived at EDR: 05/23/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 877-786-9427
Last EDR Contact: 05/23/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSTES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/21/2018
Date Data Arrived at EDR: 05/23/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/23/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/09/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 69

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 51

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/13/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/23/2018
Date Data Arrived at EDR: 06/06/2018
Date Made Active in Reports: 07/18/2018
Number of Days to Update: 42

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/06/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/14/2018
Date Data Arrived at EDR: 05/16/2018
Date Made Active in Reports: 07/05/2018
Number of Days to Update: 50

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 08/27/2018
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 06/04/2018
Date Data Arrived at EDR: 06/06/2018
Date Made Active in Reports: 07/19/2018
Number of Days to Update: 43

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 06/06/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 51

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/13/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/23/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 38

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/14/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 04/27/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/13/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 04/13/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/25/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 06/11/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/18/2018
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 06/11/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/18/2018
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 06/11/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/18/2018
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 06/11/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/18/2018
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 06/04/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/06/2018	Telephone: 866-794-4977
Date Made Active in Reports: 07/13/2018	Last EDR Contact: 06/06/2018
Number of Days to Update: 37	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 06/11/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/13/2018	Telephone: 866-480-1028
Date Made Active in Reports: 07/18/2018	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 06/11/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/13/2018	Telephone: 866-480-1028
Date Made Active in Reports: 07/18/2018	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 06/11/2018	Source: State Water Resource Control Board
Date Data Arrived at EDR: 06/13/2018	Telephone: 866-480-1028
Date Made Active in Reports: 07/18/2018	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/23/2018	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 04/24/2018	Telephone: 916-323-2514
Date Made Active in Reports: 06/07/2018	Last EDR Contact: 07/25/2018
Number of Days to Update: 44	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 06/11/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/13/2018	Telephone: 866-480-1028
Date Made Active in Reports: 07/18/2018	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/05/2018
Date Data Arrived at EDR: 04/10/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 65

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/05/2018
Date Data Arrived at EDR: 04/10/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 24

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/05/2018
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 03/31/2018
Date Data Arrived at EDR: 04/05/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 70

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/14/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 07/05/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing Cupa Facility Listing

Date of Government Version: 05/07/2018
Date Data Arrived at EDR: 05/09/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 36

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/25/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List Cupa facility list.

Date of Government Version: 05/23/2018
Date Data Arrived at EDR: 05/24/2018
Date Made Active in Reports: 07/13/2018
Number of Days to Update: 50

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/21/2018
Date Data Arrived at EDR: 05/25/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 56

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/30/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List Cupa Facility list

Date of Government Version: 04/27/2018
Date Data Arrived at EDR: 05/02/2018
Date Made Active in Reports: 06/15/2018
Number of Days to Update: 44

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/24/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List CUPA facility list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/05/2018
Date Data Arrived at EDR: 03/08/2018
Date Made Active in Reports: 04/16/2018
Number of Days to Update: 39

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 07/12/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 9

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 03/05/2018
Date Data Arrived at EDR: 03/08/2018
Date Made Active in Reports: 04/30/2018
Number of Days to Update: 53

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/21/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 50

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INYO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 05/02/2018
Date Data Arrived at EDR: 05/07/2018
Date Made Active in Reports: 07/18/2018
Number of Days to Update: 72

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 07/20/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 06/12/2018
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/13/2018
Number of Days to Update: 28

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 05/09/2018
Date Data Arrived at EDR: 05/11/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 34

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/16/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

LOS ANGELES COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 06/13/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 04/16/2018
Date Made Active in Reports: 06/15/2018
Number of Days to Update: 60

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 07/05/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/16/2018
Date Data Arrived at EDR: 04/17/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 63

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/18/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2018
Date Data Arrived at EDR: 05/01/2018
Date Made Active in Reports: 05/14/2018
Number of Days to Update: 13

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 04/17/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 63

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/20/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/18/2018
Number of Days to Update: 13

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/23/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/21/2018
Date Data Arrived at EDR: 02/22/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 40

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 03/30/2018
Date Data Arrived at EDR: 04/06/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 28

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/30/2018
Date Data Arrived at EDR: 06/01/2018
Date Made Active in Reports: 07/13/2018
Number of Days to Update: 42

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 05/22/2018
Date Data Arrived at EDR: 05/24/2018
Date Made Active in Reports: 07/13/2018
Number of Days to Update: 50

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 05/22/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Varies

MONTEREY COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/13/2018
Date Data Arrived at EDR: 06/19/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 31

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 07/02/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/22/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 05/23/2018
Date Data Arrived at EDR: 05/31/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 41

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/22/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/01/2018
Date Made Active in Reports: 06/15/2018
Number of Days to Update: 45

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/24/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 05/11/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 42

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/07/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 05/11/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 45

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/07/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 04/02/2018	Source: Health Care Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 714-834-3446
Date Made Active in Reports: 07/10/2018	Last EDR Contact: 05/08/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/20/2018
	Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/31/2018	Source: Placer County Health and Human Services
Date Data Arrived at EDR: 06/05/2018	Telephone: 530-745-2363
Date Made Active in Reports: 07/18/2018	Last EDR Contact: 05/31/2018
Number of Days to Update: 43	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA Facility List

Plumas County CUPA Program facilities.

Date of Government Version: 01/22/2018	Source: Plumas County Environmental Health
Date Data Arrived at EDR: 01/24/2018	Telephone: 530-283-6355
Date Made Active in Reports: 03/15/2018	Last EDR Contact: 07/17/2018
Number of Days to Update: 50	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/05/2018	Source: Department of Environmental Health
Date Data Arrived at EDR: 04/10/2018	Telephone: 951-358-5055
Date Made Active in Reports: 05/04/2018	Last EDR Contact: 06/18/2018
Number of Days to Update: 24	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 04/05/2018	Source: Department of Environmental Health
Date Data Arrived at EDR: 04/10/2018	Telephone: 951-358-5055
Date Made Active in Reports: 05/04/2018	Last EDR Contact: 06/18/2018
Number of Days to Update: 24	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/02/2018
Date Data Arrived at EDR: 04/04/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 71

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/03/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/02/2018
Date Data Arrived at EDR: 04/04/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 76

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/03/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 05/16/2018
Date Data Arrived at EDR: 05/22/2018
Date Made Active in Reports: 07/13/2018
Number of Days to Update: 52

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 04/09/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 69

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 04/06/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 06/04/2018
Date Data Arrived at EDR: 06/06/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 41

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/06/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/23/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 11

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/31/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 05/02/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 06/07/2018
Date Data Arrived at EDR: 06/12/2018
Date Made Active in Reports: 07/10/2018
Number of Days to Update: 28

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/02/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/14/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa Facility List.

Date of Government Version: 05/16/2018
Date Data Arrived at EDR: 05/22/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 56

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 03/14/2018
Date Data Arrived at EDR: 03/20/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 45

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/06/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/15/2018
Date Data Arrived at EDR: 03/20/2018
Date Made Active in Reports: 05/04/2018
Number of Days to Update: 45

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/06/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 05/16/2018
Date Data Arrived at EDR: 05/23/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/22/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/16/2018
Date Data Arrived at EDR: 05/22/2018
Date Made Active in Reports: 07/19/2018
Number of Days to Update: 58

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/16/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2018
Date Data Arrived at EDR: 06/08/2018
Date Made Active in Reports: 07/18/2018
Number of Days to Update: 40

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/31/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2018
Date Data Arrived at EDR: 06/12/2018
Date Made Active in Reports: 07/12/2018
Number of Days to Update: 30

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/31/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Quarterly

SONOMA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Cupa Facility List

Cupa Facility list

Date of Government Version: 06/19/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 21

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/21/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/03/2018
Date Data Arrived at EDR: 04/06/2018
Date Made Active in Reports: 05/09/2018
Number of Days to Update: 33

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/21/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/11/2018
Date Made Active in Reports: 06/15/2018
Number of Days to Update: 35

Source: Stanislaus County Department of Environmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/16/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Varies

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 06/04/2018
Date Data Arrived at EDR: 06/08/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 33

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 05/31/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA Facility List

Cupa facilities

Date of Government Version: 01/26/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 47

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 05/03/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA Facility List

Cupa facility list

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/15/2018
Number of Days to Update: 51

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

TULARE COUNTY:

CUPA Facility List

Cupa program facilities

Date of Government Version: 03/19/2018
Date Data Arrived at EDR: 03/22/2018
Date Made Active in Reports: 04/17/2018
Number of Days to Update: 26

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 07/16/2018
Next Scheduled EDR Contact: 08/20/2018
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/26/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 58

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/23/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/27/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/09/2018
Next Scheduled EDR Contact: 08/27/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/26/2018	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 04/25/2018	Telephone: 805-654-2813
Date Made Active in Reports: 06/25/2018	Last EDR Contact: 07/23/2018
Number of Days to Update: 61	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 04/26/2018	Source: Environmental Health Division
Date Data Arrived at EDR: 06/13/2018	Telephone: 805-654-2813
Date Made Active in Reports: 07/11/2018	Last EDR Contact: 06/13/2018
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 06/20/2018	Source: Yolo County Department of Health
Date Data Arrived at EDR: 07/03/2018	Telephone: 530-666-8646
Date Made Active in Reports: 07/12/2018	Last EDR Contact: 06/27/2018
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 05/10/2018	Source: Yuba County Environmental Health Department
Date Data Arrived at EDR: 05/15/2018	Telephone: 530-749-7523
Date Made Active in Reports: 06/15/2018	Last EDR Contact: 07/24/2018
Number of Days to Update: 31	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/03/2018	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 02/14/2018	Telephone: 860-424-3375
Date Made Active in Reports: 03/22/2018	Last EDR Contact: 05/18/2018
Number of Days to Update: 36	Next Scheduled EDR Contact: 08/27/2018
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/13/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 04/30/2018
Date Data Arrived at EDR: 05/03/2018
Date Made Active in Reports: 06/07/2018
Number of Days to Update: 35

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/03/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/12/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/21/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/11/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers for Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish & Game

Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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Appendix E
Regulatory Agency Correspondence



Department of Toxic Substances Control

Matthew Rodriguez
Secretary for
Environmental Protection

Barbara A. Lee, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Edmund G. Brown Jr.
Governor

April 20, 2017

Mr. Michael A. Shull
Superintendent
Planning and Construction
City of Los Angeles Department of Recreation and Parks
221 North Figueroa Street, Suite 100
Los Angeles, California 90012

APPROVAL OF REMEDIAL ACTION COMPLETION REPORT - CHATSWORTH PARK
SOUTH, 22360 DEVONSHIRE STREET, CHATSWORTH, CALIFORNIA
SITE CODE: 301384-11

Dear Mr. Shull:

The Department of Toxic Substances Control (DTSC) has reviewed the Remedial Action Completion Report (Report) dated December 20, 2016 prepared by URS on behalf of the City of Los Angeles, Department of Recreation and Parks for the above referenced site (Site). The Report documents the removal and off-site disposal of soils contaminated with lead, metal, and polycyclic aromatic hydrocarbons (PAH) in accordance with an approved Remedial Action Workplan (RAP) (URS Corporation, March 2013) for the Site. The Report was prepared pursuant to Voluntary Cleanup Agreement (VCA), Docket No. HSA-VCA 08/09-021.

The 72 acre Site, identified by Los Angeles County Office of the Assessor parcel number 2723-010-904 had a small arms firing range (SAFR) on a portion of the Site from the early to the mid-1960s. The operation of the SAFR resulted in wide surficial spreading of lead shot and clay pigeon debris containing elevated polycyclic aromatic hydrocarbons (PAHs). The City of Los Angeles acquired the property in 1973 and developed approximately 21 acres of the Site with recreational facilities during the 1970s and 1980s. Historical investigations indicated that significant amounts of lead pellets and clay pigeon debris were present on the surface of many areas of the Site. Metals (lead, arsenic, antimony); PAHs (benzo(a)pyrene-equivalent, naphthalene), and dioxins/furans were identified as the primary contaminants of concern (COC) in the soil depth interval of 0 to 4 feet below ground surface (bgs) and were the targets for remediation at the Site.

The approved RAP proposed remediation of COCs in soil which included installation of an engineered surface cap, and some soil excavation with off-site disposal. To achieve the Remedial Action Objectives, various alternatives were evaluated in the RAP and the preferred remedial action alternative selected was Surface Capping to mitigate and/or remediate impacted shallow soil for non-volatile COC concentrations above risk-based cleanup levels established in the Human Health Risk Assessment document. In the rocky outcrop area (Area E), with extensive accumulation of visible lead pellets on the rock surface and shallow soil, pellets were

Mr. Michael A. Shull

April 20, 2017

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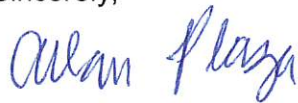
removed manually by vacuums, rakes, and shovels. Approximately 496 tons RCRA hazardous waste and 5,773 tons of grubbed material and excess excavated soil were lawfully transported offsite for disposal as non-hazardous and non-RCRA hazardous waste. In total, approximately 915,000 square feet of engineered surface cap were installed. In addition to approximately 4 acres of tree groves, the surface cap was vegetated and/or covered with 6,590 shrubs, native grass hydro-seed, and mulch to provide long-term erosion protection for the engineered cap.

As impacted soil remains beneath the site's engineered surface cap, from approximately 1 to 4 feet bgs, a land use covenant (LUC) is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence of hazardous materials on the Site as defined in Health and Safety Code section 25260. The LUC will incorporate an Operation and Maintenance Plan (OMP) and Soil Management Plan (SMP) that will outline the requirements for future site work in order to maintain the constructed remedial components (i.e., engineered cap, fencing, etc.) and the requirements for future invasive site work that could expose workers to the residual COCs on the Site.

Based on the information provided, DTSC agrees with the Report's recommendations for land restriction and institutional controls through a long term Operations and Monitoring (O&M) Plan. DTSC hereby approves the Report.

If you have any questions, please contact Chand Sultana, Ph. D, Project Manager, at (818) 717-6552 or me, at (818) 717-6609.

Sincerely,



Allan Plaza

Unit Chief

Brownfields and Environmental Restoration Program – Chatsworth Office

cc: Mr. Paul Davis
Environmental Specialist, DRP/P&C
221 North Figueroa Street, Suite 100
Los Angeles, California 90012

Mr. Brian J. Jacobs, P.G., C.HG.
Program Manager
URS Corporation
915 Wilshire Boulevard, Suite 700
Los Angeles, California 90017

Nicole Bernson
Deputy Chief of Staff
Councilmember Mitchell Englander
200 North Spring Streets, Suite 405
Los Angeles, California 90012

Appendix F
Crimson Pipeline L.P. Information Regarding Pipeline At/Near Site

CRIMSON PIPELINE L.P.
3760 Kilroy Airport Way, Suite 300
Long Beach, CA 90806

August 22, 2018

Colin Young,
C. Young Forensics
1042 Skylark Dr.
La Jolla CA
92037

Re: C08202018E - Notice of Improvement Response Letter
FIRST UTILITY NOTICE FACILITY RESEARCH AND REQUEST FOR COMMENTS FOR C. YOUNG
FORENSICS
22360 WEST DEVONSHIRE STREET, LOS ANGELES

Dear Colin Young,

Pursuant to your request dated August 16, 2018, pertaining to the above referenced project, please be advised that Crimson Pipeline Department maintains pipelines within the vicinity of your proposed project. We are prepared to mark our facilities upon receiving 48-hour advanced Underground Service Alert (USA) notice.

Enclosed for your information are drawings that depict the general alignment of our pipelines. Upon completion of your final project drawings, please provide us a detailed set of your plans for our review to determine if there is a conflict with any of our existing facilities.

Crimson requires a representative to be on site during any construction activities within the vicinity of our facilities. Therefore, you or your contractors are hereby notified to contact, in addition to the above referenced USA notice, Crimson's designated representative, Tim Eggleston cell: 805-791-0028, between the hours of 6:30 A.M. and 5:00 P.M., Monday through Friday, a minimum of 48 hours in advance of commencing said construction activities.

Please be advised that any and all facilities identified as "Active", "Idle", or "Abandoned", unless otherwise clearly specified, remain the property of Crimson, and that all activities affecting these facilities must be approved and controlled by Crimson. Should it be determined that said facility potentially interferes with your project this office must be notified immediately, at which time Crimson personnel will review the issues to determine what actions will be necessary to identify and resolve any conflicts.

If you have questions or require additional information regarding this submittal, please contact Nick Lisica at 562-285-4187.

Sincerely,



Nick Lisica
Utilities Coordinator

CRIMSON PIPELINE L.P.

3760 Kilroy Airport Way, Suite 300
Long Beach, CA 90806

Construction Requirements in the Proximity of Crimson Pipelines

Crimson Pipeline L.P. (Crimson) is committed to the continued, safe operation of its pipeline. The listed construction requirements are designed to help ensure that the pipeline is protected from excavation damage, encroachment or other risks that could adversely impact the pipeline or prevent required inspection and maintenance activities.

1. Crimson requires two copies of any proposed plans for work within Crimson's right-of-way. Plans shall be provided 45 calendar days prior to commencement of work to the address listed above.
2. Above ground structures and improvements that interfere with the construction, maintenance or repair of the pipeline are prohibited within Crimson's right-of-way. Structures and improvements include, but are not limited to, buildings, fences and walls.
3. Landscaped areas are permitted within the right-of-way. Trees and large bushes that impede the visual inspection of the ground surface are not permitted within the right-of-way. Crimson shall review all plans that encroach the pipeline and the pipeline right of way prior to 4.
4. Federal law prohibits removing, damaging or defacing of pipelines, pipeline signs, or other appurtenances installed on the pipelines right of way.
5. Other utilities may be installed within the right-of-way with permission from Crimson. Such utilities must maintain a minimum of 5 feet parallel and 1-foot vertical clearances unless approved in writing by Crimson prior to their installation. All clearances must conform to existing state and federal regulations.
6. A minimum of 3 feet, but not more than 6 feet of cover must be maintained over the pipeline at all times, unless otherwise approved by Crimson Pipeline in writing. The ground contour cannot be changed within the right-of-way without prior written permission by Crimson.
7. Proposed roads and utility crossings should cross Crimson's right-of-way as close to 90 degrees as possible. If, in Crimson's sole judgment, additional precautions are required to protect Crimson's pipeline, Crimson shall review and approve the construction plans in writing prior to the start of construction.
8. California State Law requires that parties notify Underground Service Alert at 1-800-227-2600, two full working days prior to digging.
9. All work on/or around the Crimson facility must comply with appropriate sections of Code of Federal Regulations Title 49, Part 195 - **TRANSPORTATION OF HAZARDOUS LIQUIDS BY PIPELINE.**
10. Crimson may choose to have an inspector on-site during any grading or excavation activities near the Crimson pipeline. Arrangements may be made for on-site inspection by contacting Crimson Utilities Coordinator at the address shown above.
11. Crimson requires that all excavation in the vicinity of the pipeline be done with hand tools in the presence of the Crimson's inspector consistent with California State Law requirements. Any damage to the pipeline shall be reported immediately. Crimson shall perform the necessary repair to insure the safety of the public safety. Crimson shall be reimbursed for all repair work necessary to continue with the safe, reliable operation of the pipeline.
12. In an emergency, including any damage or suspected damage to the Crimson pipeline, immediately notify Crimson at: 1-866-351-7473.
13. Any questions regarding construction activities in the vicinity of Crimson's pipeline shall be directed to:

UTILITIES COORDINATOR

Ph: (562) 285-4112 or (833) 876-4589

Fx: (562) 285-4141

Email: landdepartment@crimsonpl.com

960
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2783+00 2780+50 2778+00 2775+50 2773+00 2770+50 2768+00 2765+50

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CAUTION

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NOTE: On Lassen St, Farralone Ave. & Devonshire St 4" Gasoline Line is laid under City of Los Angeles Franchise granted under Ord. No. 85029 and by Board of Public Works Permit Nos. 6105-6104, & 6103 respectively. See Land Dept File TL 12-2'



STATION TO STATION	SIZE I.D	DESCRIPTION	Date Installed	W.O.
2760+90.09 2772+78.35	6.249 4.03	X-52 Sam Coated Std. Line Som. Ctd.	1-1969 1-1969	
2773+74.10 To W.EQ. 2772+81.77 Fr. E.	3.66	Am. Seamless	1927	

FIELD BOOK PAGE
PL - 9 18
PL - 6 24
PL - 31 12-15 & 20-22

BM - Std Survey Mon @ E Int of Topanga Canyon Blvd & Devonshire St. Elev 960.346 - (1960 Adj.)
B.M No. 05-00540



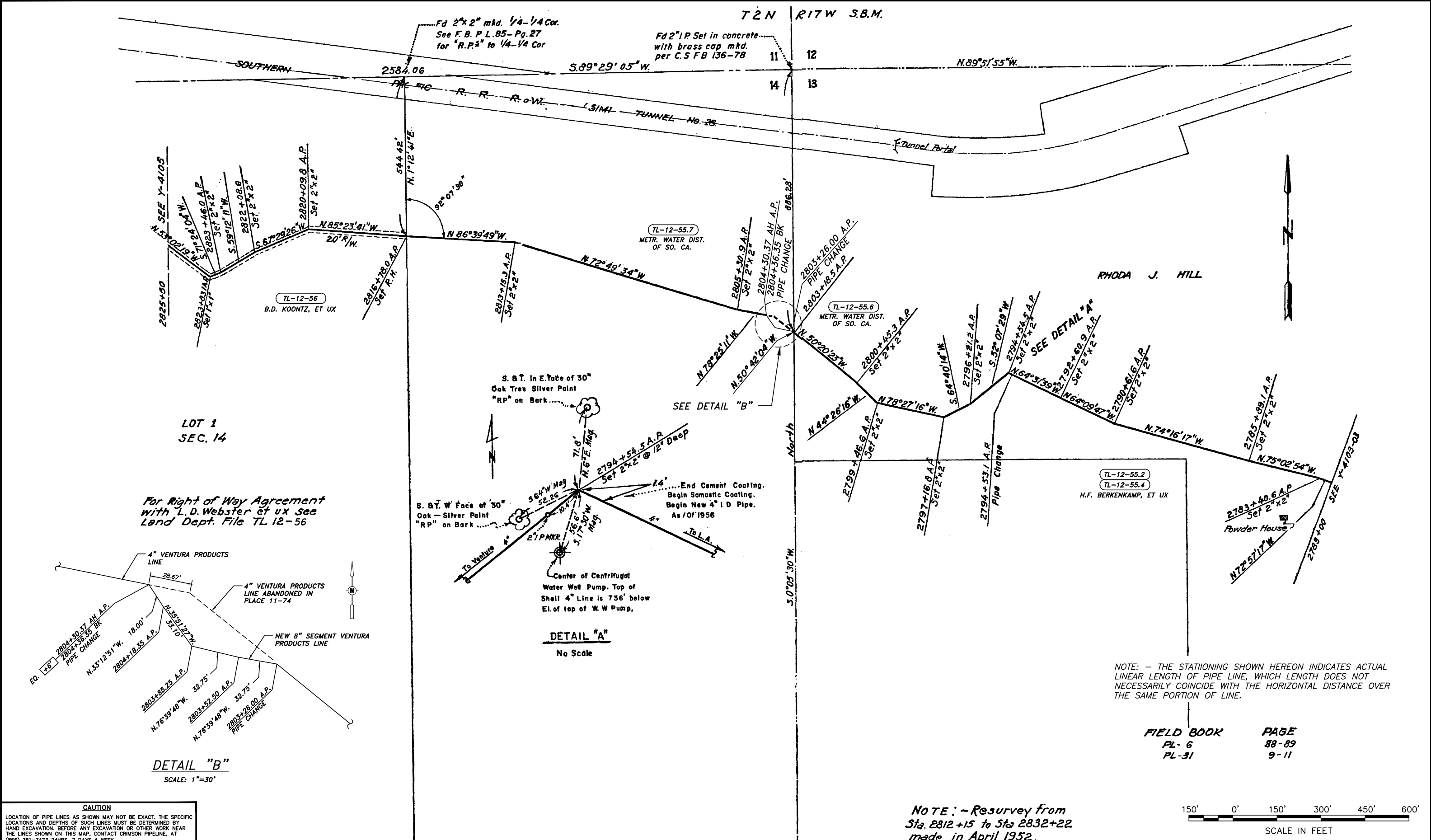
* Use Graphic Scale on Reduced Prints

This Dwg. Partially Replaces Y-4103 Dated 2-8-27



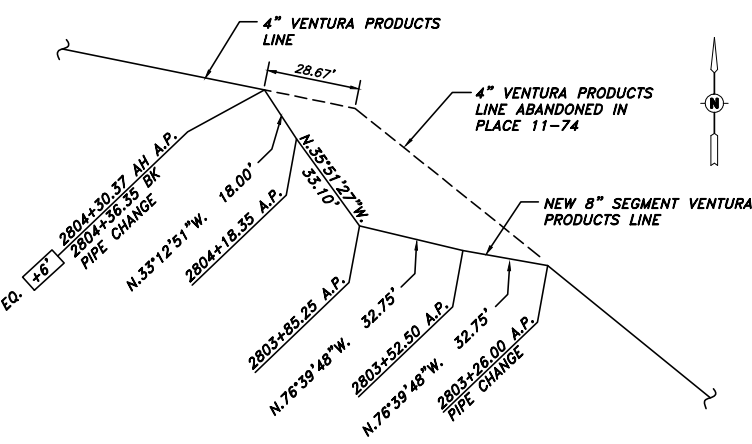
3760 Kilroy Airport Way, Suite 300
Long Beach, California 90806

DATE 1-27-69	SCALE 1" = 100' HORIZ. * 1" = 4' VERT
DRAWN BY Fleming	
CHECKED BY	
APPROVED BY	Y-4103-03

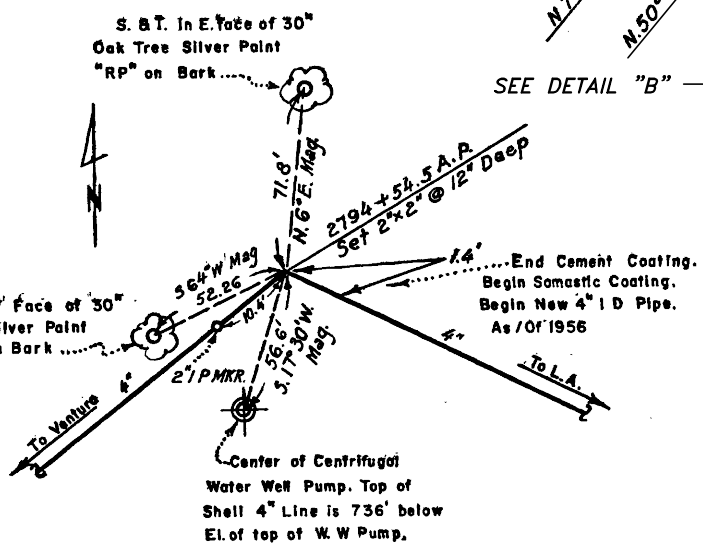


LOT 1
SEC. 14

For Right of Way Agreement
with L.D. Webster et ux see
Land Dept. File TL 12-56



DETAIL "B"
SCALE: 1"=30'

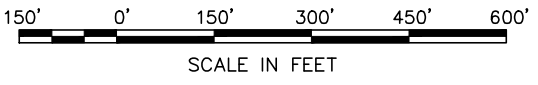


DETAIL "A"
No Scale

NOTE: - THE STATIONING SHOWN HEREON INDICATES ACTUAL LINEAR LENGTH OF PIPE LINE, WHICH LENGTH DOES NOT NECESSARILY COINCIDE WITH THE HORIZONTAL DISTANCE OVER THE SAME PORTION OF LINE.

FIELD BOOK PL-6 PL-31
PAGE 88-89 9-11

NOTE: - Resurvey from Sta. 2812+15 to Sta. 2832+22 made in April 1952.



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		2804+36.35 BK	2832+76.90 BK	7.98	B	1975		SCALE: SEE GR. SCL. DRAWN: C.I. FONSECA DATE: 6-24-99 Sheet 1 of 1	Y-4104									
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	ENGR	APP.	STATION TO STATION	SIZE (I.D.)	GRADE	COATING	DATE	W.O.	FORMER DRAWING NUMBER	LOCATION CODE	SCALE: SEE GR. SCL.	DATE: 6-24-99	Sheet 1 of 1	Y-4104
							2803+26.00	2804+30.37 AH	7.98	B	1975							
							2794+53.10	2803+26.00	4.026	A	1956							
							2772+81.77 BK	2794+53.10	3.66	A	1927							

Appendix G
Qualifications of the Environmental Professionals

COLIN P. YOUNG, CIH

PROFESSIONAL HISTORY

Current

- C Young Associates (CYA), La Jolla, California, 1996-2000, 2003, 01/2009-Present

Previous

- ERM-West, Inc., San Diego, California, Partner-Managing Principal, San Diego Office, 12/03-01/09
- Geocon, Inc., San Diego, California, Vice President/Southern California Operations Manager, 2000-2003, Project Manager/ Marketing Coordinator, 1989-1991
- Metcalf & Eddy, Inc., San Diego, California, Associate/Business Manager-Environmental Services Division, October 1994-1996
- University of California, San Diego (UCSD), Instructor for Occupational Medicine/Public Health & Safety Extension Certificate Program, 1992-2003
- Brown & Root Environmental/Halliburton NUS Corporation
 - San Diego, California, West Region Manager-Western Division Operations, 1991-1993
 - Boston, Massachusetts, U.S. EPA, Region 1 FIT Public Health Specialist, 1982-1985
- Westec Services, Inc./ERCE, San Diego, California, Project Manager/ Manager of Corporate Health & Safety, 1986-1989

PROFESSIONAL EXPERIENCE and QUALIFICATIONS-Academic

- UCSD, Course Instructor for Occupational Medicine Certificate Program, *Industrial Hygiene for the Occupational Health Nurse*, 1992-1995
- UCSD, Course Instructor for Occupational Health & Safety/ Hazardous Materials Certificate Program, *Principles in Industrial Hygiene*, 1995-2003

PROFESSIONAL EXPERIENCE and QUALIFICATIONS-Technical

Industrial Hygiene

Provide, or have provided, forensic investigation, human health assessment and exposure/injury prevention related services, including the performance of "sick-building"/indoor air quality evaluations, worker exposure assessments, biological contamination (e.g., bioaerosol/mold) studies, litigation support, workers' comp. investigations, asbestos and lead assessments, industrial process safety evaluations, health & safety training and support programs for environmental, hazardous waste, industrial and construction projects and activities. Services have been provided to legal, insurance, industrial, commercial and governmental (e.g., Navy, DOE, regulatory, etc.) clients, alike. Experience representations are summarized, as follows:

- Provide technical and risk management counsel on civil and exposure/toxic tort matters involving alleged environmental impairment and human exposures to hazardous materials, including chemicals and bioaerosols. To date, approximately 200 legal matters have been

supported.

- Provided industrial hygiene/health & safety support and programs for more than 400 environmental and hazardous waste investigations and remediation programs for the US EPA and private entities. Typical projects involved the handling of, and/or potential for exposure to, biological contaminants, fuel and chlorinated hydrocarbons, pesticides, PCBs, asbestos, lead and explosive materials.
- Performed numerous surveys of commercial, industrial and residential structures believed to contain unhealthy and/or potentially hazardous indoor air-quality conditions, including chemical and bioaerosol intrusion.
- Performed numerous industrial process safety evaluations in support of both Workers' Compensation claim-reduction (i.e., limitation of liability) programs and impending Workers' Compensation claims. The services have been provided for the benefit of employers, property owners and business/property insurers and legal counsel.
- Provided training and developed corporate health and safety programs for more than thirty industrial facilities, environmental laboratories and/or engineering consulting firms.
- Performed a Job Safety Analysis (JSA) of more than 300 aerospace manufacturing processes in support of the company's existing and developing Industrial Health & Safety Program.
- Developed and managed a complex health and safety program for a multi-million dollar remediation project for the Department of Energy at Oak Ridge National Laboratory (ORNL) in Oak Ridge, Tennessee. The remedial and site safety program innovatively employed the use of remotely operated vehicles (i.e., submarines) to retrieve and decommission over 7000 containers of explosive, water-reactive and radiologically-contaminated materials.
- Developed and managed a health & safety/quality assurance-quality control (QA/QC) program for a study involving the assessment of 15 uncontrolled disposal sites at the Naval Air Weapons Station (NAWS) in China Lake, California. The studies evaluated the degree of environmental impact from chemical, biological and live ordnance wastes in the (typical) 115°F area climate.
- Contributed to the development of health and safety Standard Operating Procedures and training protocols currently used by each of the U.S. EPA FIT, Zone 1 offices.

Environmental Engineering

Provide, or have provided, forensic studies, environmental site assessments; remediation programs; environmental litigation support, and; regulatory compliance support and permitting.

- Developed and managed a multimillion-dollar burn dump remediation project for a client who was redeveloping a former Navy facility. Provided project management and oversight, data interpretation, training, and HASP development. The contaminants of concern include burn ash, lead, asbestos, PCBs, chlorinated and/or petroleum hydrocarbons.
- Managed multiple environmental assessments and mitigation programs of former

agricultural properties. Many possessed impairment by the historic and legal application of pesticides and/or natural occurrence of arsenic. In all situations, the impairment was managed on-site by controlled burial of the impaired soils, resulting in no need for costly or wasteful removal, transport and treatment/disposal of the same.

- Provided technical support for an underground storage tank (UST) investigation at San Diego International Airport's (Lindbergh Field) tank farm. The project was performed for the local Port Authority and involved the in situ inspection of the interior of numerous fuel tanks throughout the fuel farm. This activity required the use of Level B PPE in confined space environments.
- Provided management of a million-dollar environmental design contract for Naval Public Works Center (PWC), San Diego, California. Services included the development of SPCC Plans, preparation of RCRA Part B permits, performance of cathodic protection evaluations and the design of TSD facilities.
- Planned and managed a multitude of UST investigations for the Department of Defense at MCB Camp Pendleton, North Island NAS and 32nd Street Naval Station, California. The results of each investigation were used to develop remediation specifications for MCON projects planned at each site. The remedial programs were subsequently implemented using fixed or unit-cost pricing structures dependent on the prepared specifications. Remediation technologies applied included controlled aeration, vapor extraction (VES), pump and treat, and dig and dispose. All of the projects were performed either on or under budget.
- Provided operations management of a multi-million dollar fuel recovery/remediation project at the fuel farm at Naval Air Station North Island (NASNI), California. Ground water at the site had been impaired by a 2-3 foot thick layer of fuel hydrocarbon, released from a multitude of concrete USTs on the base. The remediation technology applied to date included pump and treat.
- Provided Delivery Order management of a large-scale asbestos survey project at Naval Amphibious Base, Coronado for Southwest Division NAVFACENGCOM.
- Planned and managed an assessment and remediation project at Fire Fighting Training Areas at Pacific Missile Test Center (PMTTC) in Point Mugu and CBC Port Hueneme, California, for the Western Division NAVFACENGCOM. The remedial programs were subsequently implemented using fixed or unit-cost pricing structures dependent on the prepared specifications. Remediation technologies applied included VES and dig and dispose. Each of the projects was performed under budget.
- Removed and performed an investigation of multiple USTs located on agricultural property owned by the Viejas Indian Reservation. The property is slated for Casino and Resort expansion.
- Performed a UST investigation at several commercial service stations. Determined MTBE impacts to beneficial-use ground water. Data used to initiate a ground water investigation and remediation plans.
- Provided environmental support and waste characterization services for engineering (i.e.,

clean-out) projects performed within lead-impacted storm water basins throughout San Diego County.

- Provided technical and environmental management support for numerous engineering projects performed within lead-impacted areas along the highways of Orange County. Formulated a Lead Management Plan for the engineering/utility contractor providing the construction services for Caltrans.
- Provided environmental compliance support services to supplement an aerospace manufacturing company's environmental department. Products supported include the Hazardous Materials Business Plan, Storm Water Pollution Prevention (SWPP) Plan, Underground Storage Tank (UST) Program, Compliance Audit Program, etc.
- Providing environmental support to the owners of a property involved in litigation over the condemnation of the property by the local municipality acquisition.

ACADEMIC HISTORY

- University of Massachusetts, Amherst, Massachusetts, B.S., School of Environmental Science and Public Health, 1982
- Harvard School of Public Health, Boston, Massachusetts, Certificate of Risk Analysis in Environmental Health, 1985

PROFESSIONAL CERTIFICATIONS

- Certified Industrial Hygienist (CIH) No. 3987, American Board of Industrial Hygiene (ABIH), 1988; Recertified 1995, 2001, 2006, 2011, 2015
- Certified Safety Specialist/Executive (CSS/CSE), World Safety Organization (WSO), 1986 (inactive)
- AHERA-Certified Asbestos Inspector-California No. 855, U.S. EPA/UC Berkeley, 1989 (inactive)

PROFESSIONAL TRAINING

- Certificate in Professional Engineering Practice, ASFE/Institute for Professional Practice, 1990
 - Program Facilitator, 1991
- Professional "Loss Prevention" Training, ASFE, 1989
- Professional Management Training, Management Action Programs (MAP), 1990
- HazWOpER (29CFR 1910.120) Training, 1982; - Trainer, 1986-Present
- Guidelines for the Assessment of Microbiological Contamination, AIHA, 2002

PUBLICATIONS

- Fung M.D., F. Y., Young CIH, C. P., Mold-Associated Asthma, IAQ 2001, ASHRAE

PROFESSIONAL AFFILIATION HISTORY

- American Industrial Hygiene Association (AIHA), Fairfax, VA
- American Academy of Industrial Hygiene (AAIH), Lansing, MI
- American Lung Association, San Diego and Imperial Counties, CA, Member-Board of Directors, 2002-2006, Board Chair 2006
- ASFE, Silver Spring, MD
 - "Loss Prevention Education" Committee (1990-1991)
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- Association for Environmental Health and Sciences (AEHS), Amherst, MA
- American Conference of Governmental Industrial Hygienists (ACGIH), Cincinnati, OH
- Institute for Professional Practice (IPP), Silver Spring, MD
- Society of American Military Engineers (SAME), San Diego, CA
- American Indoor Air Quality Council

DANIEL A. WEIS, R.E.H.S.

PROFESSIONAL HISTORY

Current

- C Young Associates (CYA), La Jolla, California, Senior Associate/Technical Advisor, 01/2009-Present
- Advantage Environmental Consultants (AEC), San Marcos, California, Branch Manager, 11/2005-Present

Previous

- Rincon Consultants, Carlsbad, California, Project Manager, 11/2003-11/2005
- Geocon, Inc., San Diego, California, Project Manager, 11/2001-11/2003
- Geosoils, Inc., Carlsbad, California, Field Technician, 11/1999-11/2001

PROFESSIONAL EXPERIENCE SUMMARY

17 years of experience in the environmental sciences consulting field. Responsibilities include client development and management, project management, technical oversight and quality control for assessment, and remediation and construction oversight services. Clients include, but are not limited to, local government entities, developers (affordable housing and market rate), Federal government entities, law firms, architectural and engineering firms, commercial lending institutions, conservancies, commercial/industrial real estate owners/managers, insurance companies, wireless telecommunication carriers and other real estate developers. Experienced in the completion of assessment, construction and remediation quality assurance during the completion of urban redevelopment/brownfields projects, many of which have been located in downtown areas of San Diego, Los Angeles, Oakland, San Francisco, and other urban communities throughout the State of California.

Completed or managed over 2,500 due diligence related environmental assessments and completed or managed over 500 subsurface environmental investigations of soil gas, soil, groundwater and other media. Investigations have included human health and ecological risk assessments, evaluations of indoor air conditions based on interpretations of subsurface conditions, underground storage tank (UST) evaluation/closure and hazardous waste characterization/management. Subsurface activities performed include the completion of soil borings using various drilling technologies, soil and groundwater sampling, installation and sampling of groundwater monitoring wells, free product evaluations, exploratory trenching and real-time delineation using mobile analytical laboratories and other soil screening technology. Assets evaluated include industrial, commercial, residential, agricultural and vacant land sites throughout the State of California and numerous other states, with many of the assessments completed under the regulatory oversight of local environmental regulatory agencies, the California Regional Water Quality Control Boards (RWQCBs) and the California Environmental Protection Agency Department of Toxic Substances Control (DTSC). Has also conducted and/or managed hundreds of public/environmental health related assessments including electromagnetic field surveys, radionuclide surveys, indoor air quality investigations, radon surveys, drinking water assessments, asbestos containing materials (ACM) and lead-based paint (LBP) surveys and mold/microbial evaluations.

Managed over 100 remediation or construction management related projects primarily related to source removal of subsurface contaminants, including but not limited to, petroleum hydrocarbons, chlorinated solvents, heavy metals, organochlorine pesticides and other agricultural related chemicals, dioxins and furans and polychlorinated biphenyls (PCBs). Has also assisted in cost recovery efforts from private parties and State/Federal funding programs for environmental assessment and remediation work and has served as an expert witness during legal proceedings pertaining to environmental related claims.

SPECIFIC PROJECT EXPERIENCE

- 14th and Island, San Diego, California – Development of Site Mitigation Plan, contaminated soil management and disposal concurrent with site construction activities at the superblock construction site in downtown San Diego and achievement of regulatory closure with the County of San Diego Department of Environmental Health.
- 2198 Market Street, San Francisco, California – Phase I and II Environmental Site Assessments, supplemental subsurface investigation, Site Mitigation Plan development, contaminated soil management and disposal concurrent with site construction activities and negotiation/achievement of regulatory closure with the City of San Francisco Department of Public Health.
- Former EZ Serve, 9305 Mission Gorge Road, Santee, California – Closure report preparation and San Diego Regional Water Quality Control Board interface and negotiation/achievement of regulatory closure under State of California low-threat policy.
- French Field – Former Vista Burn Dump, Oceanside, California – Oversight of the capping of a former burn dump/landfill facility and restoration for public use as a sports facility. Negotiation and achievement of regulatory closure with the California Department of Toxic Substances Control with concurrence from the San Diego Regional Water Quality Control Board and the County of San Diego Local Enforcement Agency.
- Indoor Skydiving Facility, 1401 Imperial Avenue, San Diego, California – Development of Soil Management Plan and contaminated soil management and disposal concurrent with site construction activities in downtown San Diego.
- Lemon Grove Avenue Realignment Project, Lemon Grove, California – Development of Impacted Soil Management Plan, Community Health and Safety Plan and Worker Health and Safety Plan and oversight of the implementation of such plans during construction activities.
- North Side Interior Road and Utilities Project at San Diego International Airport, San Diego, California - Subsurface assessment, development of Soil Management Plan and Work Health and Safety Plan and implementation and monitoring of soil management strategies.
- Olympic and Hill, Los Angeles, California – Removal of multiple underground storage tanks and underlying contaminated soil and achievement of regulatory closure with the City of Los Angeles Fire Department.
- San Ysidro - U.S. Land Port of Entry, San Diego, California – Subsurface assessment and development and implementation of soil management strategies.
- Tabata Ranch Site, Carlsbad, California – Development of Soil Management Plan and Community Health and Safety Plan, completion of soil removal action of petroleum hydrocarbon impacted soil, oversight and management of selective reuse and replacement of

pesticide impacted soil and subsequent export of inert soils and achievement of regulatory closure with the County of San Diego Department of Environmental Health. Consent to discharge inert soils at an off-site receiving location was granted by the San Diego Regional Water Quality Control Board.

- VA Medical Center Long Beach, 5901 East 7th Street, Long Beach, California - VA Long Beach: Seismic Corrections – Mental Health, Community Living Center and Chiller Replacements Project – Asbestos containing materials and lead-based paint surveys and preparation of abatement contractor bid specifications.

EDUCATION

- Bachelor of Arts - University of Delaware, Newark, DE (1995)
- Master of Science – Public Health, San Diego State University, San Diego, CA (1998)

PROFESSIONAL REGISTRATIONS, LICENSES, AND CERTIFICATIONS

- Registered Environmental Health Specialist #8172 in the State of California
- OSHA 40-hour Hazardous Waste Operations Worker and Supervisor Certifications and Annual Refreshers

PUBLICATIONS

- Gersberg, R.M., Brown, C., Zambrano, V., Worthington, K., and Weis, D. (2000) Quality of urban runoff in the Tijuana River watershed. In Westerhoff, P. (editors), SCERP Monograph Series (no.2) on Water Issues Along the United States and Mexico Border. : Southwest Center for Environmental Research and Policy, 31-45.
- Weis, D.A., Callaway, J.C., and R.M. Gersberg (2001). Vertical Accretion Rates and Heavy Metal Chronologies in Wetland Sediments of the Tijuana Estuary. Estuaries 24(6A).
- Gersberg, R.M., Pitt, J.L., Weis, D.A., and D.D. Yorkey. Characterizing In-Stream Metal Loading in the Tijuana River Watershed. (2002). National TMDL Science and Policy Conference, Specialty Conference Proceeding on CD Rom, November 13-16, Phoenix, Arizona

PROFESSIONAL AFFILIATIONS

- Building Industry Association
- San Diego Environmental Professionals
- San Diego Housing Federation

APPENDIX I
HYDROLOGY AND HYDRAULIC ANALYSES



MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Hydrology and Hydraulic Analyses for
West Valley Feeder No 1
Valve Structures Improvements (Stage 3)**



Project No.104924

May 2018

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SECTION 1 INTRODUCTION

1.1 GENERAL

West Valley Feeder No 1 and No 2 are Treated Water Pipelines that travel through Chatsworth Park South. There are several Pipeline Structures in Chatsworth Park South that are not accessible by Metropolitan maintenance vehicles. The primary objective of this project is to construct access roads to isolated pipeline structures and provide manholes to house pipeline structures. The project drainage system would be developed to protect the proposed access roads and pipeline structures from erosion and storm water runoff from adjacent hillsides. A hydrologic and hydraulic study was prepared to characterize the storm water runoff within the project area. Results of this study would be used to support final design of the proposed drainage system. This report was developed in support of this task and summarizes the existing and project hydrologic and hydraulics study conducted for the site.

Chatsworth Park South is a City of Los Angeles Department of Recreation and Parks (LADRP) facility located at 22360 West Devonshire Street in the community of Chatsworth, in the City of Los Angeles, County of Los Angeles, California (Figure 1). This site located in the western portion of the San Fernando Valley consists of a recreational building, an adjoining fenced children's play area, parking lots, sand pit play area, two tennis courts, a basketball court, and landscaped fields. Residential housing abuts the site boundary to the east; and undeveloped hillside terrain borders the site to the north, west, and south. Various recreational trails for pedestrians, hikers, and equestrian use surround the level park facility areas. A railroad right-of-way is adjacent to the north. The park was closed to public access and use during the spring of 2008 because of hazards associated with lead pellets and sporting clay pigeon (target) debris from a former onsite small arms firing range (SAFR). The park was remediated by the LADRP in 2017. The remedial plan included an engineered cap on the park area considered hazardous and implementation of storm water management practices that limit the runoff from the site. It is important to note that the area north of the park between West Valley Feeder No 1 and West Valley Feeder No 2 was not remediated with the engineered cap.

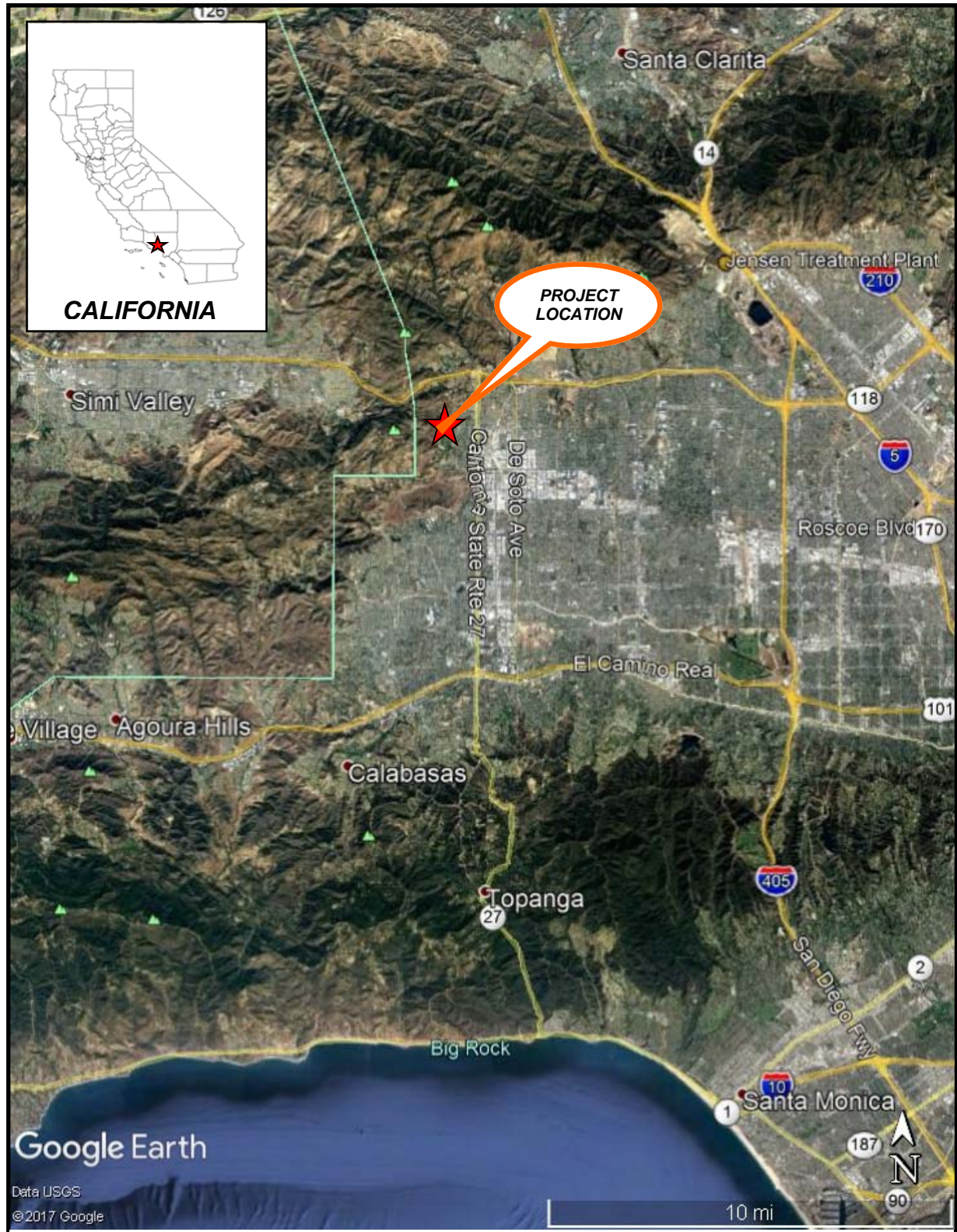


Figure 1 - Project Location

1.2 SITE DESCRIPTION

The site occupies a box canyon with hills that ascend from the level portion of the developed recreational area to the north, west, and south and west into the alluvial canyon bottom with surface flow generally towards the east. A former fishing pond located northeast of the former SAFR was previously filled using onsite groundwater production and through damming of seasonal stream flows that drained from the upland areas to the west.

The existing drainage pattern mimics the historic predevelopment drainage conditions. The main drainage is along the alluvial canyon bottom (Figure 2) with surface flow generally towards the east and south towards the remediated park detention basins (Figure 3). The drainage path is shown as a blue line stream on the U. S. Geological Survey (USGS) topographic quadrangle (Figure 3). Several drainage culverts, pipes and detention basins were placed across the park to facilitate storm water runoff.



Figure 2 - WVF1 STA 1407+45 at Stream Crossing and WVF1 STA 1416+33 at Stream Bottom



Figure 3 - Canyon Drainage Path and USGS Blue Steam

Storm water runoff from the north-west of the project site sheet flows from the surrounding hillsides towards a central canyon bottom where it is conveyed towards WVF1 STA 1416+33. Runoff continues into an earthen flood control basin located south of the proposed access road and spills through a broken spillway into a Stone Lined stream leading to the park Detention Basins (Figure 4). Storm water runoff on the northerly side of the project site sheet flows towards a central canyon bottom where it is conveyed near WVF1 STA 1407+45. The northerly runoff joins the north-west runoff past WVF1 STA 1407+45 and continues into the Stone Lined stream towards the park Detention Basins (Figure 5). There is a non-operational culvert along the proposed access road alignment that was used to facilitate runoff from a small hillside tributary north of the road.



Figure 4 - Earthen Flood Control Basin and Broken Spillway



Figure 5 - Stone Lined Stream and Park Detention Basin

SECTION 2 HYDROLOGY ANALYSES

2.1 DRAINAGE BOUNDARIES AND DESIGN DISCHARGE

The existing condition drainage boundaries for the study area were delineated using two USGS digital elevation models (DEM) for 7.5-minute Oat Mountain Quadrangle and Simi Valley East Quadrangle overlaid with a ground survey prepared by Metropolitan through Survey Job Number 06-158. For project conditions, the project grading plan was overlaid on the USGS DEM. The horizontal datum for the topographic data is North American Datum of 1983 (NAD 83); the vertical datum is North American Vertical Datum of 1988 (NAVD 88). The total watershed for the project was 142 acres.

The Los Angeles County Department of Public Works (LACDPW) Modified Rational Method was used for completing the hydrologic analyses for this study. The LACDPW Tc Calculator was used to implement the MODRAT for each subarea to calculate peak flows. Soil Type, land use, rain depth, temporal distribution series were obtained from LACDPW hydrology manual hydrologic map and Los Angeles County GIS files.

MWD's distribution system is considered critical infrastructure. Design of improvements will be based on 100-year return period storms, similar storm events, or the regulating agency's recommended flow. Distribution system manholes that are subject to flooding will be raised to at least 1-foot above the 100-year water surface elevation.

Access related improvements are not as critical as structure or pipeline protection therefore the general approach is to design these improvements based on LACDPW's Capital Flood Protection criteria.

2.2 EXISTING CONDITIONS

A site walk was completed on March 15, 2017, to verify location of any catch basins, culverts, general drainage patterns and land use. The initial drainage boundary delineation was adjusted based on findings from the site walk. Exhibit 1 shows the existing watershed delineation. The watershed currently drains to the park Detention Basins.

Hydrologic model parameters such as sub-basin areas, basin slopes were calculated using the LACDPW's 2006 Hydrology Manual Section 7.2 Rational Method. The time of concentration was calculated using the LACDPW's Tc calculator. The results of the hydrologic analysis and supporting documentation can be found in Appendix A.

2.3 PROJECT CONDITIONS

The drainage boundaries for the project conditions, for the most part, remain similar to those of the existing conditions. The proposed access roads will consist of concrete pavement at steep slopes with v-ditches to convey runoff away from the road. Vented Ford style water crossings will be placed at sites where the access road crosses a stream. Grouted stone is recommended for erosion control at sites where pipeline structures are exposed to stream erosion. Existing canyon flow is retained and acts as the main drainage feature across the project site. Major changes between the existing and project conditions occur at the outlet of Subareas A3 and A7. The hydrology map for project conditions is shown on Exhibit 1.

The project grading plans incorporate two possible access roads with water crossing features near West Valley Feeder No 1 STA 1407+45 and West Valley Feeder No 1 STA 1416+33. The high water surface elevations at these two sites were calculated to determine the size of the water crossings and the extent of erosion protection.

The results of the hydrologic analyses for the proposed project conditions are shown in Table 1. All hydrologic calculations and supporting documentation for project conditions can be found in Appendix A. Results of hydraulic calculations for water crossings are shown in Appendix B.

Table 1- Summary of Hydrology Analyses

Water Crossing	100-Year (cfs)	50-Year (cfs)	2-Year (cfs)
WVF1 STA 1407+45 (Subarea A7, Node 21)	162	138	28
WVF1 STA 1416+33 (Subarea A1, A2 and A3, Node 15)	393	337	72

SECTION 3 HYDRAULIC ANALYSES

3.1 VENTED FORD CROSSINGS

The project grading concept includes “Vented Ford” or Culvert crossings to convey flow across access the access road at two stream crossing locations. The Vented Fords were sized using the results of the Hydrologic Analyses and the U.S. Department of Transportation Federal Highway Administration HY-8 Culvert Hydraulic Analyses Program. Culvert designs include headwalls at both ends and energy dissipater structures at culvert outlets. The culvert sizing calculations are provided in Appendix B.

3.2 ROAD DRAINAGE

Road drainage design reduces energy generated by flowing water. The drainage system includes v-ditches to catch roadway flows and convey them to the culvert inlets. Roadway overtopping was calculated using the HY-8 Culvert Hydraulic Analyses Program. Typical roadway sections are shown in Appendix C.

SECTION 4 CONCLUSIONS AND RECOMMENDATIONS

The Hydrology and Hydraulics Analyses conducted on the existing and proposed systems evaluated the project drainage system to adequately protect the proposed access roads. The existing condition 50-Year peak flow at WVF1 STA 1407+45 was determined to be 138 csf and at WVF1 STA 1416+33 was 337 cfs. There is no significant increase in runoff expected between existing conditions and project conditions.

As part of stream crossing design, culverts were incorporated as protective features for the roadway. Box culverts sizes 4ft provide adequate Capital Flood protection when used with v-ditches, headwalls and energy dissipaters.

SECTION 5 REFERENCES

1. Los Angeles County Department of Public Works, 2006. Hydrology Manual. January.
2. Los Angeles County Department of Public Works. Hydraulic Design Manual. March.
3. U.S. DOT Federal Highway Administration, 2012. Hydraulic Design of Highway Culverts. April.
4. NOAA, National Climatic Data Center.
5. USGS, StreamStats

SECTION 6 APPENDICES

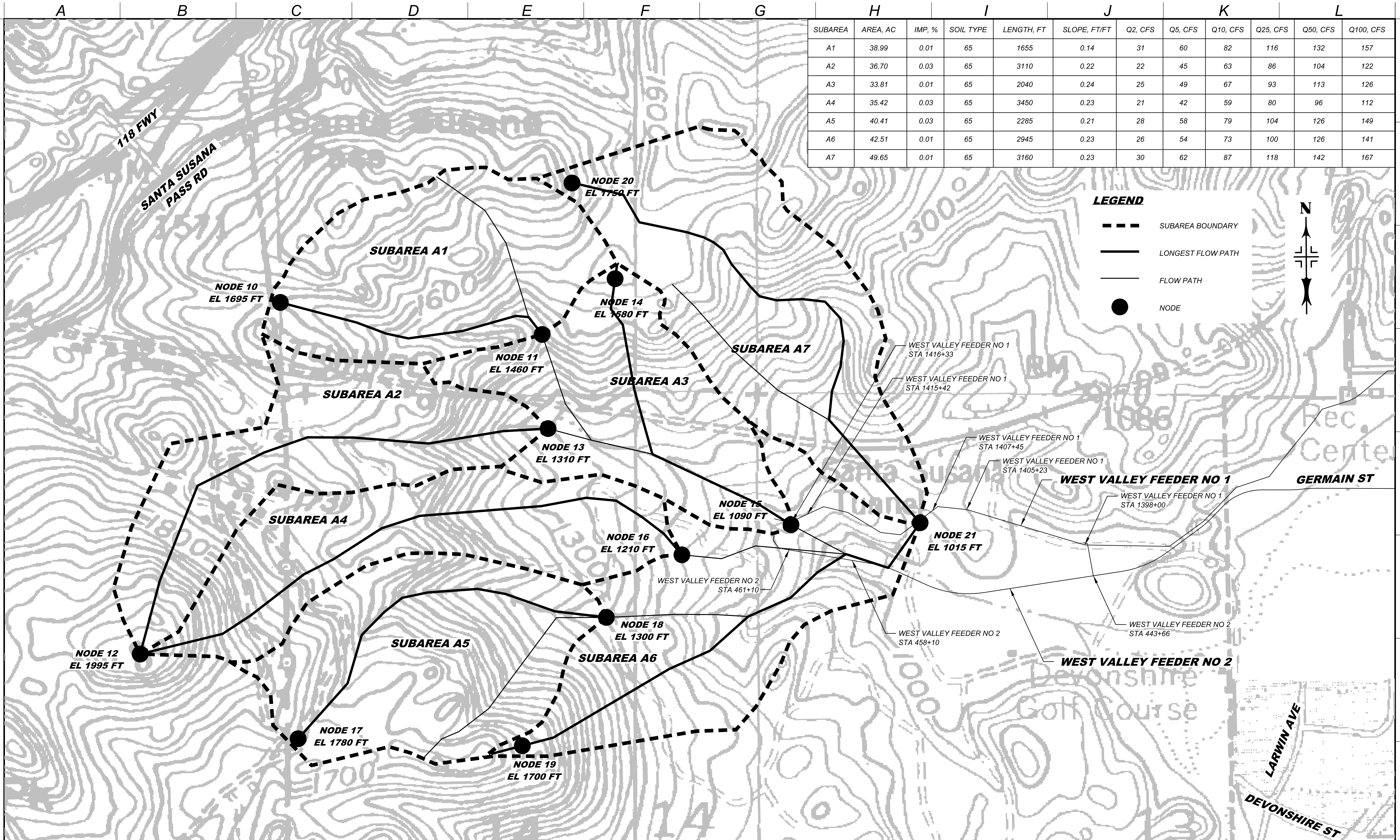
Appendix A – Hydrology Analysis

Appendix B – Culvert Crossing Calculations

Appendix C – Preliminary Design Drawings

Appendix A

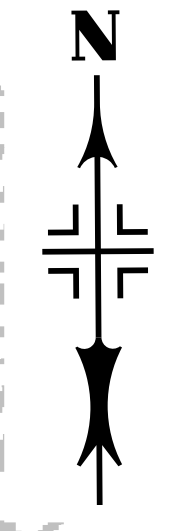
Hydrology Analyses



SUBAREA	AREA, AC	IMP, %	SOIL TYPE	LENGTH, FT	SLOPE, FT/FT	Q2, CFS	Q5, CFS	Q10, CFS	Q25, CFS	Q50, CFS	Q100, CFS
A1	38.99	0.01	65	1655	0.14	31	60	82	116	132	157
A2	36.70	0.03	65	3110	0.22	22	45	63	86	104	122
A3	33.81	0.01	65	2040	0.24	25	49	67	93	113	126
A4	35.42	0.03	65	3450	0.23	21	42	59	80	96	112
A5	40.41	0.03	65	2285	0.21	28	58	79	104	126	149
A6	42.51	0.01	65	2945	0.23	26	54	73	100	126	141
A7	49.65	0.01	65	3160	0.23	30	62	87	118	142	167

LEGEND

- SUBAREA BOUNDARY
- LONGEST FLOW PATH
- FLOW PATH
- NODE



SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION	ISSUE DESCRIPTION	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	DISTRIBUTION SYSTEM WEST VALLEY FEEDER NO. 1 VALVE MODIFICATION STAGE 3 CHATSWORTH PARK HYDROLOGY STUDY	SPECIFICATIONS PDR	
		ISSUE DATE MAY 2018		DESIGNED MD FOR DRAWING APPROVALS SEE DRAWN MD CHECKED N/A	PROJECT NUMBER 104561	SHEET EXHIBIT-1
					REV 0	DWG N/A

2006 Los Angeles County Hydrology Manual

Appendix B - Hydrological Maps

USGS Map Grids: Oat Mountain, Santa Susana

Soil Classification Area - 65

Debris Potential Area - 4

Appendix C - Soil Type and Runoff Coefficient Data

Soil Identification Table		
Number	Original Name	Name
65	ULAR-13	UPPER LOS ANGELES RIVER

RAINFALL FREQUENCY MULTIPLICATION FACTORS	
FREQUENCY, YR	FACTOR
2	0.387
5	0.584
10	0.714
25	0.878
50	1
100	1.122
500	1.402

See Runoff Coefficient Curve Soil Type No 65

Table 6.3.3 - Design Fire Factors

Los Angeles River Watershed - 0.71

WATERSHED DATA													
SUBAREA	AREA, AC	IMPERVIOUS, %	SOIL TYPE	HIGH EL, FT	LOW EL, FT	LENGTH, FT	SLOPE, FT/FT	50 YR 24 HR	2 YR 24 HR	5 YR 24 HR	10 YR 24 HR	25 YR 24 HR	100 YR 24 HR
A1	38.99	0.01	65	1695	1460	1655	0.14	7.6	2.9	4.4	5.4	6.7	8.5
A2	36.7	0.03	65	1995	1310	3110	0.22	7.4	2.9	4.3	5.3	6.5	8.3
A3	33.81	0.01	65	1580	1090	2040	0.24	7.5	2.9	4.4	5.4	6.6	8.4
A4	35.42	0.03	65	1995	1210	3450	0.23	7.4	2.9	4.3	5.3	6.5	8.3
A5	40.41	0.03	65	1780	1300	2285	0.21	7.4	2.9	4.3	5.3	6.5	8.3
A6	42.51	0.01	65	1700	1015	2945	0.23	7.4	2.9	4.3	5.3	6.5	8.3
A7	49.65	0.01	65	1750	1015	3160	0.23	7.5	2.9	4.4	5.4	6.6	8.4

RESULTS				URS CHATSWORTH PARK HYDROLOGY REPORT		
Confluence Point	Q10, CFS	Q50, CFS	Q100, CFS	Q10, CFS	DIFF, CFS	PERCENT
CONFLUENCE AT NODE 15	204	337	393	172.64	31	18%
CONFLUENCE AT NODE 21 WEST	405	673	783	370.7	34	9%
CONFLUENCE AT NODE 21 NORTH	83	138	162	65.2	17	27%

- Q50 IS THE CAPITAL FLOOD OR DESIGN STORM PER LOS ANGELES COUNTY HYDROLOGY MANUAL

Los Angeles County HydroCalc Calculator Version 1.0.3

Summary of Input Data

Project	Subarea	Area	Length	Slope	Depth	Imp	Soil	Frequency	Fire
CP2	A1	38.99	1655	0.1420	7.6	0.01	65	2-yr	0.71
CP2	A2	36.7	3110	0.2203	7.4	0.03	65	2-yr	0.71
CP2	A3	33.81	2040	0.2402	7.5	0.01	65	2-yr	0.71
CP2	A4	35.42	3450	0.2275	7.4	0.03	65	2-yr	0.71
CP2	A5	40.41	2285	0.2626	7.4	0.03	65	2-yr	0.71
CP2	A6	42.51	2945	0.2326	7.4	0.01	65	2-yr	0.71
CP2	A7	49.65	3160	0.2326	7.5	0.01	65	2-yr	0.71
CP5	A1	38.99	1655	0.1420	7.6	0.01	65	5-yr	0.71
CP5	A2	36.7	3110	0.2203	7.4	0.03	65	5-yr	0.71
CP5	A3	33.81	2040	0.2402	7.5	0.01	65	5-yr	0.71
CP5	A4	35.42	3450	0.2275	7.4	0.03	65	5-yr	0.71
CP5	A5	40.41	2285	0.2626	7.4	0.03	65	5-yr	0.71
CP5	A6	42.51	2945	0.2326	7.4	0.01	65	5-yr	0.71
CP5	A7	49.65	3160	0.2326	7.5	0.01	65	5-yr	0.71
CP10	A1	38.99	1655	0.1420	7.6	0.01	65	10-yr	0.71
CP10	A2	36.7	3110	0.2203	7.4	0.03	65	10-yr	0.71
CP10	A3	33.81	2040	0.2402	7.5	0.01	65	10-yr	0.71
CP10	A4	35.42	3450	0.2275	7.4	0.03	65	10-yr	0.71
CP10	A5	40.41	2285	0.2626	7.4	0.03	65	10-yr	0.71
CP10	A6	42.51	2945	0.2326	7.4	0.01	65	10-yr	0.71
CP10	A7	49.65	3160	0.2326	7.5	0.01	65	10-yr	0.71
CP25	A1	38.99	1655	0.1420	7.6	0.01	65	25-yr	0.71
CP25	A2	36.7	3110	0.2203	7.4	0.03	65	25-yr	0.71
CP25	A3	33.81	2040	0.2402	7.5	0.01	65	25-yr	0.71
CP25	A4	35.42	3450	0.2275	7.4	0.03	65	25-yr	0.71
CP25	A5	40.41	2285	0.2626	7.4	0.03	65	25-yr	0.71
CP25	A6	42.51	2945	0.2326	7.4	0.01	65	25-yr	0.71
CP25	A7	49.65	3160	0.2326	7.5	0.01	65	25-yr	0.71
CP50	A1	38.99	1655	0.1420	7.6	0.01	65	50-yr	0.71
CP50	A2	36.7	3110	0.2203	7.4	0.03	65	50-yr	0.71
CP50	A3	33.81	2040	0.2402	7.5	0.01	65	50-yr	0.71
CP50	A4	35.42	3450	0.2275	7.4	0.03	65	50-yr	0.71
CP50	A5	40.41	2285	0.2626	7.4	0.03	65	50-yr	0.71
CP50	A6	42.51	2945	0.2326	7.4	0.01	65	50-yr	0.71
CP50	A7	49.65	3160	0.2326	7.5	0.01	65	50-yr	0.71
CP100	A1	38.99	1655	0.1420	7.6	0.01	65	100-yr	0.71
CP100	A2	36.7	3110	0.2203	7.4	0.03	65	100-yr	0.71
CP100	A3	33.81	2040	0.2402	7.5	0.01	65	100-yr	0.71
CP100	A4	35.42	3450	0.2275	7.4	0.03	65	100-yr	0.71
CP100	A5	40.41	2285	0.2626	7.4	0.03	65	100-yr	0.71
CP100	A6	42.51	2945	0.2326	7.4	0.01	65	100-yr	0.71
CP100	A7	49.65	3160	0.2326	7.5	0.01	65	100-yr	0.71

Los Angeles County HydroCalc Calculator Version 1.0.3

Summary of Output Data

Subarea	Modeled (2-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	2.9	17	28	2.22	31	0.99	0.73	0.74
A2	2.9	25	20	2.11	22	0.80	0.68	0.69
A3	2.9	18	23	1.88	25	0.95	0.72	0.72
A4	2.9	27	19	2.03	21	0.77	0.67	0.68
A5	2.9	20	26	2.33	28	0.89	0.71	0.71
A6	2.9	24	24	2.30	26	0.82	0.69	0.69
A7	2.9	25	28	2.75	30	0.81	0.68	0.69

Subarea	Modeled (5-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	4.4	12	57	4.45	60	1.75	0.83	0.83
A2	4.3	17	43	4.15	45	1.45	0.80	0.80
A3	4.4	13	46	3.77	49	1.67	0.82	0.82
A4	4.3	18	40	4.00	42	1.41	0.80	0.80
A5	4.3	13	55	4.58	58	1.65	0.82	0.82
A6	4.3	16	51	4.63	54	1.49	0.81	0.81
A7	4.4	17	59	5.53	62	1.47	0.80	0.81

Subarea	Modeled (10-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	5.4	10	79	6.36	82	2.34	0.87	0.87
A2	5.3	14	60	5.87	63	1.94	0.84	0.84
A3	5.4	11	64	5.38	67	2.21	0.86	0.86
A4	5.3	15	56	5.67	59	1.88	0.84	0.84
A5	5.3	11	76	6.47	79	2.18	0.86	0.86
A6	5.3	14	70	6.60	73	1.94	0.84	0.84
A7	5.4	14	83	7.89	87	1.97	0.84	0.85

Subarea	Modeled (25-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	6.7	8	112	9.21	116	3.19	0.90	0.90
A2	6.5	12	83	8.46	86	2.57	0.88	0.88
A3	6.6	9	90	7.80	93	2.98	0.90	0.90
A4	6.5	13	77	8.16	80	2.47	0.88	0.88
A5	6.5	10	101	9.31	104	2.80	0.89	0.89
A6	6.5	12	96	9.57	100	2.57	0.88	0.88
A7	6.6	12	114	11.45	118	2.60	0.88	0.88

Subarea	Modeled (50-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	7.6	8	128	11.48	132	3.64	0.90	0.90
A2	7.4	11	101	10.54	104	3.05	0.90	0.90
A3	7.5	8	109	9.74	113	3.59	0.90	0.90
A4	7.4	12	93	10.17	96	2.93	0.89	0.89
A5	7.4	9	122	11.60	126	3.35	0.90	0.90
A6	7.4	10	122	11.98	126	3.19	0.90	0.90
A7	7.5	11	138	14.30	142	3.09	0.90	0.90

Subarea	Modeled (100-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	8.5	7	152	13.82	157	4.34	0.90	0.90
A2	8.3	10	118	12.69	122	3.58	0.90	0.90
A3	8.4	8	122	11.74	126	4.03	0.90	0.90
A4	8.3	11	109	12.25	112	3.42	0.90	0.90
A5	8.3	8	144	13.96	149	3.97	0.90	0.90
A6	8.3	10	137	14.46	141	3.58	0.90	0.90
A7	8.4	10	162	17.25	167	3.62	0.90	0.90

Los Angeles County HydroCalc Calculator Version 1.0.3

Summary of Output Data

Subarea	Modeled (2-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	2.9	17	28	2.22	31	0.99	0.73	0.74
A2	2.9	25	20	2.11	22	0.80	0.68	0.69
A3	2.9	18	23	1.88	25	0.95	0.72	0.72
A4	2.9	27	19	2.03	21	0.77	0.67	0.68
A5	2.9	20	26	2.33	28	0.89	0.71	0.71
A6	2.9	24	24	2.30	26	0.82	0.69	0.69
A7	2.9	25	28	2.75	30	0.81	0.68	0.69

Subarea	Modeled (5-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	4.4	12	57	4.45	60	1.75	0.83	0.83
A2	4.3	17	43	4.15	45	1.45	0.80	0.80
A3	4.4	13	46	3.77	49	1.67	0.82	0.82
A4	4.3	18	40	4.00	42	1.41	0.80	0.80
A5	4.3	13	55	4.58	58	1.65	0.82	0.82
A6	4.3	16	51	4.63	54	1.49	0.81	0.81
A7	4.4	17	59	5.53	62	1.47	0.80	0.81

Subarea	Modeled (10-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	5.4	10	79	6.36	82	2.34	0.87	0.87
A2	5.3	14	60	5.87	63	1.94	0.84	0.84
A3	5.4	11	64	5.38	67	2.21	0.86	0.86
A4	5.3	15	56	5.67	59	1.88	0.84	0.84
A5	5.3	11	76	6.47	79	2.18	0.86	0.86
A6	5.3	14	70	6.60	73	1.94	0.84	0.84
A7	5.4	14	83	7.89	87	1.97	0.84	0.85

Subarea	Modeled (25-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	6.7	8	112	9.21	116	3.19	0.90	0.90
A2	6.5	12	83	8.46	86	2.57	0.88	0.88
A3	6.6	9	90	7.80	93	2.98	0.90	0.90
A4	6.5	13	77	8.16	80	2.47	0.88	0.88
A5	6.5	10	101	9.31	104	2.80	0.89	0.89
A6	6.5	12	96	9.57	100	2.57	0.88	0.88
A7	6.6	12	114	11.45	118	2.60	0.88	0.88

Subarea	Modeled (50-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	7.6	8	128	11.48	132	3.64	0.90	0.90
A2	7.4	11	101	10.54	104	3.05	0.90	0.90
A3	7.5	8	109	9.74	113	3.59	0.90	0.90
A4	7.4	12	93	10.17	96	2.93	0.89	0.89
A5	7.4	9	122	11.60	126	3.35	0.90	0.90
A6	7.4	10	122	11.98	126	3.19	0.90	0.90
A7	7.5	11	138	14.30	142	3.09	0.90	0.90

Subarea	Modeled (100-yr) Rainfall Depth (in)	Tc, (min)	Clear Peak Flow Rate (cfs)	24-Hr Clear Runoff Volume (ac-ft)	Burned Peak Flow Rate (cfs)	Peak Intensity (in/hr)	Undeveloped Runoff Coefficient (Cu)	Developed Runoff Coefficient (Cd)
A1	8.5	7	152	13.82	157	4.34	0.90	0.90
A2	8.3	10	118	12.69	122	3.58	0.90	0.90
A3	8.4	8	122	11.74	126	4.03	0.90	0.90
A4	8.3	11	109	12.25	112	3.42	0.90	0.90
A5	8.3	8	144	13.96	149	3.97	0.90	0.90
A6	8.3	10	137	14.46	141	3.58	0.90	0.90
A7	8.4	10	162	17.25	167	3.62	0.90	0.90

SUMMARY OF HYDROGRAPGH FOR PEAK FLOWS AT CONFLUENCE NODES

- CONFLUENCE IS MADE USING RATIONAL METHOD
- STORAGE ROUTING IS NOT CONSIDERED

2 YEAR - 24 HOUR HYDROGRAPGH FOR PEAK FLOWS AT CONFLUENCE NODES

CONFLUENCE AT NODE 15	72	cfs
CONFLUENCE AT NODE 21 WEST	140	cfs
CONFLUENCE AT NODE 21 NORTH	28	cfs

5 YEAR - 24 HOUR HYDROGRAPGH FOR PEAK FLOWS AT CONFLUENCE NODES

CONFLUENCE AT NODE 15	146	cfs
CONFLUENCE AT NODE 21 WEST	292	cfs
CONFLUENCE AT NODE 21 NORTH	59	cfs

10 YEAR - 24 HOUR HYDROGRAPGH FOR PEAK FLOWS AT CONFLUENCE NODES

CONFLUENCE AT NODE 15	204	cfs
CONFLUENCE AT NODE 21 WEST	405	cfs
CONFLUENCE AT NODE 21 NORTH	83	cfs

25 YEAR - 24 HOUR HYDROGRAPGH FOR PEAK FLOWS AT CONFLUENCE NODES

CONFLUENCE AT NODE 15	285	cfs
CONFLUENCE AT NODE 21 WEST	558	cfs
CONFLUENCE AT NODE 21 NORTH	114	cfs

50 YEAR - 24 HOUR HYDROGRAPGH FOR PEAK FLOWS AT CONFLUENCE NODES

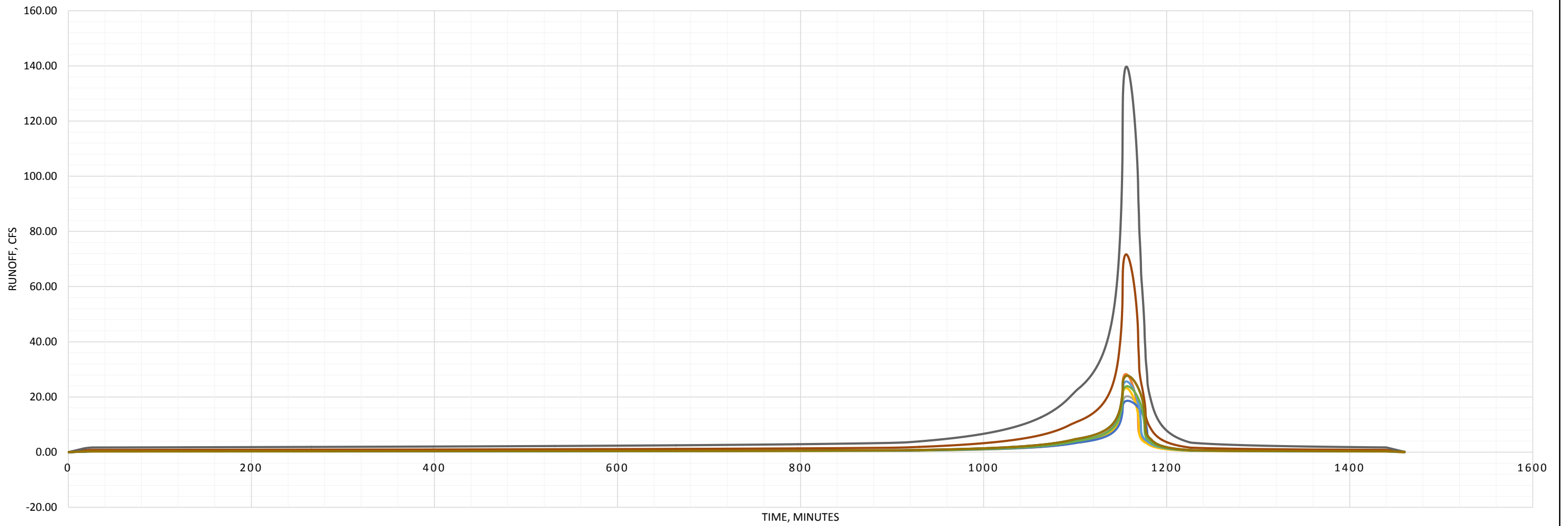
CONFLUENCE AT NODE 15	337	cfs
CONFLUENCE AT NODE 21 WEST	673	cfs
CONFLUENCE AT NODE 21 NORTH	138	cfs

100 YEAR - 24 HOUR HYDROGRAPGH FOR PEAK FLOWS AT CONFLUENCE NODES

CONFLUENCE AT NODE 15	393	cfs
CONFLUENCE AT NODE 21 WEST	783	cfs
CONFLUENCE AT NODE 21 NORTH	162	cfs

HYDROGRAPH 2 YEAR - 24 HOUR CONFLUENCE AT NODES

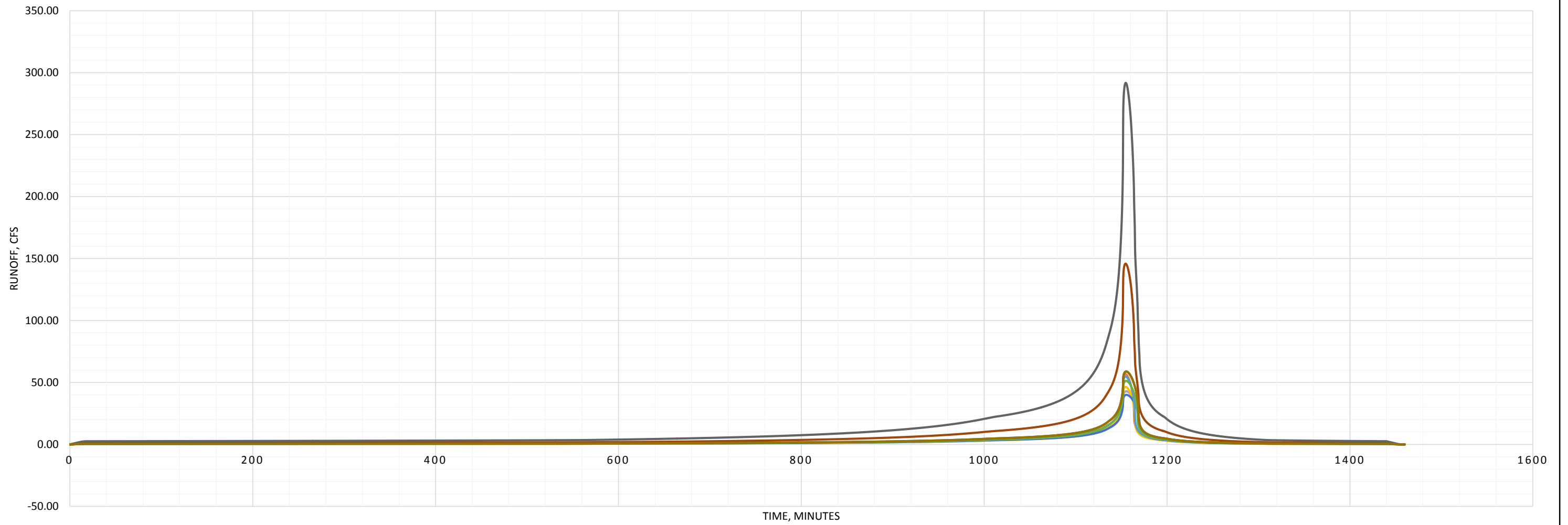
A1 (cfs) A2 (cfs) A3 (cfs) A4 (cfs) A5 (cfs) A6 (cfs) A7 (cfs) Node 15 (cfs) Node 21 W (cfs) Node 21 N (cfs)



HYDROGRAPH

5 YEAR - 24 HOUR CONFLUENCE AT NODES

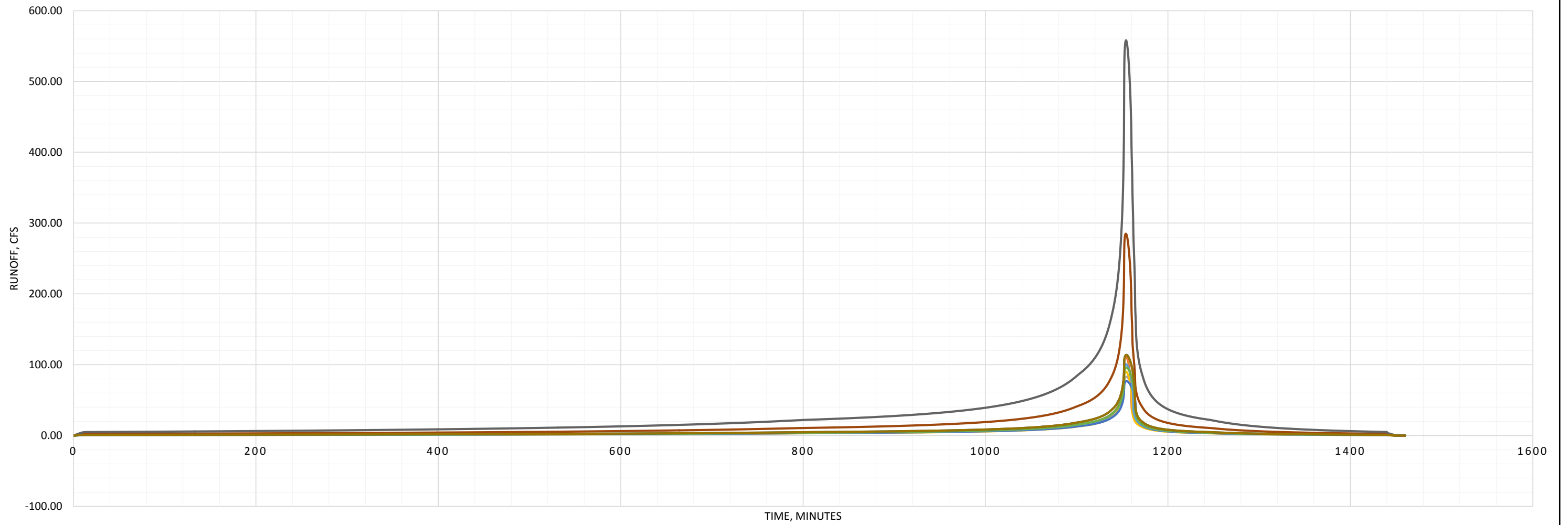
A1 (cfs) A2 (cfs) A3 (cfs) A4 (cfs) A5 (cfs) A6 (cfs) A7 (cfs) Node 15 (cfs) Node 21 W (cfs) Node 21 N (cfs)



HYDROGRAPH

25 YEAR - 24 HOUR CONFLUENCE AT NODES

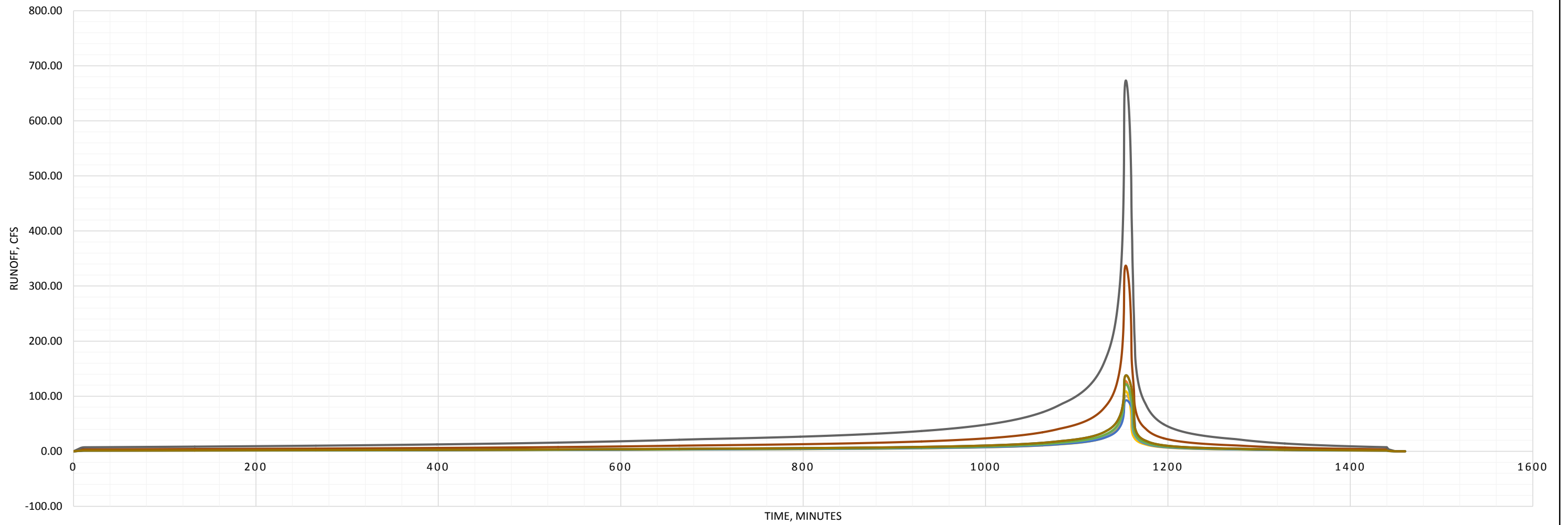
A1 (cfs) A2 (cfs) A3 (cfs) A4 (cfs) A5 (cfs) A6 (cfs) A7 (cfs) Node 15 (cfs) Node 21 W (cfs) Node 21 N (cfs)



HYDROGRAPH

50 YEAR - 24 HOUR CONFLUENCE AT NODES

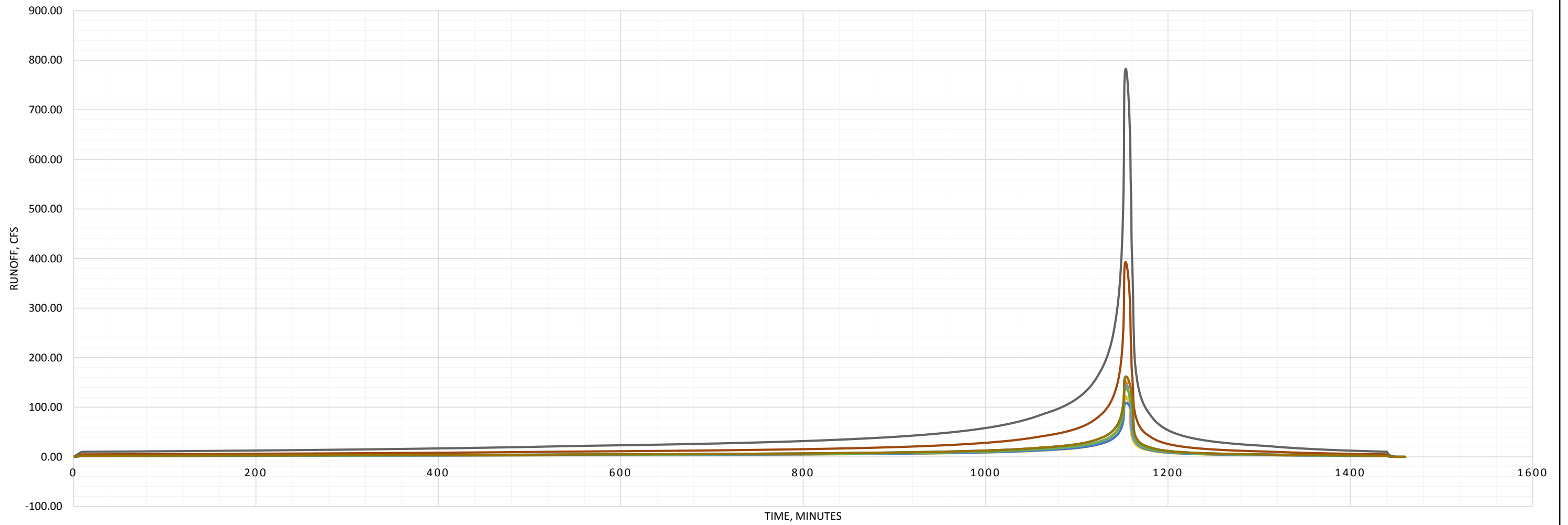
A1 (cfs) A2 (cfs) A3 (cfs) A4 (cfs) A5 (cfs) A6 (cfs) A7 (cfs) Node 15 (cfs) Node 21 W (cfs) Node 21 N (cfs)



HYDROGRAPH

100 YEAR - 24 HOUR CONFLUENCE AT NODES

A1 (cfs) A2 (cfs) A3 (cfs) A4 (cfs) A5 (cfs) A6 (cfs) A7 (cfs) Node 15 (cfs) Node 21 W (cfs) Node 21 N (cfs)



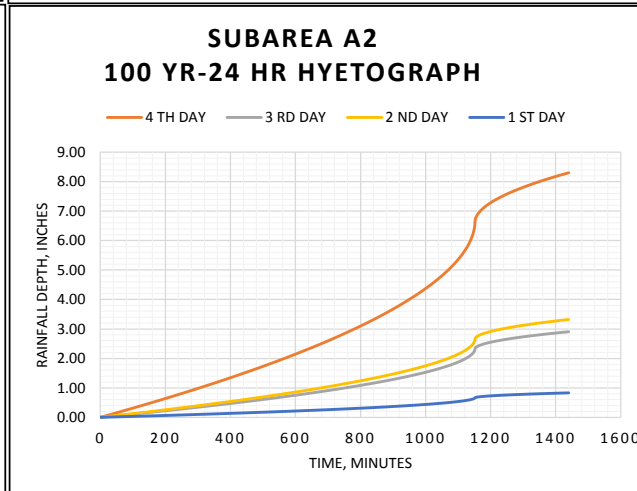
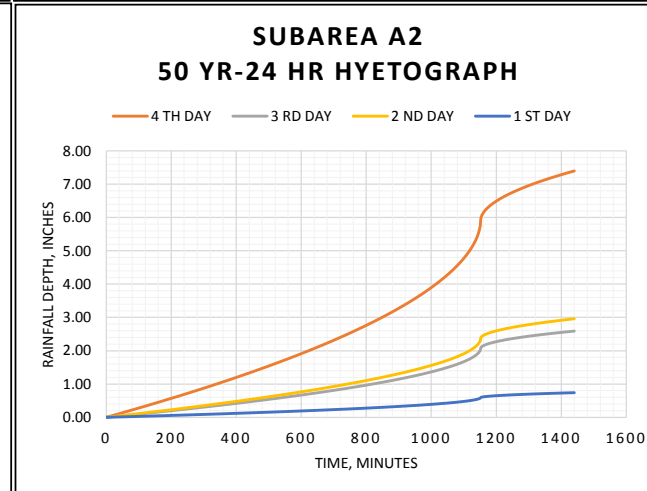
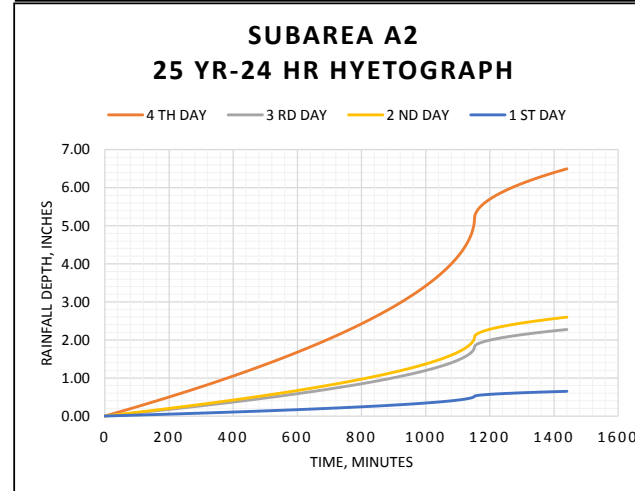
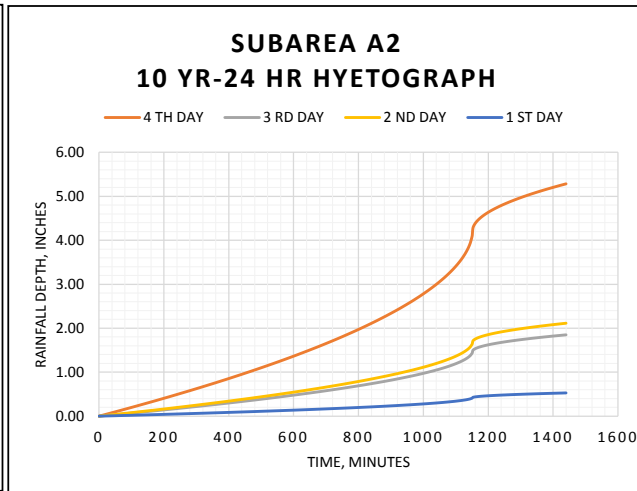
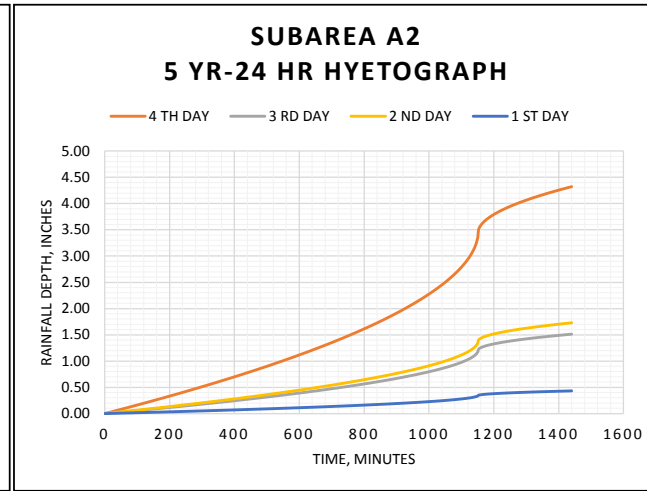
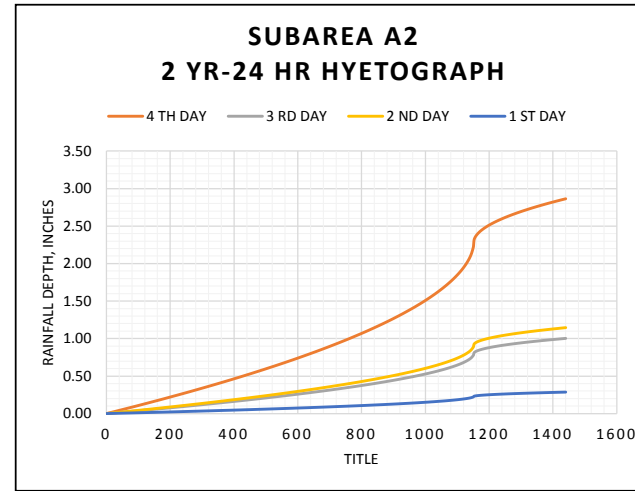
UNIT HYETOGRAPH		50 YR - 24 HR				2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR			
Time	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	
	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
540	0.23	1.73	0.61	0.69	0.17	0.67	0.23	0.27	0.07	1.01	0.35	0.40	0.10	1.24	0.43	0.49	0.12	1.52	0.53	0.61	0.15	1.94	0.68	0.78	0.19
570	0.24	1.85	0.65	0.74	0.18	0.71	0.25	0.29	0.07	1.08	0.38	0.43	0.11	1.32	0.46	0.53	0.13	1.62	0.57	0.65	0.16	2.07	0.72	0.83	0.21
600	0.26	1.96	0.69	0.79	0.20	0.76	0.27	0.30	0.08	1.15	0.40	0.46	0.11	1.40	0.49	0.56	0.14	1.72	0.60	0.69	0.17	2.20	0.77	0.88	0.22
630	0.27	2.08	0.73	0.83	0.21	0.81	0.28	0.32	0.08	1.22	0.43	0.49	0.12	1.49	0.52	0.59	0.15	1.83	0.64	0.73	0.18	2.34	0.82	0.93	0.23
660	0.29	2.21	0.77	0.88	0.22	0.85	0.30	0.34	0.09	1.29	0.45	0.52	0.13	1.58	0.55	0.63	0.16	1.94	0.68	0.78	0.19	2.48	0.87	0.99	0.25
690	0.31	2.33	0.82	0.93	0.23	0.90	0.32	0.36	0.09	1.36	0.48	0.55	0.14	1.67	0.58	0.67	0.17	2.05	0.72	0.82	0.20	2.62	0.92	1.05	0.26
720	0.32	2.46	0.86	0.99	0.25	0.95	0.33	0.38	0.10	1.44	0.50	0.58	0.14	1.76	0.62	0.70	0.18	2.16	0.76	0.87	0.22	2.77	0.97	1.11	0.28
750	0.34	2.60	0.91	1.04	0.26	1.01	0.35	0.40	0.10	1.52	0.53	0.61	0.15	1.86	0.65	0.74	0.19	2.28	0.80	0.91	0.23	2.92	1.02	1.17	0.29
780	0.36	2.74	0.96	1.10	0.27	1.06	0.37	0.42	0.11	1.60	0.56	0.64	0.16	1.96	0.68	0.78	0.20	2.41	0.84	0.96	0.24	3.07	1.08	1.23	0.31
810	0.38	2.89	1.01	1.15	0.29	1.12	0.39	0.45	0.11	1.69	0.59	0.67	0.17	2.06	0.72	0.82	0.21	2.53	0.89	1.01	0.25	3.24	1.13	1.30	0.32
840	0.40	3.04	1.06	1.21	0.30	1.18	0.41	0.47	0.12	1.77	0.62	0.71	0.18	2.17	0.76	0.87	0.22	2.67	0.93	1.07	0.27	3.41	1.19	1.36	0.34
870	0.42	3.20	1.12	1.28	0.32	1.24	0.43	0.49	0.12	1.87	0.65	0.75	0.19	2.28	0.80	0.91	0.23	2.81	0.98	1.12	0.28	3.59	1.26	1.43	0.36
900	0.44	3.36	1.18	1.35	0.34	1.30	0.46	0.52	0.13	1.96	0.69	0.79	0.20	2.40	0.84	0.96	0.24	2.95	1.03	1.18	0.30	3.77	1.32	1.51	0.38
930	0.47	3.54	1.24	1.42	0.35	1.37	0.48	0.55	0.14	2.07	0.72	0.83	0.21	2.53	0.88	1.01	0.25	3.11	1.09	1.24	0.31	3.97	1.39	1.59	0.40
960	0.49	3.73	1.30	1.49	0.37	1.44	0.50	0.58	0.14	2.18	0.76	0.87	0.22	2.66	0.93	1.06	0.27	3.27	1.15	1.31	0.33	4.18	1.46	1.67	0.42
970	0.50	3.79	1.33	1.52	0.38	1.47	0.51	0.59	0.15	2.22	0.78	0.89	0.22	2.71	0.95	1.08	0.27	3.33	1.17	1.33	0.33	4.26	1.49	1.70	0.43
980	0.51	3.86	1.35	1.54	0.39	1.49	0.52	0.60	0.15	2.25	0.79	0.90	0.23	2.76	0.96	1.10	0.28	3.39	1.19	1.36	0.34	4.33	1.52	1.73	0.43
990	0.52	3.93	1.38	1.57	0.39	1.52	0.53	0.61	0.15	2.30	0.80	0.92	0.23	2.81	0.98	1.12	0.28	3.45	1.21	1.38	0.35	4.41	1.54	1.76	0.44
1000	0.53	4.00	1.40	1.60	0.40	1.55	0.54	0.62	0.15	2.34	0.82	0.93	0.23	2.86	1.00	1.14	0.29	3.51	1.23	1.41	0.35	4.49	1.57	1.80	0.45
1010	0.54	4.08	1.43	1.63	0.41	1.58	0.55	0.63	0.16	2.38	0.83	0.95	0.24	2.91	1.02	1.16	0.29	3.58	1.25	1.43	0.36	4.57	1.60	1.83	0.46
1020	0.55	4.15	1.45	1.66	0.42	1.61	0.56	0.64	0.16	2.42	0.85	0.97	0.24	2.96	1.04	1.19	0.30	3.64	1.28	1.46	0.36	4.66	1.63	1.86	0.47
1030	0.56	4.23	1.48	1.69	0.42	1.64	0.57	0.65	0.16	2.47	0.86	0.99	0.25	3.02	1.06	1.21	0.30	3.71	1.30	1.49	0.37	4.75	1.66	1.90	0.47
1040	0.57	4.31	1.51	1.72	0.43	1.67	0.58	0.67	0.17	2.52	0.88	1.01	0.25	3.08	1.08	1.23	0.31	3.79	1.33	1.51	0.38	4.84	1.69	1.94	0.48
1050	0.58	4.40	1.54	1.76	0.44	1.70	0.60	0.68	0.17	2.57	0.90	1.03	0.26	3.14	1.10	1.26	0.31	3.86	1.35	1.54	0.39	4.93	1.73	1.97	0.49
1060	0.59	4.49	1.57	1.79	0.45	1.74	0.61	0.69	0.17	2.62	0.92	1.05	0.26	3.20	1.12	1.28	0.32	3.94	1.38	1.58	0.39	5.03	1.76	2.01	0.50
1070	0.60	4.58	1.60	1.83	0.46	1.77	0.62	0.71	0.18	2.68	0.94	1.07	0.27	3.27	1.14	1.31	0.33	4.02	1.41	1.61	0.40	5.14	1.80	2.06	0.51
1080	0.62	4.68	1.64	1.87	0.47	1.81	0.63	0.72	0.18	2.73	0.96	1.09	0.27	3.34	1.17	1.34	0.33	4.11	1.44	1.64	0.41	5.25	1.84	2.10	0.53
1090	0.63	4.79	1.68	1.92	0.48	1.85	0.65	0.74	0.19	2.80	0.98	1.12	0.28	3.42	1.20	1.37	0.34	4.20	1.47	1.68	0.42	5.37	1.88	2.15	0.54
1100	0.65	4.90	1.72	1.96	0.49	1.90	0.66	0.76	0.19	2.86	1.00	1.15	0.29	3.50	1.23	1.40	0.35	4.30	1.51	1.72	0.43	5.50	1.93	2.20	0.55
1110	0.66	5.03	1.76	2.01	0.50	1.95	0.68	0.78	0.19	2.94	1.03	1.17	0.29	3.59	1.26	1.44	0.36	4.42	1.55	1.77	0.44	5.64	1.97	2.26	0.56
1115	0.67	5.10	1.78	2.04	0.51	1.97	0.69	0.79	0.20	2.98	1.04	1.19	0.30	3.64	1.27	1.46	0.36	4.48	1.57	1.79	0.45	5.72	2.00	2.29	0.57
1120	0.68	5.17	1.81	2.07	0.52	2.00	0.70	0.80	0.20	3.02	1.06	1.21	0.30	3.69	1.29	1.48	0.37	4.54	1.59	1.82	0.45	5.80	2.03	2.32	0.58
1125	0.69	5.25	1.84	2.10	0.52	2.03	0.71	0.81	0.20	3.07	1.07	1.23	0.31	3.75	1.31	1.50	0.37	4.61	1.61	1.84	0.46	5.89	2.06	2.36	0.59
1130	0.70	5.33	1.87	2.13	0.53	2.06	0.72	0.83	0.21	3.11	1.09	1.25	0.31	3.81	1.33	1.52	0.38	4.68	1.64	1.87	0.47	5.98	2.09	2.39	0.60
1135	0.71	5.43	1.90	2.17	0.54	2.10	0.74	0.84	0.21	3.17	1.11	1.27	0.32	3.88	1.36	1.55	0.39	4.77	1.67	1.91	0.48	6.09	2.13	2.44	0.61
1136	0.72	5.45	1.91	2.18	0.54	2.11	0.74	0.84	0.21	3.18	1.11	1.27	0.32	3.89	1.36	1.56	0.39	4.78	1.67	1.91	0.48	6.11	2.14	2.45	0.61
1137	0.72	5.47	1.91	2.19	0.55	2.12	0.74	0.85	0.21	3.20	1.12	1.28	0.32	3.91	1.37	1.56	0.39	4.80	1.68	1.92	0.48	6.14	2.15	2.46	0.61
1138	0.72	5.49	1.92	2.20	0.55	2.13	0.74	0.85	0.21	3.21	1.12	1.28	0.32	3.92	1.37	1.57	0.39	4.82	1.69	1.93	0.48	6.16	2.16	2.47	0.62
1139	0.73	5.52	1.93	2.21	0.55	2.13	0.75	0.85	0.21	3.22	1.13	1.29	0.32	3.94	1.38	1.58	0.39	4.84	1.69	1.94	0.48	6.19	2.17	2.48	0.62
1140	0.73	5.54	1.94	2.22	0.55	2.14	0.75	0.86	0.21	3.23	1.13	1.29	0.32	3.95	1.38	1.58	0.40	4.86	1.70	1.95	0.49	6.21	2.18	2.49	0.62
1145	0.75	5.67	1.99	2.27	0.57	2.20	0.77	0.88	0.22	3.31	1.16	1.33	0.33	4.05	1.42	1.62	0.41	4.98	1.74	1.99	0.50	6.37	2.23	2.55	0.64
1150	0.77	5.87	2.05	2.35	0.59	2.27	0.80	0.91	0.23	3.43	1.20	1.37	0.34	4.19	1.47	1.68	0.42	5.15	1.80	2.06	0.52	6.59	2.31	2.63	0.66
1151	0.78	5.94	2.08	2.37	0.59	2.30	0.80	0.92	0.23	3.47	1.21	1.39	0.35	4.24	1.48	1.70	0.42	5.21	1.82	2.08	0.52	6.66	2.33	2.66	0.67
1152	0.80	6.08	2.13	2.43	0.61	2.35	0.82	0.94	0.24	3.55	1.24	1.42	0.36	4.34	1.52	1.74	0.43	5.34	1.87	2.14	0.53	6.82	2.39	2.73	0.68
1153	0.81	6.16	2.15	2.46	0.62	2.38	0.83	0.95	0.24	3.59	1.26	1.44	0.36	4.40	1.54	1.76	0.44	5.40	1.89	2.16	0.54	6.91	2.42	2.76	0.69
1154	0.81	6.19	2.17	2.48	0.62	2.40	0.84	0.96	0.24	3.61	1.27	1.45	0.36	4.42	1.55	1.77	0.44	5.43	1.90	2.17	0.54	6.94	2.43	2.78	0.69
1155	0.82	6.22	2.18	2.49	0.62	2.41	0.84	0.96	0.24	3.63	1.27	1.45	0.36	4.44	1.55	1.78	0.44	5.46	1.91	2.18	0.55	6.97	2.44	2.79	0.70
1156	0.82	6.24	2.18	2.50	0.62	2.41	0.84	0.97	0.24	3.64	1.27	1.46	0.36	4.45	1.56	1.78	0.45	5.48	1.92	2.19	0.55	7.00	2.45	2.80	0.70
1157	0.82	6.26	2.19	2.50	0.63	2.42	0.85	0.97	0.24	3.65	1.28	1.46	0.37	4.47	1.56	1.79	0.45	5.49	1.92	2.20	0.55	7.02	2.46	2.81	0.70
1158	0.83	6.28	2.20	2.51	0.63	2.43	0.85	0.97	0.24	3.66															

UNIT HYETOGRAPH	50 YR - 24 HR				2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR				
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
1255	0.92	6.96	2.44	2.78	0.70	2.69	0.94	1.08	0.27	4.07	1.42	1.63	0.41	4.97	1.74	1.99	0.50	6.11	2.14	2.44	0.61	7.81	2.73	3.12	0.78
1260	0.92	6.98	2.44	2.79	0.70	2.70	0.95	1.08	0.27	4.08	1.43	1.63	0.41	4.99	1.75	1.99	0.50	6.13	2.15	2.45	0.61	7.84	2.74	3.13	0.78
1265	0.92	7.01	2.45	2.80	0.70	2.71	0.95	1.08	0.27	4.09	1.43	1.64	0.41	5.00	1.75	2.00	0.50	6.15	2.15	2.46	0.62	7.86	2.75	3.14	0.79
1270	0.92	7.03	2.46	2.81	0.70	2.72	0.95	1.09	0.27	4.10	1.44	1.64	0.41	5.02	1.76	2.01	0.50	6.17	2.16	2.47	0.62	7.88	2.76	3.15	0.79
1275	0.93	7.05	2.47	2.82	0.70	2.73	0.95	1.09	0.27	4.12	1.44	1.65	0.41	5.03	1.76	2.01	0.50	6.19	2.17	2.48	0.62	7.91	2.77	3.16	0.79
1280	0.93	7.07	2.47	2.83	0.71	2.74	0.96	1.09	0.27	4.13	1.44	1.65	0.41	5.05	1.77	2.02	0.50	6.21	2.17	2.48	0.62	7.93	2.78	3.17	0.79
1285	0.93	7.09	2.48	2.84	0.71	2.74	0.96	1.10	0.27	4.14	1.45	1.66	0.41	5.06	1.77	2.02	0.51	6.22	2.18	2.49	0.62	7.95	2.78	3.18	0.80
1290	0.94	7.11	2.49	2.84	0.71	2.75	0.96	1.10	0.28	4.15	1.45	1.66	0.42	5.08	1.78	2.03	0.51	6.24	2.18	2.50	0.62	7.98	2.79	3.19	0.80
1295	0.94	7.13	2.50	2.85	0.71	2.76	0.97	1.10	0.28	4.16	1.46	1.67	0.42	5.09	1.78	2.04	0.51	6.26	2.19	2.50	0.63	8.00	2.80	3.20	0.80
1300	0.94	7.15	2.50	2.86	0.71	2.77	0.97	1.11	0.28	4.17	1.46	1.67	0.42	5.10	1.79	2.04	0.51	6.28	2.20	2.51	0.63	8.02	2.81	3.21	0.80
1305	0.94	7.17	2.51	2.87	0.72	2.77	0.97	1.11	0.28	4.19	1.46	1.67	0.42	5.12	1.79	2.05	0.51	6.29	2.20	2.52	0.63	8.04	2.81	3.22	0.80
1310	0.95	7.19	2.52	2.87	0.72	2.78	0.97	1.11	0.28	4.20	1.47	1.68	0.42	5.13	1.80	2.05	0.51	6.31	2.21	2.52	0.63	8.06	2.82	3.22	0.81
1315	0.95	7.20	2.52	2.88	0.72	2.79	0.98	1.12	0.28	4.21	1.47	1.68	0.42	5.14	1.80	2.06	0.51	6.33	2.21	2.53	0.63	8.08	2.83	3.23	0.81
1320	0.95	7.22	2.53	2.89	0.72	2.80	0.98	1.12	0.28	4.22	1.48	1.69	0.42	5.16	1.80	2.06	0.52	6.34	2.22	2.54	0.63	8.10	2.84	3.24	0.81
1325	0.95	7.24	2.53	2.90	0.72	2.80	0.98	1.12	0.28	4.23	1.48	1.69	0.42	5.17	1.81	2.07	0.52	6.36	2.22	2.54	0.64	8.12	2.84	3.25	0.81
1330	0.95	7.26	2.54	2.90	0.73	2.81	0.98	1.12	0.28	4.24	1.48	1.70	0.42	5.18	1.81	2.07	0.52	6.37	2.23	2.55	0.64	8.14	2.85	3.26	0.81
1335	0.96	7.28	2.55	2.91	0.73	2.82	0.99	1.13	0.28	4.25	1.49	1.70	0.42	5.19	1.82	2.08	0.52	6.39	2.24	2.56	0.64	8.16	2.86	3.27	0.82
1340	0.96	7.29	2.55	2.92	0.73	2.82	0.99	1.13	0.28	4.26	1.49	1.70	0.43	5.21	1.82	2.08	0.52	6.40	2.24	2.56	0.64	8.18	2.86	3.27	0.82
1345	0.96	7.31	2.56	2.92	0.73	2.83	0.99	1.13	0.28	4.27	1.49	1.71	0.43	5.22	1.83	2.09	0.52	6.42	2.25	2.57	0.64	8.20	2.87	3.28	0.82
1350	0.96	7.33	2.56	2.93	0.73	2.84	0.99	1.13	0.28	4.28	1.50	1.71	0.43	5.23	1.83	2.09	0.52	6.43	2.25	2.57	0.64	8.22	2.88	3.29	0.82
1355	0.97	7.34	2.57	2.94	0.73	2.84	0.99	1.14	0.28	4.29	1.50	1.72	0.43	5.24	1.83	2.10	0.52	6.45	2.26	2.58	0.64	8.24	2.88	3.30	0.82
1360	0.97	7.36	2.58	2.94	0.74	2.85	1.00	1.14	0.28	4.30	1.50	1.72	0.43	5.25	1.84	2.10	0.53	6.46	2.26	2.58	0.65	8.26	2.89	3.30	0.83
1365	0.97	7.38	2.58	2.95	0.74	2.85	1.00	1.14	0.29	4.31	1.51	1.72	0.43	5.27	1.84	2.11	0.53	6.48	2.27	2.59	0.65	8.28	2.90	3.31	0.83
1370	0.97	7.39	2.59	2.96	0.74	2.86	1.00	1.14	0.29	4.32	1.51	1.73	0.43	5.28	1.85	2.11	0.53	6.49	2.27	2.60	0.65	8.29	2.90	3.32	0.83
1375	0.97	7.41	2.59	2.96	0.74	2.87	1.00	1.15	0.29	4.33	1.51	1.73	0.43	5.29	1.85	2.12	0.53	6.50	2.28	2.60	0.65	8.31	2.91	3.32	0.83
1380	0.98	7.42	2.60	2.97	0.74	2.87	1.01	1.15	0.29	4.34	1.52	1.73	0.43	5.30	1.86	2.12	0.53	6.52	2.28	2.61	0.65	8.33	2.92	3.33	0.83
1385	0.98	7.44	2.60	2.98	0.74	2.88	1.01	1.15	0.29	4.34	1.52	1.74	0.43	5.31	1.86	2.12	0.53	6.53	2.29	2.61	0.65	8.35	2.92	3.34	0.83
1390	0.98	7.45	2.61	2.98	0.75	2.88	1.01	1.15	0.29	4.35	1.52	1.74	0.44	5.32	1.86	2.13	0.53	6.54	2.29	2.62	0.65	8.36	2.93	3.35	0.84
1395	0.98	7.47	2.61	2.99	0.75	2.89	1.01	1.16	0.29	4.36	1.53	1.74	0.44	5.33	1.87	2.13	0.53	6.56	2.30	2.62	0.66	8.38	2.93	3.35	0.84
1400	0.98	7.48	2.62	2.99	0.75	2.90	1.01	1.16	0.29	4.37	1.53	1.75	0.44	5.34	1.87	2.14	0.53	6.57	2.30	2.63	0.66	8.40	2.94	3.36	0.84
1405	0.99	7.50	2.62	3.00	0.75	2.90	1.02	1.16	0.29	4.38	1.53	1.75	0.44	5.35	1.87	2.14	0.54	6.58	2.30	2.63	0.66	8.41	2.94	3.37	0.84
1410	0.99	7.51	2.63	3.01	0.75	2.91	1.02	1.16	0.29	4.39	1.54	1.76	0.44	5.36	1.88	2.15	0.54	6.60	2.31	2.64	0.66	8.43	2.95	3.37	0.84
1415	0.99	7.53	2.64	3.01	0.75	2.91	1.02	1.17	0.29	4.40	1.54	1.76	0.44	5.38	1.88	2.15	0.54	6.61	2.31	2.64	0.66	8.45	2.96	3.38	0.84
1420	0.99	7.54	2.64	3.02	0.75	2.92	1.02	1.17	0.29	4.41	1.54	1.76	0.44	5.39	1.89	2.15	0.54	6.62	2.32	2.65	0.66	8.46	2.96	3.39	0.85
1425	0.99	7.56	2.65	3.02	0.76	2.92	1.02	1.17	0.29	4.41	1.54	1.77	0.44	5.40	1.89	2.16	0.54	6.64	2.32	2.65	0.66	8.48	2.97	3.39	0.85
1430	1.00	7.57	2.65	3.03	0.76	2.93	1.03	1.17	0.29	4.42	1.55	1.77	0.44	5.41	1.89	2.16	0.54	6.65	2.33	2.66	0.66	8.50	2.97	3.40	0.85
1435	1.00	7.59	2.66	3.03	0.76	2.94	1.03	1.17	0.29	4.43	1.55	1.77	0.44	5.42	1.90	2.17	0.54	6.66	2.33	2.66	0.67	8.51	2.98	3.40	0.85
1440	1.00	7.60	2.66	3.04	0.76	2.94	1.03	1.18	0.29	4.44	1.55	1.78	0.44	5.43	1.90	2.17	0.54	6.67	2.34	2.67	0.67	8.53	2.98	3.41	0.85

SUBAREA A2 HYETOPGRAPHS

- Per 2006 Los Angeles County Hydrology Manual Appendix A

24 HR ISOHYETS, IN					
50 YR	2 YR	5 YR	10 YR	25 YR	100 YR
7.4	2.9	4.3	5.3	6.5	8.3



UNIT HYETOGRAPH	Depth	50 YR - 24 HR				2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR				
		Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	
0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.01	0.08	0.03	0.03	0.01	0.03	0.01	0.01	0.00	0.05	0.02	0.02	0.00	0.06	0.02	0.02	0.01	0.07	0.03	0.03	0.01	0.09	0.03	0.04	0.01	
60	0.02	0.17	0.06	0.07	0.02	0.06	0.02	0.03	0.01	0.10	0.03	0.04	0.01	0.12	0.04	0.05	0.01	0.15	0.05	0.06	0.01	0.19	0.06	0.07	0.02	
90	0.03	0.25	0.09	0.10	0.02	0.10	0.03	0.04	0.01	0.15	0.05	0.06	0.01	0.18	0.06	0.07	0.02	0.22	0.08	0.09	0.02	0.28	0.10	0.11	0.03	
120	0.05	0.34	0.12	0.13	0.03	0.13	0.05	0.05	0.01	0.20	0.07	0.08	0.02	0.24	0.08	0.10	0.02	0.29	0.10	0.12	0.03	0.38	0.13	0.15	0.04	
150	0.06	0.42	0.15	0.17	0.04	0.16	0.06	0.07	0.02	0.25	0.09	0.10	0.02	0.30	0.11	0.12	0.03	0.37	0.13	0.15	0.04	0.47	0.17	0.19	0.05	
180	0.07	0.51	0.18	0.20	0.05	0.20	0.07	0.08	0.02	0.30	0.10	0.12	0.03	0.36	0.13	0.15	0.04	0.45	0.16	0.18	0.04	0.57	0.20	0.23	0.06	
210	0.08	0.60	0.21	0.24	0.06	0.23	0.08	0.09	0.02	0.35	0.12	0.14	0.03	0.43	0.15	0.17	0.04	0.53	0.18	0.21	0.05	0.67	0.24	0.27	0.07	
240	0.09	0.69	0.24	0.28	0.07	0.27	0.09	0.11	0.03	0.40	0.14	0.16	0.04	0.49	0.17	0.20	0.05	0.61	0.21	0.24	0.06	0.77	0.27	0.31	0.08	
270	0.11	0.78	0.27	0.31	0.08	0.30	0.11	0.12	0.03	0.46	0.16	0.18	0.05	0.56	0.20	0.22	0.06	0.69	0.24	0.27	0.07	0.88	0.31	0.35	0.09	
300	0.12	0.87	0.31	0.35	0.09	0.34	0.12	0.14	0.03	0.51	0.18	0.20	0.05	0.62	0.22	0.25	0.06	0.77	0.27	0.31	0.08	0.98	0.34	0.39	0.10	
330	0.13	0.97	0.34	0.39	0.10	0.38	0.13	0.15	0.04	0.57	0.20	0.23	0.06	0.69	0.24	0.28	0.07	0.85	0.30	0.34	0.09	1.09	0.38	0.44	0.11	
360	0.14	1.07	0.37	0.43	0.11	0.41	0.14	0.17	0.04	0.62	0.22	0.25	0.06	0.76	0.27	0.30	0.08	0.94	0.33	0.37	0.09	1.20	0.42	0.48	0.12	
390	0.16	1.16	0.41	0.47	0.12	0.45	0.16	0.18	0.05	0.68	0.24	0.27	0.07	0.83	0.29	0.33	0.08	1.02	0.36	0.41	0.10	1.31	0.46	0.52	0.13	
420	0.17	1.26	0.44	0.51	0.13	0.49	0.17	0.20	0.05	0.74	0.26	0.30	0.07	0.90	0.32	0.36	0.09	1.11	0.39	0.44	0.11	1.42	0.50	0.57	0.14	
450	0.18	1.37	0.48	0.55	0.14	0.53	0.19	0.21	0.05	0.80	0.28	0.32	0.08	0.98	0.34	0.39	0.10	1.20	0.42	0.48	0.12	1.53	0.54	0.61	0.15	
480	0.20	1.47	0.51	0.59	0.15	0.57	0.20	0.23	0.06	0.86	0.30	0.34	0.09	1.05	0.37	0.42	0.11	1.29	0.45	0.52	0.13	1.65	0.58	0.66	0.17	
510	0.21	1.58	0.55	0.63	0.16	0.61	0.21	0.24	0.06	0.92	0.32	0.37	0.09	1.13	0.39	0.45	0.11	1.38	0.48	0.55	0.14	1.77	0.62	0.71	0.18	
540	0.23	1.69	0.59	0.67	0.17	0.65	0.23	0.26	0.07	0.98	0.34	0.39	0.10	1.20	0.42	0.48	0.12	1.48	0.52	0.59	0.15	1.89	0.66	0.76	0.19	
570	0.24	1.80	0.63	0.72	0.18	0.70	0.24	0.28	0.07	1.05	0.37	0.42	0.10	1.28	0.45	0.51	0.13	1.58	0.55	0.63	0.16	2.02	0.71	0.81	0.20	

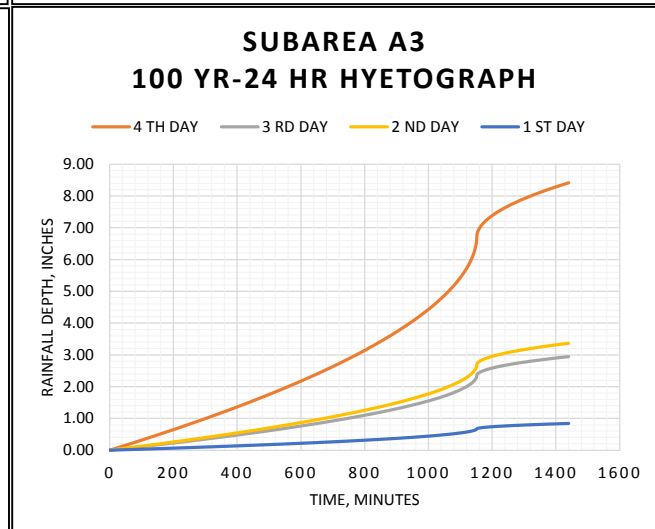
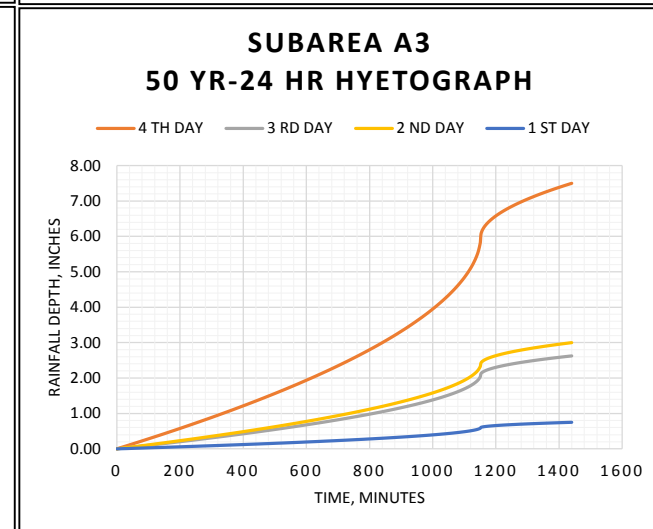
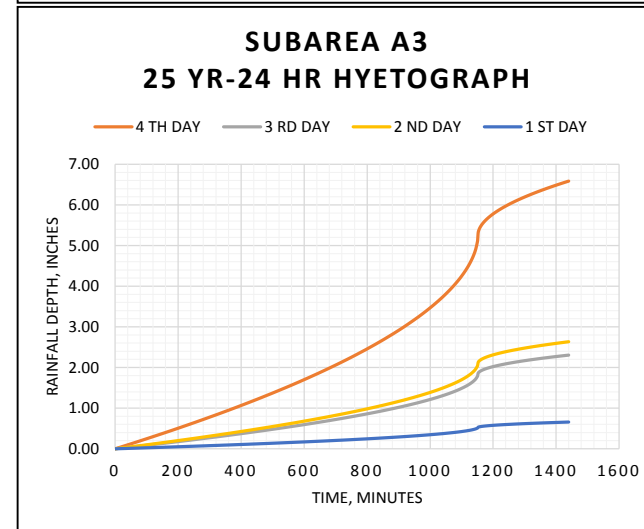
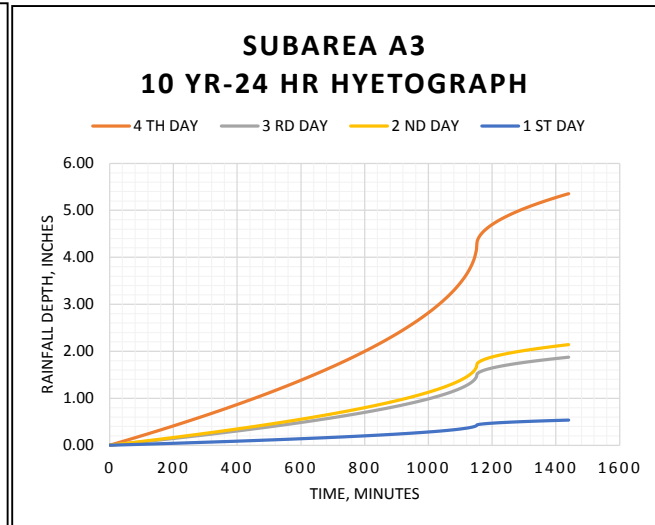
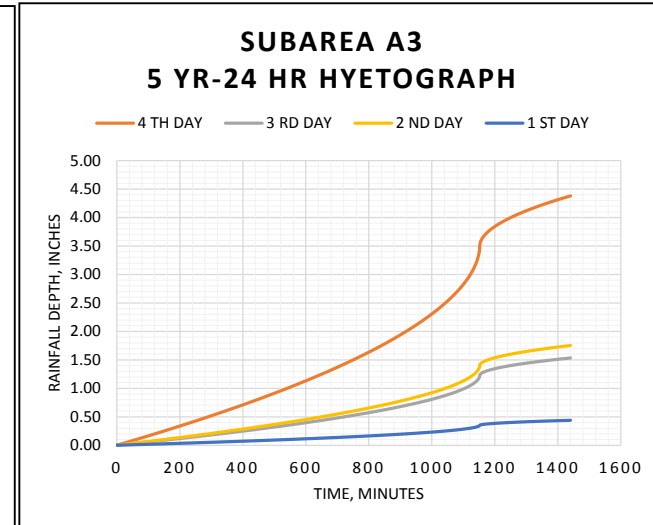
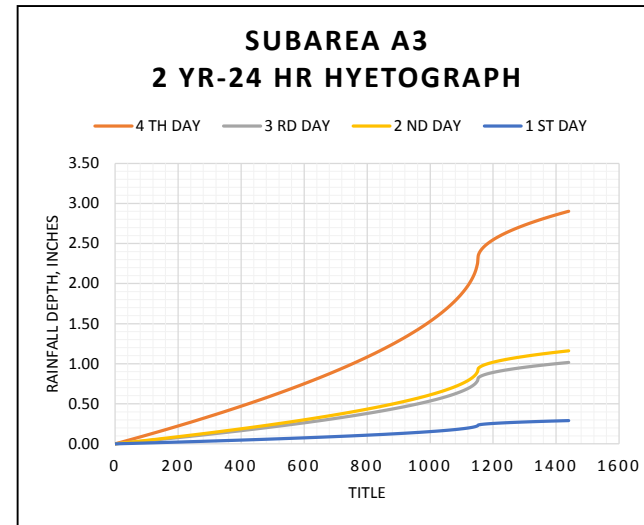
UNIT HYETOGRAPH		50 YR - 24 HR				2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR							
Time	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth			
	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
600	0.26	1.91	0.67	0.76	0.19	0.74	0.26	0.30	0.07	1.12	0.39	0.45	0.11	1.36	0.48	0.55	0.14	1.68	0.59	0.67	0.17	2.14	0.75	0.86	0.21				
630	0.27	2.03	0.71	0.81	0.20	0.79	0.27	0.31	0.08	1.18	0.41	0.47	0.12	1.45	0.51	0.58	0.14	1.78	0.62	0.71	0.18	2.28	0.80	0.91	0.23				
660	0.29	2.15	0.75	0.86	0.21	0.83	0.29	0.33	0.08	1.25	0.44	0.50	0.13	1.53	0.54	0.61	0.15	1.89	0.66	0.75	0.19	2.41	0.84	0.96	0.24				
690	0.31	2.27	0.80	0.91	0.23	0.88	0.31	0.35	0.09	1.33	0.46	0.53	0.13	1.62	0.57	0.65	0.16	2.00	0.70	0.80	0.20	2.55	0.89	1.02	0.25				
720	0.32	2.40	0.84	0.96	0.24	0.93	0.33	0.37	0.09	1.40	0.49	0.56	0.14	1.71	0.60	0.69	0.17	2.11	0.74	0.84	0.21	2.69	0.94	1.08	0.27				
750	0.34	2.53	0.89	1.01	0.25	0.98	0.34	0.39	0.10	1.48	0.52	0.59	0.15	1.81	0.63	0.72	0.18	2.22	0.78	0.89	0.22	2.84	0.99	1.14	0.28				
780	0.36	2.67	0.93	1.07	0.27	1.03	0.36	0.41	0.10	1.56	0.55	0.62	0.16	1.91	0.67	0.76	0.19	2.34	0.82	0.94	0.23	2.99	1.05	1.20	0.30				
810	0.38	2.81	0.98	1.12	0.28	1.09	0.38	0.43	0.11	1.64	0.57	0.66	0.16	2.01	0.70	0.80	0.20	2.47	0.86	0.99	0.25	3.15	1.10	1.26	0.32				
840	0.40	2.96	1.04	1.18	0.30	1.14	0.40	0.46	0.11	1.73	0.60	0.69	0.17	2.11	0.74	0.84	0.21	2.60	0.91	1.04	0.26	3.32	1.16	1.33	0.33				
870	0.42	3.11	1.09	1.24	0.31	1.20	0.42	0.48	0.12	1.82	0.64	0.73	0.18	2.22	0.78	0.89	0.22	2.73	0.96	1.09	0.27	3.49	1.22	1.40	0.35				
900	0.44	3.27	1.15	1.31	0.33	1.27	0.44	0.51	0.13	1.91	0.67	0.76	0.19	2.34	0.82	0.94	0.23	2.88	1.01	1.15	0.29	3.67	1.29	1.47	0.37				
930	0.47	3.45	1.21	1.38	0.34	1.33	0.47	0.53	0.13	2.01	0.70	0.81	0.20	2.46	0.86	0.98	0.25	3.03	1.06	1.21	0.30	3.87	1.35	1.55	0.39				
960	0.49	3.63	1.27	1.45	0.36	1.40	0.49	0.56	0.14	2.12	0.74	0.85	0.21	2.59	0.91	1.04	0.26	3.19	1.12	1.27	0.32	4.07	1.43	1.63	0.41				
970	0.50	3.69	1.29	1.48	0.37	1.43	0.50	0.57	0.14	2.16	0.75	0.86	0.22	2.64	0.92	1.05	0.26	3.24	1.14	1.30	0.32	4.14	1.45	1.66	0.41				
980	0.51	3.76	1.32	1.50	0.38	1.45	0.51	0.58	0.15	2.20	0.77	0.88	0.22	2.68	0.94	1.07	0.27	3.30	1.16	1.32	0.33	4.22	1.48	1.69	0.42				
990	0.52	3.83	1.34	1.53	0.38	1.48	0.52	0.59	0.15	2.23	0.78	0.89	0.22	2.73	0.96	1.09	0.27	3.36	1.18	1.34	0.34	4.29	1.50	1.72	0.43				
1000	0.53	3.90	1.36	1.56	0.39	1.51	0.53	0.60	0.15	2.28	0.80	0.91	0.23	2.78	0.97	1.11	0.28	3.42	1.20	1.37	0.34	4.37	1.53	1.75	0.44				
1010	0.54	3.97	1.39	1.59	0.40	1.54	0.54	0.61	0.15	2.32	0.81	0.93	0.23	2.83	0.99	1.13	0.28	3.48	1.22	1.39	0.35	4.45	1.56	1.78	0.45				
1020	0.55	4.04	1.41	1.62	0.40	1.56	0.55	0.63	0.16	2.36	0.83	0.94	0.24	2.89	1.01	1.15	0.29	3.55	1.24	1.42	0.35	4.54	1.59	1.81	0.45				
1030	0.56	4.12	1.44	1.65	0.41	1.59	0.56	0.64	0.16	2.41	0.84	0.96	0.24	2.94	1.03	1.18	0.29	3.62	1.27	1.45	0.36	4.62	1.62	1.85	0.46				
1040	0.57	4.20	1.47	1.68	0.42	1.62	0.57	0.65	0.16	2.45	0.86	0.98	0.25	3.00	1.05	1.20	0.30	3.69	1.29	1.47	0.37	4.71	1.65	1.88	0.47				
1050	0.58	4.28	1.50	1.71	0.43	1.66	0.58	0.66	0.17	2.50	0.88	1.00	0.25	3.06	1.07	1.22	0.31	3.76	1.32	1.50	0.38	4.80	1.68	1.92	0.48				
1060	0.59	4.37	1.53	1.75	0.44	1.69	0.59	0.68	0.17	2.55	0.89	1.02	0.26	3.12	1.09	1.25	0.31	3.84	1.34	1.53	0.38	4.90	1.72	1.96	0.49				
1070	0.60	4.46	1.56	1.78	0.45	1.73	0.60	0.69	0.17	2.61	0.91	1.04	0.26	3.19	1.11	1.27	0.32	3.92	1.37	1.57	0.39	5.01	1.75	2.00	0.50				
1080	0.62	4.56	1.60	1.82	0.46	1.76	0.62	0.71	0.18	2.66	0.93	1.06	0.27	3.25	1.14	1.30	0.33	4.00	1.40	1.60	0.40	5.11	1.79	2.05	0.51				
1090	0.63	4.66	1.63	1.86	0.47	1.80	0.63	0.72	0.18	2.72	0.95	1.09	0.27	3.33	1.17	1.33	0.33	4.09	1.43	1.64	0.41	5.23	1.83	2.09	0.52				
1100	0.65	4.77	1.67	1.91	0.48	1.85	0.65	0.74	0.18	2.79	0.98	1.12	0.28	3.41	1.19	1.36	0.34	4.19	1.47	1.68	0.42	5.36	1.87	2.14	0.54				
1110	0.66	4.90	1.71	1.96	0.49	1.89	0.66	0.76	0.19	2.86	1.00	1.14	0.29	3.50	1.22	1.40	0.35	4.30	1.50	1.72	0.43	5.49	1.92	2.20	0.55				
1115	0.67	4.96	1.74	1.99	0.50	1.92	0.67	0.77	0.19	2.90	1.01	1.16	0.29	3.54	1.24	1.42	0.35	4.36	1.53	1.74	0.44	5.57	1.95	2.23	0.56				
1120	0.68	5.03	1.76	2.01	0.50	1.95	0.68	0.78	0.19	2.94	1.03	1.18	0.29	3.59	1.26	1.44	0.36	4.42	1.55	1.77	0.44	5.65	1.98	2.26	0.56				
1125	0.69	5.11	1.79	2.04	0.51	1.98	0.69	0.79	0.20	2.98	1.04	1.19	0.30	3.65	1.28	1.46	0.36	4.49	1.57	1.79	0.45	5.73	2.01	2.29	0.57				
1130	0.70	5.19	1.82	2.08	0.52	2.01	0.70	0.80	0.20	3.03	1.06	1.21	0.30	3.71	1.30	1.48	0.37	4.56	1.60	1.82	0.46	5.83	2.04	2.33	0.58				
1135	0.71	5.29	1.85	2.11	0.53	2.05	0.72	0.82	0.20	3.09	1.08	1.23	0.31	3.77	1.32	1.51	0.38	4.64	1.62	1.86	0.46	5.93	2.08	2.37	0.59				
1136	0.72	5.31	1.86	2.12	0.53	2.05	0.72	0.82	0.21	3.10	1.08	1.24	0.31	3.79	1.33	1.52	0.38	4.66	1.63	1.86	0.47	5.95	2.08	2.38	0.60				
1137	0.72	5.33	1.86	2.13	0.53	2.06	0.72	0.82	0.21	3.11	1.09	1.24	0.31	3.80	1.33	1.52	0.38	4.68	1.64	1.87	0.47	5.98	2.09	2.39	0.60				
1138	0.72	5.35	1.87	2.14	0.53	2.07	0.72	0.83	0.21	3.12	1.09	1.25	0.31	3.82	1.34	1.53	0.38	4.70	1.64	1.88	0.47	6.00	2.10	2.40	0.60				
1139	0.73	5.37	1.88	2.15	0.54	2.08	0.73	0.83	0.21	3.14	1.10	1.25	0.31	3.83	1.34	1.53	0.38	4.72	1.65	1.89	0.47	6.03	2.11	2.41	0.60				
1140	0.73	5.39	1.89	2.16	0.54	2.09	0.73	0.83	0.21	3.15	1.10	1.26	0.31	3.85	1.35	1.54	0.39	4.74	1.66	1.89	0.47	6.05	2.12	2.42	0.61				
1145	0.75	5.52	1.93	2.21	0.55	2.14	0.75	0.86	0.21	3.23	1.13	1.29	0.32	3.94	1.38	1.58	0.39	4.85	1.70	1.94	0.49	6.20	2.17	2.48	0.62				
1150	0.77	5.72	2.00	2.29	0.57	2.21	0.77	0.88	0.22	3.34	1.17	1.34	0.33	4.08	1.43	1.63	0.41	5.02	1.76	2.01	0.50	6.41	2.24	2.57	0.64				
1151	0.78	5.78	2.02	2.31	0.58	2.24	0.78	0.89	0.22	3.37	1.18	1.35	0.34	4.13	1.44	1.65	0.41	5.07	1.78	2.03	0.51	6.48	2.27	2.59	0.65				
1152	0.80	5.92	2.07	2.37	0.59	2.29	0.80	0.92	0.23	3.46	1.21	1.38	0.35	4.23	1.48	1.69	0.42	5.20	1.82	2.08	0.52	6.64	2.32	2.66	0.66				
1153	0.81	5.99	2.10	2.40	0.60	2.32	0.81	0.93	0.23	3.50	1.23	1.40	0.35	4.28	1.50	1.71	0.43	5.26	1.84	2.10	0.53	6.72	2.35	2.69	0.67				
1154	0.81	6.03	2.11	2.41	0.60	2.33	0.82	0.93	0.23	3.52	1.23	1.41	0.35	4.30	1.51	1.72	0.43	5.29	1.85	2.12	0.53	6.76	2.37	2.70	0.68				
1155	0.82	6.05	2.12	2.42	0.61	2.34	0.82	0.94	0.23	3.53	1.24	1.41	0.35	4.32	1.51	1.73	0.43	5.31	1.86	2.13	0.53	6.79	2.38	2.72	0.68				
1156	0.82	6.07	2.13	2.43	0.61	2.35	0.82	0.94	0.24	3.55	1.24	1.42	0.35	4.34	1.52	1.73	0.43	5.33	1.87	2.13	0.53	6.81	2.39	2.73	0.68				
1157	0.82	6.09	2.13	2.44	0.61	2.36	0.83	0.94	0.24	3.56	1.25	1.42	0.36	4.35	1.52	1.74	0.44	5.35	1.87	2.14	0.53	6.84	2.39	2.73	0.68				
1158	0.83	6.11	2.14	2.44	0.61	2.36	0.83	0.95	0.24	3.57	1.25	1.43	0.36	4.36	1.53	1.75	0.44	5.36	1.88	2.15	0.54	6.86	2.40	2.74	0.69				
1159	0.83	6.13	2.14	2.45	0.61	2.37	0.83	0.95	0.24	3.58	1.25	1.43	0.36	4.37	1.53	1.75	0.44	5.38	1.88	2.15	0.54	6.87	2.41	2.75	0.69				
1160	0.83	6.14	2.15	2.46																									

UNIT HYETOGRAPH	50 YR - 24 HR					2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR							
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth		
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
1285	0.93	6.90	2.42	2.76	0.69	2.67	0.93	1.07	0.27	4.03	1.41	1.61	0.40	4.93	1.72	1.97	0.49	6.06	2.12	2.42	0.61	7.74	2.71	3.10	0.77				
1290	0.94	6.92	2.42	2.77	0.69	2.68	0.94	1.07	0.27	4.04	1.41	1.62	0.40	4.94	1.73	1.98	0.49	6.08	2.13	2.43	0.61	7.77	2.72	3.11	0.78				
1295	0.94	6.94	2.43	2.78	0.69	2.69	0.94	1.07	0.27	4.05	1.42	1.62	0.41	4.96	1.73	1.98	0.50	6.09	2.13	2.44	0.61	7.79	2.73	3.12	0.78				
1300	0.94	6.96	2.44	2.78	0.70	2.69	0.94	1.08	0.27	4.06	1.42	1.63	0.41	4.97	1.74	1.99	0.50	6.11	2.14	2.44	0.61	7.81	2.73	3.12	0.78				
1305	0.94	6.98	2.44	2.79	0.70	2.70	0.95	1.08	0.27	4.08	1.43	1.63	0.41	4.98	1.74	1.99	0.50	6.13	2.14	2.45	0.61	7.83	2.74	3.13	0.78				
1310	0.95	7.00	2.45	2.80	0.70	2.71	0.95	1.08	0.27	4.09	1.43	1.63	0.41	5.00	1.75	2.00	0.50	6.14	2.15	2.46	0.61	7.85	2.75	3.14	0.79				
1315	0.95	7.01	2.46	2.81	0.70	2.71	0.95	1.09	0.27	4.10	1.43	1.64	0.41	5.01	1.75	2.00	0.50	6.16	2.16	2.46	0.62	7.87	2.75	3.15	0.79				
1320	0.95	7.03	2.46	2.81	0.70	2.72	0.95	1.09	0.27	4.11	1.44	1.64	0.41	5.02	1.76	2.01	0.50	6.17	2.16	2.47	0.62	7.89	2.76	3.16	0.79				
1325	0.95	7.05	2.47	2.82	0.70	2.73	0.95	1.09	0.27	4.12	1.44	1.65	0.41	5.03	1.76	2.01	0.50	6.19	2.17	2.48	0.62	7.91	2.77	3.16	0.79				
1330	0.95	7.07	2.47	2.83	0.71	2.73	0.96	1.09	0.27	4.13	1.44	1.65	0.41	5.05	1.77	2.02	0.50	6.20	2.17	2.48	0.62	7.93	2.78	3.17	0.79				
1335	0.96	7.08	2.48	2.83	0.71	2.74	0.96	1.10	0.27	4.14	1.45	1.65	0.41	5.06	1.77	2.02	0.51	6.22	2.18	2.49	0.62	7.95	2.78	3.18	0.79				
1340	0.96	7.10	2.49	2.84	0.71	2.75	0.96	1.10	0.27	4.15	1.45	1.66	0.41	5.07	1.77	2.03	0.51	6.23	2.18	2.49	0.62	7.97	2.79	3.19	0.80				
1345	0.96	7.12	2.49	2.85	0.71	2.75	0.96	1.10	0.28	4.16	1.45	1.66	0.42	5.08	1.78	2.03	0.51	6.25	2.19	2.50	0.62	7.99	2.79	3.19	0.80				
1350	0.96	7.13	2.50	2.85	0.71	2.76	0.97	1.10	0.28	4.17	1.46	1.67	0.42	5.09	1.78	2.04	0.51	6.26	2.19	2.51	0.63	8.00	2.80	3.20	0.80				
1355	0.97	7.15	2.50	2.86	0.71	2.77	0.97	1.11	0.28	4.18	1.46	1.67	0.42	5.10	1.79	2.04	0.51	6.28	2.20	2.51	0.63	8.02	2.81	3.21	0.80				
1360	0.97	7.17	2.51	2.87	0.72	2.77	0.97	1.11	0.28	4.18	1.46	1.67	0.42	5.12	1.79	2.05	0.51	6.29	2.20	2.52	0.63	8.04	2.81	3.22	0.80				
1365	0.97	7.18	2.51	2.87	0.72	2.78	0.97	1.11	0.28	4.19	1.47	1.68	0.42	5.13	1.79	2.05	0.51	6.31	2.21	2.52	0.63	8.06	2.82	3.22	0.81				
1370	0.97	7.20	2.52	2.88	0.72	2.79	0.97	1.11	0.28	4.20	1.47	1.68	0.42	5.14	1.80	2.06	0.51	6.32	2.21	2.53	0.63	8.07	2.83	3.23	0.81				
1375	0.97	7.21	2.52	2.88	0.72	2.79	0.98	1.12	0.28	4.21	1.47	1.68	0.42	5.15	1.80	2.06	0.51	6.33	2.22	2.53	0.63	8.09	2.83	3.24	0.81				
1380	0.98	7.23	2.53	2.89	0.72	2.80	0.98	1.12	0.28	4.22	1.48	1.69	0.42	5.16	1.81	2.06	0.52	6.35	2.22	2.54	0.63	8.11	2.84	3.24	0.81				
1385	0.98	7.24	2.53	2.90	0.72	2.80	0.98	1.12	0.28	4.23	1.48	1.69	0.42	5.17	1.81	2.07	0.52	6.36	2.23	2.54	0.64	8.13	2.84	3.25	0.81				
1390	0.98	7.26	2.54	2.90	0.73	2.81	0.98	1.12	0.28	4.24	1.48	1.70	0.42	5.18	1.81	2.07	0.52	6.37	2.23	2.55	0.64	8.14	2.85	3.26	0.81				
1395	0.98	7.27	2.55	2.91	0.73	2.81	0.99	1.13	0.28	4.25	1.49	1.70	0.42	5.19	1.82	2.08	0.52	6.39	2.23	2.55	0.64	8.16	2.86	3.26	0.82				
1400	0.98	7.29	2.55	2.91	0.73	2.82	0.99	1.13	0.28	4.26	1.49	1.70	0.43	5.20	1.82	2.08	0.52	6.40	2.24	2.56	0.64	8.18	2.86	3.27	0.82				
1405	0.99	7.30	2.56	2.92	0.73	2.83	0.99	1.13	0.28	4.26	1.49	1.71	0.43	5.21	1.82	2.09	0.52	6.41	2.24	2.56	0.64	8.19	2.87	3.28	0.82				
1410	0.99	7.32	2.56	2.93	0.73	2.83	0.99	1.13	0.28	4.27	1.50	1.71	0.43	5.22	1.83	2.09	0.52	6.42	2.25	2.57	0.64	8.21	2.87	3.28	0.82				
1415	0.99	7.33	2.57	2.93	0.73	2.84	0.99	1.13	0.28	4.28	1.50	1.71	0.43	5.23	1.83	2.09	0.52	6.44	2.25	2.57	0.64	8.22	2.88	3.29	0.82				
1420	0.99	7.34	2.57	2.94	0.73	2.84	0.99	1.14	0.28	4.29	1.50	1.72	0.43	5.24	1.84	2.10	0.52	6.45	2.26	2.58	0.64	8.24	2.88	3.30	0.82				
1425	0.99	7.36	2.58	2.94	0.74	2.85	1.00	1.14	0.28	4.30	1.50	1.72	0.43	5.25	1.84	2.10	0.53	6.46	2.26	2.58	0.65	8.26	2.89	3.30	0.83				
1430	1.00	7.37	2.58	2.95	0.74	2.85	1.00	1.14	0.29	4.31	1.51	1.72	0.43	5.26	1.84	2.11	0.53	6.47	2.27	2.59	0.65	8.27	2.90	3.31	0.83				
1435	1.00	7.39	2.59	2.95	0.74	2.86	1.00	1.14	0.29	4.31	1.51	1.73	0.43	5.27	1.85	2.11	0.53	6.49	2.27	2.59	0.65	8.29	2.90	3.31	0.83				
1440	1.00	7.40	2.59	2.96	0.74	2.86	1.00	1.15	0.29	4.32	1.51	1.73	0.43	5.28	1.85	2.11	0.53	6.50	2.27	2.60	0.65	8.30	2.91	3.32	0.83				

SUBAREA A3 HYETOPGRAPHS

- Per 2006 Los Angeles County Hydrology Manual Appendix A

24 HR ISOHYETS, IN					
50 YR	2 YR	5 YR	10 YR	25 YR	100 YR
7.5	2.9	4.4	5.4	6.6	8.4



UNIT HYETOGRAPH	50 YR - 24 HR				2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR				
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.01	0.08	0.03	0.03	0.01	0.03	0.01	0.01	0.00	0.05	0.02	0.02	0.00	0.06	0.02	0.02	0.01	0.07	0.03	0.03	0.01	0.09	0.03	0.04	0.01
60	0.02	0.17	0.06	0.07	0.02	0.06	0.02	0.03	0.01	0.10	0.03	0.04	0.01	0.12	0.04	0.05	0.01	0.15	0.05	0.06	0.01	0.19	0.07	0.08	0.02
90	0.03	0.25	0.09	0.10	0.03	0.10	0.03	0.04	0.01	0.15	0.05	0.06	0.01	0.18	0.06	0.07	0.02	0.22	0.08	0.09	0.02	0.28	0.10	0.11	0.03
120	0.05	0.34	0.12	0.14	0.03	0.13	0.05	0.05	0.01	0.20	0.07	0.08	0.02	0.24	0.08	0.10	0.02	0.30	0.10	0.12	0.03	0.38	0.13	0.15	0.04
150	0.06	0.43	0.15	0.17	0.04	0.17	0.06	0.07	0.02	0.25	0.09	0.10	0.02	0.31	0.11	0.12	0.03	0.38	0.13	0.15	0.04	0.48	0.17	0.19	0.05
180	0.07	0.52	0.18	0.21	0.05	0.20	0.07	0.08	0.02	0.30	0.11	0.12	0.03	0.37	0.13	0.15	0.04	0.45	0.16	0.18	0.05	0.58	0.20	0.23	0.06
210	0.08	0.61	0.21	0.24	0.06	0.23	0.08	0.09	0.02	0.35	0.12	0.14	0.04	0.43	0.15	0.17	0.04	0.53	0.19	0.21	0.05	0.68	0.24	0.27	0.07
240	0.09	0.70	0.24	0.28	0.07	0.27	0.09	0.11	0.03	0.41	0.14	0.16	0.04	0.50	0.17	0.20	0.05	0.61	0.21	0.25	0.06	0.78	0.27	0.31	0.08
270	0.11	0.79	0.28	0.32	0.08	0.31	0.11	0.12	0.03	0.46	0.16	0.18	0.05	0.57	0.20	0.23	0.06	0.70	0.24	0.28	0.07	0.89	0.31	0.36	0.09
300	0.12	0.89	0.31	0.35	0.09	0.34	0.12	0.14	0.03	0.52	0.18	0.21	0.05	0.63	0.22	0.25	0.06	0.78	0.27	0.31	0.08	0.99	0.35	0.40	0.10
330	0.13	0.98	0.34	0.39	0.10	0.38	0.13	0.15	0.04	0.57	0.20	0.23	0.06	0.70	0.25	0.28	0.07	0.86	0.30	0.35	0.09	1.10	0.39	0.44	0.11
360	0.14	1.08	0.38	0.43	0.11	0.42	0.15	0.17	0.04	0.63	0.22	0.25	0.06	0.77	0.27	0.31	0.08	0.95	0.33	0.38	0.09	1.21	0.42	0.49	0.12
390	0.16	1.18	0.41	0.47	0.12	0.46	0.16	0.18	0.05	0.69	0.24	0.28	0.07	0.84	0.29	0.34	0.08	1.04	0.36	0.41	0.10	1.32	0.46	0.53	0.13
420	0.17	1.28	0.45	0.51	0.13	0.50	0.17	0.20	0.05	0.75	0.26	0.30	0.07	0.92	0.32	0.37	0.09	1.13	0.39	0.45	0.11	1.44	0.50	0.58	0.14

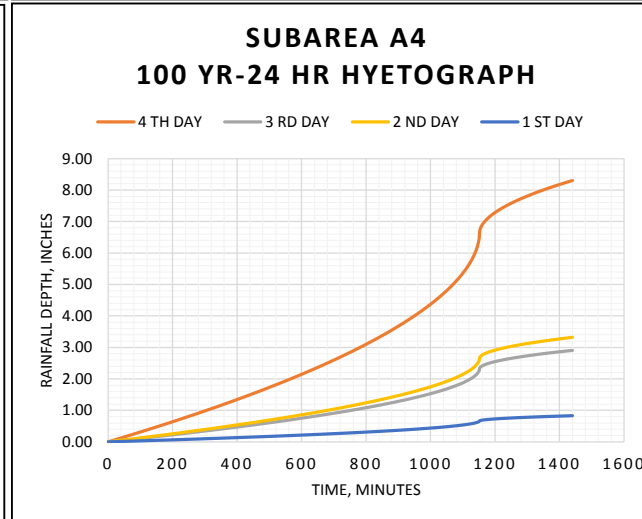
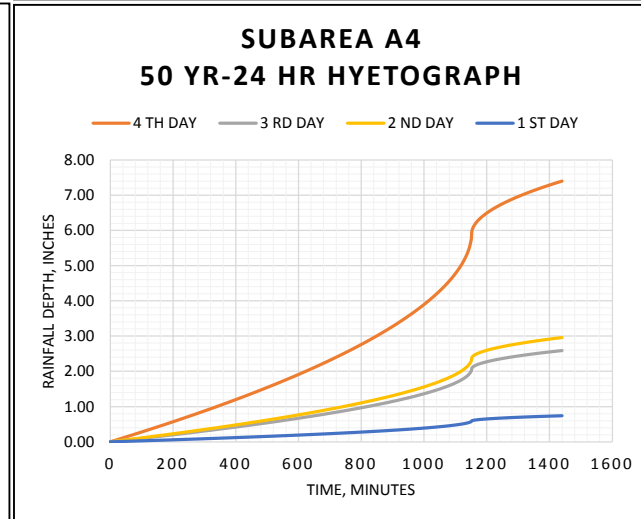
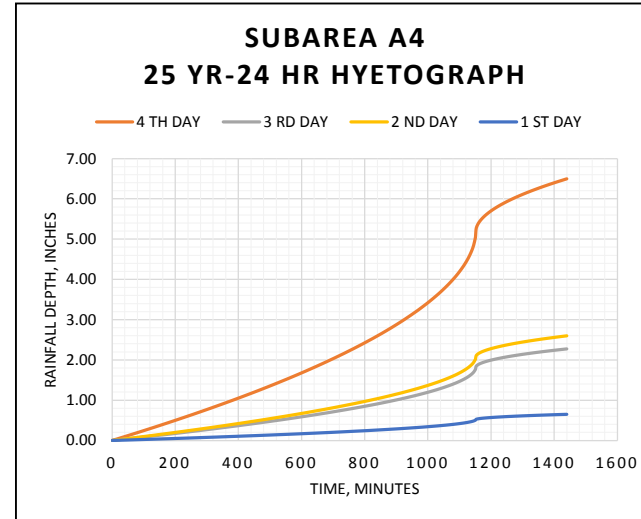
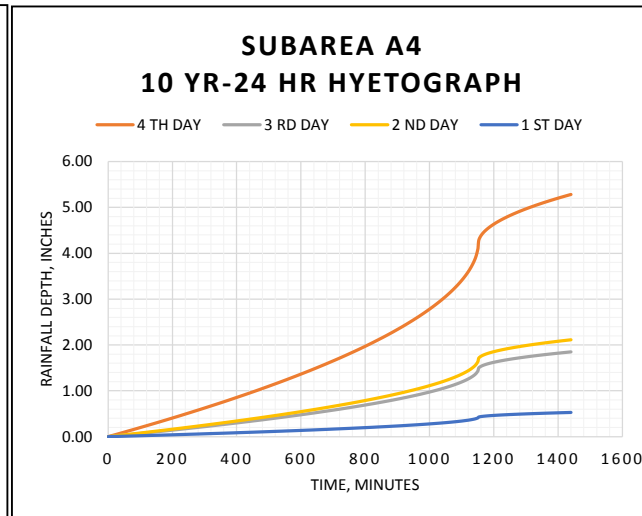
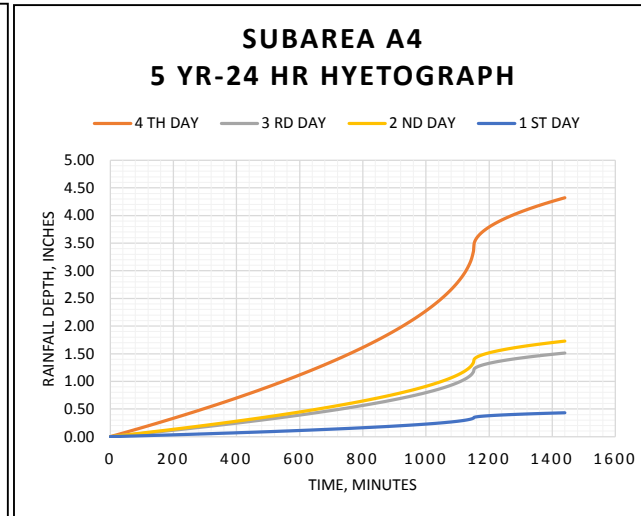
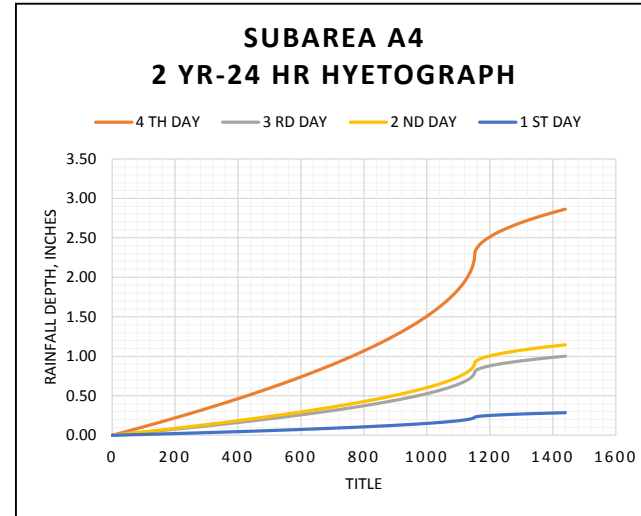
UNIT HYETOGRAPH	50 YR - 24 HR				2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR				
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
450	0.18	1.39	0.48	0.55	0.14	0.54	0.19	0.21	0.05	0.81	0.28	0.32	0.08	0.99	0.35	0.40	0.10	1.22	0.43	0.49	0.12	1.55	0.54	0.62	0.16
480	0.20	1.49	0.52	0.60	0.15	0.58	0.20	0.23	0.06	0.87	0.30	0.35	0.09	1.06	0.37	0.43	0.11	1.31	0.46	0.52	0.13	1.67	0.59	0.67	0.17
510	0.21	1.60	0.56	0.64	0.16	0.62	0.22	0.25	0.06	0.93	0.33	0.37	0.09	1.14	0.40	0.46	0.11	1.40	0.49	0.56	0.14	1.79	0.63	0.72	0.18
540	0.23	1.71	0.60	0.68	0.17	0.66	0.23	0.26	0.07	1.00	0.35	0.40	0.10	1.22	0.43	0.49	0.12	1.50	0.53	0.60	0.15	1.92	0.67	0.77	0.19
570	0.24	1.82	0.64	0.73	0.18	0.71	0.25	0.28	0.07	1.06	0.37	0.43	0.11	1.30	0.46	0.52	0.13	1.60	0.56	0.64	0.16	2.04	0.72	0.82	0.20
600	0.26	1.94	0.68	0.77	0.19	0.75	0.26	0.30	0.07	1.13	0.40	0.45	0.11	1.38	0.48	0.55	0.14	1.70	0.60	0.68	0.17	2.17	0.76	0.87	0.22
630	0.27	2.06	0.72	0.82	0.21	0.80	0.28	0.32	0.08	1.20	0.42	0.48	0.12	1.47	0.51	0.59	0.15	1.81	0.63	0.72	0.18	2.31	0.81	0.92	0.23
660	0.29	2.18	0.76	0.87	0.22	0.84	0.29	0.34	0.08	1.27	0.45	0.51	0.13	1.55	0.54	0.62	0.16	1.91	0.67	0.76	0.19	2.44	0.86	0.98	0.24
690	0.31	2.30	0.81	0.92	0.23	0.89	0.31	0.36	0.09	1.34	0.47	0.54	0.13	1.64	0.58	0.66	0.16	2.02	0.71	0.81	0.20	2.58	0.90	1.03	0.26
720	0.32	2.43	0.85	0.97	0.24	0.94	0.33	0.38	0.09	1.42	0.50	0.57	0.14	1.74	0.61	0.69	0.17	2.14	0.75	0.85	0.21	2.73	0.96	1.09	0.27
750	0.34	2.57	0.90	1.03	0.26	0.99	0.35	0.40	0.10	1.50	0.52	0.60	0.15	1.83	0.64	0.73	0.18	2.25	0.79	0.90	0.23	2.88	1.01	1.15	0.29
780	0.36	2.70	0.95	1.08	0.27	1.05	0.37	0.42	0.10	1.58	0.55	0.63	0.16	1.93	0.68	0.77	0.19	2.37	0.83	0.95	0.24	3.03	1.06	1.21	0.30
810	0.38	2.85	1.00	1.14	0.28	1.10	0.39	0.44	0.11	1.66	0.58	0.67	0.17	2.03	0.71	0.81	0.20	2.50	0.88	1.00	0.25	3.20	1.12	1.28	0.32
840	0.40	3.00	1.05	1.20	0.30	1.16	0.41	0.46	0.12	1.75	0.61	0.70	0.18	2.14	0.75	0.86	0.21	2.63	0.92	1.05	0.26	3.36	1.18	1.35	0.34
870	0.42	3.15	1.10	1.26	0.32	1.22	0.43	0.49	0.12	1.84	0.64	0.74	0.18	2.25	0.79	0.90	0.23	2.77	0.97	1.11	0.28	3.54	1.24	1.42	0.35
900	0.44	3.32	1.16	1.33	0.33	1.28	0.45	0.51	0.13	1.94	0.68	0.78	0.19	2.37	0.83	0.95	0.24	2.91	1.02	1.17	0.29	3.72	1.30	1.49	0.37
930	0.47	3.49	1.22	1.40	0.35	1.35	0.47	0.54	0.14	2.04	0.71	0.82	0.20	2.49	0.87	1.00	0.25	3.07	1.07	1.23	0.31	3.92	1.37	1.57	0.39
960	0.49	3.68	1.29	1.47	0.37	1.42	0.50	0.57	0.14	2.15	0.75	0.86	0.21	2.63	0.92	1.05	0.26	3.23	1.13	1.29	0.32	4.13	1.44	1.65	0.41
970	0.50	3.74	1.31	1.50	0.37	1.45	0.51	0.58	0.14	2.19	0.77	0.87	0.22	2.67	0.94	1.07	0.27	3.29	1.15	1.31	0.33	4.20	1.47	1.68	0.42
980	0.51	3.81	1.33	1.52	0.38	1.47	0.52	0.59	0.15	2.23	0.78	0.89	0.22	2.72	0.95	1.09	0.27	3.35	1.17	1.34	0.33	4.28	1.50	1.71	0.43
990	0.52	3.88	1.36	1.55	0.39	1.50	0.53	0.60	0.15	2.27	0.79	0.91	0.23	2.77	0.97	1.11	0.28	3.41	1.19	1.36	0.34	4.35	1.52	1.74	0.44
1000	0.53	3.95	1.38	1.58	0.39	1.53	0.53	0.61	0.15	2.31	0.81	0.92	0.23	2.82	0.99	1.13	0.28	3.47	1.21	1.39	0.35	4.43	1.55	1.77	0.44
1010	0.54	4.02	1.41	1.61	0.40	1.56	0.54	0.62	0.16	2.35	0.82	0.94	0.23	2.87	1.01	1.15	0.29	3.53	1.24	1.41	0.35	4.51	1.58	1.80	0.45
1020	0.55	4.10	1.43	1.64	0.41	1.59	0.55	0.63	0.16	2.39	0.84	0.96	0.24	2.93	1.02	1.17	0.29	3.60	1.26	1.44	0.36	4.60	1.61	1.84	0.46
1030	0.56	4.17	1.46	1.67	0.42	1.62	0.57	0.65	0.16	2.44	0.85	0.98	0.24	2.98	1.04	1.19	0.30	3.67	1.28	1.47	0.37	4.68	1.64	1.87	0.47
1040	0.57	4.26	1.49	1.70	0.43	1.65	0.58	0.66	0.16	2.49	0.87	0.99	0.25	3.04	1.06	1.22	0.30	3.74	1.31	1.49	0.37	4.77	1.67	1.91	0.48
1050	0.58	4.34	1.52	1.74	0.43	1.68	0.59	0.67	0.17	2.53	0.89	1.01	0.25	3.10	1.08	1.24	0.31	3.81	1.33	1.52	0.38	4.87	1.70	1.95	0.49
1060	0.59	4.43	1.55	1.77	0.44	1.71	0.60	0.69	0.17	2.59	0.91	1.03	0.26	3.16	1.11	1.26	0.32	3.89	1.36	1.56	0.39	4.97	1.74	1.99	0.50
1070	0.60	4.52	1.58	1.81	0.45	1.75	0.61	0.70	0.17	2.64	0.92	1.06	0.26	3.23	1.13	1.29	0.32	3.97	1.39	1.59	0.40	5.07	1.78	2.03	0.51
1080	0.62	4.62	1.62	1.85	0.46	1.79	0.63	0.72	0.18	2.70	0.94	1.08	0.27	3.30	1.15	1.32	0.33	4.06	1.42	1.62	0.41	5.18	1.81	2.07	0.52
1090	0.63	4.72	1.65	1.89	0.47	1.83	0.64	0.73	0.18	2.76	0.97	1.10	0.28	3.37	1.18	1.35	0.34	4.15	1.45	1.66	0.41	5.30	1.86	2.12	0.53
1100	0.65	4.84	1.69	1.94	0.48	1.87	0.66	0.75	0.19	2.83	0.99	1.13	0.28	3.45	1.21	1.38	0.35	4.25	1.49	1.70	0.42	5.43	1.90	2.17	0.54
1110	0.66	4.96	1.74	1.99	0.50	1.92	0.67	0.77	0.19	2.90	1.01	1.16	0.29	3.54	1.24	1.42	0.35	4.36	1.53	1.74	0.44	5.57	1.95	2.23	0.56
1115	0.67	5.03	1.76	2.01	0.50	1.95	0.68	0.78	0.19	2.94	1.03	1.18	0.29	3.59	1.26	1.44	0.36	4.42	1.55	1.77	0.44	5.64	1.98	2.26	0.56
1120	0.68	5.10	1.79	2.04	0.51	1.97	0.69	0.79	0.20	2.98	1.04	1.19	0.30	3.64	1.27	1.46	0.36	4.48	1.57	1.79	0.45	5.72	2.00	2.29	0.57
1125	0.69	5.18	1.81	2.07	0.52	2.00	0.70	0.80	0.20	3.02	1.06	1.21	0.30	3.70	1.29	1.48	0.37	4.55	1.59	1.82	0.45	5.81	2.03	2.32	0.58
1130	0.70	5.26	1.84	2.11	0.53	2.04	0.71	0.81	0.20	3.07	1.08	1.23	0.31	3.76	1.32	1.50	0.38	4.62	1.62	1.85	0.46	5.91	2.07	2.36	0.59
1135	0.71	5.36	1.88	2.14	0.54	2.07	0.73	0.83	0.21	3.13	1.10	1.25	0.31	3.83	1.34	1.53	0.38	4.70	1.65	1.88	0.47	6.01	2.10	2.40	0.60
1136	0.72	5.38	1.88	2.15	0.54	2.08	0.73	0.83	0.21	3.14	1.10	1.26	0.31	3.84	1.34	1.54	0.38	4.72	1.65	1.89	0.47	6.03	2.11	2.41	0.60
1137	0.72	5.40	1.89	2.16	0.54	2.09	0.73	0.84	0.21	3.15	1.10	1.26	0.32	3.85	1.35	1.54	0.39	4.74	1.66	1.90	0.47	6.06	2.12	2.42	0.61
1138	0.72	5.42	1.90	2.17	0.54	2.10	0.73	0.84	0.21	3.17	1.11	1.27	0.32	3.87	1.35	1.55	0.39	4.76	1.67	1.90	0.48	6.08	2.13	2.43	0.61
1139	0.73	5.44	1.90	2.18	0.54	2.11	0.74	0.84	0.21	3.18	1.11	1.27	0.32	3.89	1.36	1.55	0.39	4.78	1.67	1.91	0.48	6.11	2.14	2.44	0.61
1140	0.73	5.47	1.91	2.19	0.55	2.12	0.74	0.85	0.21	3.19	1.12	1.28	0.32	3.90	1.37	1.56	0.39	4.80	1.68	1.92	0.48	6.13	2.15	2.45	0.61
1145	0.75	5.60	1.96	2.24	0.56	2.17	0.76	0.87	0.22	3.27	1.14	1.31	0.33	4.00	1.40	1.60	0.40	4.92	1.72	1.97	0.49	6.28	2.20	2.51	0.63
1150	0.77	5.79	2.03	2.32	0.58	2.24	0.78	0.90	0.22	3.38	1.18	1.35	0.34	4.14	1.45	1.65	0.41	5.09	1.78	2.03	0.51	6.50	2.28	2.60	0.65
1151	0.78	5.86	2.05	2.34	0.59	2.27	0.79	0.91	0.23	3.42	1.20	1.37	0.34	4.18	1.46	1.67	0.42	5.14	1.80	2.06	0.51	6.57	2.30	2.63	0.66
1152	0.80	6.00	2.10	2.40	0.60	2.32	0.81	0.93	0.23	3.50	1.23	1.40	0.35	4.28	1.50	1.71	0.43	5.27	1.84	2.11	0.53	6.73	2.36	2.69	0.67
1153	0.81	6.07	2.13	2.43	0.61	2.35	0.82	0.94	0.24	3.55	1.24	1.42	0.35	4.34	1.52	1.73	0.43	5.33	1.87	2.13	0.53	6.82	2.39	2.73	0.68
1154	0.81	6.11	2.14	2.44	0.61	2.36	0.83	0.95	0.24	3.57	1.25	1.43	0.36	4.36	1.53	1.74	0.44	5.36	1.88	2.15	0.54	6.85	2.40	2.74	0.69
1155	0.82	6.13	2.15	2.45	0.61	2.37	0.83	0.95	0.24	3.58															

UNIT HYETOGRAPH	50 YR - 24 HR				2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR				
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
1230	0.90	6.75	2.36	2.70	0.68	2.61	0.91	1.04	0.26	3.94	1.38	1.58	0.39	4.82	1.69	1.93	0.48	5.93	2.07	2.37	0.59	7.57	2.65	3.03	0.76
1231	0.90	6.76	2.36	2.70	0.68	2.61	0.92	1.05	0.26	3.95	1.38	1.58	0.39	4.82	1.69	1.93	0.48	5.93	2.08	2.37	0.59	7.58	2.65	3.03	0.76
1232	0.90	6.76	2.37	2.70	0.68	2.62	0.92	1.05	0.26	3.95	1.38	1.58	0.39	4.83	1.69	1.93	0.48	5.94	2.08	2.37	0.59	7.59	2.65	3.03	0.76
1233	0.90	6.77	2.37	2.71	0.68	2.62	0.92	1.05	0.26	3.95	1.38	1.58	0.40	4.83	1.69	1.93	0.48	5.94	2.08	2.38	0.59	7.59	2.66	3.04	0.76
1234	0.90	6.77	2.37	2.71	0.68	2.62	0.92	1.05	0.26	3.95	1.38	1.58	0.40	4.83	1.69	1.93	0.48	5.94	2.08	2.38	0.59	7.60	2.66	3.04	0.76
1235	0.90	6.78	2.37	2.71	0.68	2.62	0.92	1.05	0.26	3.96	1.38	1.58	0.40	4.84	1.69	1.94	0.48	5.95	2.08	2.38	0.59	7.60	2.66	3.04	0.76
1240	0.91	6.80	2.38	2.72	0.68	2.63	0.92	1.05	0.26	3.97	1.39	1.59	0.40	4.86	1.70	1.94	0.49	5.97	2.09	2.39	0.60	7.63	2.67	3.05	0.76
1245	0.91	6.82	2.39	2.73	0.68	2.64	0.92	1.06	0.26	3.99	1.39	1.59	0.40	4.87	1.71	1.95	0.49	5.99	2.10	2.40	0.60	7.66	2.68	3.06	0.77
1250	0.91	6.85	2.40	2.74	0.68	2.65	0.93	1.06	0.26	4.00	1.40	1.60	0.40	4.89	1.71	1.96	0.49	6.01	2.10	2.40	0.60	7.68	2.69	3.07	0.77
1255	0.92	6.87	2.40	2.75	0.69	2.66	0.93	1.06	0.27	4.01	1.40	1.60	0.40	4.91	1.72	1.96	0.49	6.03	2.11	2.41	0.60	7.71	2.70	3.08	0.77
1260	0.92	6.89	2.41	2.76	0.69	2.67	0.93	1.07	0.27	4.02	1.41	1.61	0.40	4.92	1.72	1.97	0.49	6.05	2.12	2.42	0.61	7.73	2.71	3.09	0.77
1265	0.92	6.91	2.42	2.77	0.69	2.68	0.94	1.07	0.27	4.04	1.41	1.62	0.40	4.94	1.73	1.97	0.49	6.07	2.12	2.43	0.61	7.76	2.71	3.10	0.78
1270	0.92	6.93	2.43	2.77	0.69	2.68	0.94	1.07	0.27	4.05	1.42	1.62	0.40	4.95	1.73	1.98	0.50	6.09	2.13	2.44	0.61	7.78	2.72	3.11	0.78
1275	0.93	6.96	2.43	2.78	0.70	2.69	0.94	1.08	0.27	4.06	1.42	1.62	0.41	4.97	1.74	1.99	0.50	6.11	2.14	2.44	0.61	7.80	2.73	3.12	0.78
1280	0.93	6.98	2.44	2.79	0.70	2.70	0.94	1.08	0.27	4.07	1.43	1.63	0.41	4.98	1.74	1.99	0.50	6.12	2.14	2.45	0.61	7.83	2.74	3.13	0.78
1285	0.93	7.00	2.45	2.80	0.70	2.71	0.95	1.08	0.27	4.09	1.43	1.63	0.41	5.00	1.75	2.00	0.50	6.14	2.15	2.46	0.61	7.85	2.75	3.14	0.78
1290	0.94	7.02	2.46	2.81	0.70	2.72	0.95	1.09	0.27	4.10	1.43	1.64	0.41	5.01	1.75	2.00	0.50	6.16	2.16	2.46	0.62	7.87	2.76	3.15	0.79
1295	0.94	7.04	2.46	2.81	0.70	2.72	0.95	1.09	0.27	4.11	1.44	1.64	0.41	5.02	1.76	2.01	0.50	6.18	2.16	2.47	0.62	7.89	2.76	3.16	0.79
1300	0.94	7.05	2.47	2.82	0.71	2.73	0.96	1.09	0.27	4.12	1.44	1.65	0.41	5.04	1.76	2.01	0.50	6.19	2.17	2.48	0.62	7.91	2.77	3.17	0.79
1305	0.94	7.07	2.48	2.83	0.71	2.74	0.96	1.09	0.27	4.13	1.45	1.65	0.41	5.05	1.77	2.02	0.50	6.21	2.17	2.48	0.62	7.94	2.78	3.17	0.79
1310	0.95	7.09	2.48	2.84	0.71	2.74	0.96	1.10	0.27	4.14	1.45	1.66	0.41	5.06	1.77	2.03	0.51	6.23	2.18	2.49	0.62	7.96	2.78	3.18	0.80
1315	0.95	7.11	2.49	2.84	0.71	2.75	0.96	1.10	0.28	4.15	1.45	1.66	0.42	5.08	1.78	2.03	0.51	6.24	2.18	2.50	0.62	7.98	2.79	3.19	0.80
1320	0.95	7.13	2.49	2.85	0.71	2.76	0.97	1.10	0.28	4.16	1.46	1.66	0.42	5.09	1.78	2.04	0.51	6.26	2.19	2.50	0.63	8.00	2.80	3.20	0.80
1325	0.95	7.14	2.50	2.86	0.71	2.77	0.97	1.11	0.28	4.17	1.46	1.67	0.42	5.10	1.79	2.04	0.51	6.27	2.20	2.51	0.63	8.02	2.81	3.21	0.80
1330	0.95	7.16	2.51	2.86	0.72	2.77	0.97	1.11	0.28	4.18	1.46	1.67	0.42	5.11	1.79	2.05	0.51	6.29	2.20	2.52	0.63	8.04	2.81	3.21	0.80
1335	0.96	7.18	2.51	2.87	0.72	2.78	0.97	1.11	0.28	4.19	1.47	1.68	0.42	5.13	1.79	2.05	0.51	6.30	2.21	2.52	0.63	8.06	2.82	3.22	0.81
1340	0.96	7.20	2.52	2.88	0.72	2.79	0.97	1.11	0.28	4.20	1.47	1.68	0.42	5.14	1.80	2.06	0.51	6.32	2.21	2.53	0.63	8.07	2.83	3.23	0.81
1345	0.96	7.21	2.52	2.89	0.72	2.79	0.98	1.12	0.28	4.21	1.47	1.69	0.42	5.15	1.80	2.06	0.52	6.33	2.22	2.53	0.63	8.09	2.83	3.24	0.81
1350	0.96	7.23	2.53	2.89	0.72	2.80	0.98	1.12	0.28	4.22	1.48	1.69	0.42	5.16	1.81	2.06	0.52	6.35	2.22	2.54	0.63	8.11	2.84	3.24	0.81
1355	0.97	7.25	2.54	2.90	0.72	2.80	0.98	1.12	0.28	4.23	1.48	1.69	0.42	5.17	1.81	2.07	0.52	6.36	2.23	2.54	0.64	8.13	2.85	3.25	0.81
1360	0.97	7.26	2.54	2.90	0.73	2.81	0.98	1.12	0.28	4.24	1.48	1.70	0.42	5.19	1.81	2.07	0.52	6.38	2.23	2.55	0.64	8.15	2.85	3.26	0.81
1365	0.97	7.28	2.55	2.91	0.73	2.82	0.99	1.13	0.28	4.25	1.49	1.70	0.43	5.20	1.82	2.08	0.52	6.39	2.24	2.56	0.64	8.17	2.86	3.27	0.82
1370	0.97	7.29	2.55	2.92	0.73	2.82	0.99	1.13	0.28	4.26	1.49	1.70	0.43	5.21	1.82	2.08	0.52	6.40	2.24	2.56	0.64	8.18	2.86	3.27	0.82
1375	0.97	7.31	2.56	2.92	0.73	2.83	0.99	1.13	0.28	4.27	1.49	1.71	0.43	5.22	1.83	2.09	0.52	6.42	2.25	2.57	0.64	8.20	2.87	3.28	0.82
1380	0.98	7.33	2.56	2.93	0.73	2.83	0.99	1.13	0.28	4.28	1.50	1.71	0.43	5.23	1.83	2.09	0.52	6.43	2.25	2.57	0.64	8.22	2.88	3.29	0.82
1385	0.98	7.34	2.57	2.94	0.73	2.84	0.99	1.14	0.28	4.29	1.50	1.71	0.43	5.24	1.83	2.10	0.52	6.45	2.26	2.58	0.64	8.24	2.88	3.29	0.82
1390	0.98	7.36	2.57	2.94	0.74	2.85	1.00	1.14	0.28	4.30	1.50	1.72	0.43	5.25	1.84	2.10	0.53	6.46	2.26	2.58	0.65	8.25	2.89	3.30	0.83
1395	0.98	7.37	2.58	2.95	0.74	2.85	1.00	1.14	0.29	4.30	1.51	1.72	0.43	5.26	1.84	2.11	0.53	6.47	2.27	2.59	0.65	8.27	2.89	3.31	0.83
1400	0.98	7.39	2.58	2.95	0.74	2.86	1.00	1.14	0.29	4.31	1.51	1.73	0.43	5.27	1.85	2.11	0.53	6.48	2.27	2.59	0.65	8.29	2.90	3.31	0.83
1405	0.99	7.40	2.59	2.96	0.74	2.86	1.00	1.15	0.29	4.32	1.51	1.73	0.43	5.28	1.85	2.11	0.53	6.50	2.27	2.60	0.65	8.30	2.91	3.32	0.83
1410	0.99	7.42	2.60	2.97	0.74	2.87	1.00	1.15	0.29	4.33	1.52	1.73	0.43	5.29	1.85	2.12	0.53	6.51	2.28	2.60	0.65	8.32	2.91	3.33	0.83
1415	0.99	7.43	2.60	2.97	0.74	2.88	1.01	1.15	0.29	4.34	1.52	1.74	0.43	5.30	1.86	2.12	0.53	6.52	2.28	2.61	0.65	8.34	2.92	3.33	0.83
1420	0.99	7.44	2.61	2.98	0.74	2.88	1.01	1.15	0.29	4.35	1.52	1.74	0.43	5.31	1.86	2.13	0.53	6.54	2.29	2.61	0.65	8.35	2.92	3.34	0.84
1425	0.99	7.46	2.61	2.98	0.75	2.89	1.01	1.15	0.29	4.36	1.52	1.74	0.44	5.33	1.86	2.13	0.53	6.55	2.29	2.62	0.65	8.37	2.93	3.35	0.84
1430	1.00	7.47	2.62	2.99	0.75	2.89	1.01	1.16	0.29	4.36	1.53	1.75	0.44	5.34	1.87	2.13	0.53	6.56	2.30	2.62	0.66	8.38	2.93	3.35	0.84
1435	1.00	7.49	2.62	2.99	0.75	2.90	1.01	1.16	0.29	4.37	1.53	1.75	0.44	5.35	1.87	2.14	0.53	6.57	2.30	2.63	0.66	8.40	2.94	3.36	0.84
1440	1.00	7.50	2.63	3.00	0.75	2.90	1.02	1.16	0.29	4.38	1.53	1.75	0.44	5.36	1.87	2.14	0.54	6.59	2.30	2.63	0.66	8.42	2.95	3.37	0.84

SUBAREA A4 HYETOPRAPHS

- Per 2006 Los Angeles County Hydrology Manual Appendix A

24 HR ISOHYETS, IN					
50 YR	2 YR	5 YR	10 YR	25 YR	100 YR
7.4	2.9	4.3	5.3	6.5	8.3



UNIT HYETOGRAPH	Depth	50 YR - 24 HR				2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR			
		Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.01	0.08	0.03	0.03	0.01	0.03	0.01	0.01	0.00	0.05	0.02	0.02	0.00	0.06	0.02	0.02	0.01	0.07	0.03	0.03	0.01	0.09	0.03	0.04	0.01
60	0.02	0.17	0.06	0.07	0.02	0.06	0.02	0.03	0.01	0.10	0.03	0.04	0.01	0.12	0.04	0.05	0.01	0.15	0.05	0.06	0.01	0.19	0.06	0.07	0.02
90	0.03	0.25	0.09	0.10	0.02	0.10	0.03	0.04	0.01	0.15	0.05	0.06	0.01	0.18	0.06	0.07	0.02	0.22	0.08	0.09	0.02	0.28	0.10	0.11	0.03
120	0.05	0.34	0.12	0.13	0.03	0.13	0.05	0.05	0.01	0.20	0.07	0.08	0.02	0.24	0.08	0.10	0.02	0.29	0.10	0.12	0.03	0.38	0.13	0.15	0.04
150	0.06	0.42	0.15	0.17	0.04	0.16	0.06	0.07	0.02	0.25	0.09	0.10	0.02	0.30	0.11	0.12	0.03	0.37	0.13	0.15	0.04	0.47	0.17	0.19	0.05
180	0.07	0.51	0.18	0.20	0.05	0.20	0.07	0.08	0.02	0.30	0.10	0.12	0.03	0.36	0.13	0.15	0.04	0.45	0.16	0.18	0.04	0.57	0.20	0.23	0.06
210	0.08	0.60	0.21	0.24	0.06	0.23	0.08	0.09	0.02	0.35	0.12	0.14	0.03	0.43	0.15	0.17	0.04	0.53	0.18	0.21	0.05	0.67	0.24	0.27	0.07
240	0.09	0.69	0.24	0.28	0.07	0.27	0.09	0.11	0.03	0.40	0.14	0.16	0.04	0.49	0.17	0.20	0.05	0.61	0.21	0.24	0.06	0.77	0.27	0.31	0.08
270	0.11	0.78	0.27	0.31	0.08	0.30	0.11	0.12	0.03	0.46	0.16	0.18	0.05	0.56	0.20	0.22	0.06	0.69	0.24	0.27	0.07	0.88	0.31	0.35	0.09
300	0.12	0.87	0.31	0.35	0.09	0.34	0.12	0.14	0.03	0.51	0.18	0.20	0.05	0.62	0.22	0.25	0.06	0.77	0.27	0.31	0.08	0.98	0.34	0.39	0.10
330	0.13	0.97	0.34	0.39	0.10	0.38	0.13	0.15	0.04	0.57	0.20	0.23	0.06	0.69	0.24	0.28	0.07	0.85	0.30	0.34	0.09	1.09	0.38	0.44	0.11
360	0.14	1.07	0.37	0.43	0.11	0.41	0.14	0.17	0.04	0.62	0.22	0.25	0.06	0.76	0.27	0.30	0.08	0.94	0.33	0.37	0.09	1.20	0.42	0.48	0.12
390	0.16	1.16	0.41	0.47	0.12	0.45	0.16	0.18	0.05	0.68	0.24	0.27	0.07	0.83	0.29	0.33	0.08	1.02	0.36	0.41	0.10	1.31	0.46	0.52	0.13
420	0.17	1.26	0.44	0.51	0.13	0.49	0.17	0.20	0.05	0.74	0.26	0.30	0.07	0.90	0.32	0.36	0.09	1.11	0.39	0.44	0.11	1.42	0.50	0.57	0.14
450	0.18	1.37	0.48	0.55	0.14	0.53	0.19	0.21	0.05	0.80	0.28	0.32	0.08	0.98	0.34	0.39	0.10	1.20	0.42	0.48	0.12	1.53	0.54	0.61	0.15

UNIT HYETOGRAPH	50 YR - 24 HR				2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR				
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
480	0.20	1.47	0.51	0.59	0.15	0.57	0.20	0.23	0.06	0.86	0.30	0.34	0.09	1.05	0.37	0.42	0.11	1.29	0.45	0.52	0.13	1.65	0.58	0.66	0.17
510	0.21	1.58	0.55	0.63	0.16	0.61	0.21	0.24	0.06	0.92	0.32	0.37	0.09	1.13	0.39	0.45	0.11	1.38	0.48	0.55	0.14	1.77	0.62	0.71	0.18
540	0.23	1.69	0.59	0.67	0.17	0.65	0.23	0.26	0.07	0.98	0.34	0.39	0.10	1.20	0.42	0.48	0.12	1.48	0.52	0.59	0.15	1.89	0.66	0.76	0.19
570	0.24	1.80	0.63	0.72	0.18	0.70	0.24	0.28	0.07	1.05	0.37	0.42	0.10	1.28	0.45	0.51	0.13	1.58	0.55	0.63	0.16	2.02	0.71	0.81	0.20
600	0.26	1.91	0.67	0.76	0.19	0.74	0.26	0.30	0.07	1.12	0.39	0.45	0.11	1.36	0.48	0.55	0.14	1.68	0.59	0.67	0.17	2.14	0.75	0.86	0.21
630	0.27	2.03	0.71	0.81	0.20	0.79	0.27	0.31	0.08	1.18	0.41	0.47	0.12	1.45	0.51	0.58	0.14	1.78	0.62	0.71	0.18	2.28	0.80	0.91	0.23
660	0.29	2.15	0.75	0.86	0.21	0.83	0.29	0.33	0.08	1.25	0.44	0.50	0.13	1.53	0.54	0.61	0.15	1.89	0.66	0.75	0.19	2.41	0.84	0.96	0.24
690	0.31	2.27	0.80	0.91	0.23	0.88	0.31	0.35	0.09	1.33	0.46	0.53	0.13	1.62	0.57	0.65	0.16	2.00	0.70	0.80	0.20	2.55	0.89	1.02	0.25
720	0.32	2.40	0.84	0.96	0.24	0.93	0.33	0.37	0.09	1.40	0.49	0.56	0.14	1.71	0.60	0.69	0.17	2.11	0.74	0.84	0.21	2.69	0.94	1.08	0.27
750	0.34	2.53	0.89	1.01	0.25	0.98	0.34	0.39	0.10	1.48	0.52	0.59	0.15	1.81	0.63	0.72	0.18	2.22	0.78	0.89	0.22	2.84	0.99	1.14	0.28
780	0.36	2.67	0.93	1.07	0.27	1.03	0.36	0.41	0.10	1.56	0.55	0.62	0.16	1.91	0.67	0.76	0.19	2.34	0.82	0.94	0.23	2.99	1.05	1.20	0.30
810	0.38	2.81	0.98	1.12	0.28	1.09	0.38	0.43	0.11	1.64	0.57	0.66	0.16	2.01	0.70	0.80	0.20	2.47	0.86	0.99	0.25	3.15	1.10	1.26	0.32
840	0.40	2.96	1.04	1.18	0.30	1.14	0.40	0.46	0.11	1.73	0.60	0.69	0.17	2.11	0.74	0.84	0.21	2.60	0.91	1.04	0.26	3.32	1.16	1.33	0.33
870	0.42	3.11	1.09	1.24	0.31	1.20	0.42	0.48	0.12	1.82	0.64	0.73	0.18	2.22	0.78	0.89	0.22	2.73	0.96	1.09	0.27	3.49	1.22	1.40	0.35
900	0.44	3.27	1.15	1.31	0.33	1.27	0.44	0.51	0.13	1.91	0.67	0.76	0.19	2.34	0.82	0.94	0.23	2.88	1.01	1.15	0.29	3.67	1.29	1.47	0.37
930	0.47	3.45	1.21	1.38	0.34	1.33	0.47	0.53	0.13	2.01	0.70	0.81	0.20	2.46	0.86	0.98	0.25	3.03	1.06	1.21	0.30	3.87	1.35	1.55	0.39
960	0.49	3.63	1.27	1.45	0.36	1.40	0.49	0.56	0.14	2.12	0.74	0.85	0.21	2.59	0.91	1.04	0.26	3.19	1.12	1.27	0.32	4.07	1.43	1.63	0.41
970	0.50	3.69	1.29	1.48	0.37	1.43	0.50	0.57	0.14	2.16	0.75	0.86	0.22	2.64	0.92	1.05	0.26	3.24	1.14	1.30	0.32	4.14	1.45	1.66	0.41
980	0.51	3.76	1.32	1.50	0.38	1.45	0.51	0.58	0.15	2.20	0.77	0.88	0.22	2.68	0.94	1.07	0.27	3.30	1.16	1.32	0.33	4.22	1.48	1.69	0.42
990	0.52	3.83	1.34	1.53	0.38	1.48	0.52	0.59	0.15	2.23	0.78	0.89	0.22	2.73	0.96	1.09	0.27	3.36	1.18	1.34	0.34	4.29	1.50	1.72	0.43
1000	0.53	3.90	1.36	1.56	0.39	1.51	0.53	0.60	0.15	2.28	0.80	0.91	0.23	2.78	0.97	1.11	0.28	3.42	1.20	1.37	0.34	4.37	1.53	1.75	0.44
1010	0.54	3.97	1.39	1.59	0.40	1.54	0.54	0.61	0.15	2.32	0.81	0.93	0.23	2.83	0.99	1.13	0.28	3.48	1.22	1.39	0.35	4.45	1.56	1.78	0.45
1020	0.55	4.04	1.41	1.62	0.40	1.56	0.55	0.63	0.16	2.36	0.83	0.94	0.24	2.89	1.01	1.15	0.29	3.55	1.24	1.42	0.35	4.54	1.59	1.81	0.45
1030	0.56	4.12	1.44	1.65	0.41	1.59	0.56	0.64	0.16	2.41	0.84	0.96	0.24	2.94	1.03	1.18	0.29	3.62	1.27	1.45	0.36	4.62	1.62	1.85	0.46
1040	0.57	4.20	1.47	1.68	0.42	1.62	0.57	0.65	0.16	2.45	0.86	0.98	0.25	3.00	1.05	1.20	0.30	3.69	1.29	1.47	0.37	4.71	1.65	1.88	0.47
1050	0.58	4.28	1.50	1.71	0.43	1.66	0.58	0.66	0.17	2.50	0.88	1.00	0.25	3.06	1.07	1.22	0.31	3.76	1.32	1.50	0.38	4.80	1.68	1.92	0.48
1060	0.59	4.37	1.53	1.75	0.44	1.69	0.59	0.68	0.17	2.55	0.89	1.02	0.26	3.12	1.09	1.25	0.31	3.84	1.34	1.53	0.38	4.90	1.72	1.96	0.49
1070	0.60	4.46	1.56	1.78	0.45	1.73	0.60	0.69	0.17	2.61	0.91	1.04	0.26	3.19	1.11	1.27	0.32	3.92	1.37	1.57	0.39	5.01	1.75	2.00	0.50
1080	0.62	4.56	1.60	1.82	0.46	1.76	0.62	0.71	0.18	2.66	0.93	1.06	0.27	3.25	1.14	1.30	0.33	4.00	1.40	1.60	0.40	5.11	1.79	2.05	0.51
1090	0.63	4.66	1.63	1.86	0.47	1.80	0.63	0.72	0.18	2.72	0.95	1.09	0.27	3.33	1.17	1.33	0.33	4.09	1.43	1.64	0.41	5.23	1.83	2.09	0.52
1100	0.65	4.77	1.67	1.91	0.48	1.85	0.65	0.74	0.18	2.79	0.98	1.12	0.28	3.41	1.19	1.36	0.34	4.19	1.47	1.68	0.42	5.36	1.87	2.14	0.54
1110	0.66	4.90	1.71	1.96	0.49	1.89	0.66	0.76	0.19	2.86	1.00	1.14	0.29	3.50	1.22	1.40	0.35	4.30	1.50	1.72	0.43	5.49	1.92	2.20	0.55
1115	0.67	4.96	1.74	1.99	0.50	1.92	0.67	0.77	0.19	2.90	1.01	1.16	0.29	3.54	1.24	1.42	0.35	4.36	1.53	1.74	0.44	5.57	1.95	2.23	0.56
1120	0.68	5.03	1.76	2.01	0.50	1.95	0.68	0.78	0.19	2.94	1.03	1.18	0.29	3.59	1.26	1.44	0.36	4.42	1.55	1.77	0.44	5.65	1.98	2.26	0.56
1125	0.69	5.11	1.79	2.04	0.51	1.98	0.69	0.79	0.20	2.98	1.04	1.19	0.30	3.65	1.28	1.46	0.36	4.49	1.57	1.79	0.45	5.73	2.01	2.29	0.57
1130	0.70	5.19	1.82	2.08	0.52	2.01	0.70	0.80	0.20	3.03	1.06	1.21	0.30	3.71	1.30	1.48	0.37	4.56	1.60	1.82	0.46	5.83	2.04	2.33	0.58
1135	0.71	5.29	1.85	2.11	0.53	2.05	0.72	0.82	0.20	3.09	1.08	1.23	0.31	3.77	1.32	1.51	0.38	4.64	1.62	1.86	0.46	5.93	2.08	2.37	0.59
1136	0.72	5.31	1.86	2.12	0.53	2.05	0.72	0.82	0.21	3.10	1.08	1.24	0.31	3.79	1.33	1.52	0.38	4.66	1.63	1.86	0.47	5.95	2.08	2.38	0.60
1137	0.72	5.33	1.86	2.13	0.53	2.06	0.72	0.82	0.21	3.11	1.09	1.24	0.31	3.80	1.33	1.52	0.38	4.68	1.64	1.87	0.47	5.98	2.09	2.39	0.60
1138	0.72	5.35	1.87	2.14	0.53	2.07	0.72	0.83	0.21	3.12	1.09	1.25	0.31	3.82	1.34	1.53	0.38	4.70	1.64	1.88	0.47	6.00	2.10	2.40	0.60
1139	0.73	5.37	1.88	2.15	0.54	2.08	0.73	0.83	0.21	3.14	1.10	1.25	0.31	3.83	1.34	1.53	0.38	4.72	1.65	1.89	0.47	6.03	2.11	2.41	0.60
1140	0.73	5.39	1.89	2.16	0.54	2.09	0.73	0.83	0.21	3.15	1.10	1.26	0.31	3.85	1.35	1.54	0.39	4.74	1.66	1.89	0.47	6.05	2.12	2.42	0.61
1145	0.75	5.52	1.93	2.21	0.55	2.14	0.75	0.86	0.21	3.23	1.13	1.29	0.32	3.94	1.38	1.58	0.39	4.85	1.70	1.94	0.49	6.20	2.17	2.48	0.62
1150	0.77	5.72	2.00	2.29	0.57	2.21	0.77	0.88	0.22	3.34	1.17	1.34	0.33	4.08	1.43	1.63	0.41	5.02	1.76	2.01	0.50	6.41	2.24	2.57	0.64
1151	0.78	5.78	2.02	2.31	0.58	2.24	0.78	0.89	0.22	3.37	1.18	1.35	0.34	4.13	1.44	1.65	0.41	5.07	1.78	2.03	0.51	6.48	2.27	2.59	0.65
1152	0.80	5.92	2.07	2.37	0.59	2.29	0.80	0.92	0.23	3.46	1.21	1.38	0.35	4.23	1.48	1.69	0.42	5.20	1.82	2.08	0.52	6.64	2.32	2.66	0.66
1153	0.81	5.99	2.10	2.40	0.60	2.32	0.81	0.93	0.23	3.50	1.23	1.40	0.35	4.28	1.50	1.71	0.43	5.26	1.84	2.10	0.53	6.72	2.35	2.69	0.67
1154	0.81	6.03	2.11	2.41	0.60	2.33	0.82	0.93	0.23	3.52	1.23	1.41	0.35	4.30	1.51	1.72	0.43	5.29	1.85	2.12	0.53	6.76	2.37	2.70	0.68
1155	0.82	6.05	2.12	2.42	0.61	2.34	0.82	0.94	0.23	3.53	1.24	1.41	0.35	4.32	1.51	1.73	0.43	5.31	1.86	2.13	0.53	6.79	2.38	2.72	0.68
1156	0.82	6.07	2.13	2.43	0.61	2.35	0.82	0.94	0.24	3.55	1.24														

UNIT HYETOGRAPH	50 YR - 24 HR					2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR			
Time	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	
	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
1233	0.90	6.68	2.34	2.67	0.67	2.58	0.90	1.03	0.26	3.90	1.36	1.56	0.39	4.77	1.67	1.91	0.48	5.86	2.05	2.34	0.59	7.49	2.62	3.00	0.75
1234	0.90	6.68	2.34	2.67	0.67	2.59	0.90	1.03	0.26	3.90	1.37	1.56	0.39	4.77	1.67	1.91	0.48	5.87	2.05	2.35	0.59	7.50	2.62	3.00	0.75
1235	0.90	6.69	2.34	2.67	0.67	2.59	0.91	1.03	0.26	3.90	1.37	1.56	0.39	4.77	1.67	1.91	0.48	5.87	2.05	2.35	0.59	7.50	2.63	3.00	0.75
1240	0.91	6.71	2.35	2.68	0.67	2.60	0.91	1.04	0.26	3.92	1.37	1.57	0.39	4.79	1.68	1.92	0.48	5.89	2.06	2.36	0.59	7.53	2.63	3.01	0.75
1245	0.91	6.73	2.36	2.69	0.67	2.61	0.91	1.04	0.26	3.93	1.38	1.57	0.39	4.81	1.68	1.92	0.48	5.91	2.07	2.36	0.59	7.55	2.64	3.02	0.76
1250	0.91	6.76	2.36	2.70	0.68	2.61	0.92	1.05	0.26	3.95	1.38	1.58	0.39	4.82	1.69	1.93	0.48	5.93	2.08	2.37	0.59	7.58	2.65	3.03	0.76
1255	0.92	6.78	2.37	2.71	0.68	2.62	0.92	1.05	0.26	3.96	1.39	1.58	0.40	4.84	1.69	1.94	0.48	5.95	2.08	2.38	0.60	7.61	2.66	3.04	0.76
1260	0.92	6.80	2.38	2.72	0.68	2.63	0.92	1.05	0.26	3.97	1.39	1.59	0.40	4.86	1.70	1.94	0.49	5.97	2.09	2.39	0.60	7.63	2.67	3.05	0.76
1265	0.92	6.82	2.39	2.73	0.68	2.64	0.92	1.06	0.26	3.98	1.39	1.59	0.40	4.87	1.70	1.95	0.49	5.99	2.10	2.40	0.60	7.65	2.68	3.06	0.77
1270	0.92	6.84	2.39	2.74	0.68	2.65	0.93	1.06	0.26	4.00	1.40	1.60	0.40	4.89	1.71	1.95	0.49	6.01	2.10	2.40	0.60	7.68	2.69	3.07	0.77
1275	0.93	6.86	2.40	2.75	0.69	2.66	0.93	1.06	0.27	4.01	1.40	1.60	0.40	4.90	1.72	1.96	0.49	6.03	2.11	2.41	0.60	7.70	2.70	3.08	0.77
1280	0.93	6.88	2.41	2.75	0.69	2.66	0.93	1.07	0.27	4.02	1.41	1.61	0.40	4.91	1.72	1.97	0.49	6.04	2.12	2.42	0.60	7.72	2.70	3.09	0.77
1285	0.93	6.90	2.42	2.76	0.69	2.67	0.93	1.07	0.27	4.03	1.41	1.61	0.40	4.93	1.72	1.97	0.49	6.06	2.12	2.42	0.61	7.74	2.71	3.10	0.77
1290	0.94	6.92	2.42	2.77	0.69	2.68	0.94	1.07	0.27	4.04	1.41	1.62	0.40	4.94	1.73	1.98	0.49	6.08	2.13	2.43	0.61	7.77	2.72	3.11	0.78
1295	0.94	6.94	2.43	2.78	0.69	2.69	0.94	1.07	0.27	4.05	1.42	1.62	0.41	4.96	1.73	1.98	0.50	6.09	2.13	2.44	0.61	7.79	2.73	3.12	0.78
1300	0.94	6.96	2.44	2.78	0.70	2.69	0.94	1.08	0.27	4.06	1.42	1.63	0.41	4.97	1.74	1.99	0.50	6.11	2.14	2.44	0.61	7.81	2.73	3.12	0.78
1305	0.94	6.98	2.44	2.79	0.70	2.70	0.95	1.08	0.27	4.08	1.43	1.63	0.41	4.98	1.74	1.99	0.50	6.13	2.14	2.45	0.61	7.83	2.74	3.13	0.78
1310	0.95	7.00	2.45	2.80	0.70	2.71	0.95	1.08	0.27	4.09	1.43	1.63	0.41	5.00	1.75	2.00	0.50	6.14	2.15	2.46	0.61	7.85	2.75	3.14	0.79
1315	0.95	7.01	2.46	2.81	0.70	2.71	0.95	1.09	0.27	4.10	1.43	1.64	0.41	5.01	1.75	2.00	0.50	6.16	2.16	2.46	0.62	7.87	2.75	3.15	0.79
1320	0.95	7.03	2.46	2.81	0.70	2.72	0.95	1.09	0.27	4.11	1.44	1.64	0.41	5.02	1.76	2.01	0.50	6.17	2.16	2.47	0.62	7.89	2.76	3.16	0.79
1325	0.95	7.05	2.47	2.82	0.70	2.73	0.95	1.09	0.27	4.12	1.44	1.65	0.41	5.03	1.76	2.01	0.50	6.19	2.17	2.48	0.62	7.91	2.77	3.16	0.79
1330	0.95	7.07	2.47	2.83	0.71	2.73	0.96	1.09	0.27	4.13	1.44	1.65	0.41	5.05	1.77	2.02	0.50	6.20	2.17	2.48	0.62	7.93	2.78	3.17	0.79
1335	0.96	7.08	2.48	2.83	0.71	2.74	0.96	1.10	0.27	4.14	1.45	1.65	0.41	5.06	1.77	2.02	0.51	6.22	2.18	2.49	0.62	7.95	2.78	3.18	0.79
1340	0.96	7.10	2.49	2.84	0.71	2.75	0.96	1.10	0.27	4.15	1.45	1.66	0.41	5.07	1.77	2.03	0.51	6.23	2.18	2.49	0.62	7.97	2.79	3.19	0.80
1345	0.96	7.12	2.49	2.85	0.71	2.75	0.96	1.10	0.28	4.16	1.45	1.66	0.42	5.08	1.78	2.03	0.51	6.25	2.19	2.50	0.62	7.99	2.79	3.19	0.80
1350	0.96	7.13	2.50	2.85	0.71	2.76	0.97	1.10	0.28	4.17	1.46	1.67	0.42	5.09	1.78	2.04	0.51	6.26	2.19	2.51	0.63	8.00	2.80	3.20	0.80
1355	0.97	7.15	2.50	2.86	0.71	2.77	0.97	1.11	0.28	4.18	1.46	1.67	0.42	5.10	1.79	2.04	0.51	6.28	2.20	2.51	0.63	8.02	2.81	3.21	0.80
1360	0.97	7.17	2.51	2.87	0.72	2.77	0.97	1.11	0.28	4.18	1.46	1.67	0.42	5.12	1.79	2.05	0.51	6.29	2.20	2.52	0.63	8.04	2.81	3.22	0.80
1365	0.97	7.18	2.51	2.87	0.72	2.78	0.97	1.11	0.28	4.19	1.47	1.68	0.42	5.13	1.79	2.05	0.51	6.31	2.21	2.52	0.63	8.06	2.82	3.22	0.81
1370	0.97	7.20	2.52	2.88	0.72	2.79	0.97	1.11	0.28	4.20	1.47	1.68	0.42	5.14	1.80	2.06	0.51	6.32	2.21	2.53	0.63	8.07	2.83	3.23	0.81
1375	0.97	7.21	2.52	2.88	0.72	2.79	0.98	1.12	0.28	4.21	1.47	1.68	0.42	5.15	1.80	2.06	0.51	6.33	2.22	2.53	0.63	8.09	2.83	3.24	0.81
1380	0.98	7.23	2.53	2.89	0.72	2.80	0.98	1.12	0.28	4.22	1.48	1.69	0.42	5.16	1.81	2.06	0.52	6.35	2.22	2.54	0.63	8.11	2.84	3.24	0.81
1385	0.98	7.24	2.53	2.90	0.72	2.80	0.98	1.12	0.28	4.23	1.48	1.69	0.42	5.17	1.81	2.07	0.52	6.36	2.23	2.54	0.64	8.13	2.84	3.25	0.81
1390	0.98	7.26	2.54	2.90	0.73	2.81	0.98	1.12	0.28	4.24	1.48	1.70	0.42	5.18	1.81	2.07	0.52	6.37	2.23	2.55	0.64	8.14	2.85	3.26	0.81
1395	0.98	7.27	2.55	2.91	0.73	2.81	0.99	1.13	0.28	4.25	1.49	1.70	0.42	5.19	1.82	2.08	0.52	6.39	2.23	2.55	0.64	8.16	2.86	3.26	0.82
1400	0.98	7.29	2.55	2.91	0.73	2.82	0.99	1.13	0.28	4.26	1.49	1.70	0.43	5.20	1.82	2.08	0.52	6.40	2.24	2.56	0.64	8.18	2.86	3.27	0.82
1405	0.99	7.30	2.56	2.92	0.73	2.83	0.99	1.13	0.28	4.26	1.49	1.71	0.43	5.21	1.82	2.09	0.52	6.41	2.24	2.56	0.64	8.19	2.87	3.28	0.82
1410	0.99	7.32	2.56	2.93	0.73	2.83	0.99	1.13	0.28	4.27	1.50	1.71	0.43	5.22	1.83	2.09	0.52	6.42	2.25	2.57	0.64	8.21	2.87	3.28	0.82
1415	0.99	7.33	2.57	2.93	0.73	2.84	0.99	1.13	0.28	4.28	1.50	1.71	0.43	5.23	1.83	2.09	0.52	6.44	2.25	2.57	0.64	8.22	2.88	3.29	0.82
1420	0.99	7.34	2.57	2.94	0.73	2.84	0.99	1.14	0.28	4.29	1.50	1.72	0.43	5.24	1.84	2.10	0.52	6.45	2.26	2.58	0.64	8.24	2.88	3.30	0.82
1425	0.99	7.36	2.58	2.94	0.74	2.85	1.00	1.14	0.28	4.30	1.50	1.72	0.43	5.25	1.84	2.10	0.53	6.46	2.26	2.58	0.65	8.26	2.89	3.30	0.83
1430	1.00	7.37	2.58	2.95	0.74	2.85	1.00	1.14	0.29	4.31	1.51	1.72	0.43	5.26	1.84	2.11	0.53	6.47	2.27	2.59	0.65	8.27	2.90	3.31	0.83
1435	1.00	7.39	2.59	2.95	0.74	2.86	1.00	1.14	0.29	4.31	1.51	1.73	0.43	5.27	1.85	2.11	0.53	6.49	2.27	2.59	0.65	8.29	2.90	3.31	0.83
1440	1.00	7.40	2.59	2.96	0.74	2.86	1.00	1.15	0.29	4.32	1.51	1.73	0.43	5.28	1.85	2.11	0.53	6.50	2.27	2.60	0.65	8.30	2.91	3.32	0.83

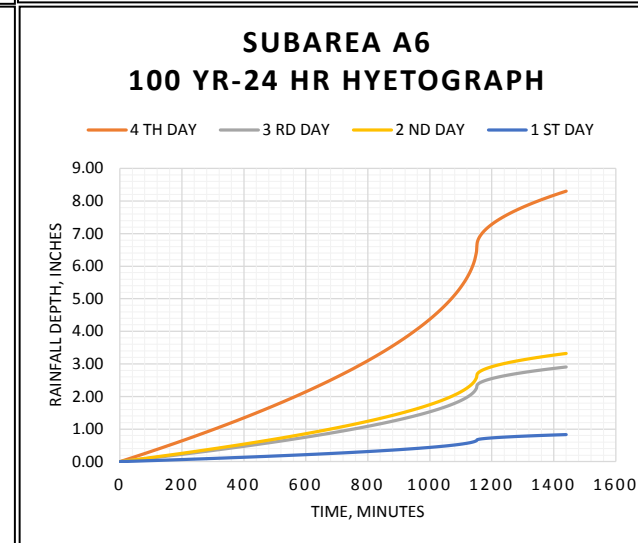
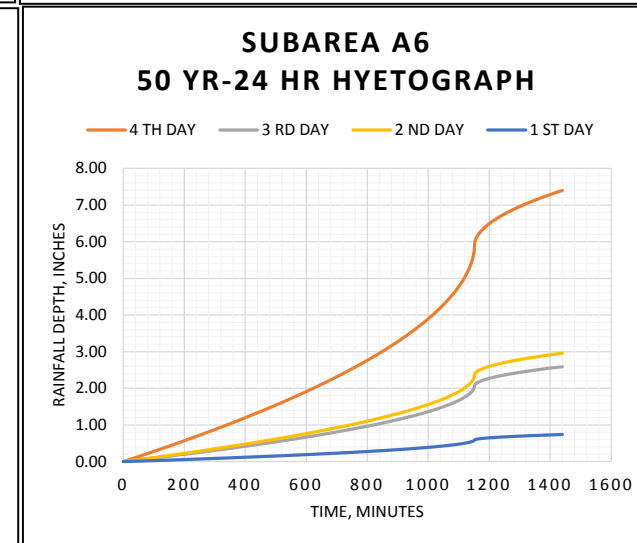
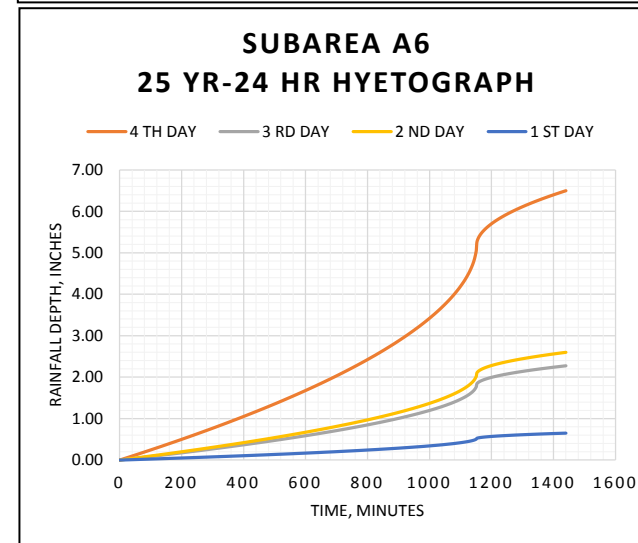
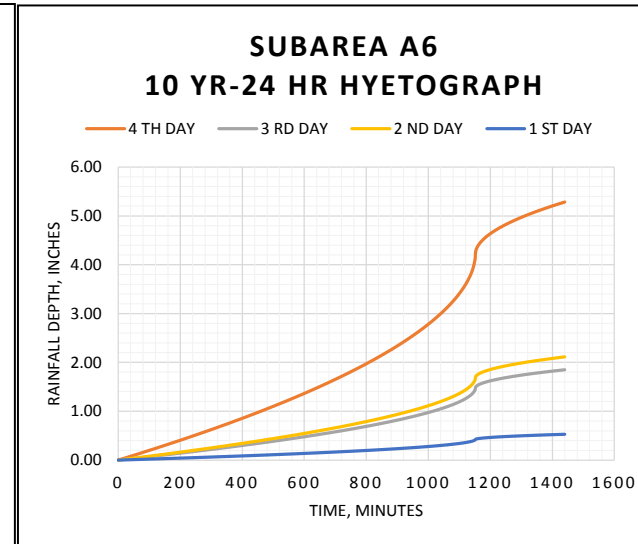
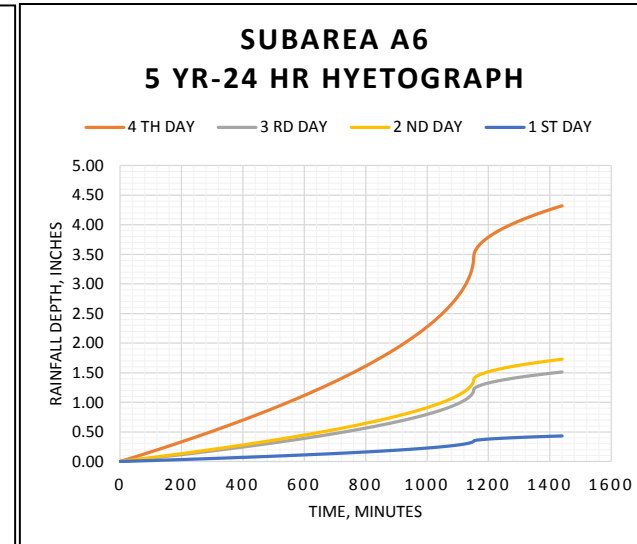
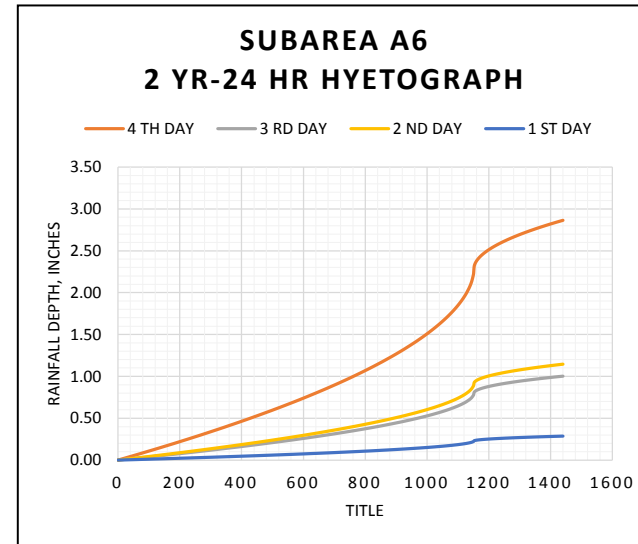
UNIT HYETOGRAPH	50 YR - 24 HR					2 YR - 24 HR					5 YR - 24 HR					10 YR - 24 HR					25 YR - 24 HR					100 YR - 24 HR				
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	
390	0.16	1.16	0.41	0.47	0.12	0.45	0.16	0.18	0.05	0.68	0.24	0.27	0.07	0.83	0.29	0.33	0.08	1.02	0.36	0.41	0.10	1.31	0.46	0.52	0.13					
420	0.17	1.26	0.44	0.51	0.13	0.49	0.17	0.20	0.05	0.74	0.26	0.30	0.07	0.90	0.32	0.36	0.09	1.11	0.39	0.44	0.11	1.42	0.50	0.57	0.14					
450	0.18	1.37	0.48	0.55	0.14	0.53	0.19	0.21	0.05	0.80	0.28	0.32	0.08	0.98	0.34	0.39	0.10	1.20	0.42	0.48	0.12	1.53	0.54	0.61	0.15					
480	0.20	1.47	0.51	0.59	0.15	0.57	0.20	0.23	0.06	0.86	0.30	0.34	0.09	1.05	0.37	0.42	0.11	1.29	0.45	0.52	0.13	1.65	0.58	0.66	0.17					
510	0.21	1.58	0.55	0.63	0.16	0.61	0.21	0.24	0.06	0.92	0.32	0.37	0.09	1.13	0.39	0.45	0.11	1.38	0.48	0.55	0.14	1.77	0.62	0.71	0.18					
540	0.23	1.69	0.59	0.67	0.17	0.65	0.23	0.26	0.07	0.98	0.34	0.39	0.10	1.20	0.42	0.48	0.12	1.48	0.52	0.59	0.15	1.89	0.66	0.76	0.19					
570	0.24	1.80	0.63	0.72	0.18	0.70	0.24	0.28	0.07	1.05	0.37	0.42	0.10	1.28	0.45	0.51	0.13	1.58	0.55	0.63	0.16	2.02	0.71	0.81	0.20					
600	0.26	1.91	0.67	0.76	0.19	0.74	0.26	0.30	0.07	1.12	0.39	0.45	0.11	1.36	0.48	0.55	0.14	1.68	0.59	0.67	0.17	2.14	0.75	0.86	0.21					
630	0.27	2.03	0.71	0.81	0.20	0.79	0.27	0.31	0.08	1.18	0.41	0.47	0.12	1.45	0.51	0.58	0.14	1.78	0.62	0.71	0.18	2.28	0.80	0.91	0.23					
660	0.29	2.15	0.75	0.86	0.21	0.83	0.29	0.33	0.08	1.25	0.44	0.50	0.13	1.53	0.54	0.61	0.15	1.89	0.66	0.75	0.19	2.41	0.84	0.96	0.24					
690	0.31	2.27	0.80	0.91	0.23	0.88	0.31	0.35	0.09	1.33	0.46	0.53	0.13	1.62	0.57	0.65	0.16	2.00	0.70	0.80	0.20	2.55	0.89	1.02	0.25					
720	0.32	2.40	0.84	0.96	0.24	0.93	0.33	0.37	0.09	1.40	0.49	0.56	0.14	1.71	0.60	0.69	0.17	2.11	0.74	0.84	0.21	2.69	0.94	1.08	0.27					
750	0.34	2.53	0.89	1.01	0.25	0.98	0.34	0.39	0.10	1.48	0.52	0.59	0.15	1.81	0.63	0.72	0.18	2.22	0.78	0.89	0.22	2.84	0.99	1.14	0.28					
780	0.36	2.67	0.93	1.07	0.27	1.03	0.36	0.41	0.10	1.56	0.55	0.62	0.16	1.91	0.67	0.76	0.19	2.34	0.82	0.94	0.23	2.99	1.05	1.20	0.30					
810	0.38	2.81	0.98	1.12	0.28	1.09	0.38	0.43	0.11	1.64	0.57	0.66	0.16	2.01	0.70	0.80	0.20	2.47	0.86	0.99	0.25	3.15	1.10	1.26	0.32					
840	0.40	2.96	1.04	1.18	0.30	1.14	0.40	0.46	0.11	1.73	0.60	0.69	0.17	2.11	0.74	0.84	0.21	2.60	0.91	1.04	0.26	3.32	1.16	1.33	0.33					
870	0.42	3.11	1.09	1.24	0.31	1.20	0.42	0.48	0.12	1.82	0.64	0.73	0.18	2.22	0.78	0.89	0.22	2.73	0.96	1.09	0.27	3.49	1.22	1.40	0.35					
900	0.44	3.27	1.15	1.31	0.33	1.27	0.44	0.51	0.13	1.91	0.67	0.76	0.19	2.34	0.82	0.94	0.23	2.88	1.01	1.15	0.29	3.67	1.29	1.47	0.37					
930	0.47	3.45	1.21	1.38	0.34	1.33	0.47	0.53	0.13	2.01	0.70	0.81	0.20	2.46	0.86	0.98	0.25	3.03	1.06	1.21	0.30	3.87	1.35	1.55	0.39					
960	0.49	3.63	1.27	1.45	0.36	1.40	0.49	0.56	0.14	2.12	0.74	0.85	0.21	2.59	0.91	1.04	0.26	3.19	1.12	1.27	0.32	4.07	1.43	1.63	0.41					
970	0.50	3.69	1.29	1.48	0.37	1.43	0.50	0.57	0.14	2.16	0.75	0.86	0.22	2.64	0.92	1.05	0.26	3.24	1.14	1.30	0.32	4.14	1.45	1.66	0.41					
980	0.51	3.76	1.32	1.50	0.38	1.45	0.51	0.58	0.15	2.20	0.77	0.88	0.22	2.68	0.94	1.07	0.27	3.30	1.16	1.32	0.33	4.22	1.48	1.69	0.42					
990	0.52	3.83	1.34	1.53	0.38	1.48	0.52	0.59	0.15	2.23	0.78	0.89	0.22	2.73	0.96	1.09	0.27	3.36	1.18	1.34	0.34	4.29	1.50	1.72	0.43					
1000	0.53	3.90	1.36	1.56	0.39	1.51	0.53	0.60	0.15	2.28	0.80	0.91	0.23	2.78	0.97	1.11	0.28	3.42	1.20	1.37	0.34	4.37	1.53	1.75	0.44					
1010	0.54	3.97	1.39	1.59	0.40	1.54	0.54	0.61	0.15	2.32	0.81	0.93	0.23	2.83	0.99	1.13	0.28	3.48	1.22	1.39	0.35	4.45	1.56	1.78	0.45					
1020	0.55	4.04	1.41	1.62	0.40	1.56	0.55	0.63	0.16	2.36	0.83	0.94	0.24	2.89	1.01	1.15	0.29	3.55	1.24	1.42	0.35	4.54	1.59	1.81	0.45					
1030	0.56	4.12	1.44	1.65	0.41	1.59	0.56	0.64	0.16	2.41	0.84	0.96	0.24	2.94	1.03	1.18	0.29	3.62	1.27	1.45	0.36	4.62	1.62	1.85	0.46					
1040	0.57	4.20	1.47	1.68	0.42	1.62	0.57	0.65	0.16	2.45	0.86	0.98	0.25	3.00	1.05	1.20	0.30	3.69	1.29	1.47	0.37	4.71	1.65	1.88	0.47					
1050	0.58	4.28	1.50	1.71	0.43	1.66	0.58	0.66	0.17	2.50	0.88	1.00	0.25	3.06	1.07	1.22	0.31	3.76	1.32	1.50	0.38	4.80	1.68	1.92	0.48					
1060	0.59	4.37	1.53	1.75	0.44	1.69	0.59	0.68	0.17	2.55	0.89	1.02	0.26	3.12	1.09	1.25	0.31	3.84	1.34	1.53	0.38	4.90	1.72	1.96	0.49					
1070	0.60	4.46	1.56	1.78	0.45	1.73	0.60	0.69	0.17	2.61	0.91	1.04	0.26	3.19	1.11	1.27	0.32	3.92	1.37	1.57	0.39	5.01	1.75	2.00	0.50					
1080	0.62	4.56	1.60	1.82	0.46	1.76	0.62	0.71	0.18	2.66	0.93	1.06	0.27	3.25	1.14	1.30	0.33	4.00	1.40	1.60	0.40	5.11	1.79	2.05	0.51					
1090	0.63	4.66	1.63	1.86	0.47	1.80	0.63	0.72	0.18	2.72	0.95	1.09	0.27	3.33	1.17	1.33	0.33	4.09	1.43	1.64	0.41	5.23	1.83	2.09	0.52					
1100	0.65	4.77	1.67	1.91	0.48	1.85	0.65	0.74	0.18	2.79	0.98	1.12	0.28	3.41	1.19	1.36	0.34	4.19	1.47	1.68	0.42	5.36	1.87	2.14	0.54					
1110	0.66	4.90	1.71	1.96	0.49	1.89	0.66	0.76	0.19	2.86	1.00	1.14	0.29	3.50	1.22	1.40	0.35	4.30	1.50	1.72	0.43	5.49	1.92	2.20	0.55					
1115	0.67	4.96	1.74	1.99	0.50	1.92	0.67	0.77	0.19	2.90	1.01	1.16	0.29	3.54	1.24	1.42	0.35	4.36	1.53	1.74	0.44	5.57	1.95	2.23	0.56					
1120	0.68	5.03	1.76	2.01	0.50	1.95	0.68	0.78	0.19	2.94	1.03	1.18	0.29	3.59	1.26	1.44	0.36	4.42	1.55	1.77	0.44	5.65	1.98	2.26	0.56					
1125	0.69	5.11	1.79	2.04	0.51	1.98	0.69	0.79	0.20	2.98	1.04	1.19	0.30	3.65	1.28	1.46	0.36	4.49	1.57	1.79	0.45	5.73	2.01	2.29	0.57					
1130	0.70	5.19	1.82	2.08	0.52	2.01	0.70	0.80	0.20	3.03	1.06	1.21	0.30	3.71	1.30	1.48	0.37	4.56	1.60	1.82	0.46	5.83	2.04	2.33	0.58					
1135	0.71	5.29	1.85	2.11	0.53	2.05	0.72	0.82	0.20	3.09	1.08	1.23	0.31	3.77	1.32	1.51	0.38	4.64	1.62	1.86	0.46	5.93	2.08	2.37	0.59					
1136	0.72	5.31	1.86	2.12	0.53	2.05	0.72	0.82	0.21	3.10	1.08	1.24	0.31	3.79	1.33	1.52	0.38	4.66	1.63	1.86	0.47	5.95	2.08	2.38	0.60					
1137	0.72	5.33	1.86	2.13	0.53	2.06	0.72	0.82	0.21	3.11	1.09	1.24	0.31	3.80	1.33	1.52	0.38	4.68	1.64	1.87	0.47	5.98	2.09	2.39	0.60					
1138	0.72	5.35	1.87	2.14	0.53	2.07	0.72	0.83	0.21	3.12	1.09	1.25	0.31	3.82	1.34	1.53	0.38	4.70	1.64	1.88	0.47	6.00	2.10	2.40	0.60					
1139	0.73	5.37	1.88	2.15	0.54	2.08	0.73	0.83	0.21	3.14	1.10	1.25	0.31	3.83	1.34	1.53	0.38	4.72	1.65	1.89	0.47	6.03	2.11	2.41	0.60					
1140	0.73	5.39	1.89	2.16	0.54	2.09	0.73	0.83	0.21	3.15	1.10	1.26	0.31	3.85	1.35	1.54	0.39	4.74	1.66	1.89	0.47	6.05	2.12	2.42	0.61					
1145	0.75	5.52	1.93	2.21	0.55	2.14	0.75	0.86	0.21	3.23	1.13	1.29	0.32	3.94	1.38	1.58	0.39	4.85	1.70	1.94	0.49	6.20	2.17	2.48	0.62					
1150	0.77	5.72	2.00	2.29	0.57	2.21	0.77	0.88	0.22	3.34	1.17	1.34	0.33	4.08	1.43	1.63	0.41	5.02	1.76	2.01	0.50	6.41	2.24	2.57	0.64					
1151	0.78	5.78	2.02	2.31	0.58	2.24	0.78	0.89	0.22	3.37	1.18	1.35	0.34	4.13	1.44	1.65	0.41	5.07	1.78	2.03	0.51	6.48	2.27	2.59	0.65					
1152	0.80	5.92	2.07	2.37	0.59	2.29	0.80	0.92	0.23	3.46	1.21	1.38	0.35	4.23	1.48	1.69	0.42	5.20	1.82	2.08	0.52	6.64	2.32	2.66	0.66					
1153	0.81	5.99	2.10																											

UNIT HYETOGRAPH	50 YR - 24 HR					2 YR - 24 HR					5 YR - 24 HR					10 YR - 24 HR					25 YR - 24 HR					100 YR - 24 HR				
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth		
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	
1224	0.90	6.63	2.32	2.65	0.66	2.57	0.90	1.03	0.26	3.87	1.36	1.55	0.39	4.73	1.66	1.89	0.47	5.82	2.04	2.33	0.58	7.44	2.60	2.98	0.74					
1225	0.90	6.64	2.32	2.65	0.66	2.57	0.90	1.03	0.26	3.87	1.36	1.55	0.39	4.74	1.66	1.89	0.47	5.83	2.04	2.33	0.58	7.44	2.61	2.98	0.74					
1226	0.90	6.64	2.32	2.66	0.66	2.57	0.90	1.03	0.26	3.88	1.36	1.55	0.39	4.74	1.66	1.90	0.47	5.83	2.04	2.33	0.58	7.45	2.61	2.98	0.75					
1227	0.90	6.65	2.33	2.66	0.66	2.57	0.90	1.03	0.26	3.88	1.36	1.55	0.39	4.74	1.66	1.90	0.47	5.83	2.04	2.33	0.58	7.46	2.61	2.98	0.75					
1228	0.90	6.65	2.33	2.66	0.67	2.57	0.90	1.03	0.26	3.88	1.36	1.55	0.39	4.75	1.66	1.90	0.47	5.84	2.04	2.34	0.58	7.46	2.61	2.98	0.75					
1229	0.90	6.66	2.33	2.66	0.67	2.58	0.90	1.03	0.26	3.89	1.36	1.55	0.39	4.75	1.66	1.90	0.48	5.84	2.05	2.34	0.58	7.47	2.61	2.99	0.75					
1230	0.90	6.66	2.33	2.66	0.67	2.58	0.90	1.03	0.26	3.89	1.36	1.56	0.39	4.76	1.66	1.90	0.48	5.85	2.05	2.34	0.58	7.47	2.62	2.99	0.75					
1231	0.90	6.67	2.33	2.67	0.67	2.58	0.90	1.03	0.26	3.89	1.36	1.56	0.39	4.76	1.67	1.90	0.48	5.85	2.05	2.34	0.59	7.48	2.62	2.99	0.75					
1232	0.90	6.67	2.33	2.67	0.67	2.58	0.90	1.03	0.26	3.90	1.36	1.56	0.39	4.76	1.67	1.91	0.48	5.86	2.05	2.34	0.59	7.48	2.62	2.99	0.75					
1233	0.90	6.68	2.34	2.67	0.67	2.58	0.90	1.03	0.26	3.90	1.36	1.56	0.39	4.77	1.67	1.91	0.48	5.86	2.05	2.34	0.59	7.49	2.62	3.00	0.75					
1234	0.90	6.68	2.34	2.67	0.67	2.59	0.90	1.03	0.26	3.90	1.37	1.56	0.39	4.77	1.67	1.91	0.48	5.87	2.05	2.35	0.59	7.50	2.62	3.00	0.75					
1235	0.90	6.69	2.34	2.67	0.67	2.59	0.91	1.03	0.26	3.90	1.37	1.56	0.39	4.77	1.67	1.91	0.48	5.87	2.05	2.35	0.59	7.50	2.63	3.00	0.75					
1240	0.91	6.71	2.35	2.68	0.67	2.60	0.91	1.04	0.26	3.92	1.37	1.57	0.39	4.79	1.68	1.92	0.48	5.89	2.06	2.36	0.59	7.53	2.63	3.01	0.75					
1245	0.91	6.73	2.36	2.69	0.67	2.61	0.91	1.04	0.26	3.93	1.38	1.57	0.39	4.81	1.68	1.92	0.48	5.91	2.07	2.36	0.59	7.55	2.64	3.02	0.76					
1250	0.91	6.76	2.36	2.70	0.68	2.61	0.92	1.05	0.26	3.95	1.38	1.58	0.39	4.82	1.69	1.93	0.48	5.93	2.08	2.37	0.59	7.58	2.65	3.03	0.76					
1255	0.92	6.78	2.37	2.71	0.68	2.62	0.92	1.05	0.26	3.96	1.39	1.58	0.40	4.84	1.69	1.94	0.48	5.95	2.08	2.38	0.60	7.61	2.66	3.04	0.76					
1260	0.92	6.80	2.38	2.72	0.68	2.63	0.92	1.05	0.26	3.97	1.39	1.59	0.40	4.86	1.70	1.94	0.49	5.97	2.09	2.39	0.60	7.63	2.67	3.05	0.76					
1265	0.92	6.82	2.39	2.73	0.68	2.64	0.92	1.06	0.26	3.98	1.39	1.59	0.40	4.87	1.70	1.95	0.49	5.99	2.10	2.40	0.60	7.65	2.68	3.06	0.77					
1270	0.92	6.84	2.39	2.74	0.68	2.65	0.93	1.06	0.26	4.00	1.40	1.60	0.40	4.89	1.71	1.95	0.49	6.01	2.10	2.40	0.60	7.68	2.69	3.07	0.77					
1275	0.93	6.86	2.40	2.75	0.69	2.66	0.93	1.06	0.27	4.01	1.40	1.60	0.40	4.90	1.72	1.96	0.49	6.03	2.11	2.41	0.60	7.70	2.70	3.08	0.77					
1280	0.93	6.88	2.41	2.75	0.69	2.66	0.93	1.07	0.27	4.02	1.41	1.61	0.40	4.91	1.72	1.97	0.49	6.04	2.12	2.42	0.60	7.72	2.70	3.09	0.77					
1285	0.93	6.90	2.42	2.76	0.69	2.67	0.93	1.07	0.27	4.03	1.41	1.61	0.40	4.93	1.72	1.97	0.49	6.06	2.12	2.42	0.61	7.74	2.71	3.10	0.77					
1290	0.94	6.92	2.42	2.77	0.69	2.68	0.94	1.07	0.27	4.04	1.41	1.62	0.40	4.94	1.73	1.98	0.49	6.08	2.13	2.43	0.61	7.77	2.72	3.11	0.78					
1295	0.94	6.94	2.43	2.78	0.69	2.69	0.94	1.07	0.27	4.05	1.42	1.62	0.41	4.96	1.73	1.98	0.50	6.09	2.13	2.44	0.61	7.79	2.73	3.12	0.78					
1300	0.94	6.96	2.44	2.78	0.70	2.69	0.94	1.08	0.27	4.06	1.42	1.63	0.41	4.97	1.74	1.99	0.50	6.11	2.14	2.44	0.61	7.81	2.73	3.12	0.78					
1305	0.94	6.98	2.44	2.79	0.70	2.70	0.95	1.08	0.27	4.08	1.43	1.63	0.41	4.98	1.74	1.99	0.50	6.13	2.14	2.45	0.61	7.83	2.74	3.13	0.78					
1310	0.95	7.00	2.45	2.80	0.70	2.71	0.95	1.08	0.27	4.09	1.43	1.63	0.41	5.00	1.75	2.00	0.50	6.14	2.15	2.46	0.61	7.85	2.75	3.14	0.79					
1315	0.95	7.01	2.46	2.81	0.70	2.71	0.95	1.09	0.27	4.10	1.43	1.64	0.41	5.01	1.75	2.00	0.50	6.16	2.16	2.46	0.62	7.87	2.75	3.15	0.79					
1320	0.95	7.03	2.46	2.81	0.70	2.72	0.95	1.09	0.27	4.11	1.44	1.64	0.41	5.02	1.76	2.01	0.50	6.17	2.16	2.47	0.62	7.89	2.76	3.16	0.79					
1325	0.95	7.05	2.47	2.82	0.70	2.73	0.95	1.09	0.27	4.12	1.44	1.65	0.41	5.03	1.76	2.01	0.50	6.19	2.17	2.48	0.62	7.91	2.77	3.16	0.79					
1330	0.95	7.07	2.47	2.83	0.71	2.73	0.96	1.09	0.27	4.13	1.44	1.65	0.41	5.05	1.77	2.02	0.50	6.20	2.17	2.48	0.62	7.93	2.78	3.17	0.79					
1335	0.96	7.08	2.48	2.83	0.71	2.74	0.96	1.10	0.27	4.14	1.45	1.65	0.41	5.06	1.77	2.02	0.51	6.22	2.18	2.49	0.62	7.95	2.78	3.18	0.79					
1340	0.96	7.10	2.49	2.84	0.71	2.75	0.96	1.10	0.27	4.15	1.45	1.66	0.41	5.07	1.77	2.03	0.51	6.23	2.18	2.49	0.62	7.97	2.79	3.19	0.80					
1345	0.96	7.12	2.49	2.85	0.71	2.75	0.96	1.10	0.28	4.16	1.45	1.66	0.42	5.08	1.78	2.03	0.51	6.25	2.19	2.50	0.62	7.99	2.79	3.19	0.80					
1350	0.96	7.13	2.50	2.85	0.71	2.76	0.97	1.10	0.28	4.17	1.46	1.67	0.42	5.09	1.78	2.04	0.51	6.26	2.19	2.51	0.63	8.00	2.80	3.20	0.80					
1355	0.97	7.15	2.50	2.86	0.71	2.77	0.97	1.11	0.28	4.18	1.46	1.67	0.42	5.10	1.79	2.04	0.51	6.28	2.20	2.51	0.63	8.02	2.81	3.21	0.80					
1360	0.97	7.17	2.51	2.87	0.72	2.77	0.97	1.11	0.28	4.18	1.46	1.67	0.42	5.12	1.79	2.05	0.51	6.29	2.20	2.52	0.63	8.04	2.81	3.22	0.80					
1365	0.97	7.18	2.51	2.87	0.72	2.78	0.97	1.11	0.28	4.19	1.47	1.68	0.42	5.13	1.79	2.05	0.51	6.31	2.21	2.52	0.63	8.06	2.82	3.22	0.81					
1370	0.97	7.20	2.52	2.88	0.72	2.79	0.97	1.11	0.28	4.20	1.47	1.68	0.42	5.14	1.80	2.06	0.51	6.32	2.21	2.53	0.63	8.07	2.83	3.23	0.81					
1375	0.97	7.21	2.52	2.88	0.72	2.79	0.98	1.12	0.28	4.21	1.47	1.68	0.42	5.15	1.80	2.06	0.51	6.33	2.22	2.53	0.63	8.09	2.83	3.24	0.81					
1380	0.98	7.23	2.53	2.89	0.72	2.80	0.98	1.12	0.28	4.22	1.48	1.69	0.42	5.16	1.81	2.06	0.52	6.35	2.22	2.54	0.63	8.11	2.84	3.24	0.81					
1385	0.98	7.24	2.53	2.90	0.72	2.80	0.98	1.12	0.28	4.23	1.48	1.69	0.42	5.17	1.81	2.07	0.52	6.36	2.23	2.54	0.64	8.13	2.84	3.25	0.81					
1390	0.98	7.26	2.54	2.90	0.73	2.81	0.98	1.12	0.28	4.24	1.48	1.70	0.42	5.18	1.81	2.07	0.52	6.37	2.23	2.55	0.64	8.14	2.85	3.26	0.81					
1395	0.98	7.27	2.55	2.91	0.73	2.81	0.99	1.13	0.28	4.25	1.49	1.70	0.42	5.19	1.82	2.08	0.52	6.39	2.23	2.55	0.64	8.16	2.86	3.26	0.82					
1400	0.98	7.29	2.55	2.91	0.73	2.82	0.99	1.13	0.28	4.26	1.49	1.70	0.43	5.20	1.82	2.08	0.52	6.40	2.24	2.56	0.64	8.18	2.86	3.27	0.82					
1405	0.99	7.30	2.56	2.92	0.73	2.83	0.99	1.13	0.28	4.26	1.49	1.71	0.43	5.21	1.82	2.09	0.52	6.41	2.24	2.56	0.64	8.19	2.87	3.28	0.82					
1410	0.99	7.32	2.56	2.93	0.73	2.83	0.99	1.13	0.28	4.27	1.50	1.71	0.43	5.22	1.83	2.09	0.52	6.42	2.25	2.57	0.64	8.21	2.87	3.28	0.82					
1415	0.99	7.33	2.57	2.93	0.73	2.84	0.99	1.13	0.28	4.28	1.50	1.71	0.43	5.23	1.83	2.09	0.52	6.44	2.25	2.57	0.64	8.22	2.88	3.29	0.82					
1420	0.99	7.34	2.57	2.94	0.73	2.84	0.99	1.14	0.28	4.29	1.50	1.72	0.43	5.24	1.84	2.10	0.52	6.45	2.26	2.58	0.64	8.24	2.88	3.30	0.82					
1425	0.99	7																												

SUBAREA A6 HYETOPRAPHS

- Per 2006 Los Angeles County Hydrology Manual Appendix A

24 HR ISOHYETS, IN					
50 YR	2 YR	5 YR	10 YR	25 YR	100 YR
7.4	2.9	4.3	5.3	6.5	8.3



UNIT HYETOGRAPH	Depth	50 YR - 24 HR					2 YR - 24 HR					5 YR - 24 HR					10 YR - 24 HR					25 YR - 24 HR					100 YR - 24 HR										
		1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY							
0	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	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							
30	0.01	0.08	0.03	0.03	0.01	0.03	0.01	0.01	0.00	0.05	0.02	0.02	0.00	0.06	0.02	0.02	0.01	0.07	0.03	0.03	0.01	0.09	0.03	0.04	0.01	0.12	0.04	0.04	0.02	0.15	0.05	0.06	0.01	0.19	0.06	0.07	0.02
60	0.02	0.17	0.06	0.07	0.02	0.06	0.02	0.03	0.01	0.10	0.03	0.04	0.01	0.12	0.04	0.05	0.01	0.15	0.05	0.06	0.01	0.19	0.06	0.07	0.02	0.18	0.06	0.07	0.02	0.22	0.08	0.09	0.02	0.28	0.10	0.11	0.03
90	0.03	0.25	0.09	0.10	0.02	0.10	0.03	0.04	0.01	0.15	0.05	0.06	0.01	0.18	0.06	0.07	0.02	0.22	0.08	0.09	0.02	0.28	0.10	0.11	0.03	0.24	0.08	0.10	0.02	0.29	0.10	0.12	0.03	0.38	0.13	0.15	0.04
120	0.05	0.34	0.12	0.13	0.03	0.13	0.05	0.05	0.01	0.20	0.07	0.08	0.02	0.24	0.08	0.10	0.02	0.29	0.10	0.12	0.03	0.38	0.13	0.15	0.04	0.30	0.11	0.12	0.03	0.37	0.13	0.15	0.04	0.47	0.17	0.19	0.05
150	0.06	0.42	0.15	0.17	0.04	0.16	0.06	0.07	0.02	0.25	0.09	0.10	0.02	0.30	0.11	0.12	0.03	0.37	0.13	0.15	0.04	0.47	0.17	0.19	0.05	0.36	0.13	0.15	0.04	0.45	0.16	0.18	0.04	0.57	0.20	0.23	0.06
180	0.07	0.51	0.18	0.20	0.05	0.20	0.07	0.08	0.02	0.30	0.10	0.12	0.03	0.36	0.13	0.15	0.04	0.45	0.16	0.18	0.04	0.57	0.20	0.23	0.06	0.43	0.15	0.17	0.04	0.53	0.18	0.21	0.05	0.67	0.24	0.27	0.07
210	0.08	0.60	0.21	0.24	0.06	0.23	0.08	0.09	0.02	0.35	0.12	0.14	0.03	0.43	0.15	0.17	0.04	0.53	0.18	0.21	0.05	0.67	0.24	0.27	0.07	0.49	0.17	0.20	0.05	0.61	0.21	0.24	0.06	0.77	0.27	0.31	0.08
240	0.09	0.69	0.24	0.28	0.07	0.27	0.09	0.11	0.03	0.40	0.14	0.16	0.04	0.49	0.17	0.20	0.05	0.61	0.21	0.24	0.06	0.77	0.27	0.31	0.08	0.56	0.20	0.22	0.06	0.69	0.24	0.27	0.07	0.88	0.31	0.35	0.09
270	0.11	0.78	0.27	0.31	0.08	0.30	0.11	0.12	0.03	0.46	0.16	0.18	0.05	0.56	0.20	0.22	0.06	0.69	0.24	0.27	0.07	0.88	0.31	0.35	0.09	0.62	0.22	0.25	0.06	0.77	0.27	0.31	0.08	0.98	0.34	0.39	0.10
300	0.12	0.87	0.31	0.35	0.09	0.34	0.12	0.14	0.03	0.51	0.18	0.20	0.05	0.62	0.22	0.25	0.06	0.77	0.27	0.31	0.08	0.98	0.34	0.39	0.10	0.69	0.24	0.28	0.07	0.85	0.30	0.34	0.09	1.09	0.38	0.44	0.11
330	0.13	0.97	0.34	0.39	0.10	0.38	0.13	0.15	0.04	0.57	0.20	0.23	0.06	0.69	0.24	0.28	0.07	0.85	0.30	0.34	0.09	1.09	0.38	0.44	0.11	0.76	0.27	0.30	0.08	0.94	0.33	0.37	0.09	1.20	0.42	0.48	0.12
360	0.14	1.07	0.37	0.43	0.11	0.41	0.14	0.17	0.04	0.62	0.22	0.25	0.06	0.76	0.27	0.30	0.08	0.94	0.33	0.37	0.09	1.20	0.42	0.48	0.12												

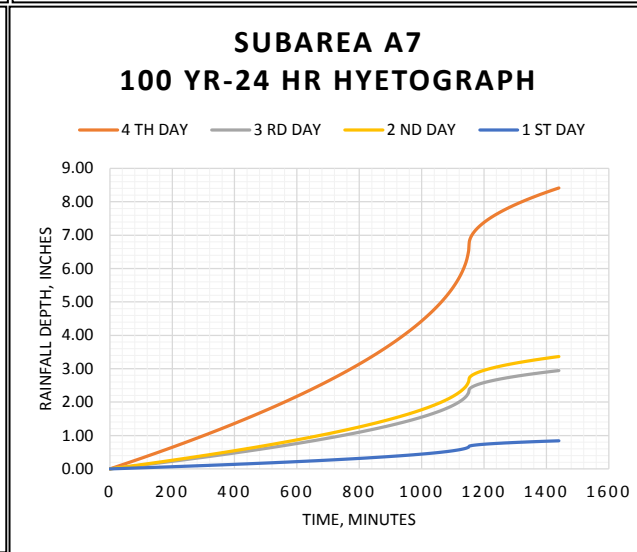
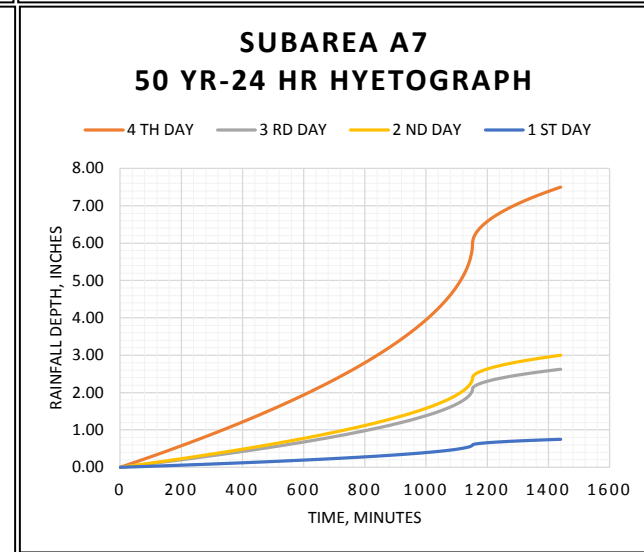
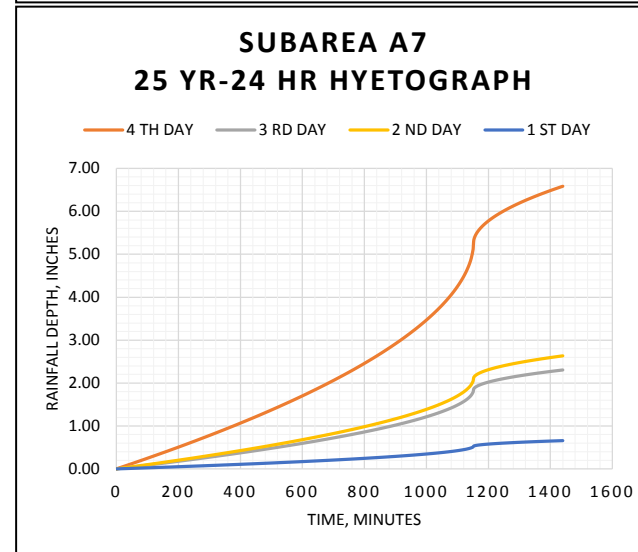
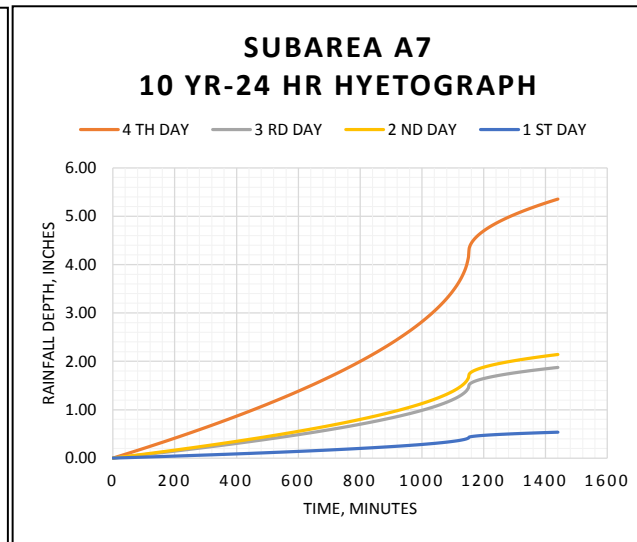
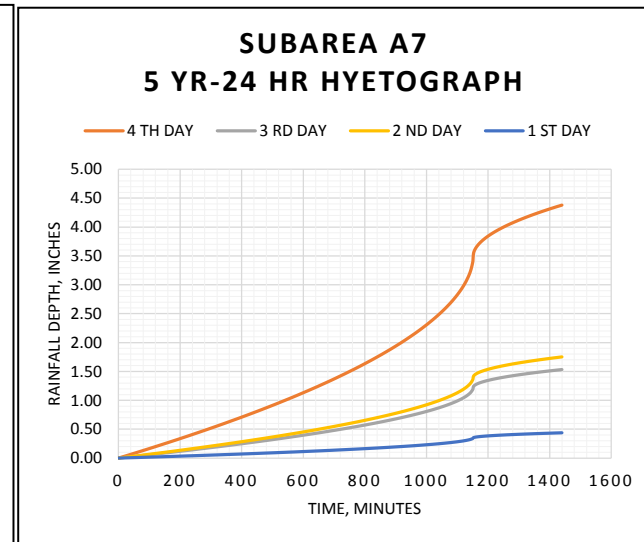
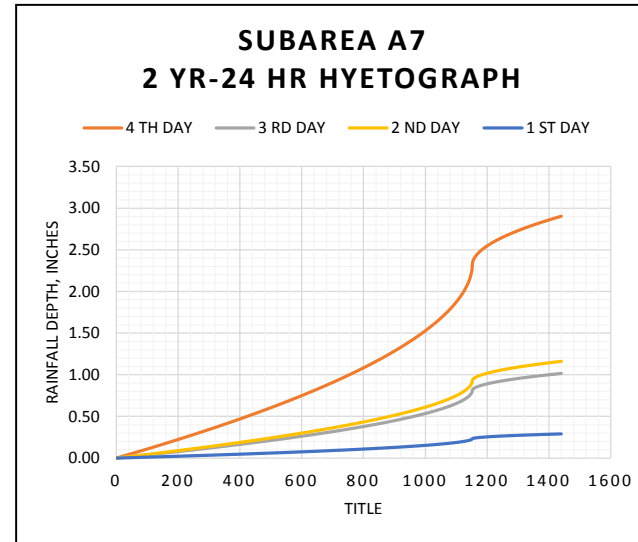
UNIT HYETOGRAPH	50 YR - 24 HR					2 YR - 24 HR				5 YR - 24 HR				10 YR - 24 HR				25 YR - 24 HR				100 YR - 24 HR			
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
390	0.16	1.16	0.41	0.47	0.12	0.45	0.16	0.18	0.05	0.68	0.24	0.27	0.07	0.83	0.29	0.33	0.08	1.02	0.36	0.41	0.10	1.31	0.46	0.52	0.13
420	0.17	1.26	0.44	0.51	0.13	0.49	0.17	0.20	0.05	0.74	0.26	0.30	0.07	0.90	0.32	0.36	0.09	1.11	0.39	0.44	0.11	1.42	0.50	0.57	0.14
450	0.18	1.37	0.48	0.55	0.14	0.53	0.19	0.21	0.05	0.80	0.28	0.32	0.08	0.98	0.34	0.39	0.10	1.20	0.42	0.48	0.12	1.53	0.54	0.61	0.15
480	0.20	1.47	0.51	0.59	0.15	0.57	0.20	0.23	0.06	0.86	0.30	0.34	0.09	1.05	0.37	0.42	0.11	1.29	0.45	0.52	0.13	1.65	0.58	0.66	0.17
510	0.21	1.58	0.55	0.63	0.16	0.61	0.21	0.24	0.06	0.92	0.32	0.37	0.09	1.13	0.39	0.45	0.11	1.38	0.48	0.55	0.14	1.77	0.62	0.71	0.18
540	0.23	1.69	0.59	0.67	0.17	0.65	0.23	0.26	0.07	0.98	0.34	0.39	0.10	1.20	0.42	0.48	0.12	1.48	0.52	0.59	0.15	1.89	0.66	0.76	0.19
570	0.24	1.80	0.63	0.72	0.18	0.70	0.24	0.28	0.07	1.05	0.37	0.42	0.10	1.28	0.45	0.51	0.13	1.58	0.55	0.63	0.16	2.02	0.71	0.81	0.20
600	0.26	1.91	0.67	0.76	0.19	0.74	0.26	0.30	0.07	1.12	0.39	0.45	0.11	1.36	0.48	0.55	0.14	1.68	0.59	0.67	0.17	2.14	0.75	0.86	0.21
630	0.27	2.03	0.71	0.81	0.20	0.79	0.27	0.31	0.08	1.18	0.41	0.47	0.12	1.45	0.51	0.58	0.14	1.78	0.62	0.71	0.18	2.28	0.80	0.91	0.23
660	0.29	2.15	0.75	0.86	0.21	0.83	0.29	0.33	0.08	1.25	0.44	0.50	0.13	1.53	0.54	0.61	0.15	1.89	0.66	0.75	0.19	2.41	0.84	0.96	0.24
690	0.31	2.27	0.80	0.91	0.23	0.88	0.31	0.35	0.09	1.33	0.46	0.53	0.13	1.62	0.57	0.65	0.16	2.00	0.70	0.80	0.20	2.55	0.89	1.02	0.25
720	0.32	2.40	0.84	0.96	0.24	0.93	0.33	0.37	0.09	1.40	0.49	0.56	0.14	1.71	0.60	0.69	0.17	2.11	0.74	0.84	0.21	2.69	0.94	1.08	0.27
750	0.34	2.53	0.89	1.01	0.25	0.98	0.34	0.39	0.10	1.48	0.52	0.59	0.15	1.81	0.63	0.72	0.18	2.22	0.78	0.89	0.22	2.84	0.99	1.14	0.28
780	0.36	2.67	0.93	1.07	0.27	1.03	0.36	0.41	0.10	1.56	0.55	0.62	0.16	1.91	0.67	0.76	0.19	2.34	0.82	0.94	0.23	2.99	1.05	1.20	0.30
810	0.38	2.81	0.98	1.12	0.28	1.09	0.38	0.43	0.11	1.64	0.57	0.66	0.16	2.01	0.70	0.80	0.20	2.47	0.86	0.99	0.25	3.15	1.10	1.26	0.32
840	0.40	2.96	1.04	1.18	0.30	1.14	0.40	0.46	0.11	1.73	0.60	0.69	0.17	2.11	0.74	0.84	0.21	2.60	0.91	1.04	0.26	3.32	1.16	1.33	0.33
870	0.42	3.11	1.09	1.24	0.31	1.20	0.42	0.48	0.12	1.82	0.64	0.73	0.18	2.22	0.78	0.89	0.22	2.73	0.96	1.09	0.27	3.49	1.22	1.40	0.35
900	0.44	3.27	1.15	1.31	0.33	1.27	0.44	0.51	0.13	1.91	0.67	0.76	0.19	2.34	0.82	0.94	0.23	2.88	1.01	1.15	0.29	3.67	1.29	1.47	0.37
930	0.47	3.45	1.21	1.38	0.34	1.33	0.47	0.53	0.13	2.01	0.70	0.81	0.20	2.46	0.86	0.98	0.25	3.03	1.06	1.21	0.30	3.87	1.35	1.55	0.39
960	0.49	3.63	1.27	1.45	0.36	1.40	0.49	0.56	0.14	2.12	0.74	0.85	0.21	2.59	0.91	1.04	0.26	3.19	1.12	1.27	0.32	4.07	1.43	1.63	0.41
970	0.50	3.69	1.29	1.48	0.37	1.43	0.50	0.57	0.14	2.16	0.75	0.86	0.22	2.64	0.92	1.05	0.26	3.24	1.14	1.30	0.32	4.14	1.45	1.66	0.41
980	0.51	3.76	1.32	1.50	0.38	1.45	0.51	0.58	0.15	2.20	0.77	0.88	0.22	2.68	0.94	1.07	0.27	3.30	1.16	1.32	0.33	4.22	1.48	1.69	0.42
990	0.52	3.83	1.34	1.53	0.38	1.48	0.52	0.59	0.15	2.23	0.78	0.89	0.22	2.73	0.96	1.09	0.27	3.36	1.18	1.34	0.34	4.29	1.50	1.72	0.43
1000	0.53	3.90	1.36	1.56	0.39	1.51	0.53	0.60	0.15	2.28	0.80	0.91	0.23	2.78	0.97	1.11	0.28	3.42	1.20	1.37	0.34	4.37	1.53	1.75	0.44
1010	0.54	3.97	1.39	1.59	0.40	1.54	0.54	0.61	0.15	2.32	0.81	0.93	0.23	2.83	0.99	1.13	0.28	3.48	1.22	1.39	0.35	4.45	1.56	1.78	0.45
1020	0.55	4.04	1.41	1.62	0.40	1.56	0.55	0.63	0.16	2.36	0.83	0.94	0.24	2.89	1.01	1.15	0.29	3.55	1.24	1.42	0.35	4.54	1.59	1.81	0.45
1030	0.56	4.12	1.44	1.65	0.41	1.59	0.56	0.64	0.16	2.41	0.84	0.96	0.24	2.94	1.03	1.18	0.29	3.62	1.27	1.45	0.36	4.62	1.62	1.85	0.46
1040	0.57	4.20	1.47	1.68	0.42	1.62	0.57	0.65	0.16	2.45	0.86	0.98	0.25	3.00	1.05	1.20	0.30	3.69	1.29	1.47	0.37	4.71	1.65	1.88	0.47
1050	0.58	4.28	1.50	1.71	0.43	1.66	0.58	0.66	0.17	2.50	0.88	1.00	0.25	3.06	1.07	1.22	0.31	3.76	1.32	1.50	0.38	4.80	1.68	1.92	0.48
1060	0.59	4.37	1.53	1.75	0.44	1.69	0.59	0.68	0.17	2.55	0.89	1.02	0.26	3.12	1.09	1.25	0.31	3.84	1.34	1.53	0.38	4.90	1.72	1.96	0.49
1070	0.60	4.46	1.56	1.78	0.45	1.73	0.60	0.69	0.17	2.61	0.91	1.04	0.26	3.19	1.11	1.27	0.32	3.92	1.37	1.57	0.39	5.01	1.75	2.00	0.50
1080	0.62	4.56	1.60	1.82	0.46	1.76	0.62	0.71	0.18	2.66	0.93	1.06	0.27	3.25	1.14	1.30	0.33	4.00	1.40	1.60	0.40	5.11	1.79	2.05	0.51
1090	0.63	4.66	1.63	1.86	0.47	1.80	0.63	0.72	0.18	2.72	0.95	1.09	0.27	3.33	1.17	1.33	0.33	4.09	1.43	1.64	0.41	5.23	1.83	2.09	0.52
1100	0.65	4.77	1.67	1.91	0.48	1.85	0.65	0.74	0.18	2.79	0.98	1.12	0.28	3.41	1.19	1.36	0.34	4.19	1.47	1.68	0.42	5.36	1.87	2.14	0.54
1110	0.66	4.90	1.71	1.96	0.49	1.89	0.66	0.76	0.19	2.86	1.00	1.14	0.29	3.50	1.22	1.40	0.35	4.30	1.50	1.72	0.43	5.49	1.92	2.20	0.55
1115	0.67	4.96	1.74	1.99	0.50	1.92	0.67	0.77	0.19	2.90	1.01	1.16	0.29	3.54	1.24	1.42	0.35	4.36	1.53	1.74	0.44	5.57	1.95	2.23	0.56
1120	0.68	5.03	1.76	2.01	0.50	1.95	0.68	0.78	0.19	2.94	1.03	1.18	0.29	3.59	1.26	1.44	0.36	4.42	1.55	1.77	0.44	5.65	1.98	2.26	0.56
1125	0.69	5.11	1.79	2.04	0.51	1.98	0.69	0.79	0.20	2.98	1.04	1.19	0.30	3.65	1.28	1.46	0.36	4.49	1.57	1.79	0.45	5.73	2.01	2.29	0.57
1130	0.70	5.19	1.82	2.08	0.52	2.01	0.70	0.80	0.20	3.03	1.06	1.21	0.30	3.71	1.30	1.48	0.37	4.56	1.60	1.82	0.46	5.83	2.04	2.33	0.58
1135	0.71	5.29	1.85	2.11	0.53	2.05	0.72	0.82	0.20	3.09	1.08	1.23	0.31	3.77	1.32	1.51	0.38	4.64	1.62	1.86	0.46	5.93	2.08	2.37	0.59
1136	0.72	5.31	1.86	2.12	0.53	2.05	0.72	0.82	0.21	3.10	1.08	1.24	0.31	3.79	1.33	1.52	0.38	4.66	1.63	1.86	0.47	5.95	2.08	2.38	0.60
1137	0.72	5.33	1.86	2.13	0.53	2.06	0.72	0.82	0.21	3.11	1.09	1.24	0.31	3.80	1.33	1.52	0.38	4.68	1.64	1.87	0.47	5.98	2.09	2.39	0.60
1138	0.72	5.35	1.87	2.14	0.53	2.07	0.72	0.83	0.21	3.12	1.09	1.25	0.31	3.82	1.34	1.53	0.38	4.70	1.64	1.88	0.47	6.00	2.10	2.40	0.60
1139	0.73	5.37	1.88	2.15	0.54	2.08	0.73	0.83	0.21	3.14	1.10	1.25	0.31	3.83	1.34	1.53	0.38	4.72	1.65	1.89	0.47	6.03	2.11	2.41	0.60
1140	0.73	5.39	1.89	2.16	0.54	2.09	0.73	0.83	0.21	3.15	1.10	1.26	0.31	3.85	1.35	1.54	0.39	4.74	1.66	1.89	0.47	6.05	2.12	2.42	0.61
1145	0.75	5.52	1.93	2.21	0.55	2.14	0.75	0.86	0.21	3.23	1.13	1.29	0.32	3.94	1.38	1.58	0.39	4.85	1.70	1.94	0.49	6.20	2.17	2.48	0.62
1150	0.77	5.72	2.00	2.29	0.57	2.21	0.77	0.88	0.22	3.34	1.17	1.34	0.33	4.08	1.43	1.63	0.41	5.02	1.76	2.01	0.50	6.41	2.24	2.57	0.64
1151	0.78	5.78	2.02	2.31	0.58	2.24	0.78	0.89	0.22	3.37	1.18	1.35	0.34	4.13	1.44	1.65	0.41	5.07	1.78	2.03	0.51	6.48	2.27	2.59	0.65
1152	0.80	5.92	2.07	2.37	0.59	2.29	0.80	0.92	0.23	3.46	1.21	1.38	0.35	4.23	1.48	1.69	0.42	5.20	1.82	2.08	0.52	6.64	2.32	2.66	0.66
1153	0.81	5.99	2.10	2.40	0.60	2.32	0.81	0.93	0.23	3.50															

UNIT HYETOGRAPH	50 YR - 24 HR					2 YR - 24 HR					5 YR - 24 HR					10 YR - 24 HR					25 YR - 24 HR					100 YR - 24 HR															
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
1224	0.90	6.63	2.32	2.65	0.66	2.57	0.90	1.03	0.26	3.87	1.36	1.55	0.39	4.73	1.66	1.89	0.47	5.82	2.04	2.33	0.58	7.44	2.60	2.98	0.74																
1225	0.90	6.64	2.32	2.65	0.66	2.57	0.90	1.03	0.26	3.87	1.36	1.55	0.39	4.74	1.66	1.89	0.47	5.83	2.04	2.33	0.58	7.44	2.61	2.98	0.74																
1226	0.90	6.64	2.32	2.66	0.66	2.57	0.90	1.03	0.26	3.88	1.36	1.55	0.39	4.74	1.66	1.90	0.47	5.83	2.04	2.33	0.58	7.45	2.61	2.98	0.75																
1227	0.90	6.65	2.33	2.66	0.66	2.57	0.90	1.03	0.26	3.88	1.36	1.55	0.39	4.74	1.66	1.90	0.47	5.83	2.04	2.33	0.58	7.46	2.61	2.98	0.75																
1228	0.90	6.65	2.33	2.66	0.67	2.57	0.90	1.03	0.26	3.88	1.36	1.55	0.39	4.75	1.66	1.90	0.47	5.84	2.04	2.34	0.58	7.46	2.61	2.98	0.75																
1229	0.90	6.66	2.33	2.66	0.67	2.58	0.90	1.03	0.26	3.89	1.36	1.55	0.39	4.75	1.66	1.90	0.48	5.84	2.05	2.34	0.58	7.47	2.61	2.99	0.75																
1230	0.90	6.66	2.33	2.66	0.67	2.58	0.90	1.03	0.26	3.89	1.36	1.56	0.39	4.76	1.66	1.90	0.48	5.85	2.05	2.34	0.58	7.47	2.62	2.99	0.75																
1231	0.90	6.67	2.33	2.67	0.67	2.58	0.90	1.03	0.26	3.89	1.36	1.56	0.39	4.76	1.67	1.90	0.48	5.85	2.05	2.34	0.59	7.48	2.62	2.99	0.75																
1232	0.90	6.67	2.33	2.67	0.67	2.58	0.90	1.03	0.26	3.90	1.36	1.56	0.39	4.76	1.67	1.91	0.48	5.86	2.05	2.34	0.59	7.48	2.62	2.99	0.75																
1233	0.90	6.68	2.34	2.67	0.67	2.58	0.90	1.03	0.26	3.90	1.36	1.56	0.39	4.77	1.67	1.91	0.48	5.86	2.05	2.34	0.59	7.49	2.62	3.00	0.75																
1234	0.90	6.68	2.34	2.67	0.67	2.59	0.90	1.03	0.26	3.90	1.37	1.56	0.39	4.77	1.67	1.91	0.48	5.87	2.05	2.35	0.59	7.50	2.62	3.00	0.75																
1235	0.90	6.69	2.34	2.67	0.67	2.59	0.91	1.03	0.26	3.90	1.37	1.56	0.39	4.77	1.67	1.91	0.48	5.87	2.05	2.35	0.59	7.50	2.63	3.00	0.75																
1240	0.91	6.71	2.35	2.68	0.67	2.60	0.91	1.04	0.26	3.92	1.37	1.57	0.39	4.79	1.68	1.92	0.48	5.89	2.06	2.36	0.59	7.53	2.63	3.01	0.75																
1245	0.91	6.73	2.36	2.69	0.67	2.61	0.91	1.04	0.26	3.93	1.38	1.57	0.39	4.81	1.68	1.92	0.48	5.91	2.07	2.36	0.59	7.55	2.64	3.02	0.76																
1250	0.91	6.76	2.36	2.70	0.68	2.61	0.92	1.05	0.26	3.95	1.38	1.58	0.39	4.82	1.69	1.93	0.48	5.93	2.08	2.37	0.59	7.58	2.65	3.03	0.76																
1255	0.92	6.78	2.37	2.71	0.68	2.62	0.92	1.05	0.26	3.96	1.39	1.58	0.40	4.84	1.69	1.94	0.48	5.95	2.08	2.38	0.60	7.61	2.66	3.04	0.76																
1260	0.92	6.80	2.38	2.72	0.68	2.63	0.92	1.05	0.26	3.97	1.39	1.59	0.40	4.86	1.70	1.94	0.49	5.97	2.09	2.39	0.60	7.63	2.67	3.05	0.76																
1265	0.92	6.82	2.39	2.73	0.68	2.64	0.92	1.06	0.26	3.98	1.39	1.59	0.40	4.87	1.70	1.95	0.49	5.99	2.10	2.40	0.60	7.65	2.68	3.06	0.77																
1270	0.92	6.84	2.39	2.74	0.68	2.65	0.93	1.06	0.26	4.00	1.40	1.60	0.40	4.89	1.71	1.95	0.49	6.01	2.10	2.40	0.60	7.68	2.69	3.07	0.77																
1275	0.93	6.86	2.40	2.75	0.69	2.66	0.93	1.06	0.27	4.01	1.40	1.60	0.40	4.90	1.72	1.96	0.49	6.03	2.11	2.41	0.60	7.70	2.70	3.08	0.77																
1280	0.93	6.88	2.41	2.75	0.69	2.66	0.93	1.07	0.27	4.02	1.41	1.61	0.40	4.91	1.72	1.97	0.49	6.04	2.12	2.42	0.60	7.72	2.70	3.09	0.77																
1285	0.93	6.90	2.42	2.76	0.69	2.67	0.93	1.07	0.27	4.03	1.41	1.61	0.40	4.93	1.72	1.97	0.49	6.06	2.12	2.42	0.61	7.74	2.71	3.10	0.77																
1290	0.94	6.92	2.42	2.77	0.69	2.68	0.94	1.07	0.27	4.04	1.41	1.62	0.40	4.94	1.73	1.98	0.49	6.08	2.13	2.43	0.61	7.77	2.72	3.11	0.78																
1295	0.94	6.94	2.43	2.78	0.69	2.69	0.94	1.07	0.27	4.05	1.42	1.62	0.41	4.96	1.73	1.98	0.50	6.09	2.13	2.44	0.61	7.79	2.73	3.12	0.78																
1300	0.94	6.96	2.44	2.78	0.70	2.69	0.94	1.08	0.27	4.06	1.42	1.63	0.41	4.97	1.74	1.99	0.50	6.11	2.14	2.44	0.61	7.81	2.73	3.12	0.78																
1305	0.94	6.98	2.44	2.79	0.70	2.70	0.95	1.08	0.27	4.08	1.43	1.63	0.41	4.98	1.74	1.99	0.50	6.13	2.14	2.45	0.61	7.83	2.74	3.13	0.78																
1310	0.95	7.00	2.45	2.80	0.70	2.71	0.95	1.08	0.27	4.09	1.43	1.63	0.41	5.00	1.75	2.00	0.50	6.14	2.15	2.46	0.61	7.85	2.75	3.14	0.79																
1315	0.95	7.01	2.46	2.81	0.70	2.71	0.95	1.09	0.27	4.10	1.43	1.64	0.41	5.01	1.75	2.00	0.50	6.16	2.16	2.46	0.62	7.87	2.75	3.15	0.79																
1320	0.95	7.03	2.46	2.81	0.70	2.72	0.95	1.09	0.27	4.11	1.44	1.64	0.41	5.02	1.76	2.01	0.50	6.17	2.16	2.47	0.62	7.89	2.76	3.16	0.79																
1325	0.95	7.05	2.47	2.82	0.70	2.73	0.95	1.09	0.27	4.12	1.44	1.65	0.41	5.03	1.76	2.01	0.50	6.19	2.17	2.48	0.62	7.91	2.77	3.16	0.79																
1330	0.95	7.07	2.47	2.83	0.71	2.73	0.96	1.09	0.27	4.13	1.44	1.65	0.41	5.05	1.77	2.02	0.50	6.20	2.17	2.48	0.62	7.93	2.78	3.17	0.79																
1335	0.96	7.08	2.48	2.83	0.71	2.74	0.96	1.10	0.27	4.14	1.45	1.65	0.41	5.06	1.77	2.02	0.51	6.22	2.18	2.49	0.62	7.95	2.78	3.18	0.79																
1340	0.96	7.10	2.49	2.84	0.71	2.75	0.96	1.10	0.27	4.15	1.45	1.66	0.41	5.07	1.77	2.03	0.51	6.23	2.18	2.49	0.62	7.97	2.79	3.19	0.80																
1345	0.96	7.12	2.49	2.85	0.71	2.75	0.96	1.10	0.28	4.16	1.45	1.66	0.42	5.08	1.78	2.03	0.51	6.25	2.19	2.50	0.62	7.99	2.79	3.19	0.80																
1350	0.96	7.13	2.50	2.85	0.71	2.76	0.97	1.10	0.28	4.17	1.46	1.67	0.42	5.09	1.78	2.04	0.51	6.26	2.19	2.51	0.63	8.00	2.80	3.20	0.80																
1355	0.97	7.15	2.50	2.86	0.71	2.77	0.97	1.11	0.28	4.18	1.46	1.67	0.42	5.10	1.79	2.04	0.51	6.28	2.20	2.51	0.63	8.02	2.81	3.21	0.80																
1360	0.97	7.17	2.51	2.87	0.72	2.77	0.97	1.11	0.28	4.18	1.46	1.67	0.42	5.12	1.79	2.05	0.51	6.29	2.20	2.52	0.63	8.04	2.81	3.22	0.80																
1365	0.97	7.18	2.51	2.87	0.72	2.78	0.97	1.11	0.28	4.19	1.47	1.68	0.42	5.13	1.79	2.05	0.51	6.31	2.21	2.52	0.63	8.06	2.82	3.22	0.81																
1370	0.97	7.20	2.52	2.88	0.72	2.79	0.97	1.11	0.28	4.20	1.47	1.68	0.42	5.14	1.80	2.06	0.51	6.32	2.21	2.53	0.63	8.07	2.83	3.23	0.81																
1375	0.97	7.21	2.52	2.88	0.72	2.79	0.98	1.12	0.28	4.21	1.47	1.68	0.42	5.15	1.80	2.06	0.51	6.33	2.22	2.53	0.63	8.09	2.83	3.24	0.81																
1380	0.98	7.23	2.53	2.89	0.72	2.80	0.98	1.12	0.28	4.22	1.48	1.69	0.42	5.16	1.81	2.06	0.52	6.35	2.22	2.54	0.63	8.11	2.84	3.24	0.81																
1385	0.98	7.24	2.53	2.90	0.72	2.80	0.98	1.12	0.28	4.23	1.48	1.69	0.42	5.17	1.81	2.07	0.52	6.36	2.23	2.54	0.64	8.13	2.84	3.25	0.81																
1390	0.98	7.26	2.54	2.90	0.73	2.81	0.98	1.12	0.28	4.24	1.48	1.70	0.42	5.18	1.81	2.07	0.52	6.37	2.23	2.55	0.64	8.14	2.85	3.26	0.81																
1395	0.98	7.27	2.55	2.91	0.73	2.81	0.99	1.13	0.28	4.25	1.49	1.70	0.42	5.19	1.82	2.08	0.52	6.39	2.23	2.55	0.64	8.16	2.86	3.26	0.82																
1400	0.98	7.29	2.55	2.91	0.73	2.82	0.99	1.13	0.28	4.26	1.49	1.70	0.43	5.20	1.82	2.08	0.52	6.40	2.24	2.56	0.64	8.18	2.86	3.27	0.82																
1405	0.99	7.30	2.56	2.92	0.73	2.83	0.99	1.13	0.28	4.26	1.49	1.71	0.43	5.21	1.82	2.09	0.52	6.41	2.24	2.56	0.64	8.19	2.87	3.28	0.82																
1410	0.99	7.32	2.56	2.93	0.73	2.83	0.99	1.13	0.28	4.27	1.50	1.71	0.43	5.22	1.83	2.09	0.52	6.42	2.25	2.57	0.64	8.21	2.87	3.28	0.82																
1415	0.99	7.33	2.57	2.93	0.73	2.84	0.99	1.13	0.28	4.28	1.50	1.71	0.43	5.23	1.83	2.09	0.52	6.44	2.25	2.57	0.64	8.22	2.88	3.29	0.82																
1420	0.99	7.34	2.57	2.94	0.73	2.84	0.9																																		

SUBAREA A7 HYETOPGRAPHS

- Per 2006 Los Angeles County Hydrology Manual Appendix A

24 HR ISOHYETS, IN					
50 YR	2 YR	5 YR	10 YR	25 YR	100 YR
7.5	2.9	4.4	5.4	6.6	8.4



UNIT HYETOGRAPH	50 YR - 24 HR					2 YR - 24 HR					5 YR - 24 HR					10 YR - 24 HR					25 YR - 24 HR					100 YR - 24 HR							
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth			
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
0	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	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	0.00
30	0.01	0.08	0.03	0.03	0.01	0.03	0.01	0.01	0.00	0.05	0.02	0.02	0.00	0.06	0.02	0.02	0.01	0.07	0.03	0.03	0.01	0.09	0.03	0.04	0.01	0.19	0.07	0.08	0.02	0.28	0.10	0.11	0.03
60	0.02	0.17	0.06	0.07	0.02	0.06	0.02	0.03	0.01	0.10	0.03	0.04	0.01	0.12	0.04	0.05	0.01	0.15	0.05	0.06	0.01	0.19	0.07	0.08	0.02	0.28	0.10	0.11	0.03	0.38	0.13	0.15	0.04
90	0.03	0.25	0.09	0.10	0.03	0.10	0.03	0.04	0.01	0.15	0.05	0.06	0.01	0.18	0.06	0.07	0.02	0.22	0.08	0.09	0.02	0.28	0.10	0.11	0.03	0.38	0.13	0.15	0.04	0.48	0.17	0.19	0.05
120	0.05	0.34	0.12	0.14	0.03	0.13	0.05	0.05	0.01	0.20	0.07	0.08	0.02	0.24	0.08	0.10	0.02	0.30	0.10	0.12	0.03	0.38	0.13	0.15	0.04	0.48	0.17	0.19	0.05	0.58	0.20	0.23	0.06
150	0.06	0.43	0.15	0.17	0.04	0.17	0.06	0.07	0.02	0.25	0.09	0.10	0.02	0.31	0.11	0.12	0.03	0.38	0.13	0.15	0.04	0.48	0.17	0.19	0.05	0.58	0.20	0.23	0.06	0.68	0.24	0.27	0.07
180	0.07	0.52	0.18	0.21	0.05	0.20	0.07	0.08	0.02	0.30	0.11	0.12	0.03	0.37	0.13	0.15	0.04	0.45	0.16	0.18	0.05	0.58	0.20	0.23	0.06	0.68	0.24	0.27	0.07	0.78	0.27	0.31	0.08
210	0.08	0.61	0.21	0.24	0.06	0.23	0.08	0.09	0.02	0.35	0.12	0.14	0.04	0.43	0.15	0.17	0.04	0.53	0.19	0.21	0.05	0.68	0.24	0.27	0.07	0.78	0.27	0.31	0.08	0.89	0.31	0.36	0.09
240	0.09	0.70	0.24	0.28	0.07	0.27	0.09	0.11	0.03	0.41	0.14	0.16	0.04	0.50	0.17	0.20	0.05	0.61	0.21	0.25	0.06	0.78	0.27	0.31	0.08	0.89	0.31	0.36	0.09	0.99	0.35	0.40	0.10
270	0.11	0.79	0.28	0.32	0.08	0.31	0.11	0.12	0.03	0.46	0.16	0.18	0.05	0.57	0.20	0.23	0.06	0.70	0.24	0.28	0.07	0.89	0.31	0.36	0.09	0.99	0.35	0.40	0.10	1.10	0.39	0.44	0.11
300	0.12	0.89	0.31	0.35	0.09	0.34	0.12	0.14	0.03	0.52	0.18	0.21	0.05	0.63	0.22	0.25	0.06	0.78	0.27	0.31	0.08	0.99	0.35	0.40	0.10	1.10	0.39	0.44	0.11	1.21	0.42	0.49	0.12
330	0.13	0.98	0.34	0.39	0.10	0.38	0.13	0.15	0.04	0.57	0.20	0.23	0.06	0.70	0.25	0.28	0.07	0.86	0.30	0.35	0.09	1.10	0.39	0.44	0.11	1.21	0.42	0.49	0.12	1.32	0.45	0.52	0.13
360	0.14	1.08	0.38	0.43	0.11	0.42	0.15	0.17	0.04	0.63	0.22	0.25	0.06	0.77	0.27	0.31	0.08	0.95	0.33	0.38	0.09	1.21	0.42	0.49	0.12	1.32	0.45	0.52	0.13	1.43	0.48	0.55	0.14

UNIT HYETOGRAPH	50 YR - 24 HR					2 YR - 24 HR					5 YR - 24 HR					10 YR - 24 HR					25 YR - 24 HR					100 YR - 24 HR							
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	
Time	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY
390	0.16	1.18	0.41	0.47	0.12	0.46	0.16	0.18	0.05	0.69	0.24	0.28	0.07	0.84	0.29	0.34	0.08	1.04	0.36	0.41	0.10	1.32	0.46	0.53	0.13								
420	0.17	1.28	0.45	0.51	0.13	0.50	0.17	0.20	0.05	0.75	0.26	0.30	0.07	0.92	0.32	0.37	0.09	1.13	0.39	0.45	0.11	1.44	0.50	0.58	0.14								
450	0.18	1.39	0.48	0.55	0.14	0.54	0.19	0.21	0.05	0.81	0.28	0.32	0.08	0.99	0.35	0.40	0.10	1.22	0.43	0.49	0.12	1.55	0.54	0.62	0.16								
480	0.20	1.49	0.52	0.60	0.15	0.58	0.20	0.23	0.06	0.87	0.30	0.35	0.09	1.06	0.37	0.43	0.11	1.31	0.46	0.52	0.13	1.67	0.59	0.67	0.17								
510	0.21	1.60	0.56	0.64	0.16	0.62	0.22	0.25	0.06	0.93	0.33	0.37	0.09	1.14	0.40	0.46	0.11	1.40	0.49	0.56	0.14	1.79	0.63	0.72	0.18								
540	0.23	1.71	0.60	0.68	0.17	0.66	0.23	0.26	0.07	1.00	0.35	0.40	0.10	1.22	0.43	0.49	0.12	1.50	0.53	0.60	0.15	1.92	0.67	0.77	0.19								
570	0.24	1.82	0.64	0.73	0.18	0.71	0.25	0.28	0.07	1.06	0.37	0.43	0.11	1.30	0.46	0.52	0.13	1.60	0.56	0.64	0.16	2.04	0.72	0.82	0.20								
600	0.26	1.94	0.68	0.77	0.19	0.75	0.26	0.30	0.07	1.13	0.40	0.45	0.11	1.38	0.48	0.55	0.14	1.70	0.60	0.68	0.17	2.17	0.76	0.87	0.22								
630	0.27	2.06	0.72	0.82	0.21	0.80	0.28	0.32	0.08	1.20	0.42	0.48	0.12	1.47	0.51	0.59	0.15	1.81	0.63	0.72	0.18	2.31	0.81	0.92	0.23								
660	0.29	2.18	0.76	0.87	0.22	0.84	0.29	0.34	0.08	1.27	0.45	0.51	0.13	1.55	0.54	0.62	0.16	1.91	0.67	0.76	0.19	2.44	0.86	0.98	0.24								
690	0.31	2.30	0.81	0.92	0.23	0.89	0.31	0.36	0.09	1.34	0.47	0.54	0.13	1.64	0.58	0.66	0.16	2.02	0.71	0.81	0.20	2.58	0.90	1.03	0.26								
720	0.32	2.43	0.85	0.97	0.24	0.94	0.33	0.38	0.09	1.42	0.50	0.57	0.14	1.74	0.61	0.69	0.17	2.14	0.75	0.85	0.21	2.73	0.96	1.09	0.27								
750	0.34	2.57	0.90	1.03	0.26	0.99	0.35	0.40	0.10	1.50	0.52	0.60	0.15	1.83	0.64	0.73	0.18	2.25	0.79	0.90	0.23	2.88	1.01	1.15	0.29								
780	0.36	2.70	0.95	1.08	0.27	1.05	0.37	0.42	0.10	1.58	0.55	0.63	0.16	1.93	0.68	0.77	0.19	2.37	0.83	0.95	0.24	3.03	1.06	1.21	0.30								
810	0.38	2.85	1.00	1.14	0.28	1.10	0.39	0.44	0.11	1.66	0.58	0.67	0.17	2.03	0.71	0.81	0.20	2.50	0.88	1.00	0.25	3.20	1.12	1.28	0.32								
840	0.40	3.00	1.05	1.20	0.30	1.16	0.41	0.46	0.12	1.75	0.61	0.70	0.18	2.14	0.75	0.86	0.21	2.63	0.92	1.05	0.26	3.36	1.18	1.35	0.34								
870	0.42	3.15	1.10	1.26	0.32	1.22	0.43	0.49	0.12	1.84	0.64	0.74	0.18	2.25	0.79	0.90	0.23	2.77	0.97	1.11	0.28	3.54	1.24	1.42	0.35								
900	0.44	3.32	1.16	1.33	0.33	1.28	0.45	0.51	0.13	1.94	0.68	0.78	0.19	2.37	0.83	0.95	0.24	2.91	1.02	1.17	0.29	3.72	1.30	1.49	0.37								
930	0.47	3.49	1.22	1.40	0.35	1.35	0.47	0.54	0.14	2.04	0.71	0.82	0.20	2.49	0.87	1.00	0.25	3.07	1.07	1.23	0.31	3.92	1.37	1.57	0.39								
960	0.49	3.68	1.29	1.47	0.37	1.42	0.50	0.57	0.14	2.15	0.75	0.86	0.21	2.63	0.92	1.05	0.26	3.23	1.13	1.29	0.32	4.13	1.44	1.65	0.41								
970	0.50	3.74	1.31	1.50	0.37	1.45	0.51	0.58	0.14	2.19	0.77	0.87	0.22	2.67	0.94	1.07	0.27	3.29	1.15	1.31	0.33	4.20	1.47	1.68	0.42								
980	0.51	3.81	1.33	1.52	0.38	1.47	0.52	0.59	0.15	2.23	0.78	0.89	0.22	2.72	0.95	1.09	0.27	3.35	1.17	1.34	0.33	4.28	1.50	1.71	0.43								
990	0.52	3.88	1.36	1.55	0.39	1.50	0.53	0.60	0.15	2.27	0.79	0.91	0.23	2.77	0.97	1.11	0.28	3.41	1.19	1.36	0.34	4.35	1.52	1.74	0.44								
1000	0.53	3.95	1.38	1.58	0.39	1.53	0.53	0.61	0.15	2.31	0.81	0.92	0.23	2.82	0.99	1.13	0.28	3.47	1.21	1.39	0.35	4.43	1.55	1.77	0.44								
1010	0.54	4.02	1.41	1.61	0.40	1.56	0.54	0.62	0.16	2.35	0.82	0.94	0.23	2.87	1.01	1.15	0.29	3.53	1.24	1.41	0.35	4.51	1.58	1.80	0.45								
1020	0.55	4.10	1.43	1.64	0.41	1.59	0.55	0.63	0.16	2.39	0.84	0.96	0.24	2.93	1.02	1.17	0.29	3.60	1.26	1.44	0.36	4.60	1.61	1.84	0.46								
1030	0.56	4.17	1.46	1.67	0.42	1.62	0.57	0.65	0.16	2.44	0.85	0.98	0.24	2.98	1.04	1.19	0.30	3.67	1.28	1.47	0.37	4.68	1.64	1.87	0.47								
1040	0.57	4.26	1.49	1.70	0.43	1.65	0.58	0.66	0.16	2.49	0.87	0.99	0.25	3.04	1.06	1.22	0.30	3.74	1.31	1.49	0.37	4.77	1.67	1.91	0.48								
1050	0.58	4.34	1.52	1.74	0.43	1.68	0.59	0.67	0.17	2.53	0.89	1.01	0.25	3.10	1.08	1.24	0.31	3.81	1.33	1.52	0.38	4.87	1.70	1.95	0.49								
1060	0.59	4.43	1.55	1.77	0.44	1.71	0.60	0.69	0.17	2.59	0.91	1.03	0.26	3.16	1.11	1.26	0.32	3.89	1.36	1.56	0.39	4.97	1.74	1.99	0.50								
1070	0.60	4.52	1.58	1.81	0.45	1.75	0.61	0.70	0.17	2.64	0.92	1.06	0.26	3.23	1.13	1.29	0.32	3.97	1.39	1.59	0.40	5.07	1.78	2.03	0.51								
1080	0.62	4.62	1.62	1.85	0.46	1.79	0.63	0.72	0.18	2.70	0.94	1.08	0.27	3.30	1.15	1.32	0.33	4.06	1.42	1.62	0.41	5.18	1.81	2.07	0.52								
1090	0.63	4.72	1.65	1.89	0.47	1.83	0.64	0.73	0.18	2.76	0.97	1.10	0.28	3.37	1.18	1.35	0.34	4.15	1.45	1.66	0.41	5.30	1.86	2.12	0.53								
1100	0.65	4.84	1.69	1.94	0.48	1.87	0.66	0.75	0.19	2.83	0.99	1.13	0.28	3.45	1.21	1.38	0.35	4.25	1.49	1.70	0.42	5.43	1.90	2.17	0.54								
1110	0.66	4.96	1.74	1.99	0.50	1.92	0.67	0.77	0.19	2.90	1.01	1.16	0.29	3.54	1.24	1.42	0.35	4.36	1.53	1.74	0.44	5.57	1.95	2.23	0.56								
1115	0.67	5.03	1.76	2.01	0.50	1.95	0.68	0.78	0.19	2.94	1.03	1.18	0.29	3.59	1.26	1.44	0.36	4.42	1.55	1.77	0.44	5.64	1.98	2.26	0.56								
1120	0.68	5.10	1.79	2.04	0.51	1.97	0.69	0.79	0.20	2.98	1.04	1.19	0.30	3.64	1.27	1.46	0.36	4.48	1.57	1.79	0.45	5.72	2.00	2.29	0.57								
1125	0.69	5.18	1.81	2.07	0.52	2.00	0.70	0.80	0.20	3.02	1.06	1.21	0.30	3.70	1.29	1.48	0.37	4.55	1.59	1.82	0.45	5.81	2.03	2.32	0.58								
1130	0.70	5.26	1.84	2.11	0.53	2.04	0.71	0.81	0.20	3.07	1.08	1.23	0.31	3.76	1.32	1.50	0.38	4.62	1.62	1.85	0.46	5.91	2.07	2.36	0.59								
1135	0.71	5.36	1.88	2.14	0.54	2.07	0.73	0.83	0.21	3.13	1.10	1.25	0.31	3.83	1.34	1.53	0.38	4.70	1.65	1.88	0.47	6.01	2.10	2.40	0.60								
1136	0.72	5.38	1.88	2.15	0.54	2.08	0.73	0.83	0.21	3.14	1.10	1.26	0.31	3.84	1.34	1.54	0.38	4.72	1.65	1.89	0.47	6.03	2.11	2.41	0.60								
1137	0.72	5.40	1.89	2.16	0.54	2.09	0.73	0.84	0.21	3.15	1.10	1.26	0.32	3.85	1.35	1.54	0.39	4.74	1.66	1.90	0.47	6.06	2.12	2.42	0.61								
1138	0.72	5.42	1.90	2.17	0.54	2.10	0.73	0.84	0.21	3.17	1.11	1.27	0.32	3.87	1.35	1.55	0.39	4.76	1.67	1.90	0.48	6.08	2.13	2.43	0.61								
1139	0.73	5.44	1.90	2.18	0.54	2.11	0.74	0.84	0.21	3.18	1.11	1.27	0.32	3.89	1.36	1.55	0.39	4.78	1.67	1.91	0.48	6.11	2.14	2.44	0.61								
1140	0.73	5.47	1.91	2.19	0.55	2.12	0.74	0.85	0.21	3.19	1.12	1.28	0.32	3.90	1.37	1.56	0.39	4.80	1.68	1.92	0.48	6.13	2.15	2.45	0.61								
1145	0.75	5.60	1.96	2.24	0.56	2.17	0.76	0.87	0.22	3.27	1.14	1.31	0.33	4.00	1.40	1.60	0.40	4.92	1.72	1.97	0.49	6.28	2.20	2.51	0.63								
1150	0.77	5.79	2.03	2.32	0.58	2.24	0.78	0.90	0.22	3.38	1.18	1.35	0.34	4.14	1.45	1.65	0.41	5.09	1.78	2.03	0.51	6.50	2.28	2.60	0.65								
1151	0.78	5.86	2.05	2.34	0.59	2.27	0.79	0.91	0.23	3.42	1.20	1.37	0.34	4.18	1.46	1.67	0.42	5.14	1.80	2.06	0.51	6.57	2.30	2.63	0.66								
1152	0.80	6.00	2.10	2.40	0.60	2.32	0.81	0.93	0.23	3.50	1.23	1.40	0.35	4.28	1.50	1.71	0.43	5.27	1.84	2.11	0.53	6.73	2.36	2									

UNIT HYETOGRAPH	50 YR - 24 HR					2 YR - 24 HR					5 YR - 24 HR					10 YR - 24 HR					25 YR - 24 HR					100 YR - 24 HR				
Time	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth			
	1 INCH	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	4 TH DAY	3 RD DAY	2 ND DAY	1 ST DAY	
1224	0.90	6.72	2.35	2.69	0.67	2.60	0.91	1.04	0.26	3.92	1.37	1.57	0.39	4.80	1.68	1.92	0.48	5.90	2.06	2.36	0.59	7.54	2.64	3.02	0.75					
1225	0.90	6.72	2.35	2.69	0.67	2.60	0.91	1.04	0.26	3.93	1.37	1.57	0.39	4.80	1.68	1.92	0.48	5.90	2.07	2.36	0.59	7.55	2.64	3.02	0.75					
1226	0.90	6.73	2.36	2.69	0.67	2.60	0.91	1.04	0.26	3.93	1.38	1.57	0.39	4.81	1.68	1.92	0.48	5.91	2.07	2.36	0.59	7.55	2.64	3.02	0.76					
1227	0.90	6.74	2.36	2.69	0.67	2.61	0.91	1.04	0.26	3.93	1.38	1.57	0.39	4.81	1.68	1.92	0.48	5.91	2.07	2.37	0.59	7.56	2.64	3.02	0.76					
1228	0.90	6.74	2.36	2.70	0.67	2.61	0.91	1.04	0.26	3.94	1.38	1.57	0.39	4.81	1.68	1.93	0.48	5.92	2.07	2.37	0.59	7.56	2.65	3.03	0.76					
1229	0.90	6.75	2.36	2.70	0.67	2.61	0.91	1.04	0.26	3.94	1.38	1.58	0.39	4.82	1.69	1.93	0.48	5.92	2.07	2.37	0.59	7.57	2.65	3.03	0.76					
1230	0.90	6.75	2.36	2.70	0.68	2.61	0.91	1.04	0.26	3.94	1.38	1.58	0.39	4.82	1.69	1.93	0.48	5.93	2.07	2.37	0.59	7.57	2.65	3.03	0.76					
1231	0.90	6.76	2.36	2.70	0.68	2.61	0.92	1.05	0.26	3.95	1.38	1.58	0.39	4.82	1.69	1.93	0.48	5.93	2.08	2.37	0.59	7.58	2.65	3.03	0.76					
1232	0.90	6.76	2.37	2.70	0.68	2.62	0.92	1.05	0.26	3.95	1.38	1.58	0.39	4.83	1.69	1.93	0.48	5.94	2.08	2.37	0.59	7.59	2.65	3.03	0.76					
1233	0.90	6.77	2.37	2.71	0.68	2.62	0.92	1.05	0.26	3.95	1.38	1.58	0.40	4.83	1.69	1.93	0.48	5.94	2.08	2.38	0.59	7.59	2.66	3.04	0.76					
1234	0.90	6.77	2.37	2.71	0.68	2.62	0.92	1.05	0.26	3.95	1.38	1.58	0.40	4.83	1.69	1.93	0.48	5.94	2.08	2.38	0.59	7.60	2.66	3.04	0.76					
1235	0.90	6.78	2.37	2.71	0.68	2.62	0.92	1.05	0.26	3.96	1.38	1.58	0.40	4.84	1.69	1.94	0.48	5.95	2.08	2.38	0.59	7.60	2.66	3.04	0.76					
1240	0.91	6.80	2.38	2.72	0.68	2.63	0.92	1.05	0.26	3.97	1.39	1.59	0.40	4.86	1.70	1.94	0.49	5.97	2.09	2.39	0.60	7.63	2.67	3.05	0.76					
1245	0.91	6.82	2.39	2.73	0.68	2.64	0.92	1.06	0.26	3.99	1.39	1.59	0.40	4.87	1.71	1.95	0.49	5.99	2.10	2.40	0.60	7.66	2.68	3.06	0.77					
1250	0.91	6.85	2.40	2.74	0.68	2.65	0.93	1.06	0.26	4.00	1.40	1.60	0.40	4.89	1.71	1.96	0.49	6.01	2.10	2.40	0.60	7.68	2.69	3.07	0.77					
1255	0.92	6.87	2.40	2.75	0.69	2.66	0.93	1.06	0.27	4.01	1.40	1.60	0.40	4.91	1.72	1.96	0.49	6.03	2.11	2.41	0.60	7.71	2.70	3.08	0.77					
1260	0.92	6.89	2.41	2.76	0.69	2.67	0.93	1.07	0.27	4.02	1.41	1.61	0.40	4.92	1.72	1.97	0.49	6.05	2.12	2.42	0.61	7.73	2.71	3.09	0.77					
1265	0.92	6.91	2.42	2.77	0.69	2.68	0.94	1.07	0.27	4.04	1.41	1.62	0.40	4.94	1.73	1.97	0.49	6.07	2.12	2.43	0.61	7.76	2.71	3.10	0.78					
1270	0.92	6.93	2.43	2.77	0.69	2.68	0.94	1.07	0.27	4.05	1.42	1.62	0.40	4.95	1.73	1.98	0.50	6.09	2.13	2.44	0.61	7.78	2.72	3.11	0.78					
1275	0.93	6.96	2.43	2.78	0.70	2.69	0.94	1.08	0.27	4.06	1.42	1.62	0.41	4.97	1.74	1.99	0.50	6.11	2.14	2.44	0.61	7.80	2.73	3.12	0.78					
1280	0.93	6.98	2.44	2.79	0.70	2.70	0.94	1.08	0.27	4.07	1.43	1.63	0.41	4.98	1.74	1.99	0.50	6.12	2.14	2.45	0.61	7.83	2.74	3.13	0.78					
1285	0.93	7.00	2.45	2.80	0.70	2.71	0.95	1.08	0.27	4.09	1.43	1.63	0.41	5.00	1.75	2.00	0.50	6.14	2.15	2.46	0.61	7.85	2.75	3.14	0.78					
1290	0.94	7.02	2.46	2.81	0.70	2.72	0.95	1.09	0.27	4.10	1.43	1.64	0.41	5.01	1.75	2.00	0.50	6.16	2.16	2.46	0.62	7.87	2.76	3.15	0.79					
1295	0.94	7.04	2.46	2.81	0.70	2.72	0.95	1.09	0.27	4.11	1.44	1.64	0.41	5.02	1.76	2.01	0.50	6.18	2.16	2.47	0.62	7.89	2.76	3.16	0.79					
1300	0.94	7.05	2.47	2.82	0.71	2.73	0.96	1.09	0.27	4.12	1.44	1.65	0.41	5.04	1.76	2.01	0.50	6.19	2.17	2.48	0.62	7.91	2.77	3.17	0.79					
1305	0.94	7.07	2.48	2.83	0.71	2.74	0.96	1.09	0.27	4.13	1.45	1.65	0.41	5.05	1.77	2.02	0.50	6.21	2.17	2.48	0.62	7.94	2.78	3.17	0.79					
1310	0.95	7.09	2.48	2.84	0.71	2.74	0.96	1.10	0.27	4.14	1.45	1.66	0.41	5.06	1.77	2.03	0.51	6.23	2.18	2.49	0.62	7.96	2.78	3.18	0.80					
1315	0.95	7.11	2.49	2.84	0.71	2.75	0.96	1.10	0.28	4.15	1.45	1.66	0.42	5.08	1.78	2.03	0.51	6.24	2.18	2.50	0.62	7.98	2.79	3.19	0.80					
1320	0.95	7.13	2.49	2.85	0.71	2.76	0.97	1.10	0.28	4.16	1.46	1.66	0.42	5.09	1.78	2.04	0.51	6.26	2.19	2.50	0.63	8.00	2.80	3.20	0.80					
1325	0.95	7.14	2.50	2.86	0.71	2.77	0.97	1.11	0.28	4.17	1.46	1.67	0.42	5.10	1.79	2.04	0.51	6.27	2.20	2.51	0.63	8.02	2.81	3.21	0.80					
1330	0.95	7.16	2.51	2.86	0.72	2.77	0.97	1.11	0.28	4.18	1.46	1.67	0.42	5.11	1.79	2.05	0.51	6.29	2.20	2.52	0.63	8.04	2.81	3.21	0.80					
1335	0.96	7.18	2.51	2.87	0.72	2.78	0.97	1.11	0.28	4.19	1.47	1.68	0.42	5.13	1.79	2.05	0.51	6.30	2.21	2.52	0.63	8.06	2.82	3.22	0.81					
1340	0.96	7.20	2.52	2.88	0.72	2.79	0.97	1.11	0.28	4.20	1.47	1.68	0.42	5.14	1.80	2.06	0.51	6.32	2.21	2.53	0.63	8.07	2.83	3.23	0.81					
1345	0.96	7.21	2.52	2.89	0.72	2.79	0.98	1.12	0.28	4.21	1.47	1.69	0.42	5.15	1.80	2.06	0.52	6.33	2.22	2.53	0.63	8.09	2.83	3.24	0.81					
1350	0.96	7.23	2.53	2.89	0.72	2.80	0.98	1.12	0.28	4.22	1.48	1.69	0.42	5.16	1.81	2.06	0.52	6.35	2.22	2.54	0.63	8.11	2.84	3.24	0.81					
1355	0.97	7.25	2.54	2.90	0.72	2.80	0.98	1.12	0.28	4.23	1.48	1.69	0.42	5.17	1.81	2.07	0.52	6.36	2.23	2.54	0.64	8.13	2.85	3.25	0.81					
1360	0.97	7.26	2.54	2.90	0.73	2.81	0.98	1.12	0.28	4.24	1.48	1.70	0.42	5.19	1.81	2.07	0.52	6.38	2.23	2.55	0.64	8.15	2.85	3.26	0.81					
1365	0.97	7.28	2.55	2.91	0.73	2.82	0.99	1.13	0.28	4.25	1.49	1.70	0.43	5.20	1.82	2.08	0.52	6.39	2.24	2.56	0.64	8.17	2.86	3.27	0.82					
1370	0.97	7.29	2.55	2.92	0.73	2.82	0.99	1.13	0.28	4.26	1.49	1.70	0.43	5.21	1.82	2.08	0.52	6.40	2.24	2.56	0.64	8.18	2.86	3.27	0.82					
1375	0.97	7.31	2.56	2.92	0.73	2.83	0.99	1.13	0.28	4.27	1.49	1.71	0.43	5.22	1.83	2.09	0.52	6.42	2.25	2.57	0.64	8.20	2.87	3.28	0.82					
1380	0.98	7.33	2.56	2.93	0.73	2.83	0.99	1.13	0.28	4.28	1.50	1.71	0.43	5.23	1.83	2.09	0.52	6.43	2.25	2.57	0.64	8.22	2.88	3.29	0.82					
1385	0.98	7.34	2.57	2.94	0.73	2.84	0.99	1.14	0.28	4.29	1.50	1.71	0.43	5.24	1.83	2.10	0.52	6.45	2.26	2.58	0.64	8.24	2.88	3.29	0.82					
1390	0.98	7.36	2.57	2.94	0.74	2.85	1.00	1.14	0.28	4.30	1.50	1.72	0.43	5.25	1.84	2.10	0.53	6.46	2.26	2.58	0.65	8.25	2.89	3.30	0.83					
1395	0.98	7.37	2.58	2.95	0.74	2.85	1.00	1.14	0.29	4.30	1.51	1.72	0.43	5.26	1.84	2.11	0.53	6.47	2.27	2.59	0.65	8.27	2.89	3.31	0.83					
1400	0.98	7.39	2.58	2.95	0.74	2.86	1.00	1.14	0.29	4.31	1.51	1.73	0.43	5.27	1.85	2.11	0.53	6.48	2.27	2.59	0.65	8.29	2.90	3.31	0.83					
1405	0.99	7.40	2.59	2.96	0.74	2.86	1.00	1.15	0.29	4.32	1.51	1.73	0.43	5.28	1.85	2.11	0.53	6.50	2.27	2.60	0.65	8.30	2.91	3.32	0.83					
1410</																														

WVF1 STA 1407+45.fm8 Report

Label	Solve For	Friction Method	Roughness Coefficient	Channel Slope (ft/ft)	Water Surface Elevation (ft)	Elevation Range	Discharge (ft ³ /s)	Flow Area (ft ²)	Wetted Perimeter (ft)	Hydraulic Radius (ft)	Top Width (ft)
STA 0+10	Normal Depth	Manning Formula	0.080	0.02764	1015.92	1012.69 to 1018.04 ft	138.00	34.92	24.12	1.45	22.83
STA 0+20	Normal Depth	Manning Formula	0.080	0.02764	1015.21	1012.02 to 1017.95 ft	138.00	34.00	22.56	1.51	20.98
STA 0+30	Normal Depth	Manning Formula	0.080	0.02764	1014.96	1010.94 to 1015.76 ft	138.00	35.59	25.29	1.41	21.62
STA 0+40	Normal Depth	Manning Formula	0.080	0.10784	1011.34	1008.69 to 1014.08 ft	138.00	17.34	11.64	1.49	9.33
STA 0+50	Normal Depth	Manning Formula	0.080	0.10784	1009.61	1007.82 to 1013.02 ft	138.00	20.60	17.89	1.15	17.02
STA 0+60	Normal Depth	Manning Formula	0.080	0.10784	1008.42	1006.19 to 1010.07 ft	138.00	19.08	14.79	1.29	13.92
STA 0+68	Normal Depth	Manning Formula	0.080	0.10784	1007.12	1005.79 to 1008.26 ft	138.00	22.46	22.21	1.01	21.72

Normal Depth (ft)	Critical Depth (ft)	Critical Slope (ft/ft)	Velocity (ft/s)	Velocity Head (ft)	Specific Energy (ft)	Froude Number	Flow Type	Notes	Messages
3.23	2.60	0.09448	3.95	0.24	3.47	0.56	Subcritical		
3.19	2.52	0.09441	4.06	0.26	3.44	0.56	Subcritical		
4.02	3.13	0.10577	3.88	0.23	4.26	0.53	Subcritical		
2.65	2.69	0.10167	7.96	0.98	3.63	1.03	Supercritical		
1.79	1.85	0.09251	6.70	0.70	2.49	1.07	Supercritical		
2.23	2.32	0.08998	7.23	0.81	3.04	1.09	Supercritical		
1.33	1.38	0.09403	6.15	0.59	1.92	1.07	Supercritical		

Worksheet for STA 0+10

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope 0.02764 ft/ft
Discharge 138.00 ft³/s
Section Definitions

Station (ft)	Elevation (ft)
-0+18	1016.37
0+01	1012.69
0+02	1013.94
0+06	1015.59
0+10	1017.44
0+15	1018.04

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(-0+18, 1016.37)	(0+15, 1018.04)	0.080

Options

Current Roughness Weighted Method Pavlovskii's Method
Open Channel Weighting Method Pavlovskii's Method
Closed Channel Weighting Method Pavlovskii's Method

Results

Normal Depth 3.23 ft
Elevation Range 1012.69 to 1018.04 ft
Flow Area 34.92 ft²
Wetted Perimeter 24.12 ft
Hydraulic Radius 1.45 ft
Top Width 22.83 ft
Normal Depth 3.23 ft

METROPOLITAN WATER DISTRICT

Worksheet for STA 0+10

Results

Critical Depth	2.60	ft
Critical Slope	0.09448	ft/ft
Velocity	3.95	ft/s
Velocity Head	0.24	ft
Specific Energy	3.47	ft
Froude Number	0.56	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.23	ft
Critical Depth	2.60	ft
Channel Slope	0.02764	ft/ft
Critical Slope	0.09448	ft/ft

Cross Section for STA 0+10

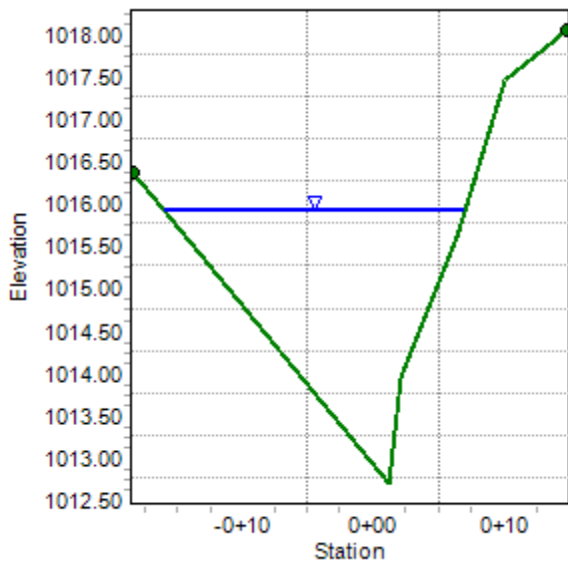
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.02764	ft/ft
Normal Depth	3.23	ft
Discharge	138.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+20

Results

Critical Depth	2.52	ft
Critical Slope	0.09441	ft/ft
Velocity	4.06	ft/s
Velocity Head	0.26	ft
Specific Energy	3.44	ft
Froude Number	0.56	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.19	ft
Critical Depth	2.52	ft
Channel Slope	0.02764	ft/ft
Critical Slope	0.09441	ft/ft

Cross Section for STA 0+20

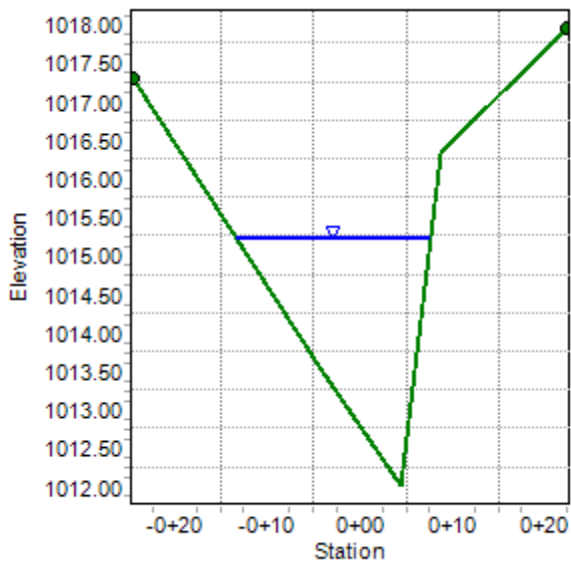
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.02764	ft/ft
Normal Depth	3.19	ft
Discharge	138.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+30

Results

Wetted Perimeter	25.29	ft
Hydraulic Radius	1.41	ft
Top Width	21.62	ft
Normal Depth	4.02	ft
Critical Depth	3.13	ft
Critical Slope	0.10577	ft/ft
Velocity	3.88	ft/s
Velocity Head	0.23	ft
Specific Energy	4.26	ft
Froude Number	0.53	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	4.02	ft
Critical Depth	3.13	ft
Channel Slope	0.02764	ft/ft
Critical Slope	0.10577	ft/ft

Cross Section for STA 0+30

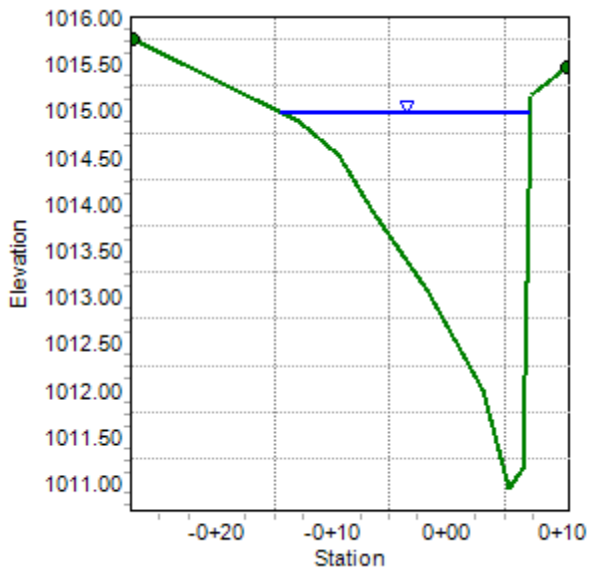
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.02764	ft/ft
Normal Depth	4.02	ft
Discharge	138.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+40

Results

Critical Depth	2.69	ft
Critical Slope	0.10167	ft/ft
Velocity	7.96	ft/s
Velocity Head	0.98	ft
Specific Energy	3.63	ft
Froude Number	1.03	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	2.65	ft
Critical Depth	2.69	ft
Channel Slope	0.10784	ft/ft
Critical Slope	0.10167	ft/ft

Cross Section for STA 0+40

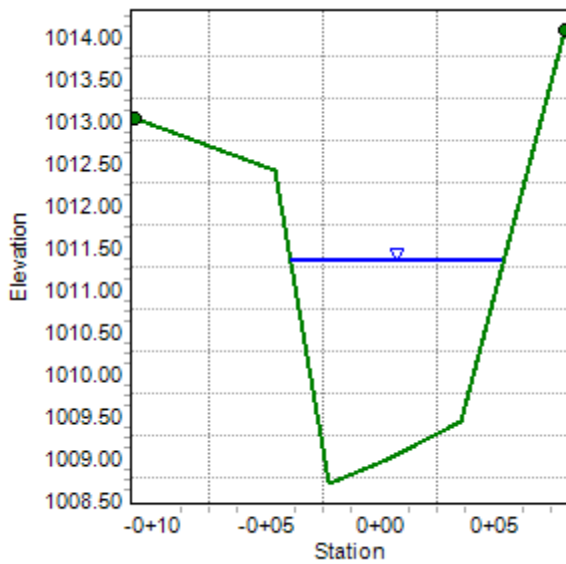
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.10784	ft/ft
Normal Depth	2.65	ft
Discharge	138.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+50

Results

Top Width	17.02	ft
Normal Depth	1.79	ft
Critical Depth	1.85	ft
Critical Slope	0.09251	ft/ft
Velocity	6.70	ft/s
Velocity Head	0.70	ft
Specific Energy	2.49	ft
Froude Number	1.07	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	1.79	ft
Critical Depth	1.85	ft
Channel Slope	0.10784	ft/ft
Critical Slope	0.09251	ft/ft

Cross Section for STA 0+50

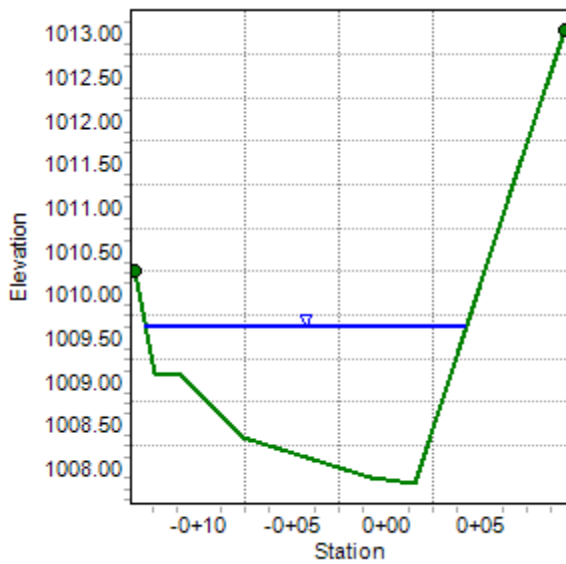
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.10784	ft/ft
Normal Depth	1.79	ft
Discharge	138.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+60

Results

Top Width	13.92	ft
Normal Depth	2.23	ft
Critical Depth	2.32	ft
Critical Slope	0.08998	ft/ft
Velocity	7.23	ft/s
Velocity Head	0.81	ft
Specific Energy	3.04	ft
Froude Number	1.09	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	2.23	ft
Critical Depth	2.32	ft
Channel Slope	0.10784	ft/ft
Critical Slope	0.08998	ft/ft

Cross Section for STA 0+60

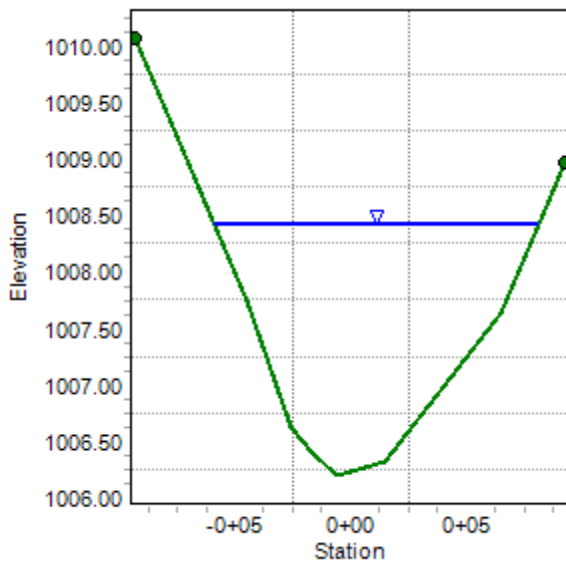
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.10784	ft/ft
Normal Depth	2.23	ft
Discharge	138.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+68

Results

Normal Depth	1.33	ft
Critical Depth	1.38	ft
Critical Slope	0.09403	ft/ft
Velocity	6.15	ft/s
Velocity Head	0.59	ft
Specific Energy	1.92	ft
Froude Number	1.07	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	1.33	ft
Critical Depth	1.38	ft
Channel Slope	0.10784	ft/ft
Critical Slope	0.09403	ft/ft

Cross Section for STA 0+68

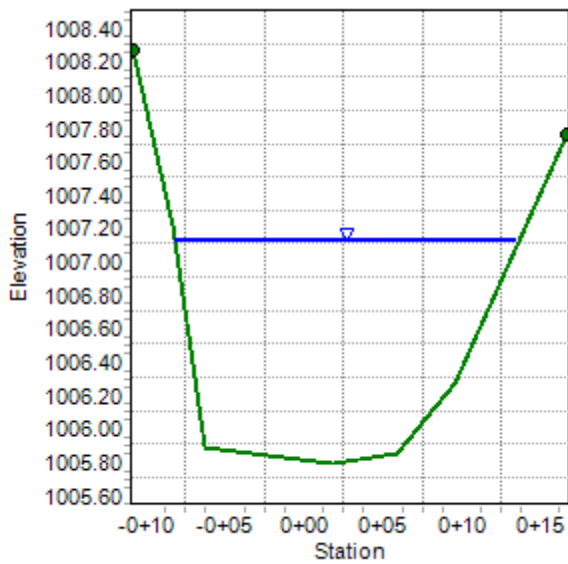
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.10784	ft/ft
Normal Depth	1.33	ft
Discharge	138.00	ft ³ /s

Cross Section Image



WVF1 STA 1416+33.fm8 Report

Label	Solve For	Friction Method	Roughness Coefficient
STA 0+10	Normal Depth	Manning Formula	0.080
STA 0+20	Normal Depth	Manning Formula	0.080
STA 0+30	Normal Depth	Manning Formula	0.080
STA 0+40	Normal Depth	Manning Formula	0.080
STA 0+50	Normal Depth	Manning Formula	0.080
STA 0+60	Normal Depth	Manning Formula	0.080
STA 0+70	Normal Depth	Manning Formula	0.080
STA 0+80	Normal Depth	Manning Formula	0.080
STA 0+90	Normal Depth	Manning Formula	0.080
STA 1+00	Normal Depth	Manning Formula	0.080
STA 1+10	Normal Depth	Manning Formula	0.080
STA 1+18	Normal Depth	Manning Formula	0.080

Channel Slope (ft/ft)	Water Surface Elevation (ft)	Elevation Range	Discharge (ft ³ /s)
0.15151	1093.28	1089.30 to 1104.20 ft	337.00
0.15151	1091.17	1087.20 to 1106.30 ft	337.00
0.15151	1089.49	1086.20 to 1107.00 ft	337.00
0.15151	1086.99	1084.60 to 1106.10 ft	337.00
0.15151	1084.36	1081.50 to 1096.10 ft	337.00
0.32350	1082.16	1079.10 to 1092.00 ft	337.00
0.05333	1082.48	1078.50 to 1097.90 ft	337.00
0.04885	1081.40	1077.10 to 1084.30 ft	337.00
0.30612	1078.74	1075.80 to 1087.70 ft	337.00
0.30612	1076.28	1073.50 to 1086.30 ft	337.00
0.30612	1074.05	1071.30 to 1085.20 ft	337.00
0.30612	1073.78	1070.30 to 1084.60 ft	337.00

METROPOLITAN WATER DISTRICT

WVF1 STA 1416+33.fm8 Report

Flow Area (ft ²)	Wetted Perimeter (ft)	Hydraulic Radius (ft)	Top Width (ft)
31.45	17.43	1.80	15.02
32.63	19.11	1.71	17.07
33.77	20.82	1.62	19.49
34.22	21.53	1.59	20.42
32.25	18.56	1.74	17.26
23.56	14.96	1.57	13.43
48.26	23.23	2.08	21.57
51.88	26.06	1.99	24.19
25.52	17.51	1.46	16.17
25.23	17.02	1.48	15.95
24.67	16.10	1.53	14.97
24.56	15.92	1.54	14.01

Normal Depth (ft)	Critical Depth (ft)	Critical Slope (ft/ft)	Velocity (ft/s)
3.98	4.45	0.08571	10.72
3.97	4.38	0.08437	10.33
3.29	3.72	0.08235	9.98
2.39	2.78	0.08077	9.85
2.86	3.32	0.08030	10.45
3.06	4.09	0.08241	14.30
3.98	3.66	0.08084	6.98
4.30	3.92	0.08291	6.50
2.94	3.82	0.08207	13.21
2.78	3.68	0.08061	13.36
2.75	3.67	0.08040	13.66
3.48	4.43	0.08440	13.72

METROPOLITAN WATER DISTRICT

WVF1 STA 1416+33.fm8 Report

Velocity Head (ft)	Specific Energy (ft)	Froude Number	Flow Type
1.78	5.76	1.31	Supercritical
1.66	5.63	1.32	Supercritical
1.55	4.84	1.34	Supercritical
1.51	3.90	1.34	Supercritical
1.70	4.56	1.35	Supercritical
3.18	6.24	1.90	Supercritical
0.76	4.73	0.82	Subcritical
0.66	4.96	0.78	Subcritical
2.71	5.65	1.85	Supercritical
2.77	5.55	1.87	Supercritical
2.90	5.65	1.88	Supercritical
2.93	6.40	1.83	Supercritical

Notes

Messages

WVF1 STA 1416+33.fm8 Report

METROPOLITAN WATER DISTRICT

Worksheet for STA 0+10

Results

Top Width	15.02	ft
Normal Depth	3.98	ft
Critical Depth	4.45	ft
Critical Slope	0.08571	ft/ft
Velocity	10.72	ft/s
Velocity Head	1.78	ft
Specific Energy	5.76	ft
Froude Number	1.31	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.98	ft
Critical Depth	4.45	ft
Channel Slope	0.15151	ft/ft
Critical Slope	0.08571	ft/ft

Cross Section for STA 0+10

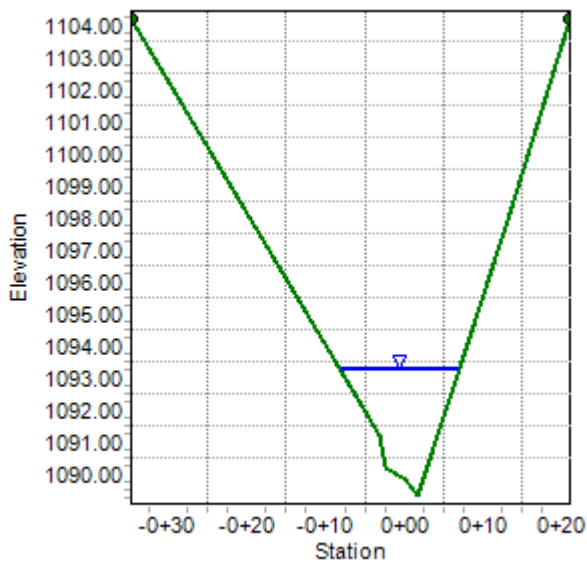
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.15151	ft/ft
Normal Depth	3.98	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+20

Project Description

Friction Method Manning Formula
 Solve For Normal Depth

Input Data

Channel Slope 0.15151 ft/ft
 Discharge 337.00 ft³/s
 Section Definitions

Station (ft)	Elevation (ft)
-0+43	1106.30
-0+13	1093.80
-0+11	1091.10
-0+10	1091.00
0+00	1087.60
0+01	1087.20
0+09	1093.80
0+19	1099.70
0+27	1105.30

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(-0+43, 1106.30)	(0+27, 1105.30)	0.080

Options

Current Roughness Weighted Method Pavlovskii's Method
 Open Channel Weighting Method Pavlovskii's Method
 Closed Channel Weighting Method Pavlovskii's Method

Results

Normal Depth 3.97 ft
 Elevation Range 1087.20 to 1106.30 ft
 Flow Area 32.63 ft²
 Wetted Perimeter 19.11 ft

METROPOLITAN WATER DISTRICT

Worksheet for STA 0+20

Results

Hydraulic Radius	1.71	ft
Top Width	17.07	ft
Normal Depth	3.97	ft
Critical Depth	4.38	ft
Critical Slope	0.08437	ft/ft
Velocity	10.33	ft/s
Velocity Head	1.66	ft
Specific Energy	5.63	ft
Froude Number	1.32	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.97	ft
Critical Depth	4.38	ft
Channel Slope	0.15151	ft/ft
Critical Slope	0.08437	ft/ft

Cross Section for STA 0+20

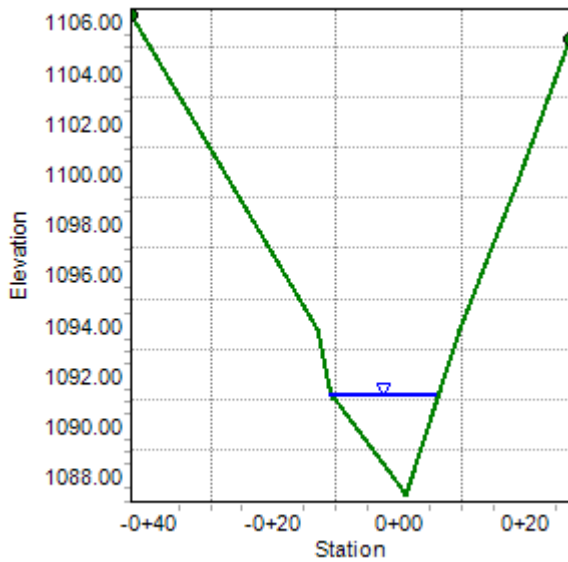
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.15151	ft/ft
Normal Depth	3.97	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+30

Results

Wetted Perimeter	20.82	ft
Hydraulic Radius	1.62	ft
Top Width	19.49	ft
Normal Depth	3.29	ft
Critical Depth	3.72	ft
Critical Slope	0.08235	ft/ft
Velocity	9.98	ft/s
Velocity Head	1.55	ft
Specific Energy	4.84	ft
Froude Number	1.34	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.29	ft
Critical Depth	3.72	ft
Channel Slope	0.15151	ft/ft
Critical Slope	0.08235	ft/ft

Cross Section for STA 0+30

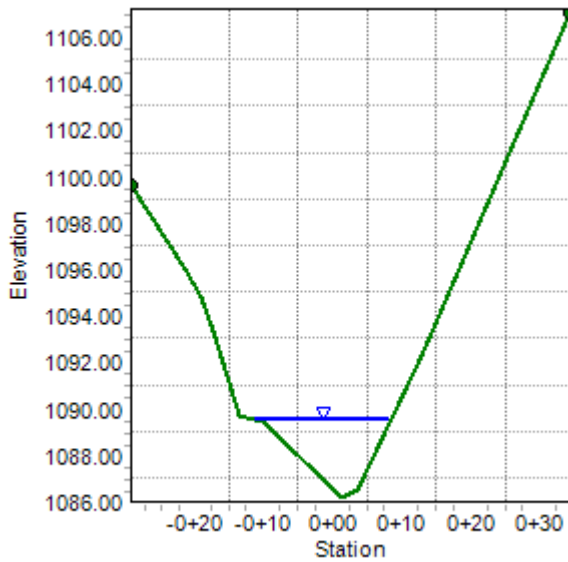
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.15151	ft/ft
Normal Depth	3.29	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+40

Results

Wetted Perimeter	21.53	ft
Hydraulic Radius	1.59	ft
Top Width	20.42	ft
Normal Depth	2.39	ft
Critical Depth	2.78	ft
Critical Slope	0.08077	ft/ft
Velocity	9.85	ft/s
Velocity Head	1.51	ft
Specific Energy	3.90	ft
Froude Number	1.34	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	2.39	ft
Critical Depth	2.78	ft
Channel Slope	0.15151	ft/ft
Critical Slope	0.08077	ft/ft

Cross Section for STA 0+40

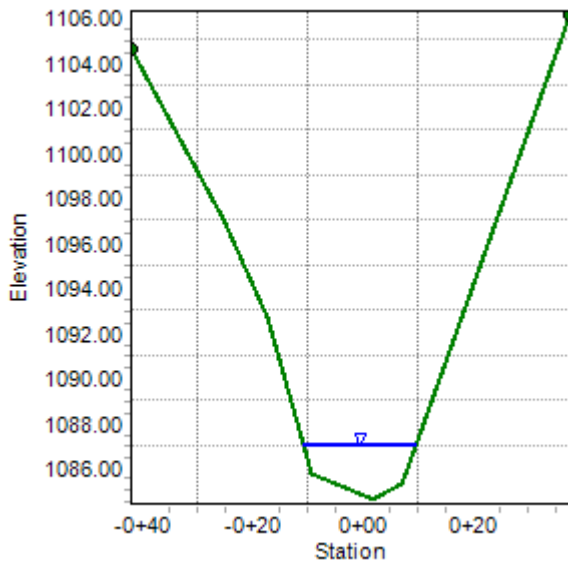
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.15151	ft/ft
Normal Depth	2.39	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+50

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope 0.15151 ft/ft
Discharge 337.00 ft³/s
Section Definitions

Station (ft)	Elevation (ft)
-0+23	1094.30
-0+16	1090.80
-0+11	1086.30
-0+05	1081.90
0+00	1081.50
0+03	1081.80
0+12	1085.50
0+37	1096.10

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(-0+23, 1094.30)	(0+37, 1096.10)	0.080

Options

Current Roughness Weighted Method Pavlovskii's Method
Open Channel Weighting Method Pavlovskii's Method
Closed Channel Weighting Method Pavlovskii's Method

Results

Normal Depth 2.86 ft
Elevation Range 1081.50 to 1096.10 ft
Flow Area 32.25 ft²
Wetted Perimeter 18.56 ft
Hydraulic Radius 1.74 ft

METROPOLITAN WATER DISTRICT

Worksheet for STA 0+50

Results

Top Width	17.26	ft
Normal Depth	2.86	ft
Critical Depth	3.32	ft
Critical Slope	0.08030	ft/ft
Velocity	10.45	ft/s
Velocity Head	1.70	ft
Specific Energy	4.56	ft
Froude Number	1.35	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	2.86	ft
Critical Depth	3.32	ft
Channel Slope	0.15151	ft/ft
Critical Slope	0.08030	ft/ft

Cross Section for STA 0+50

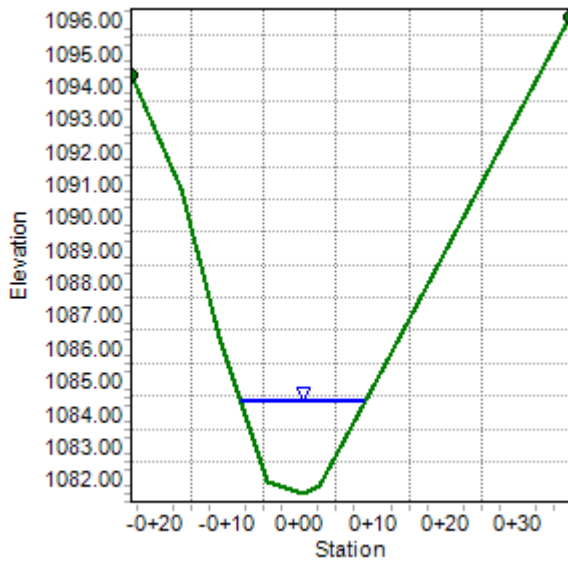
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.15151	ft/ft
Normal Depth	2.86	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+60

Results

Top Width	13.43	ft
Normal Depth	3.06	ft
Critical Depth	4.09	ft
Critical Slope	0.08241	ft/ft
Velocity	14.30	ft/s
Velocity Head	3.18	ft
Specific Energy	6.24	ft
Froude Number	1.90	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.06	ft
Critical Depth	4.09	ft
Channel Slope	0.32350	ft/ft
Critical Slope	0.08241	ft/ft

Cross Section for STA 0+60

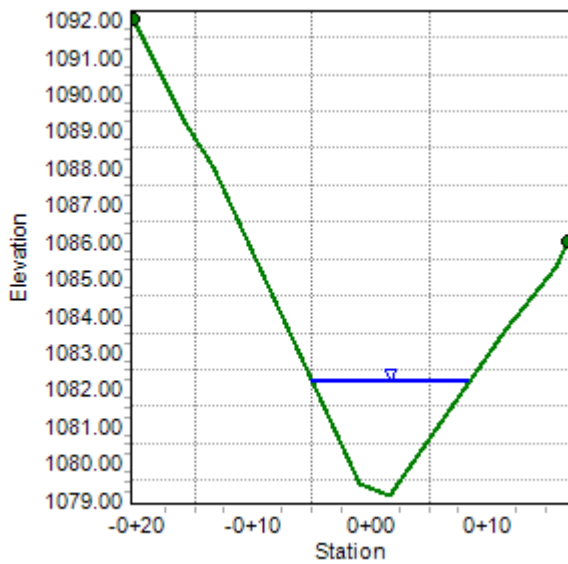
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.32350	ft/ft
Normal Depth	3.06	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+70

Results

Normal Depth	3.98	ft
Critical Depth	3.66	ft
Critical Slope	0.08084	ft/ft
Velocity	6.98	ft/s
Velocity Head	0.76	ft
Specific Energy	4.73	ft
Froude Number	0.82	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.98	ft
Critical Depth	3.66	ft
Channel Slope	0.05333	ft/ft
Critical Slope	0.08084	ft/ft

Cross Section for STA 0+70

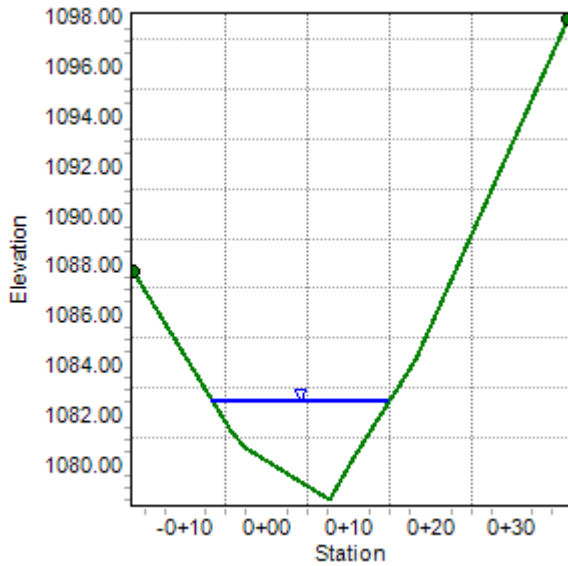
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.05333	ft/ft
Normal Depth	3.98	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+80

Results

Hydraulic Radius	1.99	ft
Top Width	24.19	ft
Normal Depth	4.30	ft
Critical Depth	3.92	ft
Critical Slope	0.08291	ft/ft
Velocity	6.50	ft/s
Velocity Head	0.66	ft
Specific Energy	4.96	ft
Froude Number	0.78	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	4.30	ft
Critical Depth	3.92	ft
Channel Slope	0.04885	ft/ft
Critical Slope	0.08291	ft/ft

Cross Section for STA 0+80

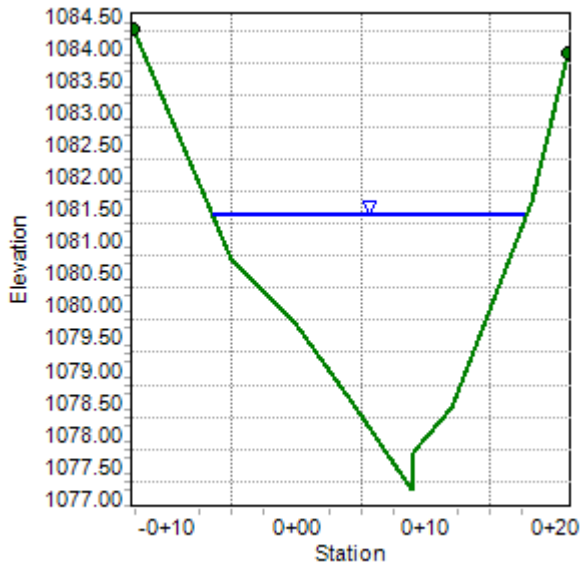
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.04885	ft/ft
Normal Depth	4.30	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 0+90

Results

Normal Depth	2.94	ft
Critical Depth	3.82	ft
Critical Slope	0.08207	ft/ft
Velocity	13.21	ft/s
Velocity Head	2.71	ft
Specific Energy	5.65	ft
Froude Number	1.85	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	2.94	ft
Critical Depth	3.82	ft
Channel Slope	0.30612	ft/ft
Critical Slope	0.08207	ft/ft

Cross Section for STA 0+90

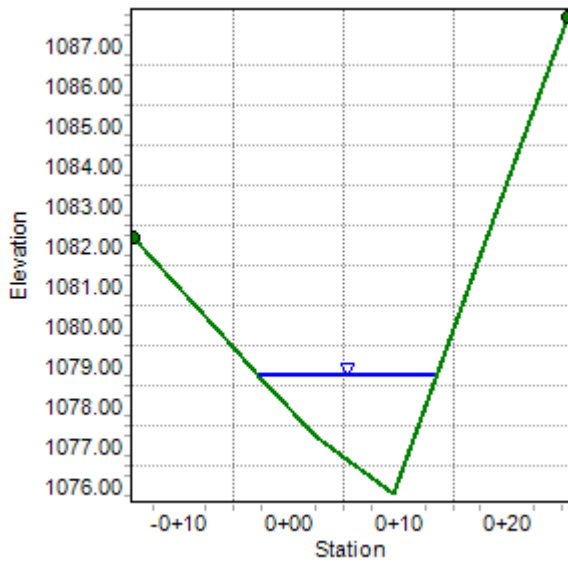
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.30612	ft/ft
Normal Depth	2.94	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 1+00

Results

Hydraulic Radius	1.48	ft
Top Width	15.95	ft
Normal Depth	2.78	ft
Critical Depth	3.68	ft
Critical Slope	0.08061	ft/ft
Velocity	13.36	ft/s
Velocity Head	2.77	ft
Specific Energy	5.55	ft
Froude Number	1.87	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	2.78	ft
Critical Depth	3.68	ft
Channel Slope	0.30612	ft/ft
Critical Slope	0.08061	ft/ft

Cross Section for STA 1+00

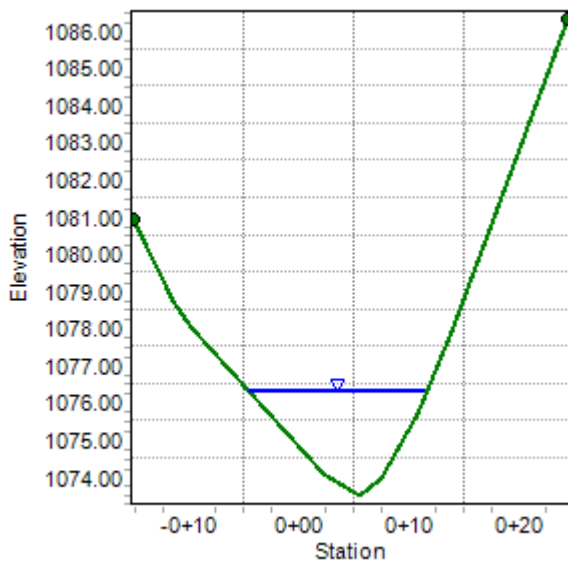
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.30612	ft/ft
Normal Depth	2.78	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 1+10

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope 0.30612 ft/ft
Discharge 337.00 ft³/s

Section Definitions

Station (ft)	Elevation (ft)
-0+23	1085.20
-0+16	1080.50
-0+15	1079.20
-0+14	1078.80
-0+05	1073.10
-0+04	1073.00
0+01	1071.30
0+05	1072.00
0+11	1075.30
0+17	1079.30
0+20	1081.90

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(-0+23, 1085.20)	(0+20, 1081.90)	0.080

Options

Current Roughness Weighted Method Pavlovskii's Method
Open Channel Weighting Method Pavlovskii's Method
Closed Channel Weighting Method Pavlovskii's Method

Results

Normal Depth 2.75 ft
Elevation Range 1071.30 to 1085.20 ft

METROPOLITAN WATER DISTRICT

Worksheet for STA 1+10

Results

Flow Area	24.67	ft ²
Wetted Perimeter	16.10	ft
Hydraulic Radius	1.53	ft
Top Width	14.97	ft
Normal Depth	2.75	ft
Critical Depth	3.67	ft
Critical Slope	0.08040	ft/ft
Velocity	13.66	ft/s
Velocity Head	2.90	ft
Specific Energy	5.65	ft
Froude Number	1.88	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	2.75	ft
Critical Depth	3.67	ft
Channel Slope	0.30612	ft/ft
Critical Slope	0.08040	ft/ft

Cross Section for STA 1+10

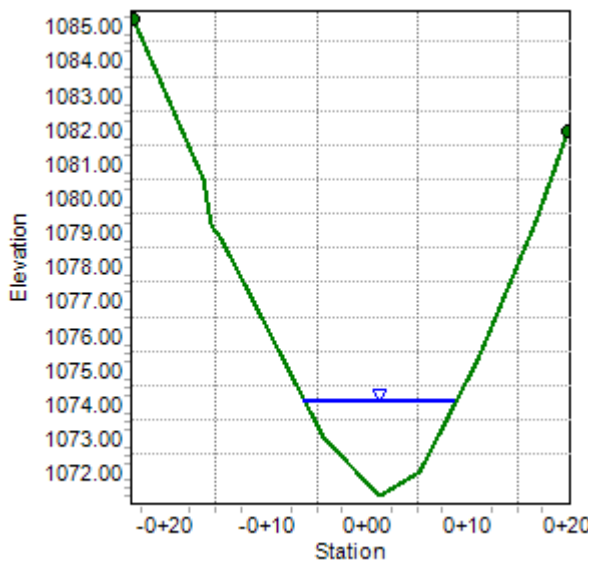
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.30612	ft/ft
Normal Depth	2.75	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Worksheet for STA 1+18

Results

Top Width	14.01	ft
Normal Depth	3.48	ft
Critical Depth	4.43	ft
Critical Slope	0.08440	ft/ft
Velocity	13.72	ft/s
Velocity Head	2.93	ft
Specific Energy	6.40	ft
Froude Number	1.83	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	3.48	ft
Critical Depth	4.43	ft
Channel Slope	0.30612	ft/ft
Critical Slope	0.08440	ft/ft

Cross Section for STA 1+18

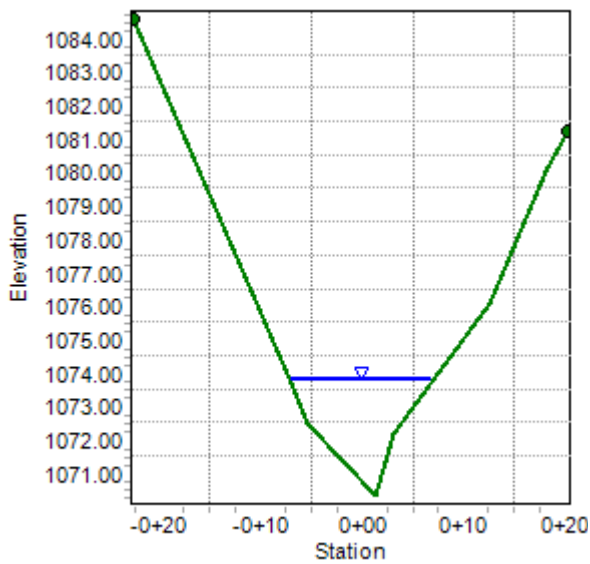
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Channel Slope	0.30612	ft/ft
Normal Depth	3.48	ft
Discharge	337.00	ft ³ /s

Cross Section Image



Appendix B

Culvert Crossing Calculations

HY-8 Culvert Analysis Report
WVF1 STA 1407+45

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 28 cfs

Design Flow: 138 cfs

Maximum Flow: 162 cfs

Table 1 - Summary of Culvert Flows at Crossing: WVF STA 1407+45

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
1013.93	28.00	28.00	0.00	1
1014.21	41.40	41.40	0.00	1
1014.52	54.80	54.80	0.00	1
1014.80	68.20	68.20	0.00	1
1015.06	81.60	81.60	0.00	1
1015.32	95.00	95.00	0.00	1
1015.59	108.40	108.40	0.00	1
1015.87	121.80	121.80	0.00	1
1016.17	135.20	135.20	0.00	1
1016.23	138.00	138.00	0.00	1
1016.85	162.00	162.00	0.00	1
1018.04	199.91	199.91	0.00	Overtopping

Rating Curve Plot for Crossing: WVF STA 1407+45

Total Rating Curve

Crossing: WVF STA 1407+45

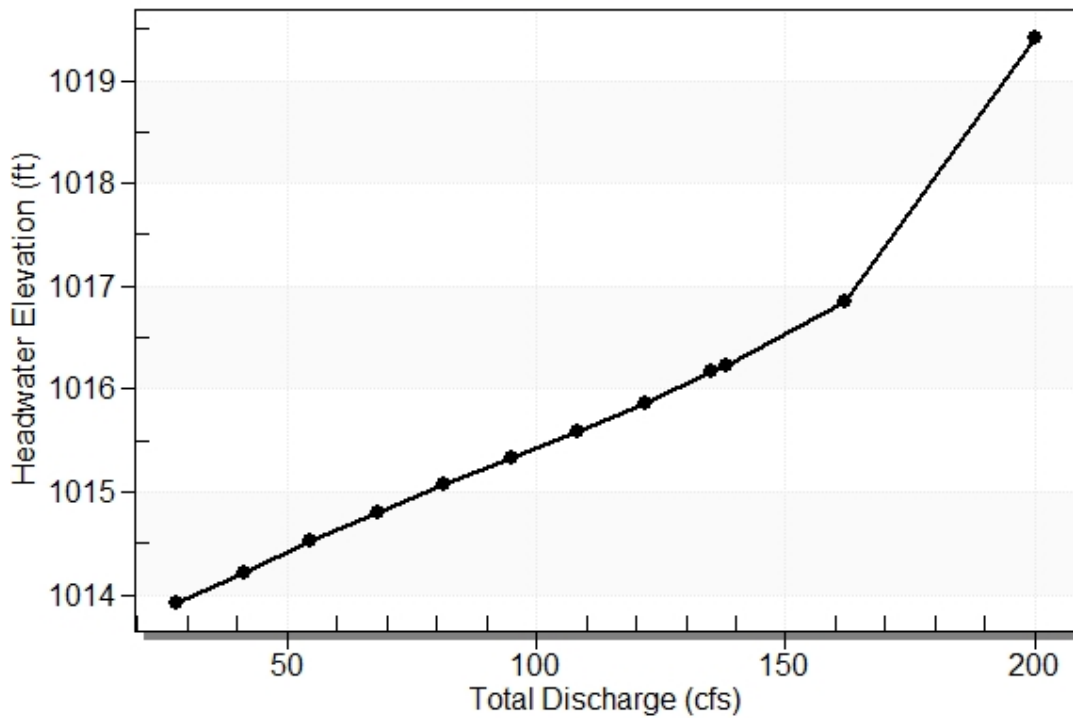


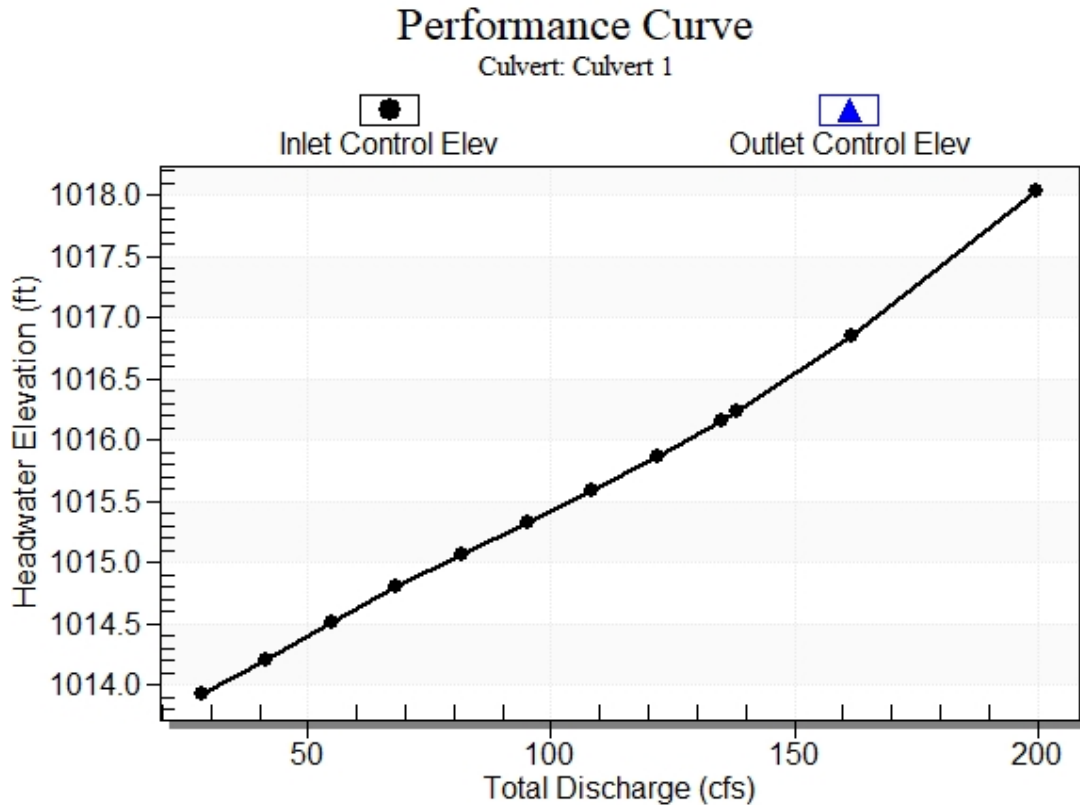
Table 2 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
28.00	28.00	1013.93	1.198	0.0*	1-S2n	0.373	0.962	0.373	0.572	17.733	3.601
41.40	41.40	1014.21	1.476	0.0*	1-S2n	0.451	1.180	0.507	0.701	16.936	4.129
54.80	54.80	1014.52	1.785	0.0*	1-S2n	0.517	1.369	0.592	0.814	17.806	4.544
68.20	68.20	1014.80	2.069	0.0*	1-S2n	0.575	1.534	0.671	0.914	18.529	4.890
81.60	81.60	1015.06	2.335	0.0*	1-S2n	0.629	1.683	0.745	1.006	19.135	5.189
95.00	95.00	1015.32	2.594	0.0*	1-S2n	0.679	1.823	0.817	1.091	19.652	5.453
108.40	108.40	1015.59	2.858	0.0*	1-S2n	0.725	1.950	0.886	1.170	19.996	5.690
121.80	121.80	1015.87	3.137	0.0*	5-S2n	0.770	2.073	0.952	1.245	20.329	5.906
135.20	135.20	1016.17	3.436	0.0*	5-S2n	0.812	2.184	1.016	1.317	20.643	6.105
138.00	138.00	1016.23	3.502	0.0*	5-S2n	0.820	2.207	1.029	1.331	20.712	6.144
162.00	162.00	1016.85	4.118	0.0*	5-S2n	0.891	2.384	1.136	1.450	21.248	6.457

* Full Flow Headwater elevation is below inlet invert.

 Straight Culvert
 Inlet Elevation (invert): 1012.73 ft, Outlet Elevation (invert): 1005.93 ft
 Culvert Length: 50.46 ft, Culvert Slope: 0.1360

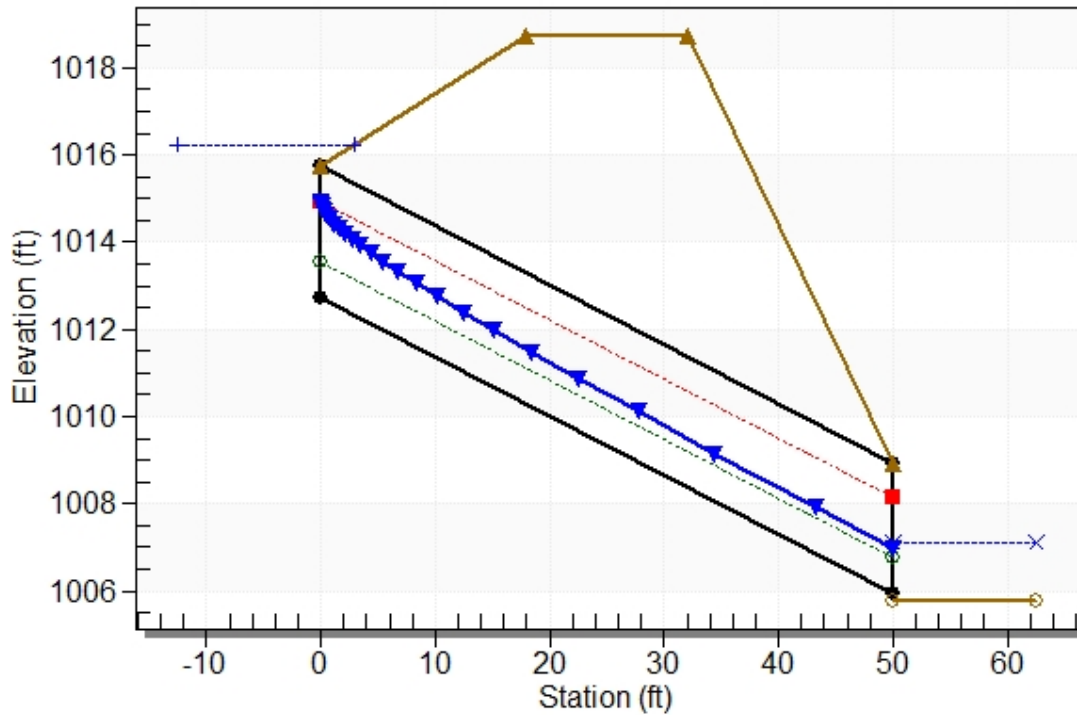
Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1

Crossing - WVF STA 1407+45, Design Discharge - 138.0 cfs

Culvert - Culvert 1, Culvert Discharge - 138.0 cfs



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 1012.73 ft

Outlet Station: 50.00 ft

Outlet Elevation: 1005.93 ft

Number of Barrels: 3

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 3.00 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

Table 3 - Downstream Channel Rating Curve (Crossing: WVF STA 1407+45)

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
28.00	1006.36	0.57	3.60	3.85	0.94
41.40	1006.49	0.70	4.13	4.72	0.97
54.80	1006.60	0.81	4.54	5.47	0.99
68.20	1006.70	0.91	4.89	6.15	1.01
81.60	1006.80	1.01	5.19	6.76	1.02
95.00	1006.88	1.09	5.45	7.34	1.04
108.40	1006.96	1.17	5.69	7.87	1.05
121.80	1007.04	1.25	5.91	8.38	1.05
135.20	1007.11	1.32	6.10	8.86	1.06
138.00	1007.12	1.33	6.14	8.95	1.06
162.00	1007.24	1.45	6.46	9.75	1.08

Tailwater Channel Data - WVF STA 1407+45

Tailwater Channel Option: Irregular Channel

Channel Slope: 0.1078

User Defined Channel Cross-Section:

Coord No.	Station (ft)	Elevation (ft)	Manning's n
1	-10.77	1008.26	0.0800
2	-8.32	1007.21	0.0800
3	-6.30	1005.88	0.0800
4	1.89	1005.79	0.0800
5	5.94	1005.85	0.0800
6	9.49	1006.27	0.0800
7	16.58	1007.76	0.0800

Roadway Data for Crossing: WVF STA 1407+45

Roadway Profile Shape: Irregular Roadway Shape (coordinates)

Irregular Roadway Cross-Section:

Coord No.	Station (ft)	Elevation (ft)
0	0.00	1018.75
1	26.78	1018.20
2	41.40	1018.04
3	126.78	1023.21

Roadway Surface: Paved

Roadway Top Width: 14.00 ft

**HY-8 Culvert Analysis Report
WVF1 STA 1416+33**

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 72 cfs

Design Flow: 337 cfs

Maximum Flow: 393 cfs

Table 1 - Summary of Culvert Flows at Crossing: WVF1 STA 1416+33

Headwater Elevation (ft)	Total Discharge (cfs)	Box Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
1080.83	72.00	72.00	0.00	1
1081.25	104.10	104.10	0.00	1
1081.67	136.20	136.20	0.00	1
1082.07	168.30	168.30	0.00	1
1082.44	200.40	200.40	0.00	1
1082.81	232.50	232.50	0.00	1
1083.18	264.60	264.60	0.00	1
1083.55	296.70	296.70	0.00	1
1083.94	328.80	328.80	0.00	1
1084.04	337.00	337.00	0.00	1
1084.78	393.00	393.00	0.00	1
1086.08	477.83	477.83	0.00	Overtopping

Rating Curve Plot for Crossing: WVF1 STA 1416+33

Total Rating Curve

Crossing: WVF1 STA 1416+33

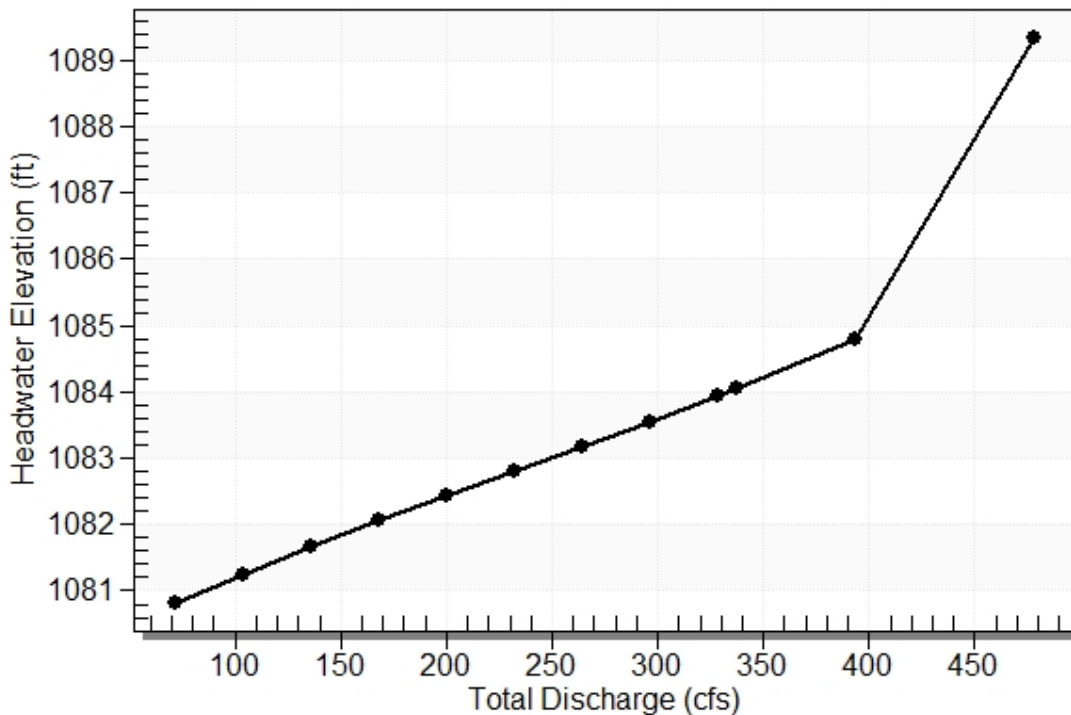


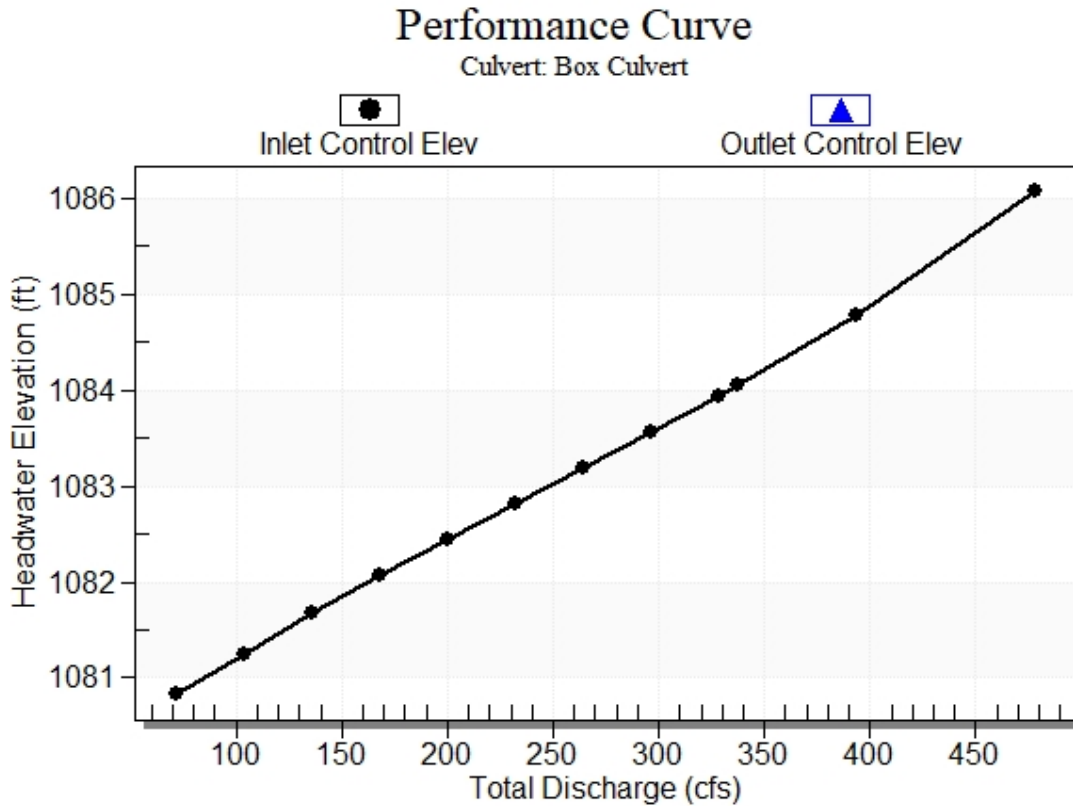
Table 2 - Culvert Summary Table: Box Culvert

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
72.00	72.00	1080.83	1.508	0.0*	1-S2n	0.280	1.038	0.313	2.503	19.167	9.717
104.10	104.10	1081.25	1.929	0.0*	1-S2n	0.355	1.327	0.407	2.874	21.341	10.655
136.20	136.20	1081.67	2.349	0.0*	1-S2n	0.423	1.587	0.493	3.178	23.031	11.396
168.30	168.30	1082.07	2.747	0.0*	1-S2n	0.485	1.828	0.585	3.450	23.987	11.946
200.40	200.40	1082.44	3.125	0.0*	1-S2n	0.544	2.054	0.677	3.695	24.674	12.325
232.50	232.50	1082.81	3.493	0.0*	1-S2n	0.601	2.267	0.764	3.902	25.362	12.724
264.60	264.60	1083.18	3.859	0.0*	1-S2n	0.654	2.472	0.854	4.087	25.834	13.093
296.70	296.70	1083.55	4.234	0.0*	5-S2n	0.707	2.668	0.941	4.255	26.286	13.435
328.80	328.80	1083.94	4.622	0.0*	5-S2n	0.757	2.857	1.027	4.410	26.684	13.755
337.00	337.00	1084.04	4.724	0.0*	5-S2n	0.770	2.904	1.048	4.448	26.797	13.834
393.00	393.00	1084.78	5.464	0.0*	5-S2n	0.855	3.218	1.197	4.689	27.356	14.339

* Full FI w Headwater elevation is below inlet invert.

 Straight Culvert
 Inlet Elevation (invert): 1079.32 ft, Outlet Elevation (invert): 1068.84 ft
 Culvert Length: 60.91 ft, Culvert Slope: 0.1747

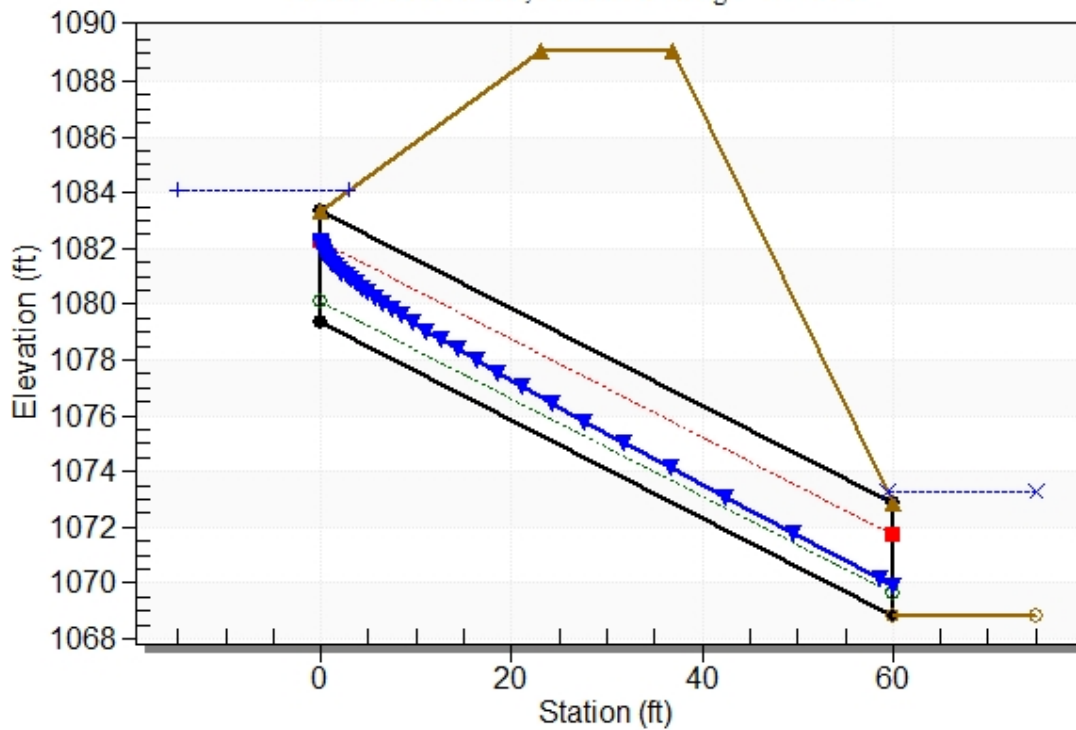
Culvert Performance Curve Plot: Box Culvert



Water Surface Profile Plot for Culvert: Box Culvert

Crossing - WVF1 STA 1416+33, Design Discharge - 337.0 cfs

Culvert - Box Culvert, Culvert Discharge - 337.0 cfs



Site Data - Box Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 1079.32 ft

Outlet Station: 60.00 ft

Outlet Elevation: 1068.84 ft

Number of Barrels: 3

Culvert Data Summary - Box Culvert

Barrel Shape: Concrete Box

Barrel Span: 4.00 ft

Barrel Rise: 4.00 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge (90°) Headwall

Inlet Depression: None

Table 3 - Downstream Channel Rating Curve (Crossing: WVF1 STA 1416+33)

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
72.00	1071.34	2.50	9.72	47.80	1.53
104.10	1071.71	2.87	10.66	54.89	1.57
136.20	1072.02	3.18	11.40	60.71	1.59
168.30	1072.29	3.45	11.95	65.89	1.62
200.40	1072.54	3.70	12.33	70.58	1.65
232.50	1072.74	3.90	12.72	74.53	1.67
264.60	1072.93	4.09	13.09	78.06	1.69
296.70	1073.09	4.25	13.44	81.27	1.70
328.80	1073.25	4.41	13.76	84.23	1.72
337.00	1073.29	4.45	13.83	84.95	1.72
393.00	1073.53	4.69	14.34	89.57	1.75

Tailwater Channel Data - WVF1 STA 1416+33

Tailwater Channel Option: Irregular Channel

Channel Slope: 0.3061

User Defined Channel Cross-Section:

Coord No.	Station (ft)	Elevation (ft)	Manning's n
1	-22.70	1084.60	0.0800
2	-7.00	1073.70	0.0800
3	-5.40	1072.50	0.0800
4	1.30	1068.84	0.0800
5	3.10	1072.20	0.0800
6	12.50	1076.10	0.0800
7	18.10	1080.00	0.0000

Roadway Data for Crossing: WVF1 STA 1416+33

Roadway Profile Shape: Irregular Roadway Shape (coordinates)

Irregular Roadway Cross-Section:

Coord No.	Station (ft)	Elevation (ft)
0	171.40	1089.11
1	199.81	1086.08
2	221.40	1087.83

Roadway Surface: Paved

Roadway Top Width: 14.00 ft

Appendix C
Preliminary Design Drawings

APPENDIX J
PROJECT NOISE CALCULATIONS

Construction Generated Noise		
Building Type		Distance (ft)
Construction Noise at 50 Feet (dBA Leq)		50
Construction Phase	Minimum Required Equipment in Use¹	
Ground Clearing/Demolition	84	
Excavation	78	
Foundation Construction	88	
Building Construction	78	
Finishing and Site Cleanup	84	
Church to the North		
Maximum Construction Noise (dBA Leq)		3,581
Construction Phase	Minimum Required Equipment in Use¹	
Ground Clearing/Demolition	47	
Excavation	41	
Foundation Construction	51	
Building Construction	41	
Finishing and Site Cleanup	47	
Average Construction Noise (dBA Leq)		3,581
Construction Phase	Minimum Required Equipment in Use¹	
Ground Clearing/Demolition	47	
Excavation	41	
Foundation Construction	51	
Building Construction	41	
Finishing and Site Cleanup	47	
Residents to the West		
Maximum Construction Noise (dBA Leq)		1,982
Construction Phase	Minimum Required Equipment in Use¹	
Ground Clearing/Demolition	52	
Excavation	46	
Foundation Construction	56	
Building Construction	46	
Finishing and Site Cleanup	52	
Average Construction Noise (dBA Leq)		1,982
Construction Phase	Minimum Required Equipment in Use¹	
Ground Clearing/Demolition	52	
Excavation	46	
Foundation Construction	56	
Building Construction	46	
Finishing and Site Cleanup	52	
Park to the South		
Maximum Construction Noise (dBA Leq)		502
Construction Phase	Minimum Required Equipment in Use¹	
Ground Clearing/Demolition	64	
Excavation	58	
Foundation Construction	68	
Building Construction	58	
Finishing and Site Cleanup	64	
Average Construction Noise (dBA Leq)		502
Construction Phase	Minimum Required Equipment in Use¹	
Ground Clearing/Demolition	64	
Excavation	58	
Foundation Construction	68	
Building Construction	58	
Finishing and Site Cleanup	64	

Residents to the East		
Maximum Construction Noise (dBA Leq)		1,415
Construction Phase	Minimum Required Equipment in Use¹	
Ground Clearing/Demolition	55	
Excavation	49	
Foundation Construction	59	
Building Construction	49	
Finishing and Site Cleanup	55	
Average Construction Noise (dBA Leq)		1,415
Construction Phase	Minimum Required Equipment in Use¹	
Ground Clearing/Demolition	55	
Excavation	49	
Foundation Construction	59	
Building Construction	49	
Finishing and Site Cleanup	55	
<p>Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the USEPA, December 31, 1971. Based on analysis for Office Building, Hotel, Hospital, School, and Public Works.</p>		

Construction Generated Vibration

Vibration Annoyance Criteria

Church to the North			
Maximum Vibration Levels		Closest Distance (feet):	3,581
	Approximate Velocity	Approximate Velocity	
Equipment	Level at 25 ft, VdB	Level, VdB	
Caisson Drill	87	44	
Large bulldozer	87	44	
Small bulldozer	58	15	
Jackhammer	79	36	
Loaded trucks	86	43	
	Criteria	78	
Average Vibration Level		Average Distance (feet):	3,581
	Approximate Velocity	Approximate Velocity	
Equipment	Level at 25 ft, VdB	Level, VdB	
Caisson Drill	87	44	
Large bulldozer	87	44	
Small bulldozer	58	15	
Jackhammer	79	36	
Loaded trucks	86	43	
	Criteria	78	
Residents to the West			
Maximum Vibration Levels		Closest Distance (feet):	1,982
	Approximate Velocity	Approximate Velocity	
Equipment	Level at 25 ft, VdB	Level, VdB	
Caisson Drill	87	49	
Large bulldozer	87	49	
Small bulldozer	58	20	
Jackhammer	79	41	
Loaded trucks	86	48	
	Criteria	78	
Average Vibration Level		Average Distance (feet):	1,982
	Approximate Velocity	Approximate Velocity	
Equipment	Level at 25 ft, VdB	Level, VdB	
Caisson Drill	87	49	
Large bulldozer	87	49	
Small bulldozer	58	20	
Jackhammer	79	41	
Loaded trucks	86	48	
	Criteria	78	

Construction Generated Vibration

Park to the South			
Maximum Vibration Levels		Closest Distance (feet):	502
	Approximate Velocity	Approximate Velocity	
Equipment	Level at 25 ft, VdB	Level, VdB	
Caisson Drill	87	61	
Large bulldozer	87	61	
Small bulldozer	58	32	
Jackhammer	79	53	
Loaded trucks	86	60	
	Criteria	78	
Average Vibration Level		Average Distance (feet):	502
	Approximate Velocity	Approximate Velocity	
Equipment	Level at 25 ft, VdB	Level, VdB	
Caisson Drill	87	61	
Large bulldozer	87	61	
Small bulldozer	58	32	
Jackhammer	79	53	
Loaded trucks	86	60	
	Criteria	78	
Residents to the East			
Maximum Vibration Levels		Closest Distance (feet):	1,415
	Approximate Velocity	Approximate Velocity	
Equipment	Level at 25 ft, VdB	Level, VdB	
Caisson Drill	87	52	
Large bulldozer	87	52	
Small bulldozer	58	23	
Jackhammer	79	44	
Loaded trucks	86	51	
	Criteria	78	
Average Vibration Level		Average Distance (feet):	1,415
	Approximate Velocity	Approximate Velocity	
Equipment	Level at 25 ft, VdB	Level, VdB	
Caisson Drill	87	52	
Large bulldozer	87	52	
Small bulldozer	58	23	
Jackhammer	79	44	
Loaded trucks	86	51	
	Criteria	78	

Construction Generated Vibration

Structural Damage Criteria

Church to the North		Closest Distance (feet):	3,581
Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second	
Caisson Drill	0.089	0.000	
Large bulldozer	0.089	0.000	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.000	
Loaded trucks	0.076	0.000	
	Criteria	0.200	
Residents to the West		Closest Distance (feet):	1,982
Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second	
Caisson Drill	0.089	0.000	
Large bulldozer	0.089	0.000	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.000	
Loaded trucks	0.076	0.000	
	Criteria	0.200	
Park to the South		Closest Distance (feet):	502
Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second	
Caisson Drill	0.089	0.001	
Large bulldozer	0.089	0.001	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.000	
Loaded trucks	0.076	0.001	
	Criteria	0.200	
Residents to the East		Closest Distance (feet):	1,415
Equipment	Approximate RMS a Velocity at 25 ft, inch/second	Approximate RMS Velocity Level, inch/second	
Caisson Drill	0.089	0.000	
Large bulldozer	0.089	0.000	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.000	
Loaded trucks	0.076	0.000	
	Criteria	0.200	

Based on distance to nearest structure

¹. Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006).