Attachment E – Attachment E1 and E2 from the Statewide Sanitary Sewer Systems General Order 2022-0103-DWQ

2024 Sewer System Management Plan

FINALIZED ON
December 2024

Prepared For:
City of La Verne
Public Works
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Background

This Sewer System Management Plan (SSMP) is required under Waste Discharge Requirements (WDR) Order No. WQ 2022-0103-DWQ, issued by the State Water Resources Control Board (SWRCB). The WDR stipulates that the permittees, which include the City of La Verne, must develop and implement a Management Plan in order to reduce sanitary sewer overflows. Additionally, the Management Plan provides measures to ensure efficient and effective response to overflows and implement source control measures to minimize the introduction of grease, oils, and other materials that may cause blockages. This Management Plan satisfies the requirements specified in the WDR Order No. 2022-0103-DWQ.

The State Water Resources Control Board (SWRCB) adopted WDR Order No. 2022-0103-DWQ, Statewide General Discharge Requirements for Sanitary Sewer Overflows, (SSOs) on December 6, 2022. The SWRCB developed this WDR to promote uniformity in the management of California's wastewater collection systems and to reduce SSOs. The SWRCB found that districts that have implemented SSMPs similar to this have been effective not only in improving spill reporting, but also in mitigating SSO impacts. Data also supported the conclusion that better collection system management will benefit water quality and prolong the life of sanitary sewer systems.

The SWRCB may regulate sanitary sewer overflows based on authority in the federal Clean Water Act (EPA 2002) and the Porter-Cologne Water Quality Control Act, Section 13263 (California Water Code of Regulation 2006).

About the System

The City of La Verne was founded in 1887 and incorporated in 1906. The City is 9.09 square miles and located in eastern Los Angeles County at the southern base of the Angeles National Forest. The city is bordered to the west by the Cities of San Dimas and the City of Glendora, on the south by the City of Pomona and to the east the City of Claremont. Land use throughout the City is dominated by residential uses with a commercial core along Foothill Boulevard and light industrial uses primarily south of Arrow Highway.

Institutional uses such as universities, public and private schools, and other governmental operations also occupy substantial amounts of land. The City's 2024 population is estimated at 29,898, which was reported by the U.S. July 1, 2023 Census Bureau. The original sewer system was designed and constructed in 1924. Much of this original system is still in operation today. A wide variety of improvements have been made since the early days as development progressed away from the City center into the foothills and southern reaches of the community. The City now operates and maintains approximately 100 miles of sewer lines, two wastewater lift stations, a brine line, and a number of ancillary facilities providing service to approximately 8,667 lateral connections consisting of 12,741 (2021 LV Rate Study) sewer units. In addition to these public facilities, there are several private community lift stations, force mains, and gravity sewers throughout the service territory (See Attachment C, Exhibit G, City of La Verne 2022 Wastewater Master Plan) that ultimately discharge into the City's wastewater collection system.

The City of La Verne's sewer distribution system consists of approximately 100 miles of vitrified clay pipe, and truss pipe ranging in size from 6 inch to 12 inches in diameter. At least 40% of the system has been in operation since the 1930's and has continued to grow as development required to its current size. The majority of the collection system was constructed during the main growth, which occurred in the 1960's and 1970's.

The sewage collection system within the City of La Verne is municipally owned except for some lateral sewers owned by Los Angeles County Department of Public Works (LACDPW). The city is within the Los Angeles County Sanitation Districts (LACSD) service areas, Numbers 21 and 22. Trunk sewers receive La Verne's sewage for conveyance to their facilities in the Whittier Narrows and Pomona treatment facilities. These trunk systems are owned and maintained by LACSD. The City utilizes GIS for reference documents and system asset mapping. The City also uses the Nobel work order system for tracking maintenance which integrates data into GIS.

The City has five drainage areas:

1) Drainage Area 1is the western-most quarter of the City. Effluent from this area is collected by LACSD's Puddingstone Trunk, Sections 1 and 2, a 15" VCP pipe.
2) Drainage Area 2is located in the northwest region of the city and drains into the LACSD Sunflower Trunk in Canyon View Drive. The Sunflower Trunk is a 12" non-reinforced concrete pipe.
3) Drainage Area 3 is in the mid-southern region of the City. It is bordered by Foothill Blvd. to the north, B Street to the east, the Metrolink ROW to the south, and the eastern boundary of Drainage Area 1. Sewage flows from this area are discharged into the Puddingstone Trunk, Section 4 located in Palomares Avenue just east of the Puddingstone channel. The Puddingstone Trunk, Section 4 is a 12" VCP pipe.
4) Drainage Area 4 is centrally located in the City and extends in a northeasterly direction to the City limits. This is the largest drainage area of the City and lays between Drainage Area 1 and Drainage Area 3 to the west and Drainage Area 5 to the east. Wastewater from Sub Drainage Area 4 is discharged to either the Emerald Avenue Trunk, a 12" VCP pipe, or the La Verne "B" Street Trunk, a 12" VCP pipe.
5) Drainage Area 5encompasses the southern easternmost corner of the City. Discharges from this basin are received by the La Verne Trunk, Section 2, a 27" reinforced concrete pipe located southwest of White Avenue on Los Angeles County Fair property.

Sewer System Management Plan and Schedule

Development Plan	Requirements	Adopted Date
Preliminary Requirements	Reporting of all overflows to a state-operated electronic database accessible to the public.	The City of La Verne started electronic reporting in January 2007
Sections 1: Goals	Approval of the City's SSMP Development Plan and schedule for a completed SSMP by the City Council.	12/16/2024 Adoption of SSMP by City Council
Section 2: Organization	Approval of the City's SSMP Development Plan and schedule for a completed SSMP by the City Council.	12/16/2024 Adoption of SSMP by City Council
Section 3: Legal Authority	The City must demonstrate through collection system use ordinances, service agreements, or other legally binding procedures that it possesses the necessary legal authority.	12/16/2024 Adoption of SSMP by City Council
Section 4: Operations and Maintenance Program	Development of a SSMP and rehabilitation and replacement plan.	12/16/2024 Adoption of SSMP by City Council which includes 2022 Wastewater Master Plan for the City of La Verne
Section 5: Design and Performance Provisions	Adopt proper design and construction standards for all sewer system infrastructures including procedures and standards for inspecting and testing new sewers or repairs.	12/16/2024 Adoption of SSMP by City Council
Section 6: Emergency Response Plan	The Sewer System Overflow Plan will identify measures to protect public health and the environment.	12/16/2024 Adoption of SSMP by City Council
Section 7: Fats, Oils, and Grease Control	The city shall evaluate its service area to determine whether a FOG control program is needed.	To be completed by December 2025
Section 8: System Evaluation and Capacity Assurance	The City shall implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary system improvements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event.	Sewer Rate Study underway to enable implementation of 2022 Wastewater Master Plan Recommendations
Section 9: Monitor and Measure	This element of the SSMP should include the identification and tracking of performance indicators.	12/16/2024 Adoption of SSMP by City Council
Section 10: Program Audits	The city shall conduct periodic internal audits, appropriate to the size of the system and the number of Sewer System Overflows and audit must occur at least once every two years.	Audit completed in 2024. Next scheduled internal audit will be 2027.

Development Plan	Requirements	Adopted Date
Section 11: Communication	This element of the SSMP can be met by providing public notification that the agency is preparing an SSMP.	12/16/2024 Adoption of SSMP by City Council

Section 1 - Goals

Goals

The goal of the City of La Verne's SSMP are:

1) *To properly manage, operate and maintain all portions of the city's wastewater collection system.* This goal will be achieved by utilizing Best Management Practices (BMPs), the latest technological equipment available, and well-trained staff.
2) *To provide adequate capacity to convey peak wastewater flows.* All major collection points will be metered to confirm proper capacities based upon national standards for sewer systems. Any areas found to be deficient will be corrected as necessary.
3) *To minimize the frequency of sewer system overflows (SSO).* The system will be operated and managed in a fashion that is proactive, utilizing cleaning methods and equipment that mitigates the potential for sewer system overflows.
4) *To mitigate the impacts that are associated with any SSO that may occur.* This will be accomplished by utilizing a timely response, installing proper damming and ponding materials and getting any obstruction cleared as quickly as possible. Recovery and cleanup will commence once the aforementioned are completed.
5) *To meet all applicable regulatory notification and reporting requirements.* The city currently reports any spills online and notifies the County Health Department as well. A no spill report will also be sent monthly. The city will comply with Attachment E1 from General Order 2022-0103-DWQ (which is Attachment E of this SSMP)

RESOLUTION NO. 24-76

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LA VERNE, CALIFORNIA, ADOPTING AND RECERTIFYING THE CITY OF LA VERNE SEWER SYSTEM MANAGEMENT PLAN MANDATED BY THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) ORDER NUMBER 2022-0103-DWQ

WHEREAS, the City of La Verne owns and operates a wastewater collection system covering 8.562 square miles with approximately miles of sewer; and

WHEREAS, On December 6, 2022, the State Water Resources Control Board adopted Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems (Order No. 2022-0103-DWQ) which amended the SWRCB General Order 2006-0003-DWQ and the Monitoring and Reporting Program from Order WQ 2013- 0058-EXEC; and

WHEREAS, Order No. 2022-0103-DWQ applies to all public collection system agencies in California that own or operate collection systems comprised of more than one mile of pipe or sewer lines, which convey untreated wastewater to a publicly owned treatment facility; and

WHEREAS, the current Order includes the addition of a spill Category 4 and revises the spill Category 3; and.

WHEREAS, under this current Order, each agency is required to update its SSMP every six years and perform an audit at least every three years after the date of the last SSMP; and

WHEREAS, the Public Works Department has caused this 2024 update to the City of La Verne's SSMP and recommends it for adoption by the City Council.

NOW, THEREFORE, BE IT RESOVED by the City Council of the City of La Verne as follows:

Section 1. The above recitals are all true and correct.

Section 2. Adopts and recertifies the City of La Verne Sewer System Management Plan.

Section 3. That the Mayor shall sign and the Deputy City Clerk shall certify to the passage and adoption of this resolution and thereupon the same shall take effect and be in force.

PASSED, APPROVED AND ADOPTED this 16th day of December, 2024.

/S/ TIM HEPBURN

Mayor Tim Hepburn

ATTEST:

/S/ DEBRA FRITZ

Debra Fritz, CMC Deputy City Clerk

CERTIFICATION

I hereby certify that the foregoing **Resolution No. 24-76** was duly and regularly adopted by the City Council of the City of La Verne at a meeting thereof held on the **16th day of December, 2024,** by the following vote:

AYES: Kashifalghita, Lau, Crosby, Johnson, and Hepburn.

NOES: None.

ABSENT: None.

ABSTAIN: None.

/S/ DEBRA FRITZ

Debra Fritz, CMC Deputy City Clerk

Section 2 - Organization

Authorized Representatives

Organization

a) Administration:

Director of Public Works or designee: Leads staff; oversees water/wastewater division and capital improvement project delivery

909-596-8741

Director of Public Works or designee: Leads staff; oversees water/wastewater division and capital improvement project delivery	Daytime (909) 596-8741 Evening (909) 596-8741
Joe Vieyra, **Deputy Director of Public Works:** Leads staff; oversees water/wastewater division and capital improvement project delivery	jvieyra@cityoflaverne.org Daytime (714) 317-4895 Evening (626) 864-2064

b) Legally Responsible Official:

Ryan Ciotti, **Utilities Manager:**

Manages field operations and maintenance activities; prepares wastewater collection system planning documents; provides relevant information to public works director; prepares and implements contingency plans; leads emergency response; investigates and reports spills; acts as Legally Responsible Official (LRO).	rciotti @cityoflaverne.org Daytime (909) 596-1349 Evening (909) 908-0589

c) Contact Information:

Ryan Ciotti, **Water Supervisor – Production**	rciotti @cityoflaverne.org Daytime (909) 596-1349 Evening (909) 908-0589
Robert Mitchell, **Water Supervisor – Distribution:** Manages field operations and maintenance activities; trains field crews; assists with emergency.	rmitchell@cityoflaverne.org Daytime (626) 864-2064 Evening (626) 864-2064
Mark Graciano, **Water Utility Lead Worker:** Conducts preventative and corrective maintenance activities; mobilizes and responds to blockages and spills	mgraciano@cityoflaverne.org Daytime (951) 532-5712 Evening (951) 532-5712
Eugene Perez II, **Water Utility Worker II**: Conducts preventative and corrective maintenance activities; mobilizes and responds to blockages and spills.	eperez@cityoflaverne.org Daytime (626) 428-5376 Evening (626) 428-5376
Michael Sandoval, **Water Utility Worker I:** Conducts preventative and corrective maintenance activities; mobilizes and responds to blockages and spills.	msandoval@cityoflaverne.org Daytime (562)968-6155 Evening (562)968-6155

For Organization Chart see **Attachment A.**

The chain of communication for reporting spills is outlined in the City's Spill Emergency Response Plan as outlined in Chapter 6 of this document.

Authorized Representatives to Perform Submittals

All reports required by the WDR and other submittals required by the State Water Resources Control Board shall be signed and certified by a person designated as either a Supervisor or

Manager, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:

1) The authorization is made in writing by the person designated as either an executive officer or ranking elected official.

2) The authorization specifies an individual or a person having responsibility for the overall operation of the regulated facility or activity.

The Utilities Manager or Water Supervisor from the City of La Verne is responsible for signing and certifying reports required by the order. Either Utilities Manager or Water Supervisor is authorized to perform online reporting of Sewer System Overflows (SSO's) as well.

Section 3 - Legal Authority

The following includes excerpts from the La Verne City Code "Title 13. Public Services. Division 2 – Sewers and Industrial Waste. Chapter 13.16 - Adoption of County Sewer and Industrial Waste Code" related to the City's sewer system and connections as well as adoption of and modifications to Los Angeles County "Title 20. Division 2 Sanitary Sewers and Industrial Waste" which can be found in its entirety on the Los Angeles County website. Additionally, this Chapter contains excerpts from Los Angeles County Code "Title 20. Division 2 "Sanitary Sewers and Industrial Waste" to connection and enforcement provisions. The final legal authority reference is La Verne City Code "Title 16 Subdivisions. Article 1 – Design Standards Chapter 16.28 - DESIGN AND IMPROVEMENTS. 16.28.180 – Easements Underground Facilities related to sewer easements.

CITY OF LA VERNE MUNICIPAL CODE – Title 13 Public Services. Division 2 – Sewers and Industrial Waste

Chapter 13.16 ADOPTION OF COUNTY SEWER AND INDUSTRIAL WASTE CODE

Note: Prior code history: prior code §§ 7310—7315.02.

§ 13.16.010 Adopted. The city adopts by reference, and enacts into law, the amended Los Angeles County Code, Title 20, Utilities, Division 2 entitled "Sanitary Sewers and Industrial Waste" adopted by the board of supervisors of the county of Los Angeles by enactment of Ordinance No. 89-0101, July 27, 1989

§ 13.16.020 Area covered. Whenever in Title 20, Division 2 of the county code, reference is made to the unincorporated area of the county, such reference shall be deemed to refer to the city. (Prior code § 7320; Ord. 666 § 1, 1983)

§ 13.16.030 Definitions. The following terms, when used in Title 20, Division 2 of the county code, shall have the following meanings:

"Board" means the city council.

"County engineer" means the city engineer.

"County health officer" means the city health officer.

"County of Los Angeles" means the city of La Verne, except in instances where the context requires reference to the county of Los Angeles.

"County sewer maintenance district" means the city of La Verne, except in the instance where the territory concerned either has been or is proposed to be annexed to a county sewer maintenance district.

"Ordinance" means an ordinance of the city of La Verne, except in such instance where the reference is to a stated ordinance of the county of Los Angeles.

"Public sewer" means all sanitary sewers, and appurtenances thereto, lying within streets or easements dedicated to the city which are under the sole jurisdiction of the city.

"Trunk sewer" means a sewer under the jurisdiction of a public entity other than the city of La Verne. (Prior code § 7330; Ord. 666 § 1, 1983)

§ 13.16.040 Amendments. The following portions of the Los Angeles Sanitary Sewer and Industrial Waste Ordinance are amended as follows:

A. Section 20.28.050 of Title 20, Division 2 is amended to read as follows:

The City Engineer may recommend that the Council approve an agreement to reimburse or agree to reimburse a subdivider, school district, an improvement district formed under special assessment procedures, or person for the cost of constructing sanitary sewers for public use where such sewers can or will be used by areas outside of the proposed development; and to establish a reimbursement district and collection rates as described in the agreement under the provisions of this Ordinance.

B. Section 20.32.130 of Title 20, Division 2 is repealed.

C. Section 20.32.140 of Title 20, Division 2 is repealed.

D. Section 20.32.150 of Title 20, Division 2 is amended to read as follows:

In the event the City Engineer determines that the property described in the application for a permit is included within a sewer reimbursement district which has been formed by the Council in accordance with Section 20.28.050, the charge for connecting to the public sewer shall be as set forth in the agreement.

E. Section 20.32.290 of Title 20, Division 2, is repealed.

F. Sections 20.32.260, 20.32.270, 20.32.280 and 20.32.310 of Title 20, Division 2, are repealed.

G. Section 20.32.690 of Title 20, Division 2, is amended by adding the following paragraph:

In the event the damaged public sewer is not in a sewer maintenance district, the violator shall reimburse the City within 30 days after the City Engineer shall render an invoice for the same. The amount when paid shall be deposited in the City Treasury. (Prior code § 7340; Ord. 666 § 1, 1983)

LOS ANGELES COUNTY CODE OF ORDINANCES – TITLE 20. UTILITIES. DIVISION 2. SANITARY SEWERS AND INDUSTRIAL WASTE

Title 20 UTILITIES

Chapter 20.36 - INDUSTRIAL WASTE

Part 1 – PERMITS

20.36.010 - Discharge of offensive or damaging substances prohibited.

A person shall not discharge or deposit or cause or suffer to be discharged or deposited at any time or allow the continued existence of a deposit of any material which may create a public nuisance, or menace to the public health or safety, or which may pollute underground or surface waters, or which may cause damage to any storm-drain channel or public or private property.

(Ord. 6130 Part 6 Ch. 3 § 6301, 1952.)

20.36.015 - Dilution prohibited.

No person shall discharge or cause to be discharged any water or other substance added for the purpose of diluting any industrial waste to achieve compliance with limitations imposed by the provisions of this Division 2.

(Ord. 89-0101 § 25, 1989.)

20.36.020 - Construction of new industrial buildings—Information required.

Every person applying for a permit pursuant to the provisions of the Building Code, as set out at Title 26 of this code, for construction of a new industrial building or for an addition or alteration to an existing industrial building shall furnish to the county engineer such plans, information, data, statements or affidavits as the county engineer may require for determination of the nature and quantity of industrial waste involved and the facilities to be provided for the disposal thereof.

(Ord. 6130 Part 6 Ch. 3 § 6302, 1952.)

20.36.030 - Construction of new industrial buildings—Building permit issuance prerequisites.

An application for a permit pursuant to the Building Code to construct a new industrial building or for an addition or alteration to an existing industrial building will not be approved until provision has been made for the installation of such pretreatment facilities and disposal methods or both as, in the opinion of the county engineer, are necessary to carry out the provisions and intent of this Division 2.

(Ord. 6130 Part 6 Ch. 3 § 6303, 1952.)

20.36.031 - Construction of facilities connecting to a STEP system—Information and building permit prerequisites.

Every person applying for a permit pursuant to the provisions of the Building Code as set forth in Title 26 of this code, or the Los Angeles County Plumbing Code, as set forth in Title 28 of this code, for the construction of any facility to be connected to a STEP pressure sewer system, shall furnish to the county engineer or his designated agent such plans, information, data, statements or affidavits as the county engineer or his designated agent may require for the determination of the nature and quantity of wastewater involved, the facilities to be provided for the disposal thereof, and the structures or means necessary for the protection of such facilities.

An application for a permit pursuant to the Building or Plumbing Codes for facilities to be connected to a STEP pressure sewer system will not be approved until provision has been made for the installation of such pretreatment facilities, including protective means and structures for those facilities, as in the opinion of the county engineer or his designated agent are necessary to carry out the provisions and intent of this Division 2. The application also will not be approved until a letter of credit, cash deposit, performance bond, or other form of security acceptable to the county engineer or his designated agent, accompanied by a right of

entry release, to assure the completion of the pretreatment facilities and their protective means or structures has been received by the county engineer or his designated agent.

(Ord. 89-0006 § 7, 1989.)

20.36.040 - Permit to discharge industrial waste—Issuance conditions.

A. The director may issue a permit containing limitations or conditions, or both, in addition to those recommended by the county health officer, or may modify an existing permit by the addition of or elimination of such conditions and limitations as may be necessary to accomplish the purpose of this Division 2; but in a permit covering the discharge deposit or disposal of wastes other than to the public sewer he shall include all limitations and conditions recommended by the county health officer.

B. Permits for the discharge of industrial wastes to a public sewer shall state the maximum permissible rate of discharge.

C. The director may impose a permit expiration date not to exceed a term of five years where the director determines such a date is necessary to insure compliance with all applicable laws and regulations governing the disposal of industrial wastes. Application for renewal of such a permit shall be made not later than 180 days prior to the expiration date of the existing permit.

(Ord. 89-0101 § 26, 1989: Ord. 10020 § 3 (part), 1970: Ord. 6130 Part 6 Ch. 3 § 6306, 1952.)

20.36.050 - Change of facts—Notification to county engineer.

Every person having a permit issued pursuant to this chapter either automatically or otherwise within five days shall notify the county engineer in writing of any change in any facts which are required to be stated in an application for a permit.

(Ord. 7010 § 2, 1956: Ord. 6130 Part 6 Ch. 3 § 6322, 1952.)

20.36.060 - Revised permit—Application required when.

A permittee shall submit to the county engineer an application for revised industrial waste disposal permit and obtain approval prior to effecting any of the following waste-discharge conditions:

A. Change in method of disposal.

B. Change in disposal point for non-sewered discharge.

C. Change in discharge volume affecting treatment or storage facilities; or

D. Change in character of the waste discharge.

(Ord. 11716 § 41, 1978: Ord. 6130 Part 6 Ch. 3 § 6323, 1952.)

20.36.065 - Expiration of application.

An application for an industrial waste disposal permit for which no permit is issued within 180 days following the date of application submittal shall expire by limitation. The application and other information submitted may thereafter be returned to the applicant or destroyed. The director may extend the time for action by the applicant for a period not to exceed 180 days upon written request by the applicant showing that circumstances directly related to the processing of the application but beyond the control of the applicant have prevented action from being taken. In order to renew action on an application after expiration, the applicant shall resubmit all necessary application forms and other data and pay a new application fee and plan review fee. No application shall be extended more than once.

(Ord. 89-0101 § 27, 1989: Ord. 84-0109 § 3, 1984.)

20.36.070 - Grant or denial—Notice to applicant.

A. The county engineer shall either grant or deny a permit within 30 days after all fees, as provided in this Division 2, have been paid and upon the receipt of the application complete with all supplemental data.

B. The county engineer shall immediately notify the applicant whenever he grants a permit, denies a permit, grants a permit subject to special conditions or limitations, or adds to or eliminates any conditions or limitations of an existing permit.

(Ord. 7519 § 4 (part), 1959: Ord. 6130 Part 6 Ch. 3 § 6305, 1952.)

20.36.080 - Hearing—Time limit for request.

Within 30 days after receipt of notice of denial of a permit, granting of a permit subject to conditions or limitations, or the addition of conditions or limitations to an existing permit, the applicant or permittee may file with the board a written demand for a public hearing. If he does not do so, he shall be deemed to have consented to the action of the county engineer, and such action shall be final.

(Ord. 6130 Part 6 Ch. 3 § 6308, 1952.)

20.36.090 - Hearing—Notice requirements.

Within 30 days after application for a hearing has been requested, the board shall give notice of the time and place of public hearings to the applicant or permittee, the county engineer, and the county health officer when matters pertaining to public health are involved, at least 10 days in advance of the date set for such hearing.

(Ord. 6130 Part 6 Ch. 3 § 6317, 1952.)

20.36.100 - Hearing—Conduct—Board determination authority.

After a public hearing requested by an applicant or a permittee, the board may:

A. Confirm the action of the county engineer in denying a permit or issuance of a permit subject to special conditions and limitations.

B. Instruct the county engineer to issue a permit without conditions or limitations, or with such special conditions and limitations as the board may designate.

C. Continue suspension of an existing permit invoked by the county engineer pending correction of objectionable conditions by the permittee.

D. Remove the suspension of an existing permit invoked by the county engineer pending correction of objectionable conditions by the permittee.

E. Deny that objectionable conditions exist and reinstate an existing permit.

F. Revoke an existing permit on any of the following grounds:

1. Failure of the permittee to correct conditions as required by the county engineer,

2. Conditions which would justify the denial of a permit,

3. Fraud or deceit was employed in the obtaining of a permit,

4. Any other violation of this Division 2 or of any permit, license or exception granted hereunder.

(Ord. 6130 Part 6 Ch. 3 § 6318, 1952.)

20.36.110 - Failure to obtain permit deemed violation when.

A person who is required to but does not have a permit and who has been notified by the county engineer that he is required to obtain a permit pursuant to the provisions of this Division 2 shall immediately submit to the county engineer an application and fee as required by this Division 2 for such permit and shall rectify and cure all such violations. Failure to do so shall constitute a willful violation of this Division 2.

(Ord. 7519 § 4 (part), 1959: Ord. 6130 Part 6 Ch. 3 § 6310, 1952.)

20.36.120 - Successor in interest—New permit required.

The successor in title or interest of a premises for which a permit had previously been granted shall file with the director a new permit application, in accordance with the provisions of Section 20.36.320 or Section 20.36.490, within 30 days after assumption of such title or interest, and shall furnish plans and data as may be required by the director. If it appears from the application, data, and/or inspection of the facility that the succeeding operation and disposal practices comply with the provisions of this Division 2, the director, upon receipt of the fees hereinafter required, shall issue such permit. The director may issue an interim permit pursuant to Section 20.36.125 to allow continued operations during the permit processing period.

(Ord. 2002-0074 § 1, 2002: Ord. 89-0101 § 28, 1989.)

20.36.125 - Interim permit—Ongoing discharge.

Upon determination that any person is discharging industrial wastewater directly or indirectly to a facility regulated by this Division 2 without a valid permit or upon receipt of an application for a permit for an ongoing discharge, an interim permit may be issued by the director to allow the continuation of such discharge during the application review period, subject to such conditions, limitations, restrictions, and other provisions or requirements which the director determines are necessary or advisable to protect the county sewage collection system and to assure compliance with all federal, state and local laws and that the continuation of such discharge will not be detrimental to the public health and safety. An interim permit is revocable by the director at any time. Any person whose interim permit is revoked shall immediately cease and desist all unpermitted discharge of industrial waste. Unless revoked by the director, the interim permit shall be enforceable until such time as a permit is issued or denied by the director and shall be subject to annual inspection fees pursuant to Section 20.36.250. The discharger shall immediately comply with all of the provisions and requirements of such interim permit, and if the discharger has not already applied for a permit, shall apply for a permit within 30 days from the issuance of the interim permit.

(Ord. 2002-0074 § 2, 2002: Ord. 11716 § 39, 1978: Ord. 7010 § 1 (part), 1956: Ord. 6541 § 5, 1954: Ord. 6130 Part 6 Ch. 3 § 6319.5, 1952.)

20.36.130 - Permit not transferable from one location to another.

Permits issued under this chapter are not transferable from one location to another, and discharge of wastes shall be made strictly in accordance with all provisions contained in the permit, at the location specifically designated therein.

(Ord. 6541 § 6, 1954; Ord. 6130 Part 6 Ch. 3 § 6320, 1952.)

20.36.135 - Monitoring and sampling—Pre-notification.

Any permittee required by the director, by permit or otherwise, to engage in periodic monitoring or sampling of a discharge shall notify the director by telephone at least 48 hours in advance of any monitoring or sampling to be done. Prior to the commencement of any sampling or monitoring, the director may request that the permittee furnish the director a split sample and all supporting data. Each permittee shall submit to the director, certified under penalty of perjury by the permittee, its monitoring and sampling reports or other requested data.

(Ord. 89-0101 § 29, 1989.)

20.36.140 - Notice to correct violations.

A. The county engineer may serve notice of violation upon the person owning or operating premises describing the conditions and requiring prompt correction thereof, when he finds that:

1. Industrial waste, effluent, or any other material is being maintained, discharged or deposited in such a manner as to create, or if allowed to continue will create, any one or more of the following conditions:

a. A public nuisance,

b. A menace to the public safety,

c. Pollution of underground or surface waters,

d. Adverse effect or damage to any public sewer, storm drain, channel, or public or private property; or that:

2. The permittee has failed to conform with conditions or limitations of any permit issued in accordance with this Division 2;

3. The industrial waste disposal permit was issued in error, or on the basis of incorrect information supplied, or in violation of any ordinance, law or regulation.

B. Failure to comply with such notice shall constitute a willful violation of this Division 2.

(Ord. 84-0109 § 4, 1984: Ord. 11716 § 36, 1978: Ord. 7519 § 4 (part), 1959: Ord. 6130 Part 6 Ch. 3 § 6309, 1952.)

20.36.150 - Investigation of complaints—Correction of violations.

Notwithstanding any exception mentioned in this Division 2, the county engineer shall promptly investigate every complaint charging violation of any of the provisions of this Division 2 and shall take action to correct any violation discovered.

(Ord. 6130 Part 6 Ch. 3 § 6304, 1952.)

20.36.160 - Suspension of permit—Conditions.

When the conditions described in Section 20.36.140 are so aggravated that immediate cessation of operation is necessary and the county engineer so finds, he shall suspend the permit. He shall serve notice of such suspension on the permittee. The county engineer may also suspend a permit if objectionable conditions listed in a notice to correct, served in accordance with Section 20.36.140, are not corrected within the time specified in such notice.

(Ord. 7519 § 4 (part), 1959: Ord. 6130 Part 6 Ch. 3 § 6311, 1952.)

20.36.170 - Suspension of permit—Notice.

The county engineer shall immediately notify the permittee of suspension of permit or recommendation to the board that such permit be revoked, or both.

(Ord. 6130 Part 6 Ch. 3 § 6313, 1952.)

20.36.180 - Discontinuance of discharge or deposit required when.

A person whose permit has been suspended, or who has been notified of violation, as provided in this Division 2, shall immediately discontinue the deposit or discharge of industrial waste, sewage, or effluent, or use of any described facility, and shall not resume such deposit or discharge, or use of the described facility, until a permit has been issued or reinstated by the county engineer or board as hereinafter provided. Failure so to do shall constitute willful violation of this Division 2.

(Ord. 7519 § 4 (part), 1959: Ord. 6130 Part 6 Ch. 3 § 6314, 1952.)

20.36.190 - Rights of permittee following notice of violation or suspension.

Within the time specified in the notice of violation or suspension, the permittee shall:

A. Correct and remedy the conditions so specified, to the satisfaction of the county engineer; or

B. File with the board a denial that all of the conditions so specified exist, request a public hearing, and correct the conditions which the permittee admits do exist; or

C. File with the board a denial that any of the conditions so specified exist and request a public hearing.

(Ord. 8690 § 12 (part), 1964: Ord. 6130 Part 6 Ch. 3 § 6315, 1952.)

20.36.200 - Reinstatement of suspended permit.

The county engineer shall reinstate a suspended permit when all violations are corrected and all fees required by this Division 2 have been paid.

(Ord. 11716 § 37, 1978: Ord. 6130 Part 6 Ch. 3 § 6316, 1952.)

20.36.210 - Revocation of permit—Recommendation by county engineer.

The county engineer may recommend to the board that a permit be revoked.

(Ord. 7519 § 4 (part), 1959: Ord. 6130 Part 6 Ch. 3 § 6312, 1952.)

20.36.220 - Cancellation of permit and facility closure—Conditions.

A. A person owning or operating premises containing industrial waste treatment or disposal facilities operated under a valid permit issued under the provisions of this Division 2 may file a written application with the director to cancel such permit upon termination of operations and/or closure of the permitted facility. Upon receipt of such an application, the director shall investigate and cancel the permit if he determines that:

1. All industrial-waste producing operations have ceased;

2. Any industrial waste treatment facilities have been removed or rendered inoperable to prevent further use.

3. All permits to abandon or disconnect, as may be required by the Plumbing Code, have been obtained.

4. Any industrial wastes remaining on the premises have been removed to a legal point of disposal.

5. All fees required by this Division 2 due up to the date of closure of the facility have been paid.

6. The applicant has demonstrated that no environmental contamination has occurred by the previous operation of the treatment facility or that any contamination found has been mitigated.

B. Should the director deny an application for a permit cancellation or closure of the facility, the owner or operator of any facilities required by the permit shall maintain these facilities in good operating condition and pay all fees required by this Division 2 to maintain a valid permit.

(Ord. 2002-0074 § 3, 2002: Ord. 11716 § 40, 1978: Ord. 6130 Part 6 Ch. 3 § 6321, 1952.)

Part 2 - FEES AND DEPOSITS

20.36.230 - Industrial waste disposal permit—Application fee—Schedule.

The director shall collect a permit application fee, as set forth in the schedule below in Table 3-1, for each application received. Such fee shall be separate and apart from any fee or deposit collected for industrial waste plan review or imposed under provisions of the Plumbing Code, set out in Title 28, or other county ordinance or regulation, or by reason of any license, agreement or contract between the applicant and other public agency. Such application fee shall not be refundable even though the application be denied except as provided in Section 20.28.070.

Table 3-1 Industrial Waste Disposal Permit Type Fee

Industrial Waste Disposal Permit	New Permit	Revised Permit
Sewer Disposal	$533	$359
On-site Disposal	$649	$533
Off-site Disposal	$713	$476

(Ord. 2002-0074 § 4, 2002: Ord. 89-0101 § 30, 1989: Ord. 84-0109 § 5, 1984: Ord. 81-0043 § 6, 1981: Ord. 11716 § 42, 1978: Ord. 8690 § 12 (part), 1964: Ord. 7519 § 4(part), 1959: Ord. 6130 Part 6 Ch. 4 § 6402, 1952.)

* **Editor's note:** Fee changes in this section include changes made by the Department of Public Works due to increases in the Consumer Price Index and are effective July 1, 2020.

20.36.240 - Successor in interest or revision—Application fee.

The application fee for a permit application by a successor in interest where the director finds that the succeeding operation is essentially the same as the preceding permitted operation in quantity, strength and method of disposal for industrial wastes generated, shall be the amount set forth in Section 20.36.230 for permit revision.

(Ord. 89-0101 § 31, 1989: Ord. 84-0109 § 6, 1984: Ord. 11716 § 48, 1978: Ord. 6130 Part 6 Ch. 4 § 6408, 1952.)

20.36.245 - Industrial waste plan review—Fee schedule.

A. The director shall collect a plan review fee, as set forth in the schedule below, Table 3-2, for each set of plans received for any single site or location. Such fee shall be separate and apart from any fee or deposit collected for any permit or inspection or imposed by any other county ordinance or regulation. Such plan review fee shall be applied to any submittal required by the director pursuant to this Division 2 and shall not be refundable even though the submittal be rejected or the project terminated except as provided in Section 20.28.070.

Table 3-2 Plan Review Class Type Fee

Industrial Waste Disposal Permit	New Sewer	Revision Disposal	On-site New	On-site Revision	Off-site New	Off-site Revision
1	$ 889	$ 649	$1,007	$ 771	$ 946	$ 713
2	$1,126	$889	$1,243	$1,007	$1,186	$946
3	$1,362	$1,126	$1,478	$1,243	$1,423	$1,186
4	$1,597	$1,362	$1,718	$1,478	$1,658	$1,423
5	$1,837	$1,597	$2,191	$1,718	$1,891	$1,658
6	$2,073	$1,837	$2,543	$2,191	$2,130	$1,891

B. The director may impose a reinstatement fee of one-half of the plan review fee if the applicant fails to correct any plans or submittal upon written notice of correction or request for additional information by the director after three attempts have been made to gain such correction.

(Ord. 2002-0074 § 5, 2002: Ord. 89-0101 § 32, 1989.)

* **Editor's note:** Fee changes in this section include changes made by the Department of Public Works due to increases in the Consumer Price Index and are effective July 1, 2020.

20.36.250 - Annual inspection fee—Scheduling and billing.

A. For each industrial waste disposal permit issued by the director, an annual inspection fee as determined by the schedule below and Section 20.36.260, Table 3-3,

shall be due and payable to the director annually, in advance, on a billing date to be determined by the director.

Table 3-3 Inspection Fee by Class

Class	Inspection Fee
A	$352
B	$689
C	$1,034
D	$1,370
E	$1,611
M	$3,399

B. Immediately upon issuance of a new permit, the permittee shall be billed the above inspection fee for the first annual billing period.

C. The annual inspection fee shall be increased by an additional $296.00 for each approved rainwater diversion system.

(Ord. 2002-0074 § 6, 2002: Ord. 89-0101 § 33, 1989: Ord. 84-0109 § 7, 1984: Ord. 81-0043 § 7, 1981: Ord. 11716 § 43, 1978: Ord. 6130 Part 6 Ch. 4 § 6403, 1952.)

* **Editor's note:** Fee changes in this section include changes made by the Department of Public Works due to increases in the Consumer Price Index and are effective July 1, 2020.

20.36.260 - Classes of businesses, processes and industries for plan review and inspection fee.

Plan review and inspection classes shall be established in accordance with Table I. The classes for any business, process, industry or residential STEP system connection not listed in Table I shall be determined by the director using Table 3-4 as a guide.

Table 3-4 Plan by Classes

Plan	Review Class	Inspection Class
Agricultural Production, Food Processing and Handling		
Animal slaughtering (except fowl)	3	D
Bakery plants	2	C
Beverages, canning and bottling	2	C
Breweries, wineries	3	D
Canned and preserved fruits and vegetables	3	B
Cold storage and refrigeration plants	1	A
Dairies and dairy products	2	D
Food markets	1	A
Frozen foods	2	B
Hydroponic farms	2	B

Plan	Review Class	Inspection Class
Poultry	3	E
Prepared meat, poultry, and fish products	2	C
Public eating places and plant cafeterias (including STEP system connections)	1	A
Rendering	3	C
Sugar and confectionery products	1	A
Vegetable fats and oils	2	B
Vegetable packing	3	D
Mining, Manufacturing and Processing		
Aircraft	3	C
Aircraft engines, parts, and accessories	3	C
Ammunition and explosives	2	D
Asphalt and asphalt products	4	E
Battery manufacturing, servicing, and reclaiming	3	E
*NCPS facilities	4	M
Blast furnaces, steel works, rolling and finishing mills	4	E
*NCPS facilities	5	M
Carpet mills with dyeing	4	D
*NCPS facilities	5	E
Carpet mills without dyeing	1	A
Cement manufacturing	3	B
Ceramics	2	D
Chemical milling	5	E
*NCPS facilities	6	M
Chemical plants	5	E
*NCPS facilities	6	M
Coating, electroplating, engraving and related services	4	E
*NCPS facilities	5	M
Concrete batch plants	2	D
Cut stone and stone products	2	A
Electric power generation plants except waste-to-energy facilities	3	B
*NCPS facilities	4	E
Enameled products	2	B
*NCPS facilities	4	E
Guided missiles, space vehicles, space vehicle propulsion units and propulsion unit parts	4	D
Iron and steel foundries and heat treating	4	D
*NCPS facilities	5	E
Linoleum, asphalt-felt-base and other hard-surface floor covering	2	B
Metal fabrication (no chemical wastes)	1	B
Metals--with chemical wastes (not otherwise classified)	3	D
*NCPS facilities	4	E

Plan	Review Class	Inspection Class
Metals--with no chemical wastes (not otherwise classified)	1	B
Motor vehicle parts and accessories	2	B
Motor vehicles, vehicle bodies and trailers	3	B
Musical instruments (metal)	2	C
Non-metals--with chemical wastes (not otherwise classified)	3	D
*NCPS facilities	4	E
Non-metals--with chemical wastes (not otherwise classified)	1	A
Oil field production	2	C
*NCPS facilities	3	D
Paint manufacturing	3	D
*NCPS facilities	4	E
Paper manufacturing	3	C
*NCPS facilities	4	E
Paper products	2	B
*NCPS facilities	4	E
Pesticides	4	D
*NCPS facilities	5	E
Petroleum refining and processing	5	E
*NCPS facilites	6	M
Pharmaceuticals	4	D
*NCPS facilities	5	E
Photographic equipment and supplies	2	C
Pottery, china, earthenware, porcelain, and related products	2	C
Primary smelting and refining of nonferrous metals	3	B
*NCPS facilities	4	E
Printed circuit boards	4	E
*NCPS facilities	5	M
Quarrying and rock crushing	4	D
Railroad equipment	2	B
Rolling, drawing, and extruding nonferrous metals	2	C
*NCPS facilities	3	D
Rubber and plastics products	3	C
*NCPS facilities	4	E
Sand and gravel washing and screening	3	D
Secondary smelting and refining of nonferrous metals	2	C
*NCPS facilities	3	D
Semiconductor and related devices	3	D
*NCPS facilities	4	E
Silverware, plated ware, and stainless-steel ware	5	M
*NCPS facilities	5	M
Spray-painting shops	1	A

Plan	Review Class	Inspection Class
Steel springs manufacturing	3	E
*NCPS facilities	4	M
Tanning and wool pulling	3	D
*NCPS facilities	4	E
Textile mills, treating and dyeing	4	D
*NCPS facilities	5	E
Wood fabrication (no chemical wastes)	1	A
Retail Trade and Services (Including STEP System Connections)		
Airports, flying fields and airport terminal services	1	B
Automotive repair	1	C
Bottle and can washing	2	B
Car wash	1	C
Chemical laboratories	1	B
Cleaners, retail	1	B
Commercial laundries (not coin-operated)	2	B
Cooperages	3	D
Dry cleaning plants	2	D
Film processing plants	2	C
Film processing, retail	1	A
Kennels, dog, and cat hospitals	1	A
Marine service	2	C
Schools, churches, and institutions	1	A
Service stations--incidental car washing, repairs and maintenance	1	A
Tank truck interior washing	2	D
*NCPS facilities	3	E
Truck repair and exterior washing	1	C
Waste Disposal Facilities		
Cogeneration facilities (not otherwise classified)	2	C
Hazardous waste treatment, recycling, storage, and transfer facilities	6	M
Injection wells, non-oilfield wastes (liquids)	3	M
Landfill gas recovery facilities	6	M
Liquid waste storage and transfer facilities, nonhazardous	4	E
Solid-waste transfer, recycling, and composting facilities	3	D
Solid-waste incinerators	6	M
Waste-to-energy facilities	6	M
Miscellaneous		
Groundwater cleanup	1	A
Open facilities, not used	1	A
Storm water monitoring	1	A
Storm water treatment BMP Approval/monitoring	1	A
Sanitary dump station	1	A

Plan	Review Class	Inspection Class
Residences Connected to STEP Systems		
Residences (per septic tank)	no charge	no charge

* Industries subject to National Categorical Pretreatment Standards (NCPS) and not regulated by a joint permit pursuant to Section 20.36.385, shall have fee amounts governed by the NCPS facility designations. Where an industry or process falls into more than one fee class category, the higher fee shall prevail unless the director determines a lesser amount is appropriate.

(Ord. 2002-0074 § 7, 2002: Ord. 89-0101 § 34, 1989: Ord. 89-0006 § 8, 1989: Ord. 11716 § 44, 1978: Ord. 6130 Part 6 Ch. 4 § 6404, 1952.)

20.36.265 - Wastewater sampling and analysis fee.

The director may charge the discharger a fee of $352.00 for each analysis performed by or on behalf of the director on wastewater samples taken from the discharger.

(Ord. 2002-0074 § 8, 2002: Ord. 89-0101 § 35, 1989.)

* **Editor's note:** Fee changes in this section include changes made by the Department of Public Works due to increases in the Consumer Price Index and are effective July 1, 2020.

20.36.270 - Miscellaneous services—Fees.

The following fees, as set forth in Table 3-5 below, shall be paid before a review is made, approval is granted, inspection is made, operation is allowed, or remedial action is implemented:

Table 3-5 Service Fees

Service	Fee
Application for closure and inspection of pretreatment facility pursuant to Section 20.36.220.	$555
Review of site-remedial investigation and cleanup plan, initial deposit	$494
Additional site investigation and cleanup plan review and approval, per hour	$128
Inspections outside of normal business hours, per hour	$274
Inspection for which no fee is specifically indicated	$352
Additional plan review or revisions of previously approved plans, per hour	$128

(Ord. 2002-0074 § 9, 2002: Ord. 89-0101 § 36, 1989.)

* **Editor's note:** Fee changes in this section include changes made by the Department of Public Works due to increases in the Consumer Price Index and are effective July 1, 2020.

20.36.280 - Annual inspection fee, wastewater sampling and analysis fee and miscellaneous service fee—Payment time—Penalties for delinquency.

All inspection fees required by Section 20.36.250 or Section 20.36.270 of this code, wastewater sampling and analysis fees required by Section 20.36.265 and applicable miscellaneous fees required by Section 20.36.270 shall be due and payable on the billing date as established by those sections or by the due date indicated on any invoices issued. Fees not paid within 30 calendar days from the billing date shall be considered delinquent. Delinquent fees shall be subject to a 10-percent penalty fee for each 30-day period beyond the billing date that the fee is due. Permits for which the inspection fee is delinquent for 90 days or more are subject to suspension as provided in Section 20.36.160.

(Ord. 89-0101 § 37, 1989: Ord. 11716 § 46, 1978: Ord. 6130 Part 6 Ch. 4 § 6406, 1952.)

20.36.290 - Annual inspection fee—Refund conditions.

Upon cancellation of permit pursuant to Section 20.36.220, and upon written request of the permittee, the county engineer shall refund a portion of the annual inspection fee as determined from Table 3-6 below:

Table 3-6 Annual Inspection Fee – Refund Conditions

Days from Previous Billing Date	Percent Required
1 - 60	75%
61 - 150	50%
151 - 240	25%
241 or more	0%

(Ord. 11716 § 47, 1978: Ord. 6130 Part 6 Ch. 4 § 6407, 1952.)

20.36.295 - Annual review of fees.

Beginning on July 1, 2003, and thereafter on each succeeding July 1st, the amount of each fee in this chapter shall be adjusted as follows: calculate the percentage movement between April of the previous year and March of the current year in the Consumer Price Index (CPI) for all urban consumers in the Los Angeles, Anaheim, Riverside areas, as published by the United States Government Bureau of Labor Statistics, adjust each fee by said percentage amount and round off to the nearest $1.00. Notwithstanding the foregoing, no such adjustment shall decrease any fee, and further, no fee shall exceed the reasonable cost of providing the services for which the fee is collected.

(Ord. 2002-0074 § 10, 2002: Ord. 89-0101 § 38, 1989.)

Part 3 – DISCHARGE TO PUBLIC SEWERS

20.36.300 - Application of Part 3 provisions.

The provisions of this Part 3 of Chapter 20.36 shall pertain to the disposal of industrial waste to the public sewer only.

(Ord. 7519 § 3 (part), 1959: Ord. 6130 Part 6 Ch. 1 § 6101, 1952.)

20.36.310 - Permit—Required when.

A. A person shall obtain a permit from the county engineer prior to the discharge of industrial waste to a public sewer.

B. The county engineer shall not grant such a permit unless he finds that sufficient capacity exists in the public sewer to allow for such industrial waste, as determined by the requirements of Section 20.32.080.

C. A separate permit shall be required for each connection discharging industrial wastes to the public sewer.

D. For the purpose of this section, discharges resulting from garbage grinders powered by motors of one horsepower or less, and grease interceptors installed in restaurants in accordance with the provisions of the Los Angeles County Plumbing Code where such facilities are not required by other provisions of this Division 2, are not considered to be industrial waste discharges.

E. A person shall obtain a permit from the county engineer to maintain an existing but nonused industrial waste connection to the public sewer. The annual inspection fee for such permit shall be the same as that for Inspection Fee Class A. The connection shall be removed upon the expiration or revocation of such permit pursuant to the criteria established by Section 20.36.220.

(Ord. 84-0109 § 8, 1984: Ord. 11716 § 28, 1978: Ord. 10020 § 3 (part), 1970: Ord. 7519 § 3 (part), 1959: Ord. 6982 § 11, 1956: Ord. 6130 Part 6 Ch. 1 § 6102, 1952.)

20.36.320 - Permit—Application forms—Information required.

A. The director shall provide printed application forms for the permit required by this Part 3, indicating thereon the information to be furnished by the applicant. In conjunction therewith, the applicant may be required to furnish the following:

1. The name and address of the applicant.

2. The name and address of the discharger.

3. The address or location of the premises where the discharge will take place.

4. The Standard Industrial Classification (SIC) of the discharger.

5. Information with respect to constituents and characteristics of wastewater proposed to be discharged, including but not limited to those referred to in this Part 3. Sampling and analysis shall be performed in accordance with procedures established by the EPA pursuant to Section 304(g) of the Act and contained in 40 CFR, Part 136, as amended, and by laboratories certified by the state of California. In the absence of a state certification process, the director may certify a laboratory to perform necessary sampling and analysis.

6. Time and duration of the proposed discharge or discharges.

7. Average daily and five-minute peak wastewater flow rates, including daily, monthly and seasonal variation, if any.

8. Each byproduct waste of the discharges by type, amount and rate of production.

9. Site plans, floor plans, mechanical and plumbing plans and details to show all sewers, storm drains, connections and appurtenances by their size, location and elevation.

10. Description of activities, facilities and plant processes on the applicant's premises, including all pollutants which could be discharged.

11. Detailed plans showing pretreatment facilities, sampling facilities, uncontrolled discharge containment facilities, and operating procedures.

12. Identification of the nature and concentration of any pollutant located at the premises of the discharger (and/or applicant if different) if that pollutant is prohibited from discharge under this Part 3, or any proposed discharge which is regulated by any applicable local limit, plus a statement specifying whether the specific limitations set forth in said local limits are being met, and, if not, what operation and maintenance (O&M) or pretreatment is proposed by the discharger to cause compliance;

13. The shortest time scheduled by which the discharger shall provide the necessary additional pretreatment or O&M, if additional pretreatment or O&M will be required to meet the regulations in this Division 2. Any completion date in such a proposed schedule shall not be later than the compliance date established by the applicable regulations. The schedule shall provide for reporting increments in progress in the form of dates for commencement and completion of major events leading to the construction and operation of additional pretreatment necessary for the discharger to meet the applicable regulation (e.g., hiring an engineer, completing preliminary and final plans, executing contract for major components, commencing construction, completing construction);

14. Each product of the discharger by type, amount, and rate of production.

15. Type and amount of raw materials processed by the discharger (average and maximum per day);

16. Number of employees, hours of operation of plant, and hours of operation of the proposed pretreatment system.

17. Copies of any current NPDES permit, South Coast Air Quality Management District permit, Regional Water Quality Control Board permit, fire department business plan, health department license and State Department of Health Services permit for the subject premises.

18. The name, business address and motor vehicle driver's license number of the authorized representative.

19. Any other information deemed by the director to be necessary to evaluate the permit application.

The application shall be signed under penalty of perjury by the authorized representative of the discharger.

B. For the purpose of this section, the director may utilize joint permit application forms under agreements established with other public agencies as provided in Section 20.28.090.

(Ord. 89-0101 § 39, 1989: Ord. 11716 § 29, 1978: Ord. 10276 § 1, 1971: Ord. 7010 § 1 (part), 1956: Ord. 6130 Part 6 Ch. 1 § 6104, 1952.)

20.36.330 - Permit—Issuance conditions.

If it appears from the application and supporting information submitted for any permit required by this chapter that the proposed disposal complies with the provisions of this Division 2 and other applicable laws and ordinances, the county engineer, upon receipt of the fees hereinafter required, shall issue such permit.

(Ord. 11716 § 30, 1978: Ord. 6130 Part 6 Ch. 1 § 6105, 1952.)

20.36.340 - Determination of type of liquid waste.

Before granting an industrial waste disposal permit to any applicant, the county engineer shall determine either that the waste is one which will not damage or destroy the public sewer or cause an unwarranted increase in the cost of maintenance of the public sewer, or retard or inhibit the treatment of the sewage, or is one that can be made acceptable by pretreatment.

(Ord. 6130 Part 6 Ch. 1 § 6106, 1952.)

20.36.350 - Pretreatment—Plans prerequisite to permit issuance when.

In event pretreatment or special facilities are required to make the waste acceptable as provided under the provisions of this Division 2, the applicant for an industrial waste disposal permit may be required to furnish plans showing the method of collections and pretreatment proposed to be used, and a permit shall not be issued until said plans or required modification thereof have been checked and approved by the county engineer.

(Ord. 6130 Part 6 Ch. 1 § 6107, 1952.)

20.36.360 - Permit—Revocation conditions.

By following the procedure set forth in Part 1 of this chapter, the county engineer may recommend the revocation of and the board may revoke any permit if, after a public hearing, if a public hearing is requested, or otherwise, after due investigation, the board finds:

A. A failure of the permittee to correct conditions as required by the county engineer; or

B. Conditions which would justify the denial of a permit; or

C. Fraud or deceit was employed in obtaining the permit; or

D. Any other violation of this Division 2 or of any conditions of any permit including the one to be revoked, license or exception granted hereunder.

(Ord. 7519 § 3, 1959: Ord. 6130 Part 6 Ch. 1 § 6103, 1952.)

20.36.365 - Public participation—Notification of significant violations.

At least annually, the director shall provide public notification, in the largest daily newspaper published in the municipality in which a POTW is located, of industrial users of the POTW which, during the previous 12 months, were significantly violating applicable pretreatment standards or other pretreatment requirements, as provided in 40 CFR 403.8. The director need not provide such notification if a notice meeting all applicable EPA requirements has been published by the POTW operator. The cost of such public notification shall be collected by the director from the discharger causing such violation and/or notification.

(Ord. 89-0101 § 40, 1989.)

20.36.370 - Disconnection following permit revocation.

If a permit is revoked, the county engineer may disconnect from the public sewer any industrial connection sewer which was connected pursuant to such permit.

(Ord. 7519 § 3, 1959: Ord. 6130 Part 6 Ch. 1 § 6103.5, 1952.)

20.36.380 - Pretreatment—Standards and criteria.

The county engineer may establish uniform minimum standards and criteria for the application of such standards for pretreatment of specific industrial waste discharges. The provision of this section shall not prohibit the county engineer from requiring additional pretreatment to accomplish the objective of Section 20.36.340.

(Ord. 11716 § 52, 1978: Ord. 6130 Part 6 Ch. 1 § 6107.5, 1952.)

20.36.390 - Rainwater diversion systems—Authorized when.

The county engineer may authorize the installation of a rainwater diversion system in lieu of roofing to prevent the discharge of stormwaters to the sewer system where roofing is impractical, in conflict with existing laws or regulations, may create a hazardous or unsafe working condition, or may cause undue hardship on the applicant, providing the county engineer finds that:

A. The applicant has applied for an industrial waste disposal permit and has submitted all plans and specifications of the proposed system.

B. The system provides for continuous 24-hour protection to the public sewer system.

C. The system meets minimum operational and component standards as may be established pursuant to Section 20.36.380; and

D. Pollution of underground or surface waters, nor damage to any streets, gutters, storm drains, channels or any public or private property will not be caused by the diverted storm flows.

(Ord. 11716 § 32, 1978: Ord. 6130 Part 6 Ch. 1 § 6111, 1952.)

20.36.400 - Deposit of certain substances prohibited.

A person shall not place, throw or deposit, or cause or permit to be placed, thrown or deposited in any public sewer or main-line sewer any dead animal, offal, or garbage, fish, fruit or vegetable waste, or other solid matters, or materials or obstructions of any kind whatever of such nature as shall clog, obstruct or fill such sewer, or which shall interfere with or prevent the effective use or operation thereof. A person shall not cause or permit to be deposited or discharged into any such sewer any water or sewage, or liquid waste of any kind containing chemicals, greases, oils, tars or other matters in solution or suspension, which may clog, obstruct or fill the same, or which may in any way damage or interfere with or prevent the effective use thereof, or which may necessitate or require frequent repair, cleaning out or flushing of such sewer to render the same operative, or which may obstruct or cause an unwarranted increase in the cost of treatment of the sewage, or which may introduce into a POTW any pollutant(s) which cause pass through or interference. Stormwater runoff shall not be discharged into a sanitary sewer.

(Ord. 89-0101 § 41, 1989: Ord. 83-0092 § 11, 1983: Ord. 6130 Part 6 Ch. 1 § 6108, 1952.)

20.36.402 - National Categorical Pretreatment Standards (NCPS)—Compliance.

Upon the promulgation of mandatory NCPS for any industrial subcategory, the NCPS, if more restrictive than limitations imposed by this division, shall apply. The director may impose a phased compliance schedule to insure that affected industries meet the NCPS. Failure to meet the phased compliance schedule may result in permit suspension or revocation. Those dischargers subject to NCPS shall comply with all reporting requirements in accordance with the General Pretreatment Regulations for Existing and New Sources of Pollution (Title 40, Code of Federal Regulations, Part 403). Facilities subject to this division and regulated by joint permits issued in conjunction with other agencies pursuant to Section 20.28.090 may meet the requirements of this section as set forth in such joint permit and by furnishing such evidence of compliance as may be required by the director.

(Ord. 89-0101 § 42, 1989.)

20.36.404 - Compliance with local limits.

No person shall introduce or cause to be introduced wastewater to the sewer system or a POTW that exceeds specific local limits which have been developed by the receiving POTW.

Said local limits shall not apply where more restrictive limitations are imposed by permit or National Categorical Pretreatment Standards.

(Ord. 89-0101 § 43, 1989.)

20.36.410 - Toxic substances.

All toxic chemical substances shall be retained or rendered acceptable before discharge into the public sewer.

(Ord. 6130 Part 6 Ch. 1 § 6114, 1952.)

20.36.420 - Control of pH.

No person shall discharge acids or alkali materials into the public sewer until the Ph has been controlled to a level not less than 6.0 nor at or higher than a level which the director finds excessive. No discharge shall have any corrosive or detrimental characteristics that may cause injury to wastewater treatment, inspection or maintenance personnel or may cause damage to structures, equipment or other physical facilities of the public sewer system.

(Ord. 89-0101 § 44, 1989: Ord. 6130 Part 6 Ch. 1 § 6113, 1952.)

20.36.430 - Temperature restrictions.

A person shall not discharge into the public sewer effluent exceeding a temperature of 140 degrees Fahrenheit or which will exceed 104 degrees Fahrenheit at the point of entry into the POTW treatment plant.

(Ord. 89-0101 § 45, 1989: Ord. 11716 § 33, 1978: Ord. 6130 Part 6 Ch. 1 § 6112, 1952.)

20.36.440 - Cooling water.

No uncontaminated cooling water shall be discharged into a public sanitary sewer.

(Ord. 11716 § 31, 1978: Ord. 10020 § 3 (part), 1970: Ord. 6130 Part 6 Ch. 1 § 6109, 1952.)

20.36.450 - Ground garbage.

Garbage resulting from the preparation of food may be discharged into the public sewer (but not into a STEP sewer system unless as septic tank effluent) if ground to a fineness sufficient to pass through a three-eighths-inch screen. Excessive or unnecessarily large quantities of water shall not be used to flush ground garbage into the sewer.

(Ord. 89-0006 § 9, 1989: Ord. 6130 Part 6 Ch. 1 § 6110, 1952.)

Part 4 – OTHER METHODS OF DISPOSAL

20.36.460 - Applicability of Part 4 provisions.

The provisions of this Part 4 shall pertain to the disposal, discharge or deposit of all industrial waste except where such wastes are discharged to a public sewer in accordance with the provisions of Part 3 of this chapter.

(Ord. 11716 § 34, 1978: Ord. 8690 § 3 (part), 1964; Ord. 6130 Part 6 Ch. 2 § 6201, 1952.)

20.36.470 - Depositing or discharging wastes prohibited without permit.

A person shall not maintain a deposit of waste material, or discharge or deposit or cause or suffer to be discharged or deposited, except as otherwise provided in this Division 2, any waste material or effluent in or upon unincorporated territory of the county of Los Angeles, or into streams or bodies of surface or subsurface water, or storm drains, or flood control channels, where the same is deposited upon or may be carried through or upon unincorporated territory of the county without first securing, in the manner provided in this chapter, a permit from the county engineer so to do, and at all times having an unrevoked permit therefor, unless otherwise exempted by the provisions of this chapter.

(Ord. 6130 Part 6 Ch. 2 § 6202, 1952.)

20.36.475 - Maintenance of existing, nonused facility for industrial waste deposit, discharge or storage.

A person shall obtain a permit from the county engineer to maintain an existing but nonused facility designed or formerly used for the deposit, discharge or storage of industrial wastes. The annual inspection fee for such permit shall be the same as that for Inspection Fee Class A.

Exception: Such permit is not required when, to the satisfaction of the county engineer, compliance with the permit cancellation criteria of Section 20.36.220 has been provided.

(Ord. 84-0109 § 9, 1984.)

20.36.480 - Permit—Not required when.

No permit shall be required for the disposal of waste which consists only of domestic sewage into septic tanks, cesspools or seepage pits constructed pursuant to the provisions of the Plumbing Code, as set out at Title 28 of this code.

(Ord. 8690 § 12 (part), 1964: Ord. 6130 Part 6 Ch. 2 § 6203, 1952.)

20.36.490 - Permit—Application—Form and contents.

Any person requiring a permit under the provisions of this Part 4 shall make written application therefor to the county engineer, giving such information as the county engineer may require. The county engineer shall provide printed application forms, indicating thereon the information to be furnished by the applicant. The county engineer may require from the applicant, in addition to the information furnished on the printed form, any additional information including detailed plans and specifications which will enable the county engineer to determine that the proposed discharge or deposit and plan of operation complies with the provisions of this Division 2 and other applicable laws and ordinances.

(Ord. 11716 § 35, 1978: Ord. 10276 § 2, 1971: Ord. 7010 § 1 (part), 1956: Ord. 6130 Part 6 Ch. 2 § 6204, 1952.)

20.36.500 - Permit—Plans required with application when.

A. The county engineer may require that an application for a permit to dispose of industrial waste shall be accompanied by suitable plans showing the proposed method of collection, treatment and disposal, and a permit shall not be issued until said plans or required modification thereof have been checked and approved by the county engineer.

B. The county engineer may submit the application or plans, or both, to any public agency for comment or recommendation.

(Ord. 6541 § 4, 1954: Ord. 6130 Part 6 Ch. 2 § 6205, 1952.)

20.36.510 - Use of public property—Permit required when.

Whenever facilities for the discharge of industrial waste connect to structures, or encroach on the property or rights-of-way owned or controlled by a public agency, the county engineer may either:

A. Require that the applicant obtain a property-use permit, license, easement, or other right to use said properties prior to the issuance of a permit to dispose of industrial waste; or

B. Issue such permit subject to the execution of a property-use permit, license, easement, or other right to use said properties.

(Ord. 6130 Part 6 Ch. 2 § 6206, 1952.)

20.36.520 - Notification of public agencies required.

Whenever an application for permit is filed, the county engineer shall notify the county health officer and such other public agencies as in his opinion may be affected and shall request a prompt reply containing their recommendations. Upon request, he shall secure from the applicant and furnish to the affected department or agency such additional plans or information as it may require, relative to such application.

(Ord. 6130 Part 6 Ch. 2 § 6207, 1952.)

20.36.530 - Investigation by county officers and departments.

Whenever notified that an application for permit has been filed, the county health officer, the county engineer and other county departments affected shall make such investigations as in their opinions are required. The health officer and such other departments shall, within 20 days of notification of the filing of the application, make and file reports of their investigations with the county engineer. Such reports shall narrate all facts found, and shall recommend that the application be denied, or be granted in whole or in part, and if granted, subject to what conditions, if any. Such report may also disclaim interest in the application.

(Ord. 6130 Part 6 Ch. 2 § 6208, 1952.)

20.36.540 - Deposits creating menace to public health—Notice requirements.

When the county health officer finds that industrial waste or effluent, or any other material, is being discharged or deposited in such manner as to create a menace to the public health, he may serve notice of violation upon the person owning or operating the premises, describing the conditions, and requiring the prompt correction thereof and shall so notify the county engineer.

(Ord. 6130 Part 6 Ch. 2 § 6209, 1952.)

20.36.550 - Permit—Issuance conditions.

The county engineer shall issue a permit as required by this Division 2 if he determines that all of the following conditions have been met:

A. All fees or deposits hereinafter required have been paid.

B. Recommendations and conditions of the various county departments, as contained in their reports, if any, have been met. The county engineer may waive this provision except as to the requirements of the county health officer.

C. The material to be discharged or deposited does not or will not, in the opinion of the county health officer, constitute a potential public nuisance or menace to the public health and safety, and will not violate other provisions of the Health and Safety Code of the state of California.

D. The material to be discharged or deposited does not or will not involve disposal of any toxic materials or chemicals in such manner as to cause pollution of any stream, watercourse, lake, or other body of water, or underground or surface water storage reservoir, either natural or artificial.

E. The material to be discharged or deposited does not or will not damage or adversely affect any storm drain, channel, or any public or private property.

F. Under existing circumstances and conditions it is necessary and reasonable so to dispose of such waste matter.

(Ord. 6130 Part 6 Ch. 2 § 6210, 1952.)

Part 5 - TREATMENT PLANTS AND FACILITIES

20.36.560 - Installation—Required when.

Industrial waste treatment plants or facilities shall be installed whenever the county engineer shall find as a fact that such facilities are required to safeguard the public health; prevent pollution of streams or bodies of surface or underground water; prevent pollution of water wells or storage reservoirs, either natural or artificial; prevent damage or increased maintenance costs in the sewerage system; prevent damage to public or private property;

prevent a public nuisance; or to comply with applicable regulations of any other public agency.

(Ord. 6130 Part 6 Ch. 5 § 6501, 1952.)

20.36.570 - Pretreatment—Standards and criteria.

The county engineer may establish uniform minimum standards and criteria for the application of such standards for pretreatment of specific industrial waste discharges. The provisions of this section shall not prohibit the county engineer from requiring additional pretreatment to accomplish the objective of Section 20.36.340 of this chapter.

(Ord. 11716 § 49, 1978: Ord. 6130 Part 6 Ch. 5 § 6501.5, 1952.)

20.36.580 - Facilities not required when.

Installation of industrial waste treatment facilities may not be required if the county engineer determines that:

A. The waste is prohibited for discharge to the available systems by this Division 2 or other applicable ordinances or regulations.

B. The affected industry has guaranteed to separately dispose of any objectionable waste to legal points of disposal.

C. Adequate facilities are to be provided for the collection and containment of such wastes, and that provisions have been made to prevent intentional or accidental discharge of such wastes to the sewer system, ground surface, surface or underground water supplies, rivers, channels, storm drains, public streets or gutters.

D. An application for industrial waste disposal permit has been filed in accordance with Part 4 of this chapter; and

E. All fees required by this Division 2 have been paid.

(Ord. 11716 § 50, 1978: Ord. 6130 Part 6 Ch. 5 § 6502, 1952.)

20.36.590 - Installation—Access of inspection and maintenance.

Interceptors or other industrial waste treatment plants or facilities shall be so installed and constructed that they shall be at all times easily accessible for inspection and maintenance.

(Ord. 6130 Part 6 Ch. 5 § 6503, 1952.)

20.36.600 - Separation of domestic and industrial wastes.

All domestic wastes from restrooms, showers, drinking fountains, etc., shall be kept separate from all industrial wastes until the industrial wastes have passed through any required pretreatment facilities.

(Ord. 11716 § 51, 1978: Ord. 6130 Part 6 Ch. 5 § 6503.5, 1952.)

20.36.610 - Operation and maintenance.

All industrial waste treatment plants or facilities or water pollution control plants, and all appurtenances thereto, existing as of October 23, 1964, or hereafter constructed under jurisdiction of this Division 2 shall be maintained, by the owner or person having jurisdiction of the property affected, in good operating condition and in a safe and sanitary condition at all times. All devices and safeguards which are required by this Division 2 for the operation thereof, and all records of such operation, shall be maintained in good order.

(Ord. 8690 § 3 (part), 1964; Ord. 6130 Part 6 Ch. 5 § 6504, 1952.)

20.36.620 - Inspection and testing.

The county engineer shall make tests of industrial wastes, periodic inspections of water pollution control plants and industrial waste treatment plants or facilities to determine whether such treatment plants or facilities are maintained in accordance with the requirements of this Division 2. The county engineer shall also make periodic tests on samples of sewage, industrial waste or effluents obtained at the point of discharge or deposit to determine whether such discharges or deposits are made in accordance with the provisions of this division.

(Ord. 8690 §§ 3 (part) and 12 (part), 1964; Ord. 6130 Part 6 Ch. 5 § 6505, 1952.)

20.36.630 - Right of entry for inspection authorized when.

A. The county engineer shall be permitted at all reasonable hours to inspect water pollution control plants and industrial waste treatment plants or facilities, and to enter and inspect the place, enclosure or structure where industrial wastes or effluent are discharged or deposited.

B. A person shall not refuse to permit, and shall not hinder or obstruct in any way, any reasonable inspection or investigation of such treatment plant or facilities or deposits or discharges by the county engineer.

(Ord. 8690 § 3 (part), 1964; Ord. 6130 Part 6 Ch. 5 § 6506, 1952.)

20.36.640 - Owner's safety regulations—Compliance by inspector.

Inspector shall comply with any special safety regulations brought to his attention by the owner or operator.

(Ord. 6130 Part 6 Ch. 5 § 6507, 1952.)

20.36.650 - Test manholes or other structures.

The county engineer may require the installation of a test manhole or other structure through which all industrial waste shall pass. Said structure shall be so designed that flows may be measured, and samples readily obtained therefrom.

(Ord. 6130 Part 6 Ch. 5 § 6508, 1952.)

The following relates to sewer easements:

CITY OF LA VERNE MUNICIPAL CODE – Title 16 Subdivisions. Article 1 – Design Standards
Chapter 16.28 .- DESIGN AND IMPROVEMENTS

§ 16.28.180 Easements—Underground facilities. Sewer lines and underground public utilities shall not be on back or side lot easements unless specifically approved by the city. (Ord. 858 § 3, 1994)

Section 4 - Operations and Maintenance Program

Collection System Maps

Details on Collection System Maps are included electronically on the City's GIS database with its most recent data as of 2024. State Regulators can contact the Utilities Manager to be provided access to updated information.

Prioritized Preventive Maintenance

As discussed in the City's 2022 Wastewater Master Plan (WWMP) (Attachment C), the City employs the use of hydro jetting and CCTV inspections as its primary maintenance program. City staff attempts to conduct maintenance on pipe segments at least once every three years as noted in Section 2.4 of the 2022 WWMP.

Rehabilitation and Replacement Program

Future project prioritization is outlined in the 2022 WWMP.

Training

Provide training on a regular basis for staff in sanitary sewer system operations and maintenance and require contractors to be appropriately trained.

Supervisor

The City is working to require wastewater staff, and Technical Services positions to maintain California Water Environment Association Collection Systems certification relevant to their job classification. All field staff are certified at or above the City-required level.

The City cross-trains all of the field staff to become proficient at both maintenance and construction work processes for collection system operations. Field personnel periodically rotate between maintenance and repair crews, which allows for on-the-job training on a consistent basis. Based on the size of our system, and the ratio of dedicated field positions, cross-trained staff is imperative to achieve consistent success on the maintenance.

Approach to training of overflow response involves preparation on three levels: *Technical Skills, Safety,* and *Procedural Skills*. Training is conducted bi-annually and begins with a solid understanding of what causes sewer overflows, such as:

- Foreign matter blocking flow in the sewer mains.
- System failures.
- Storm water infiltration.

The safety of those responding to sewer overflows is critical. Biological risks and possible exposure to harmful pathogens and toxic gases are addressed as well as the importance of staying safe by using personal protective equipment at all times when responding to SSO's. Respondents are trained to follow emergency response protocols including documentation

of time called, first on scene, severity of overflow, and securing the affected area using traffic control devices.

In addition to the above training, crew members are trained to identify and clear blockages, damming techniques, flow diversion techniques to minimize damage to the environment and nearby bodies of water as well as the safe and proper use of specialized equipment including a city owned Vactor truck and a closed circuit tv truck.

Communication is key to the success of minimizing overflows. During the trainings communication is stressed to include not only communication between each other at the overflow site but also in communicating events on records that need to be filed with governing agencies and the public as necessary.

Training concludes with post incident evaluation. Ensuring that all required information is reported, and that any response concludes with assurance of clean and safe area where overflow occurred, and that all equipment used is properly cleaned and placed where it belongs.

Training on use of new equipment or for newly established procedures is provided prior to the equipment being put into service and/or procedures being implemented. Additionally, each time crew changes occur, all maintenance workers first review the standard operating practices associated with the crew they are assigned.

Contingency Equipment and Replacement Inventory

Identify Equipment and Critical Replacement Parts

Provide equipment and replacement part inventories, including identification of critical replacement parts.

The City maintains critical replacement parts for its lift stations. Included, but not limited to, items such as; force main pipe and mechanical repair couplings for each size/type of pipe; transducers; relays; and fuses. All are clearly labeled for the appropriate application. Audits of critical parts are periodically performed.

The City's lift stations are equipped with automatic transfer switches to allow for quick connection of emergency stand-by generators. The lift stations can also be de-watered using one of the City's two (2) combination hydro-vacuum units. In addition to the Vactor Trucks the City is equipped with the following items to ensure SSO's are maintained and kept from entering the water ways:

1. Rubber Gutter Guard mats to block storm drain opening(s).
2. Sandbags.
3. Chlorine Disinfectant.
4. Traffic Control equipment, delineators, cones, and caution tape.
5. Portable light tower.
6. Portable generator.

7. Portable Pump.

The City contracts with Schwalm Generation to provide 24-hour service for lift station control and electrical problems that City staff cannot immediately resolve. On an annual basis generators receive three minor inspections and one major inspection per year, the major inspection includes changing of fluids. In addition to the annual maintenance, on a bi-annual basis load testing is completed on the units.

Table 4-1 Backup Generators

Tank ID	Unit ID	Address	Year	Make
City Yard	1201	Portable Generator Trailer (Smaller One)	2016	Onan/Cummins
Street	1307	959 Puddingstone Drive, La Verne 91750; Franklin Lift Station	2004	Onan/Cummins
Street	1308	2525 White Avenue, La Verne 91750, Booster	2004	Onan/Cummins

Section 5 - Design and Performance Provisions

The City utilizes the 2024 Greenbook: Standard Specifications for Public Works Construction as well as documents in Attachment B including all CAD Standards and additional information. The City's Public Works Inspector typically handles right-of-way sewer inspections. For on-site private systems, the City's contracted general engineering firm is responsible for inspections.

Section 6 - Sewer Overflow Emergency Response Plan

I - General

The Sewer Overflow Response Plan (SORP) is designed to ensure that every report of a confirmed sewage overflow is immediately dispatched to the appropriate crews so that the effects of the overflow can be minimized with respect to impacts to public health and adverse effects on beneficial uses and water quality of surface waters and customer service. The SORP further includes provisions to ensure safety pursuant to the directions provided by the County of Los Angeles Health Care Agency and the State Regional Water Quality Board and that notification and reporting is made to the appropriate local, state, and federal authorities. For purposes of this SORP, "confirmed sewage spill" is also sometimes referred to as "sewer overflow," "overflow," or "SSO." The effective date of this plan is December 16, 2024.

A. Goals

The City's goals with respect to responding to SSOs are:

- Work safely.
- Respond quickly to minimize the volume of the SSO.
- Eliminate the cause of the SSO.
- Prevent sewage system overflows or leaks from entering the storm drain system or receiving waters to the maximum extent practicable.
- Contain the spilled wastewater to the extent feasible.
- Minimize public contact with the spilled wastewater.
- Mitigate the impact of the SSO.
- Meet the regulatory reporting requirements.
- Evaluate the causes of failure related to certain SSO's.
- Revise response procedures resulting from the debrief and failure analysis of certain SSOs

B. Objectives

The primary objectives of the SORP are to protect public health and the environment, satisfy regulatory agencies, and waste discharge permit conditions, which address procedures for managing sewer overflows, and minimize risk of enforcement actions against the City of La Verne.

Additional objectives of the SORP are as follows:

- Provide appropriate customer service;
- Protect wastewater treatment plant and collection system personnel;
- Protect the collection system, wastewater treatment facilities, and all appurtenances; and
- Protect private and public property beyond the collection and treatment facilities.

This plan shall not supersede existing emergency plans or standard operating procedures (SOPs) unless directed by the Director of Public Works.

C. Organization of Plan

The key elements of the SORP are addressed individually as follows:

- Overflow Response Procedure
- Public Advisory Procedure
- Regulatory Agency Notification Procedure
- Media Notification Procedure
- Distribution and Maintenance of SORP

D. SSO Tracking

A procedure to track the frequency and location of SSOs has been prepared under separate cover. Depending on the completeness of information resulting from implementation of the procedure, it could support the Water Distribution/Sewer Supervisor or the delegated representative's decision process for directing the correction of overflows and prioritizing maintenance activities.

E. Summary of Notification, Monitoring and Reporting Requirements for Spills (per Attachment E1 and E2 of the General Order 2022-0103-DWQ)

As required in Attachment E 1 of the General Order 2022-0103-DWQ, there are four spill categories as summarized below.

Failure to comply with the notification, monitoring, reporting and recordkeeping requirements in this General Order may subject the Enrollee to civil liabilities of up to $10,000 a day per violation pursuant to Water Code section 13385; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement.

F. Spill Category Chart

On the following page, the chart outlines the spill category definitions which correlate with the notification requirements outlined in Section 3.1 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of State Water Resources Control Board's Waste Discharge Requirements (WDR) Order No. WQ 2022-0103-DWQ.

Spill Category Chart

Spill Category	Description of Spill
Category 1	A **Category 1 spill** is a spill of any volume of sewage from or caused by a sanitary sewer system regulated under this General Order that results in a discharge to: • A surface water, including a surface water body that contains no flow or volume of water; or • A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly. Any spill volume not recovered from a drainage conveyance system is considered a discharge to surface water, unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility. A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the Enrollee shall report all Category 1 spills per section 3.1 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.
Category 2	A **Category 2 spill** is a spill of 1,000 gallons or greater, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water. A spill of 1,000 gallons or greater that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system, is a Category 2 spill.
Category 3	A **Category 3 spill** is a spill of equal to or greater than 50 gallons and less than 1,000 gallons, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water. A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.
Category 4	A **Category 4 spill** is a spill of less than 50 gallons, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface.

II - Overflow Response Procedure

The Overflow Response Procedure presents a strategy for the City of La Verne Public Works staff to mobilize labor, materials, tools and equipment to correct or repair any condition which may cause or contribute to an un-permitted discharge. The plan considers a wide range of potential system failures that could create an overflow to surface waters, land, or buildings.

A. Receipt of Information Regarding an SSO

An overflow may be detected by system employees or by others. The City of La Verne Police Dispatch and public works department water division is primarily responsible for receiving phone calls from the public of possible sewer overflows from the wastewater collection system.

Generally, telephone calls from the public reporting possible sewer overflows are received by telephone operators at the public works department customer service staff the Police and Fire Dispatch emergency phone line is staffed 24 hours per day, every day of the year. During regular work hours, Monday through Thursday customer service staff will receive calls. The sewer system operator(s) have a program for educating the public to report overflows they observe and the phone number to be called.

1. The telephone operator should obtain all relevant information available regarding the overflow including:
    a. Time and date call was received.
    b. Specific location.
    c. Description of problem.
    d. Time overflow was noticed by the caller.
    e. Caller's name and phone number.
    f. Observations of the caller (e.g., odor, duration, back or front of property); and
    g. Other relevant information that will enable the responding investigator and crews, if required, to quickly locate, assess and stop the overflow.

    The telephone operator then records the overflow information and creates a service action Form for assignment to the public works staff.
2. Pump station failures are monitored and received by the public Works department at the water production facility. The water division staff on duty shall immediately convey all information to water division leader worker or supervisor to initiate the investigation.
3. Sewer overflows detected by any personnel in the course of their normal duties shall be reported immediately to the water division lead worker. Dispatching personnel should record all relevant overflow information and dispatch a sewer investigator and additional response crews, as needed.
4. A water division lead worker shall confirm the overflow. Until verified, the report of a possible spill will not be referred to as a "sewer overflow."

A California Integrated Water Quality System (CIWQS) SSO form should be completed by the Water/ Sewer maintenance supervisor within 24 hours of the sewer investigator's confirmation. This includes updating and signing the final overflow report.

B. Dispatch of Appropriate Crews to Site of Sanitary Sewer Overflow

Failure of any element within the wastewater collection system that threatens to cause or causes an SSO will trigger an immediate response to isolate and correct the problem. Crews and equipment shall be available to respond to any SSO locations. Crews will be dispatched to any site of a reported SSO immediately. Also, additional maintenance personnel shall be "on call" should extra crews be needed.

1. Dispatching Crews
   - Dispatchers should receive notification of sewer overflows as outlined in section A, "Receipt of Information Regarding an SO" and dispatch a sewer representative and/or the appropriate crews and resources as required.
   - Dispatchers shall notify the appropriate manager or supervisor by two-way radio or telephones regarding sewer overflows and field crew locations.

2. Crew Instructions and Work Orders
   - Responding crews should be dispatched by two-way radio or telephone. Public works staff should receive instructions from water division lead worker or their supervisor regarding appropriate crews, materials, supplies, and equipment needed.
   - Dispatchers shall ensure that the entire message has been received and acknowledged by the crews who were dispatched. All standard communications procedures should be followed. All employees being dispatched to the site of an SSO shall proceed immediately to the site of the overflow. Any delays or conflicts in assignments must be immediately reported to the supervisor for resolution.
   - Response crews should in all cases report their findings, including possible damage to private and public property, to the water division lead worker or supervisor immediately upon making their investigation. If the lead worker or supervisor has not received findings from the field crew within 60 minutes the lead worker or supervisor shall contact the response crew to determine the status of the investigation.

3. Additional Resources
   - The water division lead worker should receive and shall convey to appropriate party's requests for additional personnel, material,

supplies, and equipment from crews working at the site of a sewer overflow.

4. Preliminary Assessment of Damage to Private and Public Property
   - The focus is to resolve the problem. The response crews should use discretion in assisting the property owner/occupant as reasonably as they can. Be aware that the City of La Verne could face increased liability for any further damages inflicted to private property during such assistance. The response crew shall enter private property for purposes of assessing damage. Appropriate still photographs and video footage, if possible, should be taken of the outdoor area of the sewer overflow and impacted area in order to thoroughly document the nature and extent of impacts. Available photographs are to be forwarded to the public works department for filing with the overflow report.

5. Field Supervision and Inspection
   - The supervisor of the lead worker who confirmed the sewer overflow, should visit the site of the overflow, if possible, to ensure that provisions of this overflow response plan and other directives are met.
   - The supervisor of the sewer investigator is responsible for confirming that the Overflow Report was provided to the Public Works Department within the specified time.

6. Coordination with Hazardous Material Response
   - Upon arrival at the scene of a sewer overflow, should a suspicious substance (e.g., oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor (e.g., gasoline) not common to the sewer system be detected, the sewer investigator or response crew should immediately contact the City of La Verne Fire Department before taking further action.
   - Should the Fire Department Battalion Chief supervisor determine the need to alert the hazardous material response team, the sewer investigator or crew shall await the arrival of the Haz-Mat team to take over the scene. **Remember that any vehicle engine, portable pump or open flame (e.g., cigarette lighter) can provide the ignition for an explosion or fire should flammable fluids or vapors be present. Keep a safe distance and observe caution until assistance arrives.**
   - Upon arrival of the Haz-Mat team, the sewer lead worker will take direction from the person with the lead authority of that team. Only when that authority determines it is safe and appropriate for the sewer investigator and crew to proceed can they then proceed under the SORP with the containment, clean-up activities, and correction.

C. Overflow Correction, Containment, and Clean-Up

Sewer overflows (SO) of various volumes occur from time to time in spite of concerted prevention efforts. Spills may result from blocked sewers, pipe failures, or mechanical malfunctions among other natural or man- made causes. The City of La Verne public works staff is constantly on alert and should be ready to respond upon notification and confirmation of an overflow.

This section describes specific actions to be performed by the crews during an SO.

The objectives of these actions are:

- To protect public health, environment and property from sewage overflows and restore surrounding area back to normal as soon as possible.
- To establish perimeters and control zones with appropriate traffic cones and barricades, vehicles or use of natural topography (e.g., hills, berms);
- To promptly notify the regulatory agency's communication center of preliminary overflow information and potential impacts.
- To contain the sewer overflow to the maximum extent possible including preventing the discharge of sewage into surface waters; and
- To minimize The City of La Verne's exposure to any regulatory agency penalties and fines.

Under most circumstances, The City of La Verne public works department will handle all response actions with its own maintenance forces. They have the skills and experience to respond rapidly and in the most appropriate manner. An important issue with respect to an emergency response is to ensure that the temporary actions necessary to divert flows and repair the problem do not produce a problem elsewhere in the system. For example, repair of a force main could require the temporary shutdown of the pump station and diversion of the flow at an upstream location. If the closure is not handled properly, sewage system back-ups may create other overflows.

Circumstances may arise when the city could benefit from the support of private sector construction assistance. This may be true in the case of large diameter pipes buried to depths requiring sheet piling and dewatering should excavation be required. The City of La Verne may also choose to use private contractors for open excavation operations that might exceed one day to complete.

1. Responsibilities of Response Crew Upon Arrival
   It is the responsibility of the first personnel who arrive at the site of a sewer overflow to protect the health and safety of the public by mitigating the impact of the overflow to the extent possible.

Should the overflow not be the responsibility of the City of La Verne, but there is imminent danger to public health, public or private property, or to the quality of waters of the U. S., then prudent emergency action should be taken until the responsible party assumes responsibility and provides actions. Upon arrival at an SSO, the response crew should do the following:

- Determine the cause of the overflow, e.g. sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc.;
- Identify and request, if necessary, assistance or additional resources to correct the overflow or to assist in the determine of its cause;
- Determine if private property is impacted. If yes, the dispatcher should be informed so the County of Los Angeles Health care agency will be advised.

  Los Angeles County Public Health Care Agency
  888.700.9995 (Hotline Weekday, Monday – Friday 8am to 5pm)
  Dial 211 (Weekends/After Hours)

  Los Angeles Regional Water Quality Control Board
  213.576.6600 (24-Hour)

  California Office of Emergency Services (OES)
  800.852.7550 (24-Hour Reporting)

- Take immediate steps to stop the overflow, e.g. relieve pipeline blockage, manually operate pump station controls, repair pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off of private property into the public right-of-way); and
- Request additional personnel, materials, supplies, or equipment that will expedite and minimize the impact of the overflow.

2. Initial Measures for Containment

   Initiate measures to contain the overflowing sewage and recover where possible sewage which has already been discharged, minimizing impact to public health or the environment.

   - Determine the immediate destination of the overflow, e.g. storm drain, street curb gutter, body of water, creek bed, etc.
   - Identify and request the necessary materials (poly sheeting, rubberized portable berms and sandbags) and equipment to contain or isolate the overflow, if not readily available; and
   - Take immediate steps to contain the overflow, e.g., block or bag storm drains, recover through vacuum truck, or other portable vacuums divert into downstream manhole, etc.

3. Additional Measures Under Potentially Prolonged Overflow Conditions

   In the event of a prolonged sewer line blockage or a sewer line collapse, a determination should be made to set up a portable by-pass pumping operation around the obstruction.

- Appropriate measures shall be taken to determine the proper size and number of pumps required to effectively handle the sewage flow.
- Continuous or periodic monitoring of the by-pass pumping operation shall be implemented as required.
- Regulatory agency issues shall be addressed in conjunction with emergency repairs.

4. Cleanup

Sewer overflow sites are to be thoroughly cleaned after an overflow. No readily identified residue (e.g., sewage solids, papers, rags, plastics, rubber products) is to remain.

- Where practical, the area is to be thoroughly flushed and cleaned of any sewage or wash-down water. Solids and debris are to be flushed, swept, raked, picked-up, and transported for proper disposal. (sewage treatment plant). The facility located at Humane Way in Pomona should accept these sewer byproducts.
- The overflow site is to be secured to prevent contact by members of the public until the site has been thoroughly cleaned. Posting if required should be undertaken pursuant to Section IV.
- Where appropriate, the overflow site is to be disinfected and deodorized.
- Where sewage has resulted in ponding, the pond should be pumped dry, and the residue disposed in accordance with applicable regulations and policies.
- If a ponded area contains sewage which cannot be pumped dry, it may be treated with bleach. If sewage has discharged into a body of water that may contain fish or other aquatic life, bleach or other appropriate disinfectant should not be applied and the (state fish and wildlife agency) should be contacted for specific instructions.
- Use of portable aerators may be required where complete recovery of sewage is not practical and where severe oxygen depletion in existing surface water is expected.

III – Sewer Backup Protocol

A. Immediate Notification

Receive a report of a potential sewer mainline backup from residents, a monitoring system, or routine inspections. Verify the details: Get the exact location, symptoms (e.g., multiple home backups, manhole overflows), and any historical information about the area.

B. Dispatch to the Location

Dispatch a crew with the necessary equipment, including sandbags, sewer jetting truck, and personal protective equipment (PPE). City workers should wear appropriate PPE, including gloves, safety glasses, and protective clothing.

C. Assess the Situation

Locate the nearest manhole to access the mainline. Inspect for visible signs of a backup, such as wastewater overflowing from manholes or slow drainage in surrounding areas. Open the manhole and assess the water levels. A high-water level in the manhole often indicates a blockage downstream.

- **Isolate the Problem Area**
  - Conduct an inspection of nearby manholes and lines to isolate the location of the blockage. This may involve opening several manholes upstream and downstream. Check flow rates: If the flow in the line is slow or non-existent, there is likely a blockage.

- **Clear the Blockage**
  - Deploy the appropriate equipment based on the cause and location of the blockage:
  - Hydro jetting truck: Uses high-pressure water jets to clear blockages caused by grease, debris, or other
  - Run the equipment through the affected sewer mainline, ensuring that the blockage is dislodged, and the flow is restored.

- **Inspect the Sewer Line**
  - Once the blockage is cleared, inspect the sewer line using a sewer camera to check for damage, breaks, or additional obstructions. If damage is found, document the location and extent of the damage for further repair.

- **Document the Work**
  - Document all actions taken: Date, time, location, cause of the blockage, equipment used, and results of the inspection. Include photographs, video footage from the sewer camera, and flow measurements before and after the blockage is cleared.
- **Disinfect the Area**

- If there was an overflow, city workers should ensure the area around the manhole or public spaces is cleaned and disinfected to prevent contamination. Use disinfectants to clean any areas that were contaminated during the spill.

- **Report to Supervisors**
  - Submit a report to the supervisor or municipal department with a detailed account of the incident, including the cause of the blockage, actions taken, and recommendations for further action. If any environmental damage occurred, a formal report may need to be filed with the appropriate environmental or regulatory agencies.

D. Monitor the System

Set up ongoing monitoring in the area to ensure that the backup doesn't recur. Consider adding the location to a list for regular inspections if it's prone to issues (e.g., root intrusion, grease buildup, or poor pipe condition).

E. Sewer Emergency Protocol Training

Set up a Training session with the water department and any new employees going over all the procedures. This will take place a minimum of two times per calendar year (every six months). Employees are also trained in the proper use of the following equipment:

- Sewer Jetting Trucks
- Sewer Camera Inspection Equipment
- PPE (Personal Protective Equipment)
- Manhole Hooks
- Vacuum Trucks (for overflows)
-Rubber Gutter Guard mats to block storm drain opening(s).
-Sandbags.
-Chlorine Disinfectant.
-Traffic Control equipment, delineators, cones, and caution tape.
-Portable light tower.
-Portable generator.
-Portable Pump.

F. Formal Report Submittal

When an event is significant enough, an Overflow Report shall be completed by the public works department water/sewer supervisor. Information regarding the sewer overflow should include the following:

- Indication that the sewage overflow had reached surface waters, i.e., all overflows where sewage was observed running to surface waters, or there was obvious indication (e.g. sewage residue) that sewage flowed to surface waters; and

- Indication that the sewage overflow had not reached surface waters. Guidance in characterizing these overflows to include:

    a. Sewage overflows to covered storm drains (with no public access) where personnel verify, by inspection, that the entire volume is contained in a sump or impoundment and where complete clean-up occurs leaving no residue.

    b. Preplanned or emergency maintenance jobs involving bypass pumping if access by the public to a bypass channel is restricted and subsequent complete clean-up occurs leaving no residue {Any preplanned bypass under these circumstances will not be considered an overflow.); and

    c. Overflows where observation or on-site evidence clearly indicates all sewage was retained on land and did not reach a surface water and where complete cleanup occurs leaving no residue.

- Determination of the start time of the sewer overflow by one of the following methods:

    a. Date and time information received and/or reported to have begun and later substantiated by a sewer investigator or response crew;

    b. Visual observation; or

    c. Pump station and lift station flow charts and other recorded data.

- Determination of the stop time of the sewer overflow by one of the following methods:

    a. When the blockage is cleared or flow is controlled or contained; or

    b. The arrival time of the sewer investigator or response crew, if the overflow stopped between the time it was reported and the time of arrival.

- Visual observations

An estimation of the rate of sewer overflow in gallons per minute (GPM) by one of the following criteria:

    a. Direct observations of the overflow; or

    b. Measurement of actual overflow from the sewer main.

- Determination of the volume of the sewer overflow:

a. When the rate of overflow is known, multiply the duration of the overflow by the overflow rate; or

b. When the rate of overflow is not known, investigate the surrounding area for evidence of ponding or other indications of overflow volume.

- Photographs of the event, when possible.
    - Assessment of any damage to the exterior areas of public/private property. Personnel shall enter private property for purposes of estimating damage to structures, floor and wall coverings, and personal property.

IV - Public Advisory Procedure

This section describes the actions the Public Works Department should take, in cooperation with the Los Angeles County Health Department to limit public access to areas potentially impacted by unpermitted discharges of pollutants to surface water bodies from the wastewater collection system.

A. Temporary Signage

The Los Angeles County Health Department/Department of Fish and Game/The State Department of Water Resources has primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces that result from uncontrolled wastewater discharges from its facilities. The postings do not necessarily prohibit use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination.

B. Other Public Notification

Should the posting of surface water bodies or ground surfaces subjected to a sewer overflow be deemed necessary by the Los Angeles County Health Care Agency, he/she shall also determine the need for further public notification through the use of pre-scripted notices made available to the printed or electronic news media for immediate publication or airing, or by other measures (e.g., front door hangers).

V - Regulatory Agency Notification Plan

The Regulatory Agency Notification Plan (applies to spills on La Verne's collection system) establishes procedures, which the City of La Verne in conjunction with the Los Angeles County Health Care Agency shall follow to provide formal notice to the Regional Board as necessary, in the event of SSO. The reporting criteria below explain to whom various forms of notification should be made, and lists agencies/individuals to be contacted.

Agency notifications will be performed in parallel with other internal notifications. The procedures for providing notification to the media of an SSO is presented in Media

Notification Procedure. Internal notification and mobilization of personnel are detailed in Overflow Response Procedure.

Using data supplied during the verification process and updates from the response crew, the public works department water/sewer supervisor shall prepare initial and final overflow reports. This report shall be made available to those desiring additional information or written confirmation.

Written notification in a "hard copy" version should be made within 5 working days. The public works department water/sewer supervisor shall be responsible for meeting the 24 - hour oral or fax notification requirement. The water/sewer supervisor will prepare written notification to the appropriate regulatory agencies and others of any confirmed overflows. The water/sewer supervisor shall sign these notifications.

A. Immediate Notification

The Water Supervisor should notify the appropriate agency representatives based on notification guidelines outlined in Attachment E2 to the General Order and keep them abreast of response actions and final corrective actions.

These primary agencies must be notified based on the guidelines as soon as two (2) hours dependent upon the spill volume and type, after an overflow is confirmed. The initial and any updated overflow report should be sent to the appropriate agency based on State Order guidelines:

Los Angeles County Public Health Care Agency
888.700.995 (Hotline Weekday, Monday – Friday 8am to 5pm)
Dial 211 (Weekends/After Hours)

Los Angeles Regional Water Quality Control Board
213.576.6600 (24-Hour)

California Office of Emergency Services (OES)
800.852.7550 (24-Hour Reporting)

B. Secondary Notification

After those parties identified in Section A. Immediate Notification have been contacted, Public Works Water/Sewer Supervisor shall contact other agencies, as necessary, as well as other interested and possibly impacted parties.

VI - Media Notification Procedure

When an overflow has been confirmed and is a threat to public health, the following actions should be taken, if necessary, to notify the media:

A. Sewer investigator or response crew verifies overflow and reports back to the Public Works Water Supervisor.

B. The Utilities Manager or Public Works Director informs the City Manager and the Public Information Office [PIO] – Sr Management Analyst in City Manager's Office. The PIO shall be the "first-line" of response to the media for any overflow.

C. After hours and weekend sewer overflows are reported to the Public Works Director, City Manager and the PIO.

D. Calls received by the dispatcher from the media at any time are referred to the PIO.

E. The following positions are authorized to be interviewed by the media and are the designated spokespersons for sewer issues that require media contact:

PIO (Sr. Management Analyst – City Manager's Office): 909-451-8161

Public Works Director: 909-596-8751

Emergency Public Information Checklist

Below are the actions to be taken by the Public Information Office. The actions are categorized according to organizational sections and emergency periods and phases. The checklist is appropriate for response to all major disasters and emergencies.

Public Information Office Responsibilities

- ☐ Work with Emergency Services Director to supervise all operations of release of public information.
- ☐ Review all information for clarity and accuracy. Obtain approval of Emergency Services Director or designee before release to the public.
- ☐ Provide sufficient staffing to handle incoming phone calls and to gather status information.
- ☐ Ensure that official spokespersons are thoroughly briefed about all aspects of the emergency situation.
- ☐ Keep the Emergency Services Director informed of all actions taken or planned.

Normal Preparedness Phase

- ☐ Ensure that response personnel are aware of the need to promptly inform staff of all response actions taken during emergencies.
- ☐ Maintain Media Contact lists. Share details of the plan with local media representatives and be specific about their responsibilities under this plan.
- ☐ Determine media accreditation and visitor control procedures in coordination with fire/law authorities and the Emergency Services Director.
- ☐ Maintain a telephone contact list of Public Information Officers in other jurisdictions and at other government levels.
- ☐ Ensure that all agencies within the jurisdiction are aware that they must coordinate release of emergency information through the Public Information Officer.
- ☐ Prepare generalized survival and self-help information for each potential hazard.

Pre-Impact Phase

- ☐ Fully mobilize the Public Information Division, determine shift assignments, and brief staff on the current situation.
- ☐ Request staff support from the next higher level of government, community Public Information Officers or temporary hire personnel, as necessary.
- ☐ Arrange for an official spokesperson or serve in this capacity, if appropriate.
- ☐ Contact cable TV production team to arrange for possible video documentation of the emergency, as per mutual agreement.
- ☐ Arrange Designated Media Location and communicate to media if a number of reporters and/or visitors arrive in person at the Site and/or Emergency Operating Center (EOC).

Emergency Public Information Sewer Overflow Standard Operating Procedures

Sewage Material

- If incident is in a heavy traffic area, and alternate routes are available, notify media (radio) and request frequent announcements of instructions to avoid the area. (Coordinate announcements with responding law agency.)
- Notify media with full explanation as soon as material has been identified. (Clear with Incident Commander/Scene Manager and technical advisor to avoid unduly alarming or confusing to the public.)
- If traffic will not impede response efforts, simply respond to media inquiry, as necessary.

Low Hazard/Confined Incident – No General Evacuation

- Notify media that incident has occurred. Update media regularly.
- Notify Council, employees, schools, and businesses, as needed.
- Indicate alternate routes for traffic and request frequent announcements of instructions to avoid the area.
- Indicate nature of incident and precautions for the public.
- Release hotline number for public inquiries (if available and staffed).
- Indicate response agencies involved (coordinated with response agency PIOs), clean-up efforts underway, time frame for resumption of normal traffic patterns, if known.

Incident – High Hazard – General Evacuation Requested

- Release all of the above information.
- Release evacuation instructions to media (radio).
- Release mass care information when known (coordinate with the American Red Cross).
- Have medical/technical spokesperson(s) available to describe the nature of the substance, possible symptoms, precautions for the public to take.
- Note: Post information on website/social media for general public and/or media.
- Hold media briefing(s) at the scene where Incident Commander/Scene Manager and medical/technical spokesperson can answer media questions. Arrange for Emergency Manager or designee to hold similar media briefings at the EOC if needed.

Post – Incident

- Debrief with internal/external emergency responders.
- Follow-up as necessary with media.

Contact Information

Contact Name	Office	Mobile
Meg McWade Public Works Director	909.596.8741	909.596.8751
Ryan Ciotti Utilities Manager	909.596.8749	909.908.0589
Robert Mitchell Water Supervisor	909.596.8741	626.864.2064
Erin Beilstein PIO/Sr Mgmt Anlyst - CM	909.451.8161	909.451.8161

Distribution and Maintenance of SORP

Annual updates to the SORP should be made to reflect all changes in policies and procedures as may be required to achieve its objectives.

A. Submittal and Availability of SORP

Copies of the SORP and any amendments should be distributed to the following departments and functional positions:

Public Works, Fire, Police, Planning, Community Services, EOC Staff.

All other personnel who may become incidentally involved in responding to overflows should be familiar with the SORP.

B. Review and Update of SORP

The SORP should be reviewed annually and amended as appropriate. The City of La Verne should:

- Update the SORP with the issuance of a revised or new NPDES permit or state waste discharge permit;
- Conduct annual training sessions with appropriate personnel; and
- Review and update, as needed, the various contact person lists included in the SORP.

C. Practical Resources

The author of a SORP should consider preparing and identifying here such things as the availability of weather-proof overview of the SORP which could fit in a shirt pocket or be kept in a vehicle glove box (i.e., a laminated "pocket guide"), vehicle dashboard stickers providing crews a reminder of key actions in responding to a sewer overflow and essential telephone numbers (e.g., public information officer name and telephone number), and other printed materials for distribution to personnel such as handy quick references for estimating sewer overflow volumes

and flow rates. The conducting of periodic workshops with managers, supervisors and other key personnel to review established response activities, and suggestions for new or revised procedures should be considered and recognized here.

Identify Equipment and Critical Replacement Parts

Provide equipment and replacement part inventories, including identification of critical replacement parts.

Supervisor

The City maintains critical replacement parts for all of its lift stations. Included, but not limited to, force main pipe and mechanical repair couplings for each size/type of pipe; transducers; relays; and fuses. All are clearly labeled for the appropriate application. Audits of critical parts are periodically performed. In addition, the city is equipped with the following equipment to capture overflows.

Equipment Typically Used by City Workers:

- Sewer Jetting Trucks
- Sewer Camera Inspection Equipment
- PPE (Personal Protective Equipment)
- Manhole Hooks
- Vacuum Trucks (for overflows)
- -Rubber Gutter Guard mats to block storm drain opening(s).
- -Sandbags.
- -Chlorine Disinfectant.
- -Traffic Control equipment, delineators, cones, and caution tape.
- -Portable light tower.
- -Portable generator.
- -Portable Pump.

The City's lift stations are equipped with automatic transfer switches. The lift stations can also de-watered using the City's two (2) combination hydro-vacuum units.

The City contracts with Schwalm Generation to provide 24-hour service for lift station control and electrical problems that City staff cannot immediately resolve. On an annual basis generators receive three minor inspections and one major inspection per year, the major inspection includes changing of fluids. In addition to the annual maintenance, on a bi-annual basis load testing is completed on the units.

Section 7 - Fats, Oils, and Grease Control Program

SSSWDR D.13(vii) states:

Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

(a). An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;

(b). A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;

(c). The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;

(d). Requirements to install grease removal devices (such as traps or interceptors) and the development of design standards for such devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;

(e). Authority to inspect grease producing facilities, enforcement authorities, and whether the District has sufficient staff to inspect and enforce the FOG ordinance;

(f). An identification of sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and

(g). Development and implementation of source control measures for all sources of FOG discharged to the sewer system for each section identified in (f) above.

La Verne has approximately one hundred and seven (107) permitted Industrial Waste Establishments in its service area that are inspected regularly by the Los Angeles County Sanitation District to ensure adherence to the FOG program.

The City contracts with L.A. County for inspections related to the F.O.G. program.

Legal Authority

Upon adoption of an ordinance, the City will have legal authority to prohibit discharges to the collection system through the Uniform Wastewater Discharge Regulations, Title III, Chapter 14, 14.10 Article IV Fats, Oils, and Grease Control Program.

Source Control

The City conducts permit plan checks on new construction and tenant improvements of FSEs. Plan checks include, but are not limited to, identification and proper connection of grease bearing fixtures to a properly sized grease interceptor. The plan check and field inspection, as part of the building permit process, includes an interceptor sizing component and an Interceptor Maintenance Education component, which includes the City's maintenance requirements, BMP requirements, and record keeping and reporting requirements. A list of all such users is maintained by the City. The City's Uniform Wastewater Discharge Regulations (UWDR) requires the installation and proper maintenance of interceptors at any facility that has the potential for discharging grease laden wastewater.

Identification and Sewer Cleaning

City of La Verne Sewer System priority is given to areas with a history of problems relating to FOG and roots. Areas with a history of FOG hot spots are investigated and cleaned at least quarterly. FOG hot spots (areas with increased incidence of grease build-up) are cleaned to remove the risk of a blockage occurring and are subsequently inspected frequently. The sewer line is cleaned using either a hydro jet with spinning nozzle or a power rodder. The combo unit/vacuum truck is also used whenever feasible to recover the FOG.

Lines with known poor grade have been prioritized as requiring more frequent CCTV inspection. With information on the causes of grease problems, maintenance activities and schedules can be modified, or sewer repairs made to better control grease buildup and minimize grease-related SSOs

Section 8 - System Evaluation and Capacity Assurance Plan

Refer to Attachment C, the 2022 Wastewater Master Plan, for details on the City of La Verne's current capital improvement program related to wastewater as well as its criteria for flow depth over capacity.

Section 9 - Monitoring, Measurement, and Program Modifications

Monitor and Measure

The City of La Verne currently hydro-cleans the sewer system (+/- 99 miles) in its entirety on a three-year cycle and hydro-cleans identified trouble spots on either a 30-day or 90-day schedule interval based upon the type of trouble spot it is. Known areas of fast grease build up areas are done monthly utilizing a special degreaser in order to make the effort more effective. Other areas that have roots are cleaned on 90 days intervals with contracted foaming completed every three years.

Below are the identified trouble spots, or hot spots, where the pipes experience high levels of fats, oils, and grease (FOG). These areas of concern are detailed in Table 9-1.

Table 9-1 Current "Hot Spot" Maintenance Locations

Location/Street	Issue	From Manhole	To Manhole
Foothill Blvd	Grease	R23-103	R24-106
Foothill Blvd	Grease	R24-106	Q24-127
Foothill Blvd	Grease	P24-146	Q24-121
Foothill Blvd	Grease	O24-104	O24-115
Foothill Blvd	Grease	O24-104	N24-110
Emerald Ave	Grease	P23-115	P24-137
Dover Ave	Grease	P23-125	P23-142
Butterfield Ave	Grease	P23-136	P23-142
Peyton Rd	Grease	P22-142	P22-139
Alley north of PSF	Grease	P20-117	P20-114
Alley north of PSF	Grease	P20-113	P20-121
Alley e/o D, s/o Bonita	Grease	Q20-100	Q20-114
White Ave	Grease	Q23-104	Q23-101
Bianca St	Grease	P23-109	O23-109
Glenfield Ave	Low Flow in Line	O20-102	O20-110
Deventer Dr	Smell in Line from Low Flow	O29-143	O29-140
Landeros Ave	Low Flow Stagnant Line	Q26-100	Q26-108

The City owns and operates its own sewer camera which allows for inspection to be completed of the entire system once every 3 years (36% annually). Having the city's own staff inspect the system allows for a timelier response to any problems that might require immediate attention.

All hydro cleaning and televising are documented and evaluated by the city's consultant engineering firm.

All work performed is documented and evaluated on a monthly basis for the Utility Manager's review.

The City does not experience overflows on any regular basis.

Section 10 - SSMP Program Audits

The City will conduct an internal audit of the SSMP at least once every three years utilizing the SSMP Triennial Audit Report Form (Attachment D). The audit will result in a report of the findings, including the identification of any deficiencies in the SSMP and proposed steps to correct them.

The three-year frequency is the maximum allowed by the regulation; this frequency is appropriate to the size of the City's collection system and the historical number of overflows and should be sufficient to identify any necessary improvements to the SSMP.

The City will assess the need to audit its SSMP more frequently based on the performance of its sanitary sewer system using information from the key performance indicators and input from Collection System staff. All elements of the SSMP will be reviewed using an audit report form (Attachment D).

The audit will include comments regarding recently completed program updates and any recommendations for future actions, changes, or adjustments to an element. Upon completion of the audit, the Utilities Manager will keep a copy of the audit report on file for review, and a Change Log will be updated to reflect insertion of the audit report. The City will update its SSMP at least every six years.

Section 11 - Communication Program

The City maintains a website (https://www.cityoflaverne.org/) to inform the public about City activities. The City's website is an effective communication channel for providing alerts and news to the public. The main page of the website provides important announcements, links, agendas and minutes for City Council meetings, and other key information for City residents. The website includes all formal SSMP updates.

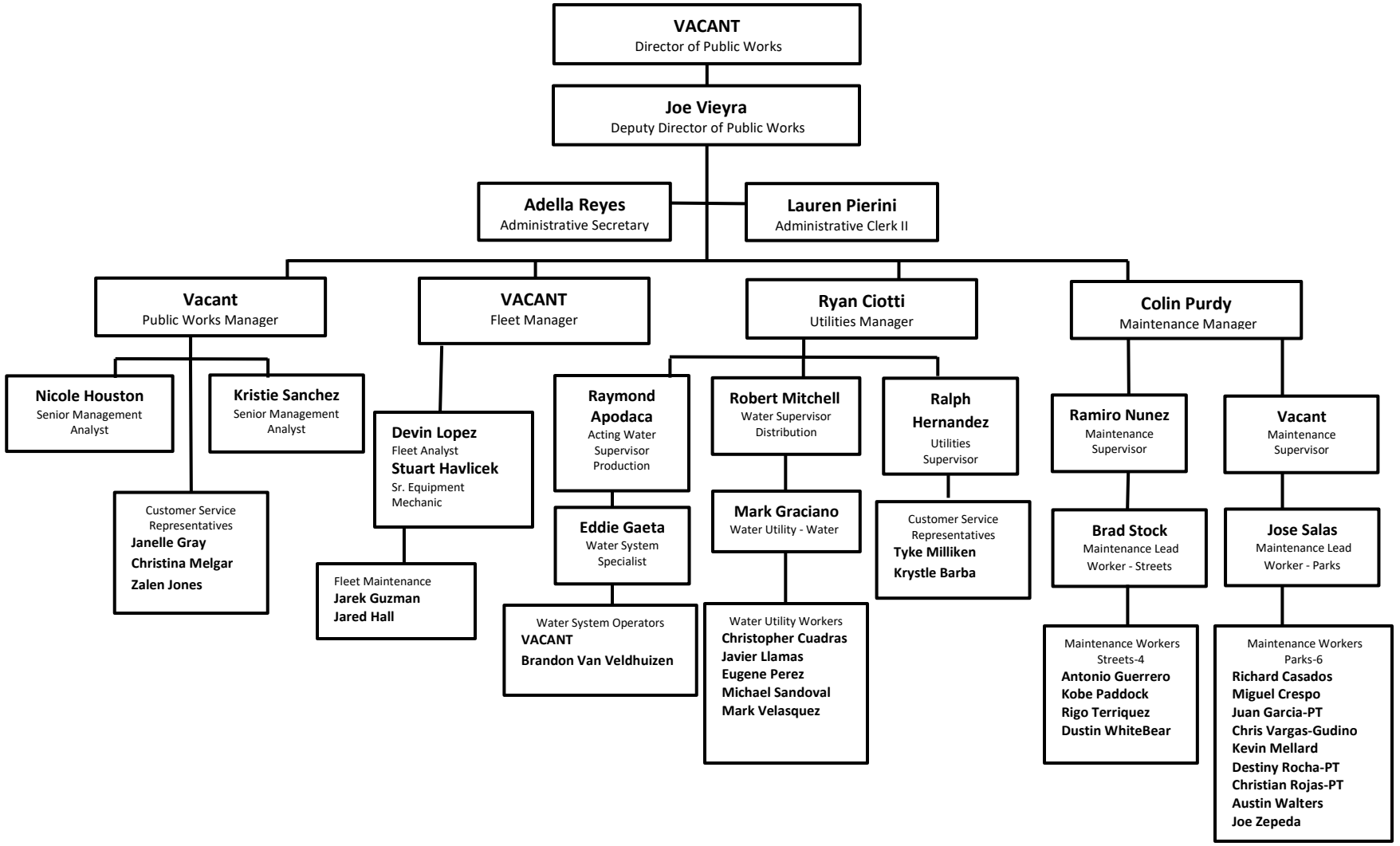
A variety of public works information is published on the City's Public Works Department page of the website, linked from the Departments tab. The City also uses the website to notify the public of important upcoming activities related to sewer system management.

The City is very active on social media such as Facebook, You Tube, Instagram to name a few. The Public Works Department actively provides La Verne residents notification of public works activities.

Notification of spills to the public as well as private sewer systems is outlined in the City's Spill Emergency Response Plan included in Chapter 6 of this document.

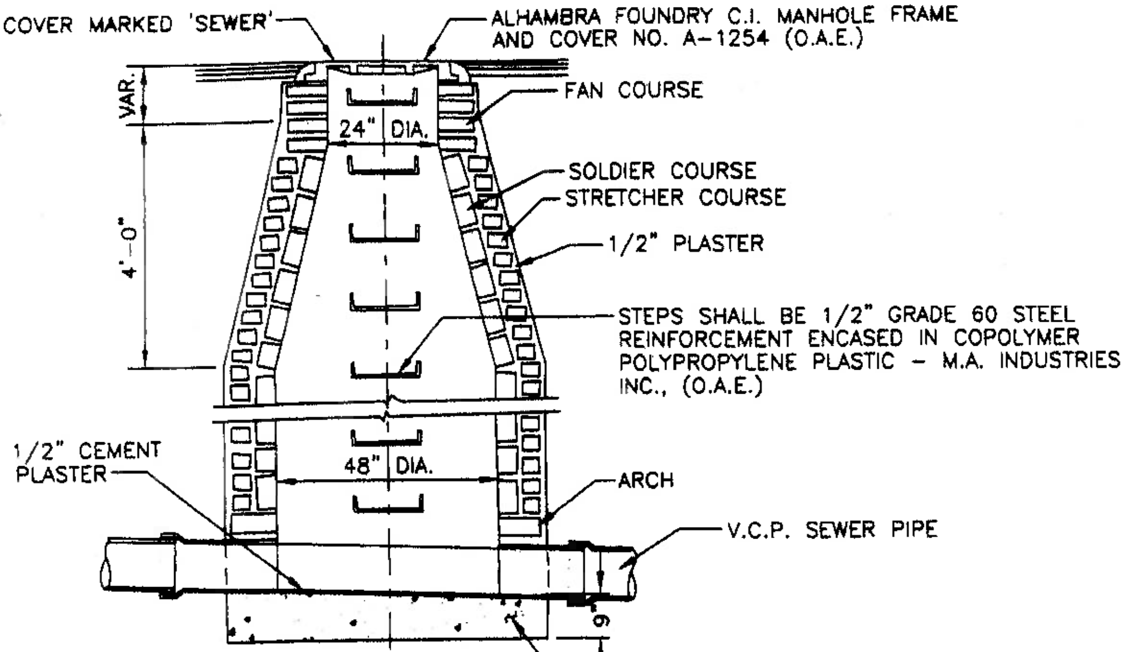
Attachment A – Organizational Flow Chart

City of La Verne Public Works

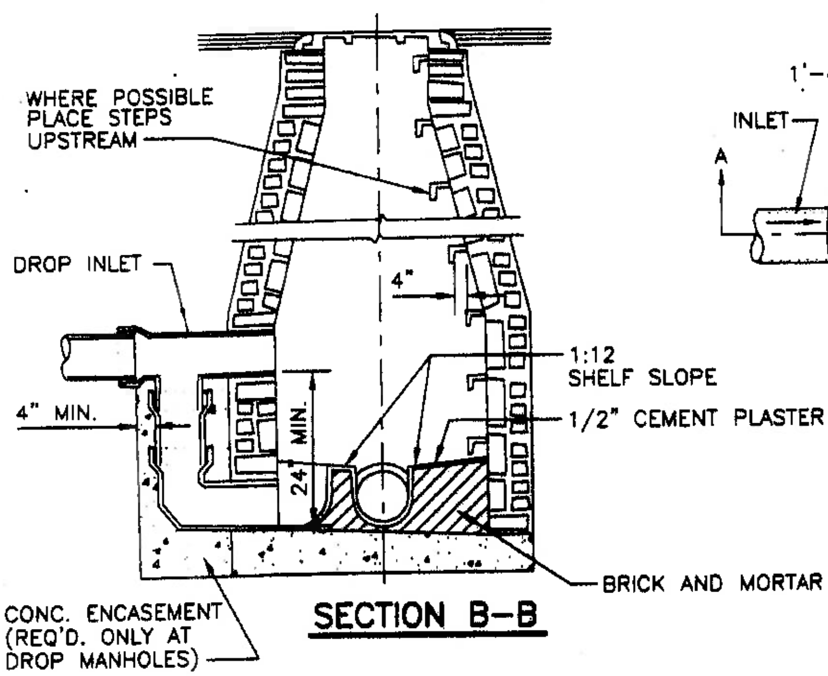


Attachment B – City of La Verne Sewer System Standard Drawings

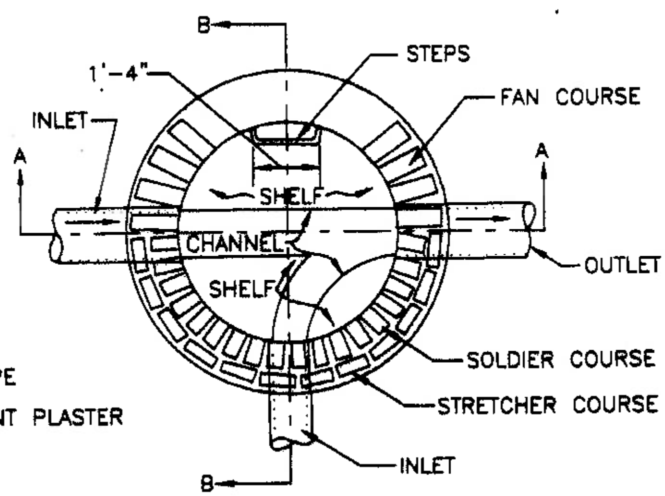
ATTACHMENT 3



SECTION A-A



SECTION B-B



SECTIONAL PLAN

DEPARTMENT OF PUBLIC WORKS

STANDARD DRAWING:

STANDARD BRICK MANHOLE

APPROVED: 4/30/97
CITY OF LA VERNE — DATE

43296 — 4/15/97
ENGINEER — RCE No. — DATE

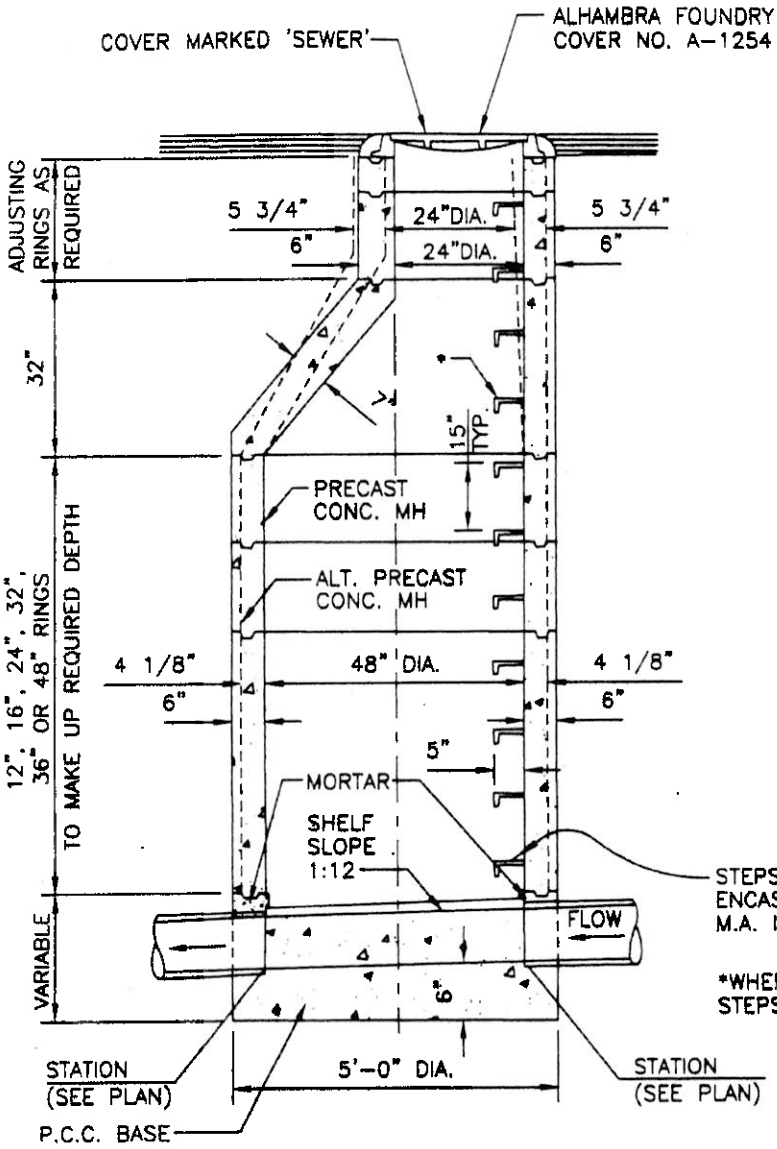
	BY	DATE
DESIGNED	W.D.B.	4/97
DRAWN	C.G.	4/97
CHECKED	W.D.B.	4/97

SCALE: AS SHOWN

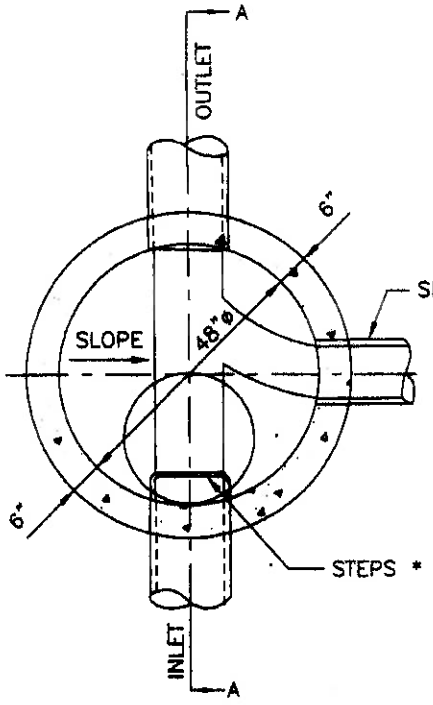
DATE OF REVISION: APRIL 1997

DWG. No. S-1

SHT. 1 OF 1



SECTION A-A



SECTIONAL PLAN

STEPS SHALL BE 1/2" GRADE 60 REINFORCEMENT ENCASED IN COPOLYMER POLYPROPYLENE PLASTIC - M.A. INDUSTRIES INC., (O.A.E.)

*WHERE POSSIBLE PLACE STEPS UPSTREAM

DEPARTMENT OF PUBLIC WORKS

STANDARD DRAWING:

STANDARD PRECAST CONCRETE MANHOLE

APPROVED:

CITY OF LA VERNE — DATE 4/30/97

ENGINEER — RCE No. 43296 — DATE 4/18/97

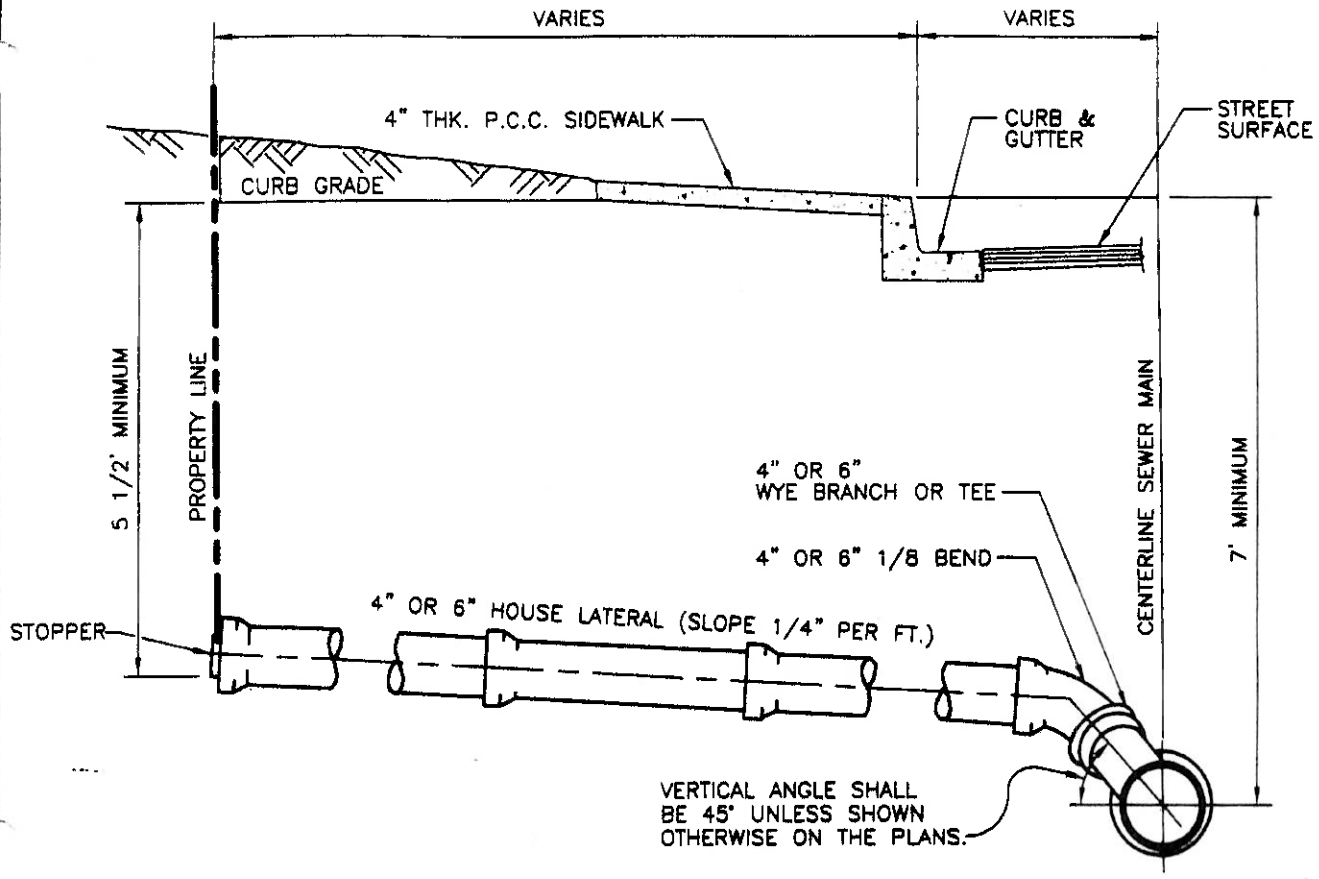
	BY	DATE
DESIGNED	W.D.B.	4/97
DRAWN	C.G.	4/97
CHECKED	W.D.B.	4/97

SCALE: AS SHOWN

DATE OF REVISION: APRIL 1997

DWG. No. S-2

SHT. 1 OF 1



NOTE:

DEPTH OF SEWER MAIN SHALL BE SUCH THAT A 4-INCH LATERAL WILL HAVE A MINIMUM COVER OF 1-FOOT AT THE REAR PROPERTY LINE WITH A SLOPE OF NOT LESS THAN 2%.

DEPARTMENT OF PUBLIC WORKS

STANDARD DRAWING:

SEWER LATERAL

APPROVED:

CITY OF LA VERNE — DATE 4/30/97

ENGINEER — RCE No. 43296 — DATE 4/15/97

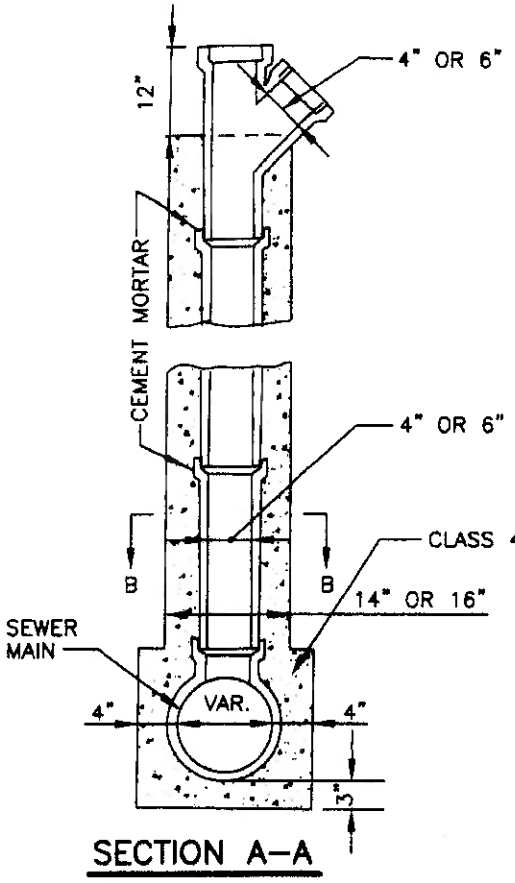
	BY	DATE
DESIGNED	W.D.B.	4/97
DRAWN	C.G.	4/97
CHECKED	W.D.B.	4/97

SCALE: AS SHOWN

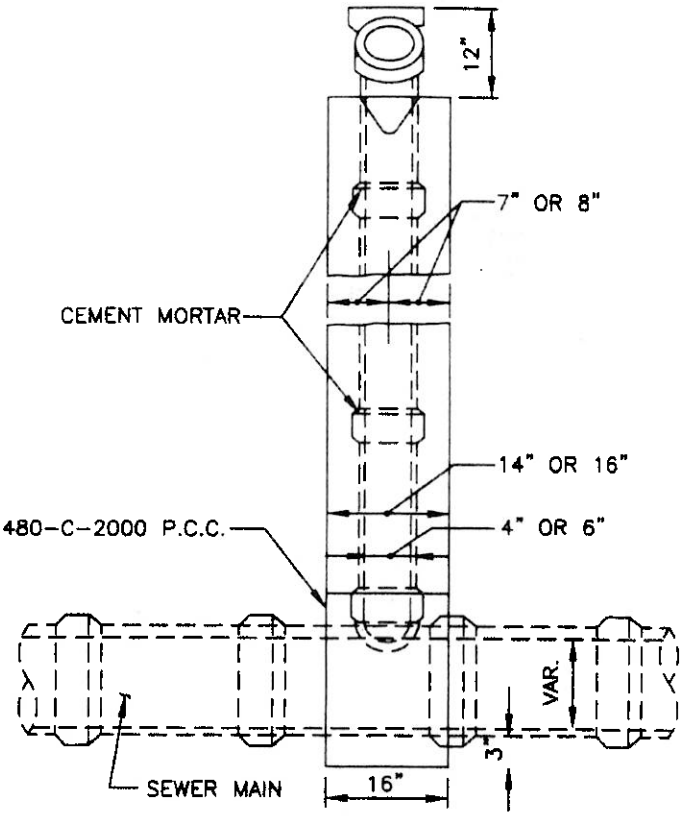
DATE OF REVISION: APRIL 1997

DWG. No. S-3

SHT. 1 OF 1



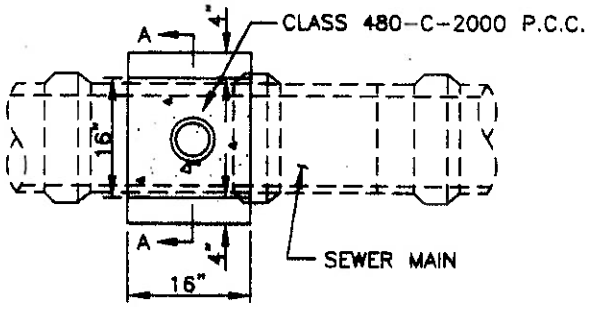
SECTION A-A



ELEVATION

NOTES:

1. THE UPPER END OF THE CHIMNEY PIPE SHALL BE 8 FEET BELOW THE GRADE OF THE LOWEST CURB, UNLESS OTHERWISE SPECIFIED.
2. WHERE TWO HOUSE CONNECTIONS ARE TO BE JOINED TO THE CHIMNEY PIPE, USE A SINGLE 'Y' BRANCH. WHERE TWO HOUSE CONNECTIONS ARE TO BE JOINED TO THE CHIMNEY PIPE, USE A SINGLE 'Y' BRANCH. WHERE THREE HOUSE CONNECTIONS ARE TO BE JOINED, USE A DOUBLE 'Y' BRANCH.
3. WHERE THE CHIMNEY PIPE IS TO BE USED FOR A SINGLE HOUSE CONNECTION, FACE 'Y' TOWARD PROPERTY TO BE SERVED; WHERE USED FOR HOUSE CONNECTIONS ON BOTH SIDES OF THE SEWER, THE HOUSE CONNECTION ON THE RIGHT SIDE OF THE SEWER (LOOKING UP GRADE) SHALL BE CONNECTED TO THE 'Y' BRANCH BY A 1/8 BEND AND THE HOUSE CONNECTION ON THE LEFT SIDE SHALL BE CONNECTED TO THE UPPER END OF THE CHIMNEY BY A 4" OR 6" 1/4 BEND UNLESS OTHERWISE SPECIFIED.



SECTION B-B

DEPARTMENT OF PUBLIC WORKS

STANDARD DRAWING:

STANDARD CHIMNEY PIPE

APPROVED:

CITY OF LA VERNE — DATE 4/30/97

ENGINEER — RCE No. 43296 — DATE 4/15/97

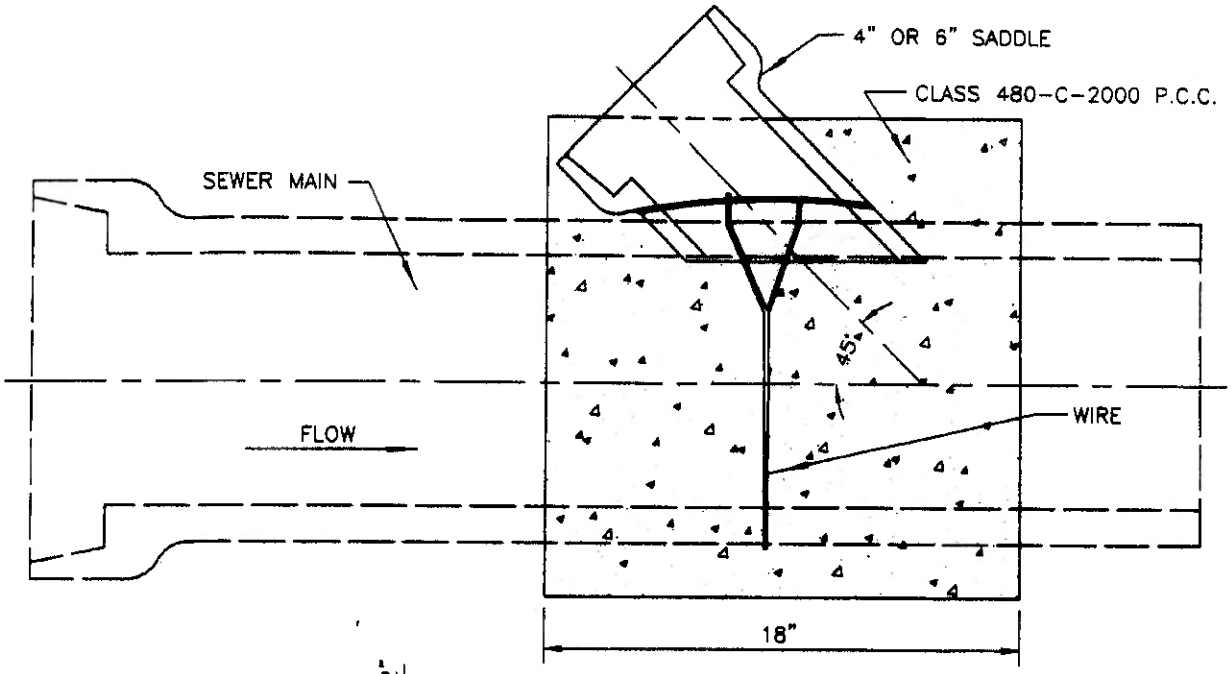
	BY	DATE
DESIGNED	W.D.B.	4/97
DRAWN	C.G.	4/97
CHECKED	W.D.B.	4/97

SCALE: AS SHOWN

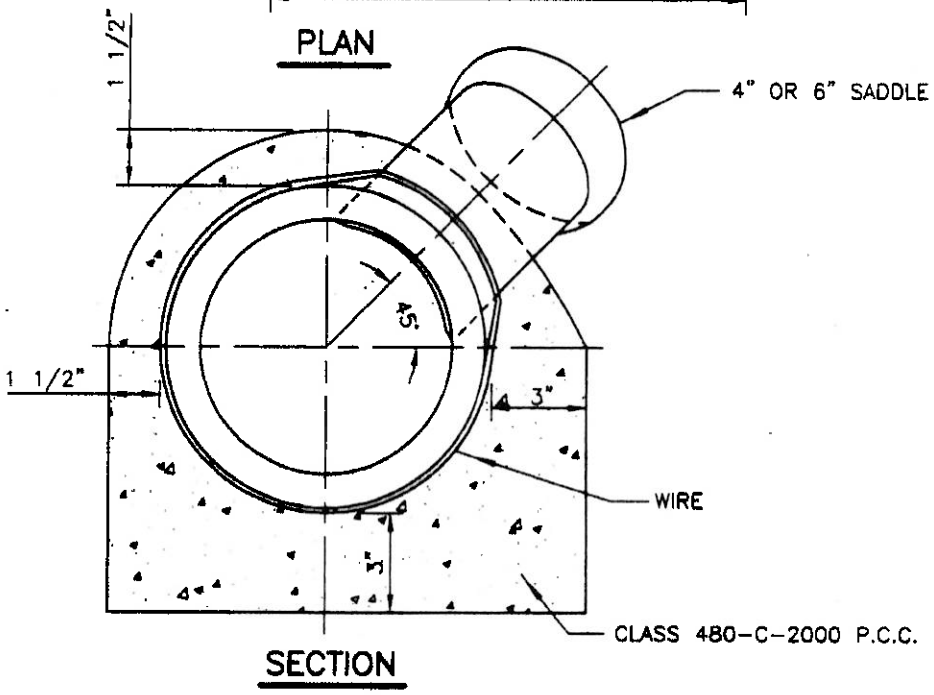
DWG. No. S-4

DATE OF REVISION: APRIL 1997

SHT. 1 OF 1



PLAN



SECTION

NOTES

1. SADDLE SHALL BE INSPECTED PRIOR TO PLACING P.C.C. AND AGAIN BEFORE BACKFILLING OVER LATERAL.
2. TIE WIRE SHALL BE 12 GA. GALVANIZED.

CITY OF LA VERNE SINCE 1906

DEPARTMENT OF PUBLIC WORKS

STANDARD DRAWING:

SEWER SADDLE

APPROVED:

CITY OF LA VERNE — 4/30/97 DATE

ENGINEER — 43296 RCE No. — 4/15/97 DATE

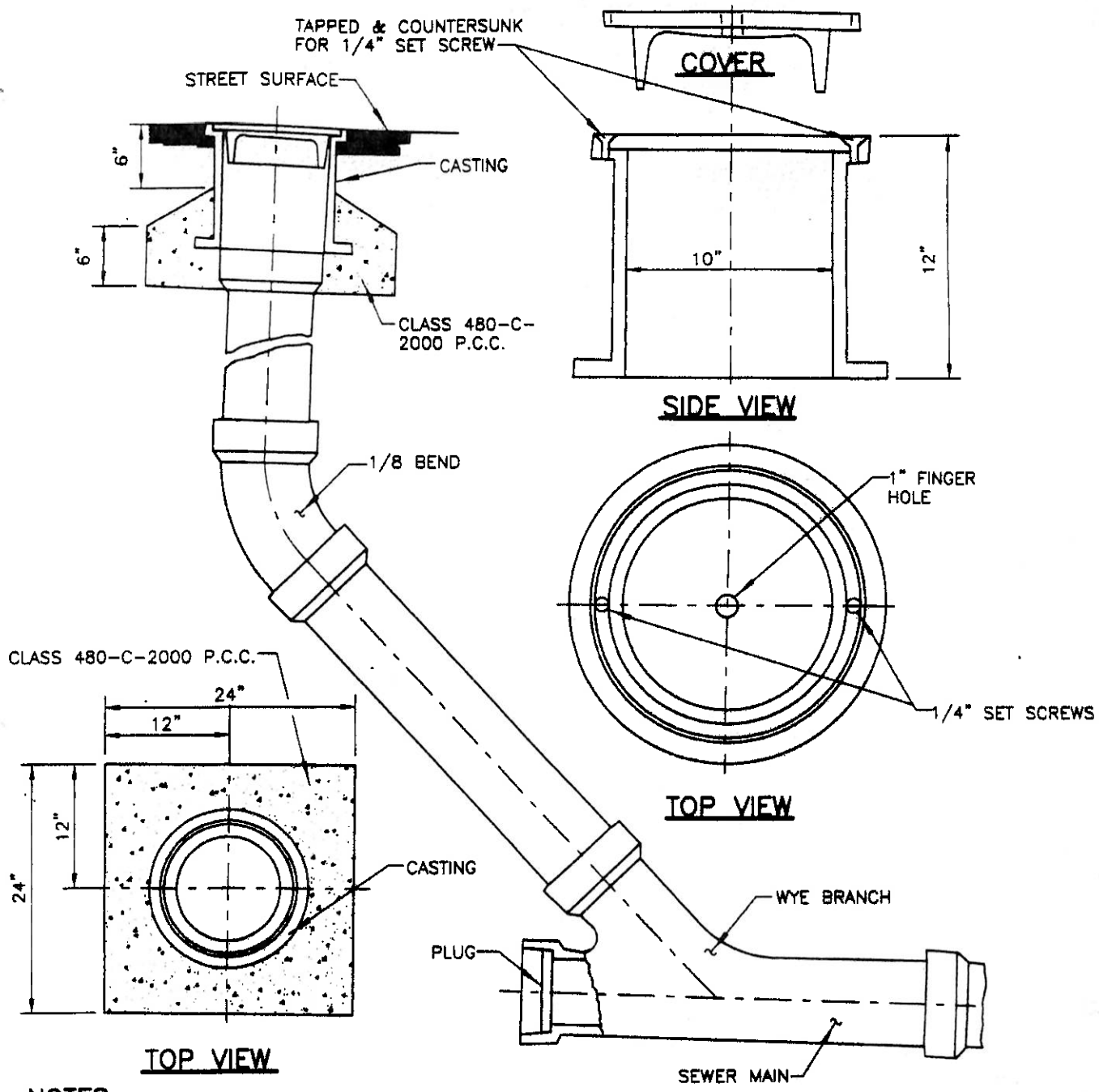
	BY	DATE
DESIGNED	W.D.B.	4/97
DRAWN	C.G.	4/97
CHECKED	W.D.B.	4/97

SCALE: AS SHOWN

DWG. No. S-5

DATE OF REVISION: APRIL 1997

SHT. 1 OF 1



NOTES:

1. CLEAN-OUT PIPE MUST BE OF THE SAME DIAMETER AS SEWER MAIN.
2. CASTING SHALL BE ALHAMBRA FOUNDRY NO. A-1240 (O.A.E.)

CITY OF LA VERNE SINCE 1906

DEPARTMENT OF PUBLIC WORKS

STANDARD DRAWING:

SEWER TERMINAL CLEAN-OUT

	BY	DATE
DESIGNED	W.D.B.	4/97
DRAWN	C.G.	4/97
CHECKED	W.D.B.	4/97

APPROVED: _____ 4/30/97
CITY OF LA VERNE — DATE

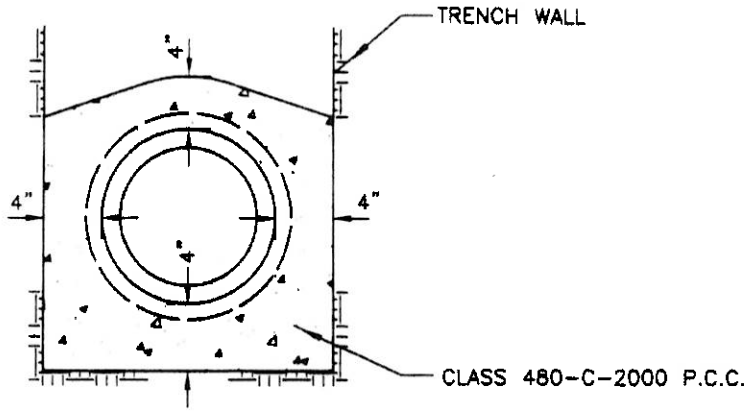
_____ 43296 4/15/97
ENGINEER — RCE No. — DATE

SCALE: AS SHOWN

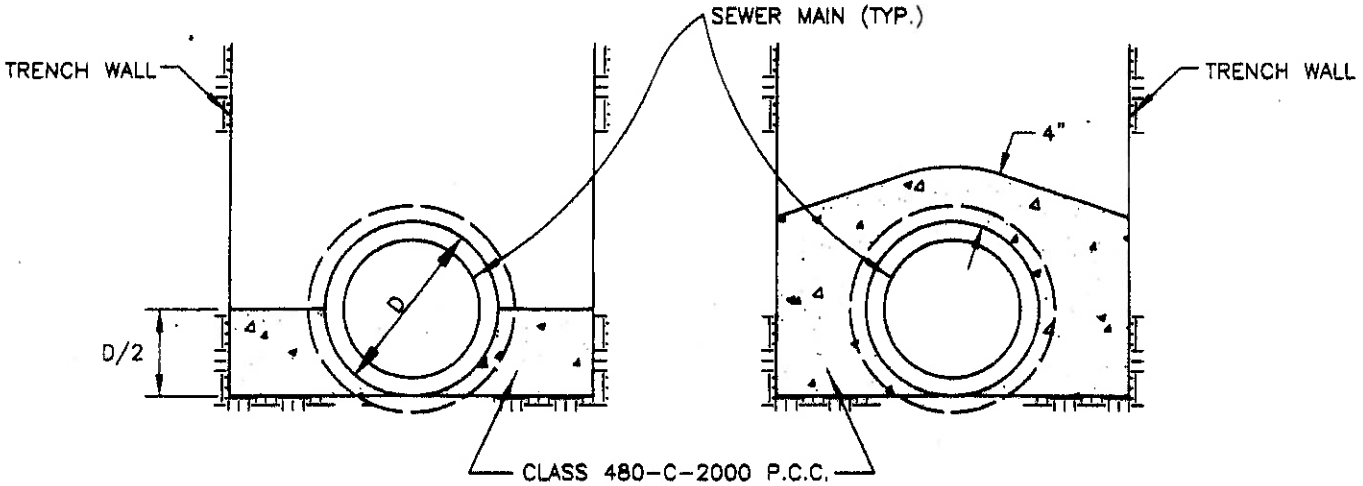
DWG. No. S-6

DATE OF REVISION: APRIL 1997

SHT. 1 OF 1



NO. 1
CONCRETE ENCASEMENT



CONCRETE CRADLE

NO. 2
CONCRETE ENCASEMENT

NOTES:

1. WHERE TRENCH WIDTH EXCEEDS THE WIDTH DESCRIBED IN THE SPECIFICATIONS, THE CONTRACTOR SHALL FURNISH AND PLACE AT HIS OWN EXPENSE, A CRADLE AS SHOWN ABOVE.
2. THE No.2 ENCASEMENT SHALL ONLY BE USED AS DIRECTED BY THE CITY ENGINEER.

CITY OF LA VERNE SINCE 1906
DEPARTMENT OF PUBLIC WORKS

STANDARD DRAWING:

CONCRETE CRADLE & ENCASEMENT

APPROVED: _____ 4/30/97
CITY OF LA VERNE — DATE

_____ 43296 4/18/97
ENGINEER — RCE No. — DATE

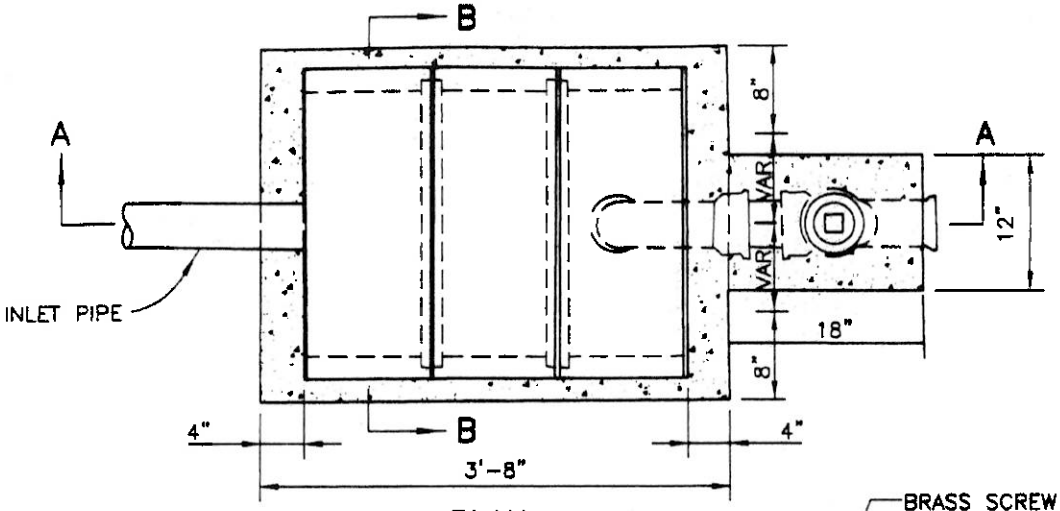
	BY	DATE
DESIGNED	W.D.B.	4/97
DRAWN	C.G.	4/97
CHECKED	W.D.B.	4/97

SCALE: AS SHOWN

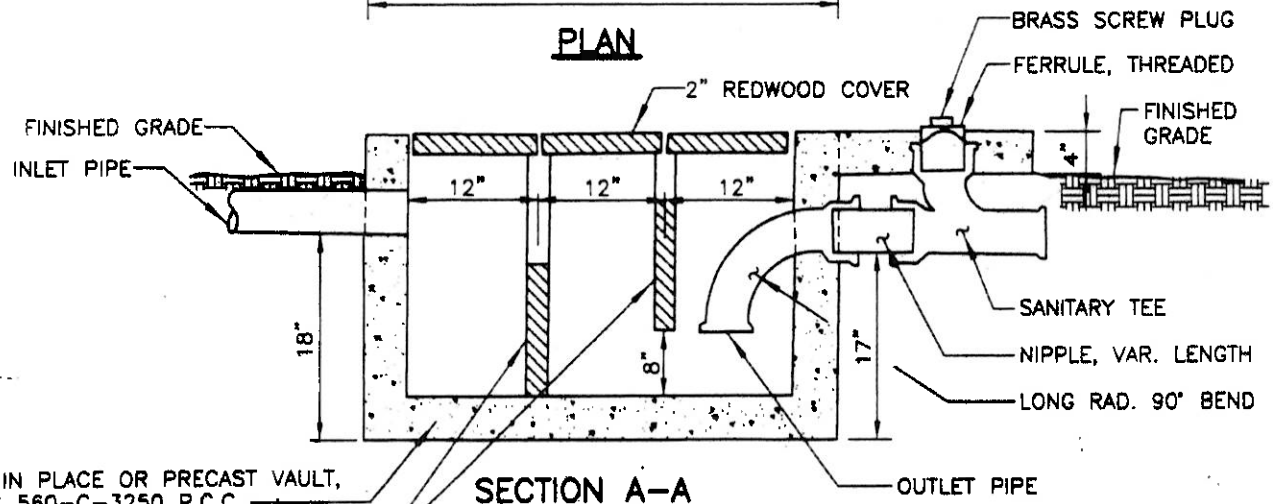
DATE OF REVISION: APRIL 1997

DWG. No. S-7

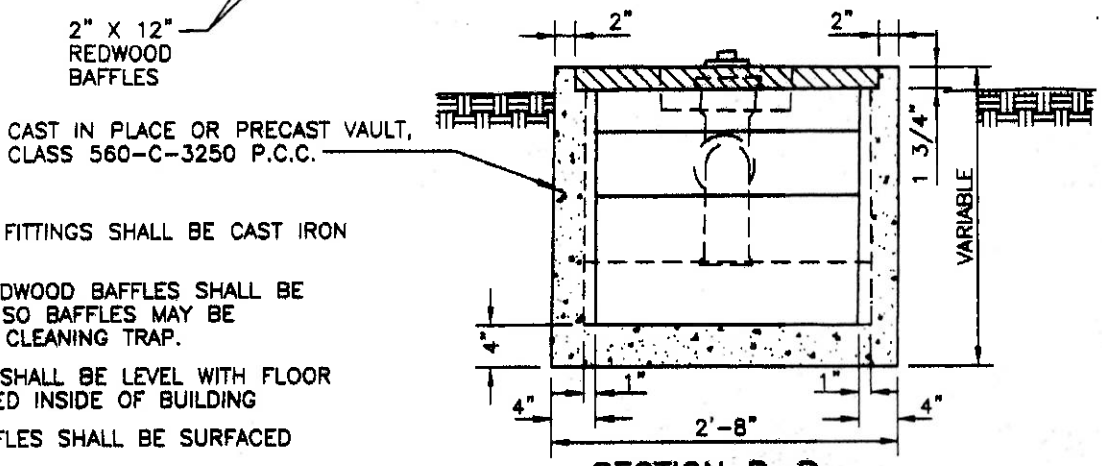
SHT. 1 OF 1



PLAN



SECTION A-A



SECTION B-B

NOTES:

1. ALL PIPE AND FITTINGS SHALL BE CAST IRON SOIL PIPE.
2. SLOTS FOR REDWOOD BAFFLES SHALL BE CONSTRUCTED SO BAFFLES MAY BE REMOVED FOR CLEANING TRAP.
3. TOP OF TRAP SHALL BE LEVEL WITH FLOOR IF CONSTRUCTED INSIDE OF BUILDING
4. REDWOOD BAFFLES SHALL BE SURFACED ALL SIDES.

DEPARTMENT OF PUBLIC WORKS

STANDARD DRAWING:

SAND AND GREASE TRAP

APPROVED: _____ 4/30/92
CITY OF LA VERNE — DATE

_____ 43296 4/15/97
ENGINEER — RCE No. — DATE

	BY	DATE
DESIGNED	W.D.B.	4/97
DRAWN	F.G.K.	4/97
CHECKED	W.D.B.	4/97

SCALE: AS SHOWN

DWG. No. S-8

DATE OF REVISION: APRIL 1997

SHT. 1 OF 1

Attachment C – City of La Verne 2022 Wastewater Master Plan

2022 Wastewater Master Plan

March 2023

Prepared For:
City of La Verne
3660 D Street | La Verne, CA 91750
Phone: 909.596.8741

Prepared By:

CIVILTEC
engineering inc.
www.civiltec.com
Project No. 2019101.00

2022 Wastewater Master Plan

March 2023

Prepared For:
City of La Verne
3660 D Street | La Verne, CA 91750
Phone: 909.596.8741

Under the Supervision of:

W. David Byrum, P.E.	43296 R.C.E.	Gretel D. Ochoa-Nhac, P.E.	91903 R.C.E.

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Executive Summary

This Executive Summary shares the findings and recommendations for the 2022 Wastewater Master Plan prepared for the City of La Verne. This master plan update catalogs the city's infrastructure and related agreements, discusses operational system issues, and recommends various improvements to provide adequate hydraulic capacity and improve reliability of the collection system. The last master plans prepared for the wastewater system were completed in 1993 and 2007. As most of the recommended improvements of the 1993 plan were not implemented, much of that document has been disregarded other than the discussion of the five sub drainage areas. The 2007 plan primarily provided an assessment of the collection system's hydraulic capacity at suspected trouble locations, all of which is updated within this 2022 master plan in addition to recommendations for accommodating future growth and secure reliability of the system.

The City of La Verne was founded in 1887 and incorporated in 1906. The City is 9.09 square miles and located in eastern Los Angeles County at the southern base of the Angeles National Forest. Land use throughout the City is dominated by residential uses with a commercial core along Foothill Boulevard and light industrial uses primarily south of Arrow Highway. Institutional uses such as universities, public and private schools, and other governmental operations also occupy substantial amounts of land. The City's 2022 population is estimated at 33,491, which was projected from the California DOF Population Estimates.

The original sewer system was designed and constructed in 1924. Much of this original system is still in operation today and generally serves the area bounded by Wheeler Avenue and I Street, and Seventh Street and Walnut Avenue. A wide variety of improvements have been made since the early days as development progressed away from the City center into the foothills and southern reaches of the community. The City now operates and maintains more than 100 miles of sewer lines, two wastewater lift stations, a brine line, and a number of ancillary facilities providing service to approximately 8,667 lateral connections consisting of 12,741 (2021 LV Rate Study) sewer units. In addition to these public facilities, there are several private community lift stations, force mains, and gravity sewers throughout the service territory that ultimately discharge into the City's wastewater collection system.

Drainage Areas

The City provides wastewater services to approximately 5,139 acres (8.03 square miles) or roughly 88 percent of the City's total 9.09 square mile area. The service area is divided into five separate Sub Drainage areas. These areas are as follows:

Sub Drainage Area 1. This sub drainage basin basically includes the western third of the City for a total of 2.84 square miles. Its western boundary of the sub drainage areas generally follows the physical barrier of the Puddingstone Flood Control Channel while the southeastern boundary essentially bisects the City from the southwest to the northeast. The basin includes nearly all of north La Verne as well as Puddingstone Village located in the southwestern corner of the City. Revisions to this drainage include the addition of Marshall Canyon Estates tract, Rancho Esperanza tract, La Verne Oak Tree Estates tract, and a section of Sub Area 3 bounded by Damien/ Bonita/ Wheeler/ and Metro Light rail ROW. Deletions to

this sub drainage area include Creekside Tract (to Sub Area 2) and remaining area west of the bluff along San Dimas Canyon Flood Control Channel (to Sub Area 2).

Sub Drainage Area 2. This basin is generally bounded by Foothill Boulevard on the south and the Puddingstone channel on the east, totaling 0.32 square miles. It drains the Foxglen neighborhood and picks up flows from the City of San Dimas, which also includes flows from La Verne's Creekside development along San Dimas Canyon Road. Adjustments made to this drainage area include the addition of the Creekside Tract (from Sub Area 1) and the remaining area west of the bluff along San Dimas Canyon Flood Control Channel (from Sub Area 1).

Sub Drainage Area 3. Sub area 3 is bordered by Foothill Blvd. to the north, B Street to the east, the Metrolink ROW to the south, and the eastern boundary of Sub Drainage Area 1. Revisions to Sub Area 3 include the addition of the Puddingstone Hill region (Puddingstone La Venture), Park La Verne tract, and San Polo Business Park. Sub area 3 is a total of 1.09 square miles.

Sub Drainage Area 4. This drainage area is centrally located and includes a large part of the community. Its northern half may be defined by Golden Hills Road to the north, the eastern City limit/prolongation of Williams Avenue to the east, the boundary of Sub Drainage Area 1 to the west and Foothill Blvd. separating the north and south halves of the sub area. The southern half is bounded by Foothill Blvd. in the north, White Avenue in the east, Puddingstone Drive to the south, and the eastern boundary of Sub Drainage area 3 to the west. Per Table 2.2, the changes made to Sub Area 4 include the addition of the Brassie Lane tract. Sub drainage are 4 contains a total of 3.01 square miles.

Sub Drainage Area 5. The easternmost side of the City is served by Sub Drainage Area 5, which encompasses 0.77 square miles. It includes a small triangular area north of Foothill bounded by the Live Oak Flood Control Channel and the City limits. However, most of Sub Area 5 lies below Foothill Blvd. with Fulton Road/city limits the eastern boundary, White Avenue its western boundary, and Arrow Highway its southern boundary. No changes have been proposed for Sub Area 5.

Effluent flows from each of the Sub Areas are conveyed to a network of "trunk" lines owned and operated by the Sanitation Districts of Los Angeles County. These trunk lines collect City effluent and ultimately convey wastewater to either the LACSD's San Jose Creek Water Reclamation Plant or the Pomona Water Reclamation Plant for treatment and reclamation.

Growth and Projected Wastewater Flows

The City of La Verne's 2022 population is estimated to be 33,491 and is expected to increase to 37,430 by 2040. Concurrently, the City's number of housing units is expected to increase from 12,278 to 13,062 during this same time period. This population growth represents a 12.3 percent increase, much of which can be translated to increased wastewater flows. However, the location of these increased flows is more important than the total flow volume itself. To accurately determine these future wastewater flows, a computer model was employed. The computer modeling was completed on Bentley Systems, Inc. SewerGEMS software platform Version 8i. This wastewater collection system model is designed to perform hydraulic calculations within a wastewater collection system network and perform fundamental database management of input and output data associated with those

calculations. Using this process, we are able to identify pipelines that are or will be exceeding their design capacity.

Hydraulic Assessment

The hydraulic assessment was based upon hydraulic modeling of the City's collection system for both existing and future design scenarios. Flow projections were based upon flow monitoring data, manhole data, the City's 1998 General Plan along with information from the City's ongoing General Plan update, the City's 2021 Water Master Plan and 2021 Urban Water Management Plan (UWMP). The vast majority of growth is anticipated to be infill and redevelopment of existing uses with more intense land uses. Existing and ultimate base flows can be found in Tables 5.3 and 5.4.

Recommended Capital Improvement Projects and Rehabilitation Projects

Based on the analysis performed, a list of recommended projects has been identified. These projects address existing issues, as well as issues when the population is at its projected maximum (using project population per the 2020 UWMP). A breakdown of each recommended project and its associated cost estimated is provided in detail in 6.3 - Project Prioritization.

Pipeline CIPs

Pipeline segments on Bunnelle Avenue, Golden Hills Road, and Wheeler Avenue all have a flow capacity over the City's design criteria. It is recommended that these segments of pipes to be replaced with a larger size for a bigger capacity and smaller flow depth capacity.

Location	Manhole # From	Manhole # To	Length (ft)	Estimated Cost $ (in 2023)
CIP 1: Bunnelle Avenue	N-28144	N-28133	275	$117,844
CIP 2: Golden Hills Road	P-33119	P-33117	350	$147,938
CIP 3: Wheeler Avenue	O-32110	O-32106	305	$139,511

Manhole Rehabilitation

The City of La Verne currently has a wastewater maintenance program but no rehabilitation program. Its maintenance program consists of removing debris and other such materials that could cause restriction of flow of waste, hydro-jetting wastewater mains, removing roots within the mains, performing video inspections and other preventative maintenance measures. Along with this maintenance program, a rehabilitation program should be in place.

Presence of hydrogen sulfide trapped within the system can affect not only manholes, but the wastewater network it belongs to. This gas erodes brick, mortar, and concrete construction. An assessment program geared towards manhole rehabilitation would benefit the overall condition of the City's wastewater system. There are numerous benefits of implementing a manhole rehabilitation program such that it would provide safer and faster solutions compared to replacing manholes in general, eliminate possible infiltration/exfiltration problems, save capital cost of conventional replacement and much more.

Chapter 1 - Background

This introductory chapter provides background information on the City of La Verne, outlines the purpose of the study, scope of work, and authorization for development of the 2022 Wastewater Master Plan.

1.1 Study Purpose, Scope, and Authorization

The purpose of this wastewater master plan is to evaluate the capacity of the City's existing wastewater system, identify deficiencies in meeting current and future flow demands, and recommend appropriate and feasible capital improvements. In addition, cost estimates for the recommended capital improvements are included.

Specifically, the scope of work includes:

- Data collection, review, and analysis of City of La Verne documents
- Conduct flow monitoring where required
- Project wastewater flows within the City's service area
- Create a new wastewater model to evaluate current and future wastewater flow conditions
- Analyze the wastewater collection system under existing conditions
- Analyze the wastewater collection system under future conditions to support the City's 2040 General Plan build out
- Document pertinent service agreements with other agencies
- Develop and/or update relevant system maps
- Identify necessary system improvements and develop a Capital Improvement Plan

Preparation of the study and master plan were authorized by the Director of Public Works in 2019

1.1.1 Study Objectives

The most recent wastewater master plan was prepared in 2007 by RKA Consulting Group. This 2007 plan identified numerous system improvements necessary to accommodate the City's intended growth. However, only a few of the wastewater system capacity improvements identified in the 2007 plan have been implemented to date. Since that time, the City has experienced significant growth, added new infrastructure, relocated pipes, redirected flows, and implemented a policy change toward higher density land use (La Verne General Plan 1998). As a result, the data and recommendations of the 2007 Wastewater Master Plan are not used or referenced in this master plan.

The primary goal of this 2022 Wastewater Master Plan is to ensure the City's ability to deliver safe, cost effective, and uninterrupted wastewater services to the community. This is accomplished by the following objectives:

- Development of a new wastewater system model to evaluate the city's wastewater system under both existing and projected Year 2040 flow conditions. This effort will aid in determining the system's hydraulic capacities, structural conditions, and needed capital improvements for both immediate and 2040 build out requirements.

- Assessing the risk imposed by the limited pipe crossings of the 210 freeway and railroads that bisect the city.
- Master plan the City's wastewater system to meet ultimate build out conditions within the identified service area.
- Creation of a Wastewater System Capital Improvement Plan.

The study boundaries include all area within the incorporated city limits as well as flows from specific areas serving portions of the City of San Dimas, City of Pomona, and unincorporated Los Angeles County that discharge into the City's collection system. This plan does not, however, include any evaluation of the Sanitation Districts of Los Angeles County's (LACSD) wastewater trunk system capacities, other than note them as outfall points for the City's wastewater system. All wastewater transported through the City's wastewater system is ultimately directed to LACSD trunk sewers and treated at LACSD wastewater treatment plants.

1.2 General

The City of La Verne was founded in 1887 and incorporated in 1906. The City is 9.09 square miles and located in eastern Los Angeles County at the southern base of the Angeles National Forest. Land use throughout the City is dominated by residential uses with a commercial core along Foothill Boulevard and light industrial uses primarily south of Arrow Highway. Institutional uses such as universities, public and private schools, and other governmental operations also occupy large amounts of land. The City's 2022 population is estimated at 33,491, which was projected from the California DOF Population Estimates.

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1.3 Topography

The City's topography is varied ranging from 1,014 feet above mean sea level (MSL) at Brackett Airport in the south to more than 1,800 feet above MSL in the northernmost residential neighborhoods. The area is characterized by gently sloping terrain south of Baseline Road with more drastic elevation changes as you travel north, particularly to the northeast. The sloping topography generally favors the use of gravity sewer systems as a result.

1.4 Climate

La Verne's climate is warm and temperate consistent with that of the inland southern California region. Summers are warm, and occasionally reach into the 100s. Spring and fall are generally mild with temperatures averaging about 67 degrees Fahrenheit. The winter months of December, January, and February are much cooler and produce the most rainfall. Temperatures December through February average about 55.8 degrees and with an average rainfall of 4.7 inches during this time. The annual average rainfall for the City is about 8.1 inches with an average of 51 days of measurable precipitation. The amount of precipitation is important in development of the computer model. Wastewater flows during dry weather are generally not under the influence of inflow and infiltration. However, inflow and infiltration can occur during wet weather flows, which impact wastewater system capacities from sources such as groundwater flows into flawed pipe joints, connections, manholes, and improperly connected roof and area drains.

1.5 Glossary of Terms

For the purposes of this report, the following defined terms are used:

Average Dry Weather Flow (ADWF) – The average non-storm flow over 24 hours during the dry months of the year, May through September. The ADWF is composed of the average sewage flow and the average dry weather inflow/infiltration.

Average Wet Weather Flow (AWWF) – The average flow over 24 hours during the wet months of the year, October through April, on days when no rainfall occurred on that or the preceding day.

Best Management Practice – A method, activity of procedure for reducing the number of pollutants that may enter a water body.

Clean Water Act – Also known as the Federal Water Pollution Control Act (33U.S.C. 1251 et seq.).

Connection Fees – Charges assessed to join or expand an existing wastewater system. Such fees are used to fund capital improvements to the system.

Collection System - A system gravity wastewater pipelines, manholes, sewage lift stations, force mains, and privately owned wastewater service laterals that transport wastewater, generally to an outfall connection to a trunk system or wastewater treatment plant.

Flow - The volume of wastewater moving within the pipeline at a particular time.

Geographic Information System (GIS) – A database that includes geographical data that can be visually represented as maps.

Infiltration - The water entering a wastewater system and service connections from groundwater, through such means as defective pipes, pipe joints, connections, or manhole walls. Infiltration does not include inflow and is typically relatively constant over a period of days, weeks, or even months as high groundwater conditions persist.

Inflow - The water discharged into a wastewater system and service connections from such sources as roof drains, cellar, yard and area drains, foundation drains, cooling water discharges, drains from springs and swampy areas, manhole covers, cross connections from storm drains, catch basins, storm water, surface runoff, or drainage. Inflow does not include infiltration and varies rapidly with rainfall conditions, with flows rising and falling in response to a storm event.

Lift Station – a facility used to pump wastewater uphill, against gravity through a force main.

Outfall – any pipe or conduit used to carry either raw sewage or treated effluent to a final point of discharge into a body of water. As used in this report, it is the discharge point to another collection system.

Peak Hour Dry Weather Flow (PHDWF) – The maximum sewage flows the collection system will experience during dry weather; typically defined as being sustained for one hour.

Peak Hour Wet Weather Flow (PHWWF) - The maximum sewage flows the collection system will experience during wet weather; defined as being sustained for one hour. PHWWF is used to size pipelines and lift stations.

SDR-35. Standard Definition Ratio 35 is a classification of PVC pipe and represents the ratio of the outside diameter of the pipe divided by the wall thickness.

Wastewater Unit. Each residential dwelling in duplexes, triplexes, apartments, mobile home spaces and separate houses if each has kitchen facilities; each occupancy in a multiple unit professional, commercial or industrial development shall be considered a separate unit; each four (4) guest rooms or fraction thereof, in any motel, hotel, rooming or lodging house other than the owner's principal residence; each institutional use with living quarters having kitchen facilities.

1.6 Abbreviations

AACE	Association for the Advancement of Cost Engineering
ABS	Acrylonitrile-Butadiene-Styrene
ac	Acre
ADDF	Average Daily Dry Weather Flows
ADWF	Average Dry Weather Flow
Ave.	Avenue
Blvd.	Boulevard
CCTV	Closed Conduit Television
CDPH	California Department of Public Health
CIP	Cast Iron Pipe
CIP	Capital Improvement Program
CIPP	Cured-in-place Pipe
COP	Certificates of Participation
CWSRF	Clean Water State Revolving Fund
DI	Ductile Iron
DIP	Ductile Iron Pipe
DU	Dwelling Unit
DWF	Dry Weather Flow

DWR	Department of Water Resources
EDU	Equivalent Dwelling Unit
EIFD	Enhanced Infrastructure Financing District
EPA	Environmental Protection Agency
ESRI	Environmental Systems Research Institute, Inc.
FAR	Floor Area Ratio
FM	Flow Monitor
fps	Feet per Second
GIS	Geographic Information System
gpcd	Gallons per Capita per Day
gpd	Gallons per Day
gpm	Gallons per Minute
GP	General Plan
gpd/acre	Gallons per Day per Acre
GVF	Gradually Varied Flow
ID	Identification
In.	Inch
II	Infiltration/Inflow
IRWMP	Integrated Regional Water Management Plan
IS	Initial Study
lf.	Linear feet
Ln.	Lane
MG	Million Gallons
MGD	Million Gallons per Day
MH	Manhole
NASSCO	National Association of Sewer Service Companies
PACP	Pipeline Assessment Certification Program
PDWF	Peak Dry Weather Flow
pvc	Polyvinyl Chloride
QA	Quality Assurance
QC	Quality Control
rcp	Reinforced Concrete Pipeline
Rd.	Road
RDII	Rainfall-Derived Infiltration and Inflow
ROW	Right of Way
SCAG	Southern California Association of Governments
SRF	State Revolving Fund
SSMP	Sewer System Management Plan
St.	Street
UNK	Unknown
US	United States
USEPA	United States Environmental Protection Agency
VCP	Vitrified Clay Pipe
WIFIA	Water Infrastructure Finance and Innovation Act
WWF	Wet Weather Flow

1.7 Acknowledgements

Civiltec Engineering, Inc. would like to acknowledge the valuable assistance of all City staff, ***Civiltec Engineering, Inc***. staff, and others for their respective contributions to the preparation of this document including:

City Staff

Anthony Ciotti, Interim Director of Public Works
Richard Martinez, Utility Manager

Civiltec Staff

W. David Byrum, President, Principal Engineer
Gretel Ochoa-Nhac, Project Engineer
Timothy Kwan, Staff Engineer
Daniel W. Keesey, Senior Project Coordinator

GIS Consultant

Balaji KG, Nobel Systems

Chapter 2 - Study Area

The study boundaries of this master plan encompass all land within the incorporated city limits of La Verne. It also includes area acknowledged as the City's Sphere of Influence as well as the drainage potential from neighboring communities of San Dimas and Pomona.

2.1 Existing Service Area

The City of La Verne's existing service area includes the entire incorporated area of the community as well as several areas located beyond the City's boundaries. These "outside" service areas include unincorporated Los Angeles County, portions of the City of San Dimas, and a small neighborhood located in the City of Pomona. In each case, these outside entities provide and maintain their own individual wastewater systems serving their respective areas; the City only accepts wastewater from these providers and conveys it through the City's system to LACSD's regional trunk system. It should also be noted that the areas served by Los Angeles County Public Works are also included within the City's Sphere of Influence. The City's existing wastewater service area is shown in Exhibit A.

The City provides wastewater collection via its wastewater system network. All wastewater received is conveyed through the City system and ultimately discharged into LACSD's regional trunk lines and treated at LACSD reclamation facilities. The City is only responsible for maintenance of its owned facilities. City staff provide general maintenance using hydro jetting of the pipelines on a regular basis and utilize remote cameras to inspect the integrity of the lines following cleaning.

Table 2.1 – Ownership of Facilities

Facility	Location	Ownership
Lift Station	Brackett Field	City of Pomona
Franklin Sewage Lift Station	Puddingstone Drive	City of La Verne
Sewer Lift Station	Van Dusen Road	Private
Lift Station and Grinder	De Anza Heights Rd	Private
Lift Station	Ridgeview Drive	Private
Lift Station	Crestview Drive	Private
Sewer Lift Station	Creekside	City of La Verne
Williams Avenue Lift Station	Williams Avenue	City of Claremont
LACO Afflerbaugh – Paige Grinder	Steven's Ranch Road	County Owned

2.2 Existing Sub Drainage Areas

The service area of the City's wastewater collection system is separated into sub drainage areas or wastewater shed areas. Each of these sub drainage areas convey wastewater to a different connection to a trunk line owed by the LACSD. The five sub drainage areas were previously determined in earlier master plans based upon geography, flow demands, and available trunk lines. The sub drainage areas are shown in Exhibit B and can mostly be described as:

Sub Drainage Area 1. This sub drainage basin basically includes the western third of the City. Its western boundary of the sub drainage areas generally follows the physical barrier of the Puddingstone Flood Control Channel while the southeastern boundary essentially bisects the City from the southwest to the northeast. The basin includes nearly all of north La Verne as well as Puddingstone Village located in the southwestern corner of the City. The area is comprised of a mix of land uses with residential being dominate. Most of the residential land use is single family with densities ranging from 2 - 4.5 units per acre. There is some commercial use along Foothill Boulevard and Arrow Highway. Wastewater collected within this basin is conveyed to LACSD's Ramona Avenue Trunk, a 12" non reinforced concrete pipe and beginning near the intersection of Foothill Boulevard and Baseline Road and points southerly along Ramona Avenue. In the City's southern reaches wastewater is discharged into LACSD's Puddingstone Trunk, Sections 1 and 2, a 15" VCP pipe.

Sub Drainage Area 2. This basin is generally bounded by Foothill Boulevard on the south and the Puddingstone channel on the east. It drains the Foxglen neighborhood and picks up flows from the City of San Dimas, which also includes flows from La Verne's Creekside development along San Dimas Canyon Road. The area is strictly characterized as residential with densities ranging from 2 – 4.5 units per acre. Flows are conveyed to the Sunflower Trunk in Canyon View Drive. The Sunflower Trunk is a 12" non-reinforced concrete pipe.

Sub Drainage Area 3. Sub area 3 is bordered by Foothill Blvd. to the north, B Street to the east, the Metrolink ROW to the south, and the eastern boundary of Sub Drainage Area 1. This drainage area contains a mix of land uses including single family and multifamily residential, a large mobile home park, a senior living community, commercial, public facilities, and some light industrial. Residential densities vary widely from 4.5 to 10 units per acre. Residential uses make up the largest land use in the area, but public facilities are a close second with the Metropolitan Water District's Weymouth Treatment plant, various parks, and public and private schools occupying wide swaths of land. Flows from Sub Drainage Area 3 are discharged into the Puddingstone Trunk, Section 4 located in Palomares Avenue just east of the Puddingstone channel. The Puddingstone Trunk, Section 4 is a 12" VCP pipe.

Sub Drainage Area 4. This drainage area is centrally located and includes a large part of the community. Its northern half may be defined by Golden Hills Road to the north, the eastern City limit/prolongation of Williams Avenue to the east, boundary of Sub Drainage Area 1 to the west and Foothill Blvd. separating the north and south halves of the sub area. The southern half is bounded by Foothill Blvd. in the north, White Avenue in the east, Puddingstone Drive to the south, and the eastern boundary of Sub Drainage area 3 to the west. The vast majority of the area includes single family

residential land use with some multifamily, some commercial along Foothill Blvd and in the Oldtown core, the University of La Verne, parks, elementary and secondary schools, business park, and other public facilities. Residential densities range from 2 – 10 units per acre. Wastewater from Sub Drainage Area 4 is carried to either the Emerald Avenue Trunk, a 12" VCP pipe, or the La Verne "B" Street Trunk, a 12" VCP pipe.

Sub Drainage Area 5. The easternmost side of the City is served by Sub Drainage Area 5. It includes a small triangular area north of Foothill bounded by the Live Oak Flood Control Channel and the City limits. However, most of Sub Area 5 lies below Foothill Blvd. with Fulton Road/city limits the eastern boundary, White Avenue its western boundary, and Arrow Highway its southern boundary. The area primarily includes single family with some multifamily land uses, as well as some commercial and light industrial uses. Some City of Pomona flows also contribute to this drainage area. Discharges from this basin are received by the La Verne Trunk, Section 2, a 27" reinforced concrete pipe located southwest of White Avenue on Los Angeles County Fair property.

The five sub drainage areas as they currently exist do not incorporate all properties within La Verne's incorporated City limits. For example, most of the San Polo business park uses south of Arrow Highway are outside of these drainage areas as they are currently defined as are the Puddingstone Hill region and the Park La Verne neighborhood. The San Polo area discharges into the La Verne Trunk, Sections 2 and 3 of LACSD. This trunk line ranges in size from 12" VCP to 24" reinforced concrete pipe. Wastewater from the Puddingstone Hill region and Park La Verne neighborhood is transported through the City's system and eventually discharged into the LACSD's Puddingstone Trunk, Sections 1 and 2, which is a 15" non reinforced concrete pipe. As for Brackett Air Field, much of this area presently flows into the LACSD's La Verne Trunk, Section 2. Segments of this pipe range from 12" VCP to 24" reinforced concrete pipe.

2.3 Revisions to the Sub Drainage Areas

The most recent revisions to the drainage sub areas occurred during preparation of the 1993 Wastewater Master Plan. Since that time though, the City has expanded in territory and development has extended beyond the original sub basins boundaries. Each of the five sub basins will be revised to reflect current conditions and anticipated development. A summary of these revisions is included Table 2.2.

Table 2.2 – Revisions to Sub Drainage Areas

Drainage Area	Description
Sub Area 1	Addition of Marshall Canyon Estates
	Addition of Rancho Esperanza Tract
	Addition of La Verne Oak Tree Estates Tract
	Relocate region bounded by Damien, Bonita, Wheeler, and Metro Light Rail ROW from Sub Area 3 to Sub Area 1
Sub Area 2	Relocation of Creekside Development from Sub Area 1 to Sub Area 2
	Relocation of Remaining Area West of Bluff along San Dimas Canyon Flood Channel from Sub Area 1 to Sub Area 2
Sub Area 3	Addition of Puddingstone Hill Region (Puddingstone La Venture)
	Addition of Park La Verne Tract
	Addition of San Polo Business Park
Sub Area 4	Addition of Brassie Lane Subdivision (LA County Area)

Proposed revisions to the sub drainage areas are shown in Exhibit C.

Brackett Airfield is a Los Angeles County property located within the City limits of La Verne. It is currently served by an internal wastewater system network and discharges directly into a LACSD Trunk line. Therefore, it is not included within any of the current or proposed sub drainage areas.

2.4 Hot Spots/Problem Areas

As noted previously, the City employs the use of hydro jetting and CCTV inspections as its primary maintenance program. With more than 100 miles of wastewater pipelines throughout the City's service area, per City staff, the City attempts to conduct such maintenance on each pipe segment at least once every two years. There are exceptions though for areas referred to as "hot spots." These are pipe segments that are subject to high amounts of fats, oils, and grease (FOG) and require more frequent cleaning. Current hot spots are noted in Table 2.3 below and shown in Exhibit D.

Table 2.3 – Current "Hot Spot" Maintenance Locations

Location/Street	Issue	From Manhole	To Manhole
Foothill Blvd	Grease	R23-103	R24-106
Foothill Blvd	Grease	R24-106	Q24-127
Foothill Blvd	Grease	P24-146	Q24-121
Foothill Blvd	Grease	O24-104	O24-115
Foothill Blvd	Grease	O24-104	N24-110
Emerald Ave	Grease	P23-115	P24-317
Dover Ave	Grease	P23-125	P23-142
Butterfield Ave	Grease	P23-136	P23-142

Location/Street	Issue	From Manhole	To Manhole
Peyton Rd	Grease	P22-142	P22-139
Alley north of PSF	Grease	P20-117	P20-114
Alley north of PSF	Grease	P20-113	P20-121
Alley e/o D, s/o Bonita	Grease	Q20-100	Q20-114
White Ave	Grease	Q23-104	Q23-101
Bianca St	Grease	P23-109	O23-109

Each of these noted hot spots receive maintenance on an as needed basis, but typically every three to six months. Grease generators are typically identified to be restaurants, which may suggest that individual grease interceptors are not functioning or being maintained as required. The City should consider implementing a program requiring each suspected business to improve their interceptor maintenance program or replace their equipment per Los Angeles County Code Title 20, Utilities, Division 2, Sanitary Sewers and Industrial Waste, as adopted by the City in 1989. The City should also consider updating its own Municipal Code to reference the most recent version of the County code.

Chapter 3 - Planning and Design Criteria

Chapter 3 presents the various information contemplated in developing this wastewater master plan. This background information includes a review of the City's existing and updated General Plans, zoning maps, specific plans, population housing data, and other relevant sources of information. It also includes a discussion on specific flow generators that may be used to assess future wastewater flow potentials discussed in Chapter 6. Lastly, recommended standards for wastewater design are identified.

This chapter specifically offers a description of the master plan study, including:

- Design period;
- Existing and planned land uses as indicated in General Plan;
- Existing and projected populations; and
- Wastewater system design criteria.

3.1 Design Period

Master plans of this type and scope generally have an approximate planning horizon of 20 years. The design period for this Wastewater Master Plan and Capital Improvement Program (CIP) is from 2022-2042. It is closely aligned with the City's General Plan planning horizon of 2040 as well as the 2035 planning horizon used in the City's 2020 Water Master Plan.

3.2 General Plan

A General Plan is the foundation of local land use planning. These long-term policy documents outline a community's vision for growth and development. In other words, the General Plan establishes the framework for development and as such, the policies established within the General Plan also serve to create the framework for any utility master plan, including this wastewater master plan. This chapter reviews the development projects and determines potential future wastewater requirements for the City based on that data.

The City of La Verne's current General Plan was adopted in 1998 and includes chapters on land use, transportation, resource management, community facilities, and housing among others. In 2017, the City initiated a comprehensive update to its General Plan, which is presently being drafted. This 2017 update will include similar chapters or elements as the 1998 plan, such as land use, hazards, safety and noise, utilities and community services, and regulatory framework. However, as the 2017 General Plan update remains in draft form, preparation of this wastewater master plan will focus on the policies contained in the 1998 General Plan. Also, to ensure consistency with other planning documents, background information found in the City's 2020 Water Master Plan was reviewed and incorporated into this document.

3.2.1 Existing Land Use

Land use is a key consideration in the development of this master plan. Land use types such as industrial, commercial, and residential all place varying demands on wastewater systems as do residential housing densities. As such, it is important to identify the varying land uses, both existing and planned, to determine potential wastewater flows and impacts to the City's wastewater system.

La Verne is a well-balanced, bedroom community with residential land uses accounting for about one-third of the existing land use. Single family residences represent approximately 28% of the City's existing land area with total residential use estimated to be about 34% of the entire land area. Commercial and industrial land uses account for an additional 6% while community facilities and institutional uses occupy another 19%. Approximately 28% of the City's land area is currently dedicated to open space, a number that has more than doubled during the 2000s.

Table 3.1 summarizes each of the existing land use categories by acreage.

Table 3.1 – Existing Land Usage by Acreage

Existing Land Use	Acres*	% of Total Acres
Single Family Residential	1,950	28%
Multifamily Residential	234	3%
Mobile Home	199	3%
Commercial	169	2%
Industrial	282	4%
Civic/Institutional	825	12%
Golf Course	278	4%
Open Space	1,944	28%
Airport	243	3%
Right of Way	841	12%
TOTAL	**6,965**	**100%**
*Acres were obtained from GIS data (Or City La Verne GIS Dataset, De Novo Planning Group 2017).		

3.2.2 Future Land Use

Future land use is determined by the City's 1998 General Plan as well as the availability of vacant land and properties suitable for redevelopment within the City. Table 3.2 summarizes the City's existing 1998 General Plan land use designations by total acres at build out.

Table 3.2 – 1998 General Plan Land Use Designations by Acreage

Existing Land Use	Acres*	% of Total Acres
Hillside Residential (0-2 du/ac)	639	9%
Low Density Residential (0-5 du/ac)	1,690	24%
Medium Density Residential (0-10 du/ac)	344	5%
High Density Residential (0-15 du/ac)	36	1%
Commercial/Business Park	356	5%
Industrial	126	2%
Community Facilities	987	14%
Open Space	2,034	29%
Right of Way (including freeway corridor)	751	11%
TOTAL	**6,963**	**100%**
*Acres were obtained from GIS data (Or City La Verne GIS Dataset, De Novo Planning Group 2017).		

The majority of the study area appears to be near buildout levels. However, as demonstrated in Table 3.2, residential land use categories have the potential to reach 2,709 acres, an increase of 326 acres beyond existing development. This suggests that residential growth within the study area could increase by 13% based upon land area alone.

The General Plan includes four subcategories for residential land use with each allowing varying densities. . A description of each category is summarized as follows:

- ***Hillside (0-2 DU/Ac)***: The Hillside potential maximum built-out area is 639 acres. Within this designation, single-family units may be built up to a density of two dwelling units per acre. However, development in the Hillside designation is faced with constraints such as steep slopes, faults, landslides, fire danger, etc. Some areas within this category are not developable nor can this undevelopable area be calculated for density purposes. The Hillside residential category is subject to four (4) zoning designations of PR1/5 (1 du/5 ac), PR1D (1du/ac), PR2D (2 du/ac), and HDOZ (Hillside Development Overlay Zone). The population density for this category could range from zero to six (6) per acre, assuming an average household size of 2.75.
- ***Low-Density (0-5 DU/Ac)****:* The Low-Density potential maximum built-out area is 1,690 acres. This category will permit single-family units at a density of 0-5 units per acre. The Low-Density residential category is subject to four (4) zoning designations of PR2D (2 du/ac), PR3D (3du/ac), PR4.5D (4.5 du/ac), and PR5D (5 du/ac). Population density for this category could range from zero to 14 persons per acre, assuming an average household size of 2.75.
- ***Medium-Density (0-10 DU/Ac)***: The Medium-Density potential maximum built-out area is 344 acres. In addition to single family units, this category allows for the development of mobile homes, duplexes, and other attached dwellings. The Medium-Density residential category is subject to six (6) zoning plans of PR6A (6 du/ac), PR7A (7du/ac), PR7.5A (7.5 du/ac), PR8A (8 du/ac), PR10A (10du/ac), and MHP (Mobile

Home Park Zone). Population density for this category could range from zero to 27 persons per acre, assuming an average household size of 2.75.

- ***High-Density (0-15 DU/Ac)***: The High-Density potential maximum built-out area is 36 acres. According to the 2008-2014 Housing Element, there is an area of 19 acres that may be rezoned from PRA15 to PRA25 to accommodate additional residential dwellings of 25 attached units per acre. This category is for multiple-family residential units and also provides for the development of duplexes and other attached dwelling units. The High-Density residential category is subject to one (1) zoning plan of PR15A (15 du/ac). Population density for this category could range from zero to 41 persons per acre, assuming an average household size of 2.75.

Additional land use categories include:

- ***Commercial/Business Park:*** The Commercial/Business Park potential maximum built-out area is 356 acres. This category permits retail commercial, office, light manufacturing, industrial, and mixed uses. The Commercial/Business Park category is subject to four (4) zoning plans of CPD (Commercial-Professional Development), C-M (Commercial Manufacturing), NC (Neighborhood Commercial), and A-P (Administrative-Professional). Maximum lot coverage of 50 percent in permitted.
- ***Industrial***: The Industrial designation has a potential maximum built-out area of 136 acres. This category allows for more intense manufacturing and industrial uses than allowed in the commercial/business park areas of the City. The Industrial category is subject to two (2) zoning plans of PID (planned Industrial Development), and Industrial (SP84-12). Maximum lot coverage of 50 percent in permitted.
- ***Community Facility/Freeway:*** The Community Facility/Freeway potential maximum built-out area is 987 acres. This category includes Schools, Senior Housing Units, the University of La Verne, Brackett Field, MWD's properties, water/wastewater facilities, storm drains, libraries, churches, and any special facilities unique to the City.
- ***Open Space:*** The Open Space potential maximum built-out area is 2,034 acres. This category includes City parks, utilities, easements, flood control channels, and some hillside areas that will remain undeveloped due to environmental and fire safety constraints. The Open Space category is subject to two (2) zoning plans of O (Official) and A-1 (Limited Agriculture).
- ***Right of Way.*** The Right-of-Way category includes 751 acres and includes the roadway network and the Foothill (210) Freeway.

Planning Districts/Neighborhoods

The 1998 General Plan divides the City into eight (8) Planning Districts/Neighborhoods as follows:

- **Neighborhood One - North La Verne Hillsides**: This District/Foothill Neighborhood contains 1,043 acres of residential uses and open space. Most development is single-family detached housing, on lots ranging from 10,000 to 15,000 square feet. The existing General Plan has identified significant single-family development for portions of this area. Development is faced with difficult

circumstances such as steep slopes, faults, landslides, fire danger, etc. Individual site constraints combined to severely constrain density and, in some cases, prohibit development. The most recent development was completed under the Marshall Canyon Specific Plan.

- **Neighborhood Two - North La Verne**: This District/Neighborhood contains 1,334 acres. The developed portion is almost exclusively single-family residential. This District includes undeveloped natural oak woodland as well as the Live Oak Reservoir. Significant natural open space remains in this District.
- **Neighborhood Three - Northwest La Verne**: This District/Neighborhood contains 277 acres. Development in this District may be limited by fire danger and geologic hazard as well as by the desire to protect natural terrain and views. Development in Northwest La Verne consists primarily of single-family homes constructed in the 1960s and 1970s.
- **Neighborhood Four - Foxglen**: This District/Neighborhood is located in the western portion of La Verne. It is the smallest District with just 127 acres. Foxglen is comprised of one small park and single-family homes.
- **Neighborhood Five - Foothill Corridor**: This District/Neighborhood contains 810 acres with a diversity of land uses, including residential development (single/multi-family and mobile homes), open space, recreation, and agriculture. Additionally, there is commercial development along Foothill Boulevard which establishes the character of this District. It remains some vacant commercial land that may be developed in the future.
- **Neighborhood Six - West La Verne**: This District/Neighborhood contains 618 acres. Adjacent to West La Verne is a pocket of unincorporated Los Angeles County land that is within the City's sphere of influence. The most prominent feature of this District is the Metropolitan Water District Weymouth Filtration Plant. Mobile home communities and a variety of single and multiple-family housing characterize the remainder of West La Verne.
- **Neighborhood Seven - Lordsburg**: This neighborhood includes most of the Lordsburg Historic District. The northern portion of this 788 acres' neighborhood is dominated by community facilities. Lordsburg homes include both single and multiple-family units. Single-family homes characterize residential development in this District. Most of the development is managed under the Old Town and Lordsburg specific plans.
- **Neighborhood Eight - South La Verne**: This District/Neighborhood contains 891 acres and includes the greatest amount of vacant land in La Verne. The most prominent land use is the general aviation airport of Brackett Field. The La Verne Business Park occupies 100 acres north of the airport. This District includes other industrial uses. Residential development is limited. There is a community of mobile home parks in the east and scattered single-family residential development just south of Arrow Highway.

3.2.3 Zoning Documents

The City's General Plan provides general guidance for land use and density. However, zoning and associated documents such as specific plans provide more defined development regulations. The City's 2016 Zoning Map includes 18 land use categories and 16 Specific Plans. Residential categories of varying density allowances comprise the majority of the land use types. These densities range from one dwelling unit per 5 acres to 15 dwelling units per acre. Other zoning categories include Agricultural, Commercial/Professional, Mobile Home Park, Official, Institutional, and Hillside Overlay Zone. The various zoning categories are shown in Table 3.3.

Table 3.3 – 2016 Zoning Map Designations

Zoning Designations
Agricultural
Planned Residential PR1/5D 1 D.U./5 Acres Detached
Planned Residential PR1D 1 D.U./Acre Detached
Planned Residential PR2D 2 D.U./Acre Detached
Planned Residential PR3D 3 D.U./Acre Detached
Planned Residential PR4.5D 4.5 D.U./Acre Detached
Planned Residential PR5D 5 D.U./Acre Detached
Planned Residential PR6D 6 D.U./Acre Detached
Planned Residential PR7D 7 D.U./Acre Detached
Planned Residential PR7.5D 7.5 D.U./Acre Detached
Planned Residential PR8D 8 D.U./Acre Detached
Planned Residential PR10D 10 D.U./Acre Detached
Planned Residential PR15D 15 D.U./Acre Detached
Commercial/Professional District
Mobile Home Park
Official
Institutional
Hillside Overlay Zone

In addition to its general zoning designations, the City of La Verne has also adopted 16 specific plans. These plans are listed in Table 3.4.

Table 3.4 – Adopted Specific Plans

Specific Plan Name	Potential Number of Dwelling Units
900 Bonita Ave.	0
Arrow Corridor	106
Emerald Collection	19
Emerald Ridge 2	33
Foothill Boulevard	437
La Verne Heights	186
Live Oak	328
Lordsburg	31
Marshall Canyon	184
Old Town La Verne	Unknown
Puddingstone La Venture	15
Puddingstone	231
Rancho Esperanza	19
Rancho La Verne	438
Sierra La Verne	142
Walnut Street	79

Redevelopment activities will likely account for most new development prospects as very little vacant land remains within the City. Most of this opportunity is expected to occur within the City's central core based upon current zoning documents, but other possibilities should be considered, such as the now defunct Sierra La Verne golf course and small, vacant, infill parcels likely to be considered for higher density uses.

3.2.4 Pending Projects

Several projects are also in the planning stages of review that may potentially include more intense land uses than currently provided for in the City's zoning and/or General Plan. These projects are noteworthy as they will contribute greater wastewater loads than anticipated under ultimate conditions. These projects include:

- 500 East Baseline Road. Consists of seven single family residential lots (currently vacant land).
- Brethren Hillcrest Homes Master Plan. Includes 14 attached and detach single family dwelling units (currently vacant land).
- Sage Canyon. Consists of 17 single family residential lots on 11.4 acres (currently vacant land).
- University of La Verne Master Plan
- White Avenue Industrial Development. Consists of four, light industrial units totaling approximately 83,700 square feet on 3.95 acres (existing industrial use).

3.2.5 Other Anticipated Projects

- Fairplex Mixed Use (currently vacant land).
- Enhanced Infrastructure Financing District Area. It is noted that residential projects within the EIFD can include residential densities of up to 25 du/ac.

3.2.6 Sphere of Influence Area

The City of La Verne also supports some wastewater flows from its neighboring communities of Pomona, San Dimas, and unincorporated Los Angeles County areas. The existing land uses in these areas are almost exclusively residential with some agricultural and golf course/recreational use.

The respective land use designation for each supported area is shown in Table 3.5.

Table 3.5 – Land Use Designations for Supported Communities

Location	Land Use	Acres
County of Los Angeles	Light Agricultural (0-1 unit/1-5 acres)	200+
City of San Dimas	Residential (0-2 units/acre)	240
City of Pomona	Residential Neighborhood (0 -6 units/acre)	23

The City's sphere of influence includes a total approximate area of 861 acres of unincorporated Los Angeles County territory, some of which is already supported as shown in Table 3.5. Much of the remaining Los Angeles County area within the City's SOI is open space northeast of the City or existing single-family homes on the City's western edge. These existing homes are currently served by a county wastewater system that directly discharges into the LACSD trunk system.

3.3 Population Projections

Historical population and housing figures were obtained from California Department of Finance reports for the noted periods. Table 3.6 provides historical data on population and housing from 1990 through 2020. During this 30-year period, the City's population increased 8 percent from 30,843 to 33,313 persons. This represents a moderate growth rate of only 0.26 percent annually. The City's 2022 population is estimated at 33,491, which was projected from 2020.

The number of dwelling units expanded 1,121 during the same period to a total of 12,211 dwelling units, a growth rate of 0.55 percent annually. The total number of vacant dwelling units declined between 1990 and 2000, after which the City experienced a steady increase in vacant units from 221 to 488 between 2000 and 2020.

Table 3.6 – Historical City Population and Housing (1990 – 2020)

Historical Population (1990 – 2020)							
	1990	1995	2000	2005	2010	2015	2020
Population	30,843	30,466	31,572	31,702	31,063	33,030	33,313
% Change from Prior Period		-1.22%	3.63%	0.41%	-2.02%	6.33%	0.86%
Total Dwelling Units	11,090	11,079	11,286	11,482	11,680	12,057	12,211
% Change from Prior Period		-0.10%	1.87%	1.74%	1.72%	3.23%	1.28%
Vacant Dwelling Units	372	295	221	315	425	458	488
% Vacant	3.35%	2.66%	1.96%	2.74%	3.64%	3.80%	4.00%
Population/Occupied Dwelling Unit	2.82	2.77	2.79	2.80	2.70	2.75	2.71

A projection of future population and housing through 2040 was extrapolated using the average annual growth rate for each between 1990 and 2020. Using this method, the 2040 population is expected to be approximately 37,430. Total dwelling units are expected to increase from 12,278 to 13,062 during the same period. These projections are displayed in Table 3.7 below.

Table 3.7 – Land Use Designations for Supported Communities

Projected Population (2022-2040)					
	2022	2025	2030	2035	2040
Population	33,491	34,345	35,408	36,505	37,430
% Change from Prior Period	0.09%	3.01%	3.01%	3.01%	2.53%
Total Dwelling Units	12,278	12,418	12,629	12,844	13,062
% Change from Prior Period	0.55%	1.145%	1.7%	1.7%	1.7%
Vacant Dwelling Units	491	434	441	448	476
% Vacant	4.00%	3.50%	3.50%	3.50%	3.50%
Population/Occupied Dwelling Unit	2.71	2.75	2.75	2.75	2.75

3.4 Design Criteria

In order to maintain an adequate and reliable wastewater system, the City should adhere to the following design criteria being proposed for this study:

1. Flow in all pipelines 8-inches in diameter or less should not exceed 50% flow depth.

2. Flow in all pipelines 10-inches in diameter and higher should not exceed 75% flow depth.

3. Unlined manholes that are 50 years or older and lined manholes of 100 years or older may require rehabilitation due to old age and poor conditions. The City should inspect these manholes under a routinely schedule and provide rehabilitation if necessary.

    a. Poor conditions consist of being manholes being composed of brick, damage or other risk of structural integrity, groundwater infiltration, spalling, or root infiltration.

4. Pipelines that are old may require rehabilitation due to old age and poor conditions. Depending on material, the scouring flow and damage from external influence may be present. Lifespan of VCP can be up to 100 years. The City should inspect these pipelines under a routinely schedule and provide rehabilitation if necessary.

Chapter 4 - Existing Collection System Facilities

The City of La Verne provides wastewater service to all properties within the incorporated City limits. The total number of laterals connected to the city's wastewater system is approximately 8,667 consisting of 12,741 wastewater units. The City also accepts flows from unincorporated Los Angeles County areas and specific neighborhoods in the cities of San Dimas and Pomona under various agreements. This flow is transported via the City's collection system to the regional LACSD trunk system. Chapter 4 inventories the assets of the City's wastewater system and examines operational agreements that the City maintains with other agencies and neighboring communities.

4.1 Inventory

The City's GIS system was used to obtain data regarding the City's wastewater assets. The GIS system catalogs the City's numerous assets that comprise the City's wastewater system. Such data may be analyzed and displayed geographically within the GIS. The City contracts with Nobel Systems for their GIS platform and for management of the data within the GIS.

The vast majority of the City's wastewater system is known as a "gravity" system. Such a system utilizes the force of gravity or energy resulting from the difference in a higher elevation to move sewage to a down gradient destination. The flow through the pipes is moved by the force of gravity; there are no pumps or pressurized components aiding flow movement within a majority of the wastewater system.

However, the City also operates and maintains two lift stations to serve areas where gravity alone will not suffice to move wastewater flows. These include the Franklin (Puddingstone) and Creekside lift stations. Lift stations collect wastewater from gravity systems and use pumps to "lift" the wastewater to an elevation necessary to again return it to a gravity flow.

4.1.1 Gravity Mains

The City's gravity wastewater system consists of approximately 99.3 miles of pipe ranging from 5-inch diameter to 16-inch in diameter. Vitrified clay pipe (VCP) is the dominant pipe material, but materials such as asbestos cement (AC), cast iron (CI), ductile iron (DI), poly vinyl chloride (PVC), high density polyethylene (HDPE), and ABS truss pipe are also used throughout the system. Nearly 83.4% of the wastewater system is comprised of 8-inch VCP with 10 and 12-inch VCP pipe accounting for an additional 8.5% of the piping network.

Access to the wastewater system is gained through 2,129 manholes. These manholes are classically located where a change in pipe direction or alignment is required and are generally spaced no greater than 500 feet of each other to facilitate maintenance.

Table 4.1 identifies existing pipe sizes by material and total pipe length used throughout the City's' wastewater system.

Table 4.1 – Total Pipe Length by Diameter and Material

	Pipe Diameter (in)								
Pipe Material	**5**	**6**	**8**	**10**	**12**	**14**	**15**	**16**	**Total Length per Material (ft)**
ABS	-	566	5,386	-	-	-	-	-	5,952
AC	-	-	2,535	641	2,308	-	-	-	5,483
CI	-	-	450	597	-	-	-	-	1,047
DI	-	18	6,729	254	-	-	-	-	7,001
HDPE	-	324	-	-	-	-	-	-	324
PVC	-	1,291	10,760	43	-	-	975	136	13,204
STL	-	-	377	30	-	377	-	-	784
VCP	10	6,555	436,930	23,724	20,606	-	1,272	-	489,097
Unknown	-	44	-	1,097	-	-	-	-	1,141
TOTAL LENGTH per Diameter (ft)	**10**	**8,797**	**463,167**	**26,385**	**2,2914**	**377**	**2,247**	**136**	**524,032 (or 99.3 miles)**

There was a substantial portion of the system was constructed between 1960 and 1989 which correlated with significant growth for the City in the 1970's and 1980's. This places most of the system piping between 30 and 60 years old. The lifespan for wastewater piping is dependent upon many things, such as flow velocities and chemical characteristics of the sewage carried. It is common for VCP to remain in service up to and beyond 100 years.

More than 8.0% of the City's system was constructed between 1920 and 1929, putting it at the upper limits of its service life. Pipe of this age is generally found in the Oldtown area bordered by Wheeler Avenue on the west, Walnut Avenue on the south, White Avenue on the east, and Eighth Street on the north with limited pipe segments extending beyond these boundaries. Table 4.2 lists total length of pipe and percentage of total pipe by decade installed.

Table 4.2 – Total Pipe Length by Age

Pipe Age	Length (feet)	Percent of Total Pipe (%)
1920 - 1929	42,030	8.02%
1930 – 1939	4,071	0.78%
1940 – 1949	589.39	0.11%
1950 – 1959	17,331	3.31%
1960 – 1969	84,557	16.14%
1970 – 1979	157,646	30.08%
1980 – 1989	97,682	18.64%
1990 – 1999	27,848	5.31%
2000 – 2009	45,339	8.65%

Pipe Age	Length (feet)	Percent of Total Pipe (%)
2010 – 2019	18,730	3.57%
2020 - Present	840	0.16%
Unknown	27,370	5.22%
TOTAL LENGTH (ft)	**524,032 (or 99.3 miles)**	**100%**

4.1.2 Lift Stations

In addition to gravity mains, the City's system includes two force mains serving the Franklin (Puddingstone) lift station and the Creekside (Colina De Oro) lift station.

The Franklin lift station is located at 989 Puddingstone Drive. This station serves the southwestern area of the City, which is primarily comprised of light industrial land uses. The total land area served by the Franklin lift station is approximately 106 acres and is generally bounded by the Puddingstone Flood Control channel on the west, the Metrolink ROW on the north, Puddingstone Drive on the south, with an eastly boundary that moves diagonally from the intersection of Yeager Avenue and Wheeler Avenue to the intersection of Wright Avenue and Puddingstone Drive. The original lift station and its associated DI force main were constructed in 1989/90. The lift station was enlarged (increased wet well capacity) and the force main was replaced using 10-inch PVC in 2015. The force main is about 3,185 feet in length and discharges into a short gravity line approximately 722 feet east of Wright Avenue before entering the LACSD's 24" La Verne Section 2 Trunk line.

The Creekside lift station is located at the southerly end of Colina De Oro and became operational in 2020. It provides service to the Creekside development, a small, private community of 22 homes and has been sized to accommodate eight additional residential properties along Caballo Ranch Road in the City of San Dimas. The 3-inch PVC (SDR-35) force main travels approximately 912 feet out of the residential neighborhood and turns south in San Dimas Canyon Road, after which it transitions to an 8-inch gravity PVC line that discharges into the City of San Dimas' gravity wastewater system at Terrabonne Avenue.

4.2 Sanitation Districts of Los Angeles County

The Sanitation Districts of Los Angeles County consist of 24 independent special districts that provide wastewater and solid waste management service for 5.6 million people in Los Angeles County. The major wastewater collection, treatment and disposal system that serves the Los Angeles basin is known as the Joint Outfall System. The Amended Joint Outfall Agreement provides for the joint ownership and operation of this regional trunk system with costs shared among the 17 signatory Sanitation Districts.

The City of La Verne is located within County Sanitation District Nos. 21 and 22, which are among the 17 signatories to the Amended Joint Outfall Agreement. All wastewater generated in La Verne is conveyed from La Verne's wastewater system to LACSD trunk wastewaters. These regional trunk lines then convey the wastewater to water reclamation and/or wastewater treatment plants operated by the LACSD for reuse or discharge. The City of La Verne is served by nine major LACSD trunk lines, which include the following:

- Sunflower Trunk
- Ramona Avenue Trunk
- Puddingstone Trunk Sections 1, 2, 3, & 4
- Joint Outfall H – Unit 9C (industrial waste only)
- Emerald Avenue Trunk
- Emerald Wash Trunk
- B Street Trunk
- La Verne Trunk Sections 2 & 3
- JOA 1A Etiwanda Edison Wastewater Line (industrial waste only)

The Sunflower, Ramona, and Puddingstone trunks transport wastewater to the San Jose Creek Water Reclamation Plant located within District No. 21. The San Jose Creek plant is located at 1965 S. Workman Mill Road in the City of Whittier. The remaining trunk lines, with exception of the industrial waste lines, deliver wastewater to the Pomona Water Reclamation Plant serving District No. 22. The Pomona plant is located at 295 Humane Way in the City of Pomona.

Industrial waste refers to the waste the comes from the production of consumer goods, agricultural or any non-hazardous waste. Residential discharge, or household waste, is defined as the disposable materials generated by households.

4.3 Interagency Agreements

The City of La Verne has authorized and/or maintains various agreements with neighboring cities and the County of Los Angeles to accept or convey wastewater, which is ultimately discharged into the LACSD lines. Overall, wastewater from areas outside the City of La Verne include an estimated 463 acres and approximately 451 residential parcels that discharge into La Verne wastewater system. There are no known discharges of La Verne's system into that of another agency other than LACSD trunk lines and the connection noted below in Section 4.3.2. with San Dimas. Exhibit I provides the boundaries of these agreements within the City of La Verne.

Related agreements include:

4.3.1 Pomona/Claremont

Resolution No. 943 was adopted by the La Verne City Council in 1956. The resolution authorized the execution of a joint powers agreement between the cities of Pomona and La Verne permitting connection to either parties' wastewater lines (with proper approval from the affected party). City of La Verne Resolution No. 57-16 was approved in 1957, which repealed Resolution No. 943, and authorized a revised agreement between the cities of La Verne, Pomona, and Claremont relative to the joint use of certain wastewater lines owned severally by the parties. The joint use of said wastewater lines was/is limited to La Verne's southern boundary with Pomona along Arrow Highway and generally between White Avenue and Fulton. The resulting actions from this agreement allowed Pomona to connect to La Verne's system near 1510 White Avenue and drain Pomona properties south of Arrow Highway and west of Fair Road at La Verne manhole No. R-18102. The area encompasses 47 single family properties and a recreational vehicle park. Total area including the RV park is about 23 acres.

4.3.2 San Dimas

Although no known agreement or permit is available for the **Terrebonne** drainage area, an estimated 240 acres in the City of San Dimas drains into La Verne's wastewater system. Improvement plans for a connection to the La Verne system were approved by La Verne's City Engineer circa 1964/1965. However, the total number of wastewater connections authorized is unknown. The Terrebonne neighborhood is primarily residential and includes a public golf course, San Dimas Canyon Golf Course. Today, there are about 326 residential parcels in this drainage area plus the golf course (only the clubhouse area is included in estimated acreage figure). It is also noted that La Verne's Creekside Lift station also discharges into San Dimas' system at San Dimas Canyon Road and Terrebonne. The San Dimas Terrebonne area discharges into the La Verne system at the intersection of Ramola Avenue and Eastglen Drive, La Verne manhole No. M-29100.

4.3.3 Los Angeles County.

The **Summit Road Zone** was established by Los Angeles County in February 1986 under an agreement with the City of La Verne dated September 10, 1985. The zone drains an area of approximately 77 acres and includes roughly 58 developed and undeveloped residential properties and the Leroys Boys Home. The area can largely be defined as the area bounded by Summit Road on the north, Williams Avenue on the east, Baseline Road on the south, and the extension of Dawn Avenue on the west. The County's lines discharge into the La Verne system in Baseline Road at La Verne manholes R-26104 and Q-26106. The County pays the City an annual fee of $15.26 (Los Angeles County Title 20, Section 20.40.100) per connected unit.

The **Brassie Lane Zone** was established by Los Angeles County in April 1992 under an agreement with the City of La Verne dated February 7, 1989. This zone includes 20 large residential properties along Brassie Lane and Clayton Court. The area totals approximately 42.7 acres. This area also discharges into the City's system at La Verne manholes R-33106 and R-32122. The county pays the City an annual fee of $15.86 per connected unit.

In 2012, a new wastewater line was extended in Stephens Ranch Road from Vista del Sol to Camps Afflerbaugh and Paige by Los Angeles County Parks and Probation departments. Referred to as the **Marshall Canyon** extension, the wastewater line also provides service to the county fire camp, recreation staging area, and portions of Marshall Canyon Golf Course, each of which is located in unincorporated county area. Total area currently serviced is approximately 80 acres, but the potential land area is significantly larger.

Chapter 5 - Computer Modeling

5.1 Objectives of the Analysis

The primary objective of the analysis is to examine the hydraulic performance of the wastewater collection system. The analysis includes scale and projection in time. Scale analysis is performed as average dry weather flow and peak wet weather flow. Projection in time analysis is performed considering existing conditions, near-term (following completion of known development projects) conditions, and ultimate (build-out) conditions.

5.2 Computer Modeling Software

The computer modeling was completed on Bentley Systems, Inc. SewerGEMS software platform Version 8i. This wastewater collection system model is designed to perform hydraulic calculations within a wastewater collection system network and perform fundamental database management of input and output data associated with those calculations.

5.2.1 Sphere of Influence (SOI)

The City of La Verne's sphere of influence for wastewater encompasses the City boundaries, but is separated into 5 separate drainage areas, shown in Exhibit C. The drainage areas contain City of La Verne pipelines, but ultimately discharge into LA County Sanitation District pipelines or trunk lines. The drainage areas have been updated to reflect the most accurate and up-to-date service areas.

5.3 Data Collection

US Cubed performed flow monitoring on 10 manholes throughout the City of La Verne's service area. Flow monitoring occurred during the month of March in 2019. The locations can be seen in Exhibit G. Additionally, data to obtain physical locations of manholes, including manhole inverts were collected. This was obtained by City Staff dipping manholes across the various drainage areas. Dipping manholes consists of removing the manhole cover and measuring the distance to the invert.

Table 5.1 – Location of Manholes Monitored

Location	Manhole #	Address	Depth (ft)	Pipe Size (in)	Drainage Area
Canyon View e/o Canyon Park	134	728 E. Foothill Blvd	8.95	12	2
Ramona Ave	101	3734 Ramona Ave	10.02	12	1
Emerald Ave	122	4392 Emerald Ave	12.36	12	4
B Street	129	1905 6th Street	8.71	10	4
SD Canyon	105	700 Palomares Ave	12.8	12	1
Wheeler Ave	112	2011 Wheeler Ave	12.5	10	3
Arrow Hwy	118	149 Arrow Hwy	9.57	10	3
White Avenue	101	2201 N White Ave	6.3	12	5
Walnut Ave	102	498 S. Walnut Ave	10.13	8	1

Location	Manhole #	Address	Depth (ft)	Pipe Size (in)	Drainage Area
1615 N. San Dimas Canyon Road	143	1615 N San Dimas Canyon Rd	9.34	10	2

5.4 Facilities Modeled

The wastewater model is comprised of manholes, cleanouts, pipes, pumps, and outfalls. Each of these components are separated into 5 different models, per their respective drainage areas. There is no connectivity between these drainage areas.

5.4.1 Manhole and Cleanout Discussion

A total of 2,294 manholes and 235 cleanouts throughout the entire City's service area have been incorporated into the model. Physical locations and elevations within the model were determined through organized as-builts of the City system. Information including manhole number, ground elevation, invert elevation, and connection into the system were all collected. All cleanouts were imported into the model but were not considered as part of the analysis because they do not contain demands or impact the analyses. Manholes with unknown inverts were dipped by City crews to provide manhole depth. The following manholes were dipped.

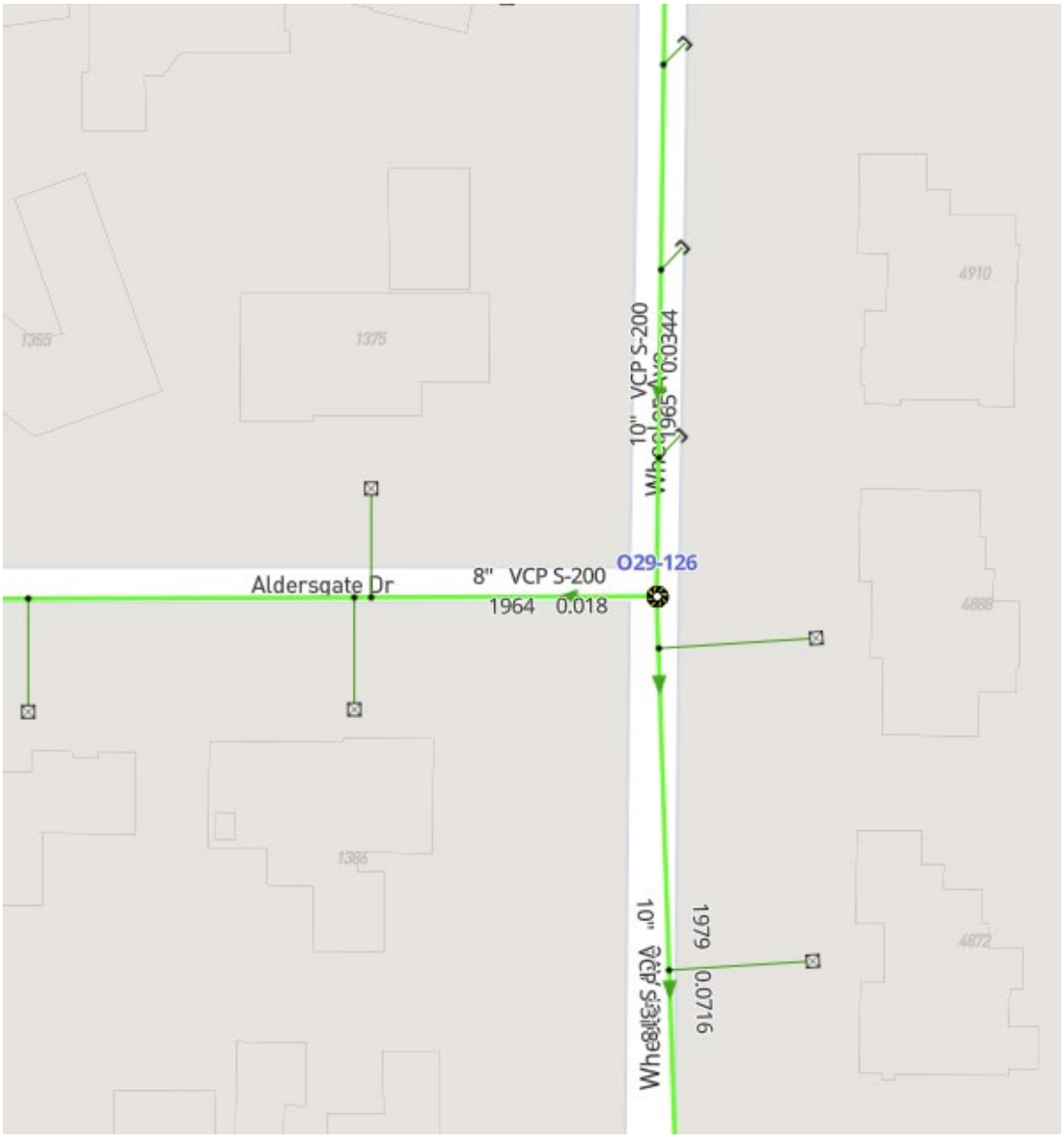
Table 5.2 – Dipped Manholes

Drainage Area	Manhole ID	Depth
DA-1	N-18119	11' 4.5"
DA-1	N-18120	12' 5"
DA-1	N-18121	8' 7.5"
DA-1	N-18122	10' 2.5"
DA-3	O-20118	15' 4"
DA-3	O-21108	6' 6.5"
DA-3	O-21128	6' 11"
DA-3	O-21130	9' 3"
DA-3	O-21139	4' 5.5"
DA-3	O-21143	4' 10.5"
DA-4	P-21150	6' 7"
DA-4	P-21153	5' 5.5"
DA-4	P-25144	6' 1"
DA-4	Q-25104	5' 11"
DA-4	Q-26105	6' 7"
DA-5	Q-17100	6' 11"
DA-5	Q-17102	7'
DA-5	Q-17112	7'
DA-5	Q-18110	7' 2.5"
DA-5	R-18102	12' 10"

5.4.2 Pipe Discussion

The model includes a total length of approximately 537,630 linear feet (101.82 miles). This is slightly larger than the actual length the city owns because it incorporates additional pipelines such as the LA Trunk Lines, and other minor modeling lines to make the model function as intended. Pipe diameters and materials were determined through City as-builts. Pipe start and stop invert elevations and slopes were automatically calculated in the model through connecting manhole inverts. The wastewater model requires “divergence links”, which are used when water flows into multiple pipeline segments at once. An example is shown below in Figure 5.1 Wastewater enters manhole O29-126 and has the option to diverge into either to the south or west. A divergence link is created to split wastewater evenly between the two flow paths. It is important to note that while divergence links were set to split wastewater evenly, field functionality may be different based upon hydraulic conditions.

Figure 5.1 – Divergence Link Example



5.5 Wastewater System Loads

5.5.1 Existing Conditions – Dry Weather

Wastewater system loads were obtained through extracting demand from the water system computer model and scaling it proportionally to match measured flow monitoring data. Each drainage area has their own respective load and is shown in Table 5.3 below. Drainage area 1 contains the most residential and commercial units, resulting in the largest wastewater flow within the system. Drainage area 2 had no water demand data due to the City of La Verne not serving water to that area. Wastewater flow data for Drainage Area 2 was attained through taking an average water demand of similar land usages throughout the City of La Verne and using that average water demand for calibration of the wastewater model. The northern portion of Drainage area 1 north of Baseline Road had the opposite issue as Drainage Area 2, an abundance of demand, but with no flow monitoring available for calibration. Instead, Drainage Area 1 utilized the LA County Estimated Average Daily Sewage Flows for Various Occupancies to obtain wastewater demand in the model.

Table 5.3 – Existing Baseflow Demand

Drainage Area	Baseflow (gpm)
Drainage Area 1	1,216
Drainage Area 2	104
Drainage Area 3	201
Drainage Area 4	804
Drainage Area 5	210

5.5.2 Ultimate Conditions – Dry Weather

The ultimate wastewater flow scenario is considered to be when the projected population is at its maximum within the City. Wastewater system flows were obtained through taking the existing wastewater flow and proportionally scaling by the projected population growth determined from the 2020 La Verne urban water management plan, Chapter Two. The maximum projected population (37,430 people) was compared to the 2020 annual demand (33,313 people). Existing wastewater flows were scaled by 12% to simulate growth to ultimate conditions in all drainage areas.

Table 5.4 – Ultimate Baseflow Demand

Drainage Area	Baseflow (gpm)
Drainage Area 1	1,362
Drainage Area 2	135
Drainage Area 3	262
Drainage Area 4	1,046
Drainage Area 5	273.3

5.6 Steady State Model Calibration

A steady state calibration was performed on the wastewater model to improve the accuracy and confidence in the model output with flow monitoring data provided by US Cubed. Flow monitoring data consisted of an entire month in 15-minute intervals, including recorded level (inches), flow (gpm), and velocity (fps). The data was measured during March 2019, May 2019, and June 2019. The calibration included the following:

- Comparison and validation of daily average wastewater system loading
- Projection of wastewater system flow to simulate measured data

5.7 Steady State Model Results

The wastewater model was run under a dry weather flow under existing condition. The simulations were run under steady state scenario, using SewerGEMS GVF-Convex, which separates the hydraulic problem into a set of subnetworks. It solves for hydraulic grade, including depth and velocity using gradually varied flow (GVF) equations.

The modeling results simulated locations where depths of wastewater are larger than allowed per the design criteria. Wastewater pipelines should not flow with a depth greater than 50%, previously discussed in Chapter 3 - .

Under existing conditions, the City's pipelines satisfy this criterion in every drainage area except for Drainage Area 1. Drainage Area 1 has multiple pipeline flow depths ranging from over 50% to full capacity. These locations are further evaluated in Chapter 6.

Under ultimate conditions, the City's pipelines are flowing over 50% depth in additional areas in Drainage Area 1, and in Drainage Area 4. These areas have pipeline flow depths reaching over 50% full capacity. These locations are further evaluated in Chapter 6.

5.8 Extended Period Simulation Results

The wastewater model was programmed to simulate dynamic conditions, also known as extended period simulation (EPS). A simulation was run for a 24-hour period in order to evaluate pipe and manhole surcharging. SewerGEMS uses implicit (Dynamic wave) for varying flows, which solves for flow and hydraulic grade.

The modeling results simulated locations of supercritical to subcritical transitions. A supercritical to subcritical flow represents a hydraulic jump, which occurs when an abrupt transition from a steep slope meets a lessor slope. This hydraulic jump creates a loss of high energy with potential for erosion. The City of La Verne was built on a large range of elevations, and thus hydraulic jumps within the wastewater system are inevitable.

Under existing conditions, the City's pipelines satisfy similar conditions as stated in the steady state model results. The same pipelines contain a flow depth over 50%, including under ultimate conditions. The reasoning behind this is that these pipelines transfer most of the flow from upstream and convey them downstream into an outfall or discharge point.

Chapter 6 - Capital Improvement Program

6.1 Existing System Improvements

The existing system improvements were prepared with the Design Criteria listed in Chapter 3 to identify a list of projects most needed for continued successful operation of the City's wastewater system.

6.1.1 Flow Depth Over Capacity

Flow in all pipelines 8-inches in diameter or less should not exceed 50% flow depth.

Flow in all pipelines 10-inches in diameter and higher should not exceed 75% flow depth.

Wastewater pipelines are typically designed for a certain flow depth capacity. Flow depth capacity is considered to be under the dry weather scenario and allows for a wet weather scenario to exceed that capacity. Because of sporadic rain in the City, flow depth exceeding the capacity under wet weather scenarios is considered to occur infrequently.

Under both the steady state and EPS scenarios, there are 8-inch pipelines in Drainage Area 1 that exceed the 50% flow depth design criteria. One segment is approximately 275 linear feet, spanning Bunnelle Avenue from Manhole N-28133 to N-28144. Additionally, there are segments composed of 8-inch VCP pipeline along Wheeler Avenue and Golden Hills Road that exceed their capacity. These segments are critical as they may carry wastewater flow from the City's most northern points to the LA County Sanitation District pipelines located on Baseline Road. These pipelines are shown in Exhibit I.

Furthermore, the pipelines crossing the 210 freeway and railroads were considered. The wastewater demands north of those pipelines are small enough that the capacity is nowhere near half-capacity. The capacities within these pipelines are approximately 13% capacity. The year of installation of those pipelines also are in the 1970-2000 ranges, meaning no rehabilitation should be necessary due to age. If any leaks or breaks occurs, the pipelines should be closer evaluated.

6.1.2 Pipes with Age Concerns

Pipelines that are many decades old may require rehabilitation due to age and poor conditions. Depending on material, the scouring flow and damage from external influence may be present. Lifespan of VCP can be up to 100 years. The City should inspect these pipelines under a routine schedule and provide rehabilitation, if necessary.

The life expectancy of a pipeline factors from pipe age and material. Pipelines between the age of 50 and 100 years old can begin to have excessive leaks and fail. Depending on the material (VCP or PVC), the pipeline should be inspected for possible rehabilitated if over the age of 50. The pipeline condition should be reviewed through video inspection before rehabilitation. It should be noted that VCP has a life span of approximately 100 years. The system's pipeline infrastructure is mostly composed of VCP (91.3%), with portions approaching its life expectancy. A summary of pipelines by age is shown in Exhibit F.

There are various methods to manage life expectancy of pipelines. If an existing pipe is undersized due to depth of flow, it can be replaced in place with a larger pipe or it can be

replaced through pipe bursting. These methods should be considered for each project as part of preliminary design. Pipes that are properly sized, but have age related issues, can be slip lined or coated with spray applied materials. Also known as trenchless repair technology. Costs for these repair methods vary greatly and should be analyzed as part of preliminary design.

6.1.3 Manholes Conditions due to Age

Unlined manholes that are 50 years or older and lined manholes of 100 years or older may require rehabilitation due to age and poor conditions. The City should inspect these manholes under a routinely schedule and provide rehabilitation, if necessary.

The City of La Verne has multiple wastewater manholes that may need rehabilitation in order to extend their useful life. Many of these manholes are approaching 50-years of age, and others are over 70 years. The City should perform a routinely schedule and evaluate the conditions of these manholes. The range of manhole depths are approximately 4 feet to 15 feet, and vary depending on the location and slope of the wastewater main. Depending on the location, some manholes have larger wastewater flows and contribute significantly to the system than others.

Most threats to a manhole, and its wastewater network, can be traced to the presence of hydrogen sulfide trapped in the system. This noxious gas takes up residence along the walls of a manhole where it begins to erode the brick, mortar, and concrete construction. Existing manholes that are unlined are candidates for lining, no matter the age. From a practical and phased approach, the oldest manholes should be lined first. Liners may be premanufactured with materials such as thermoplastic, fiberglass reinforced plastic (FRP) and polypropylene (PP) or they may be spray applied structural epoxy.

A typical manhole rehabilitation costs (assuming an average 6-foot-depth) varies from approximately $5,000 to $7,500. All new manholes should be lined as part of installation.

The manhole ages are shown in Exhibit E. The older manholes should be prioritized over those that have just reached the age of 50. There are manholes with an unknown age, and these manhole's conditions should be researched and field examined before any rehabilitation is started. Additionally, manholes that are along a critical flow path should be rehabilitated as well in order to maintain functionality of the system.

6.1.4 Interceptor Maintenance Program

Maintenance may be necessary for hot-spot locations. The hot spot locations may be grease generators, which are typically restaurants. Individual grease interceptors may not perform as intended, or be maintained as required. A program should be implemented in which each suspected grease generator business improves their interceptor maintenance program, or replace their equipment per Los Angeles County Code Title 20, Utilities, Division 2, Sanitary Sewers and Industrial Waste, as adopted by the City in 1989. Supplementary to this, the City should also consider updating its own Municipal Code to reference the most recent version of the County Code.

6.2 Ultimate System Improvements

The ultimate system improvements were prepared under projected population as analyzed in the 2020 Urban Water Management Plan. The ultimate system improvements assume a projected population of 37,430 people in 2040. Design criteria listed in Chapter 3 was used as the basis for this analysis.

6.2.1 Flow Depth Over Capacity

Flow in all pipelines 8-inches in diameter or less should not exceed 50% flow depth.

Flow in all pipelines 10-inches in diameter and higher should not exceed 75% flow depth.

Under the ultimate scenario, wastewater flow is scaled by 12% to match projected population growth. Existing pipeline segments that were already over their flow depth capacity will have increasing flow depths.

The pipeline segment on Bunnelle Avenue is now projected to be at 63% flow depth instead of the 59% under existing conditions. This segment span is approximately 275 linear feet, from Manhole N-28133 to N-28144. The pipeline segment on Golden Hills Road is now projected to be at 60% flow depth instead of the 56% under existing conditions. This segment span is approximately 350 linear feet, from Manhole P-33117 to P-33119. Additionally, the pipeline segment on Wheeler Avenue is now projected to be 55% flow depth instead of the 52% under existing conditions. This segment span is approximately 305 linear feet, from Manhole O-32106 to O-32110. The various other drainage areas are sufficient in maintaining the design criteria. These pipe segments over the 50% flow depth design criteria are shown in Exhibit I.

6.2.2 Supercritical to Subcritical Flow

Supercritical flow to subcritical flow signifies the loss of energy through a significant change in grade. A loss of energy can lead to potential pipeline erosion. While there were no pipeline inspections or video inspection conducted during this Wastewater Master Plan study, it should be noted that the City of La Verne contains hillside regions and areas with steep pipeline gradients as researched in the provided as-builts. Pipeline erosion problems may occur in the future or ultimate scenario. Drop manholes may be used as a solution to future wastewater manhole installations where significant changes in grades occur.

6.3 Project Prioritization

Sections 6.1.1 and 6.2.1 address the areas that contain flow depths over the design criteria. As indicated in those sections, some pipeline segments are critical as they carry a large amount of flow from the City's most northern point to the LA Sanitation District trunk lines. As a result, these pipelines have been identified as a CIP. The following Sections from 6.3.1 to 6.3.3 state specific CIPs pertaining to the flow depth issues. These CIPs address existing issues, as well as issues when the population is at its projected maximum (ultimate scenario with 2040 projected population as per the 2020 UWMP). Detailed cost estimates for these pipeline CIPs are shown in Exhibit J of this WWMP.

Sections 6.3.4 and 6.3.5 address the pipelines and manholes with service life and age concerns, as well as supercritical to subcritical transitions.

6.3.1 Bunnelle Avenue Pipeline Improvements – Medium Priority Project

Description

Replace approximately 275 feet of existing 8-inch VCP along Bunnelle Avenue, beginning at the intersection of Bunnelle Avenue and Baseline Road (MH# N-28144), and ending at the intersection of Bunnelle Avenue and Nashport Street (MH# N-28133). There are a total of 6 laterals that are branched off this existing segment of wastewater main, but no active laterals would have to be reconnected to the new wastewater pipeline to be installed.

Figure 6.1 – Bunnelle Avenue Pipeline Improvements

Justification

The pipeline has a flow depth capacity of 59% under existing conditions and 63% under the ultimate condition, which is over the design criteria for an 8-inch main. The existing pipeline should be upsized to 10-inch VCP in order to meet current criteria.

Estimate

The total cost to construct this project is estimated to be $117,844 in 2023.

6.3.2 Golden Hills Road Pipeline Improvements – Medium Priority Project

Description

Replace approximately 350 feet of existing 8-inch VCP along Golden Hills Road, beginning the intersection of Golden Hills Road and Wheeler Avenue (MH# P-33119), and ending at the intersection of Golden Hills Road and Melinda Lane (MH# P-33117). There are a total of 3 plugged laterals that are branched off this existing segment of wastewater main, but no active laterals would have to be reconnected to the new wastewater pipeline to be installed.

Figure 6.2 – Golden Hills Road Pipeline Improvements

Justification

The pipeline has a flow depth capacity of 56% under existing conditions and 60% under the ultimate condition, which is over the design criteria for an 8-inch main. These mains transfer a large wastewater flow from the northern part of the City to an LA County Sanitation District trunk line and out of the system. The existing pipeline should be upsized to 10-inch VCP in order to meet current standards.

Estimate

The total cost to construct this project is estimated to be $147,938 in 2023.

6.3.3 Wheeler Avenue Pipeline Improvements – Low Priority Project

Description

Replace approximately 305 feet of existing 8-inch VCP along Wheeler Avenue, beginning 150 feet south of the intersection of Sherwood Drive and Wheeler Avenue (MH# O-32110), and ending approximately 150 feet north of the intersection of Sherwood Drive and Wheeler Avenue (MH# O-32106). There are a total of 7 laterals that are branched off this existing segment of wastewater main, but only 4 active laterals would need to be reconnected to the new wastewater pipeline to be installed.

Figure 6.3 – Wheeler Avenue Pipeline Improvements

Justification

The pipeline has a flow depth capacity of 52% under existing conditions and 55% under the ultimate condition, which is over the design criteria for an 8-inch main. These mains transfer a large wastewater flow from the northern part of the City to an LA County Sanitation District trunk line and out of the system. The existing pipeline should be upsized to 10-inch VCP in order to meet current standards.

Estimate

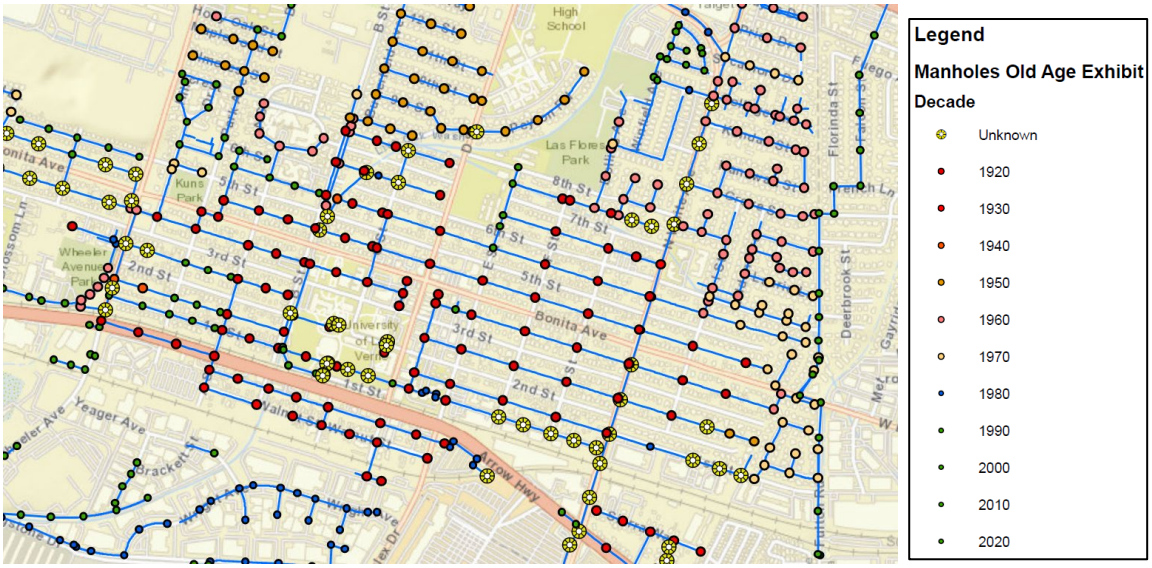
The total cost to construct this project is estimated to be $139,511 in 2023.

6.3.4 Manhole Regions with Age Concerns – Low Priority Project

Previously mentioned, manholes with age concerns should be inspected on a routinely schedule. Pipelines with flow-depth issues that were recently addressed in the previous CIP have manholes associated with them that are approaching their expected life-span of 50 years for unlined manholes and 100 years for lined manholes. These pipelines are on average, 60 years old, but there are a significant number of mains that are older that a manhole rehabilitation schedule can work with. Since these pipelines convey a larger amount of water than other pipelines, it is better to assess the conditions of these manholes than of other manholes with lower flow.

After these segments have been rehabilitated, manholes based only on age or deteriorating condition should be addressed. It is important to note, the lining status is known. There is a large selection of manholes in between Foothill Boulevard and Arrow Highway that are of old age. In between Drainage areas 3 and 4 contain manholes nearing the 1920 and 1930's. Manholes in Figure 6.4 below are arranged by gradient colors according to age. The older the manholes are, the darker or red, and the newer the manholes, the more bright or green they are. An overall look at the City's manhole is shown in Exhibit E of this WWMP.

Figure 6.4 – Manholes by Decade



6.3.5 Wastewater Mains with Age Concerns – Low Priority Project

Lastly, wastewater mains should be considered as a CIP. Assessing conditions of pipelines based on material, age, leak, or wastewater demand impact on the mains are factors that contribute to whether a wastewater main should be rehabilitated. All drainage areas have wastewater mains approaching their life expectancy age of 100 years (VCP mains). Since there are a large number of pipelines closing in on their expected lifespan, a routinely schedule should be considered to assess whether a wastewater main requires rehabilitation. These are considered to be low-priority projects that can work hand-in-hand with manholes of old age. Only when leaks start appearing will those segments raise in priority. Figure 6.5 and Figure 6.6 below indicates a few regions of wastewater main segments that are of old age. If a pipeline is rehabilitated, it is possible to address super to sub critical flow transitions and any potentially eroded pipelines. An overall look at the City's old age pipe is shown in Exhibit F of this WWMP.

Figure 6.5 – Wastewater Mains by Decade in DA-4

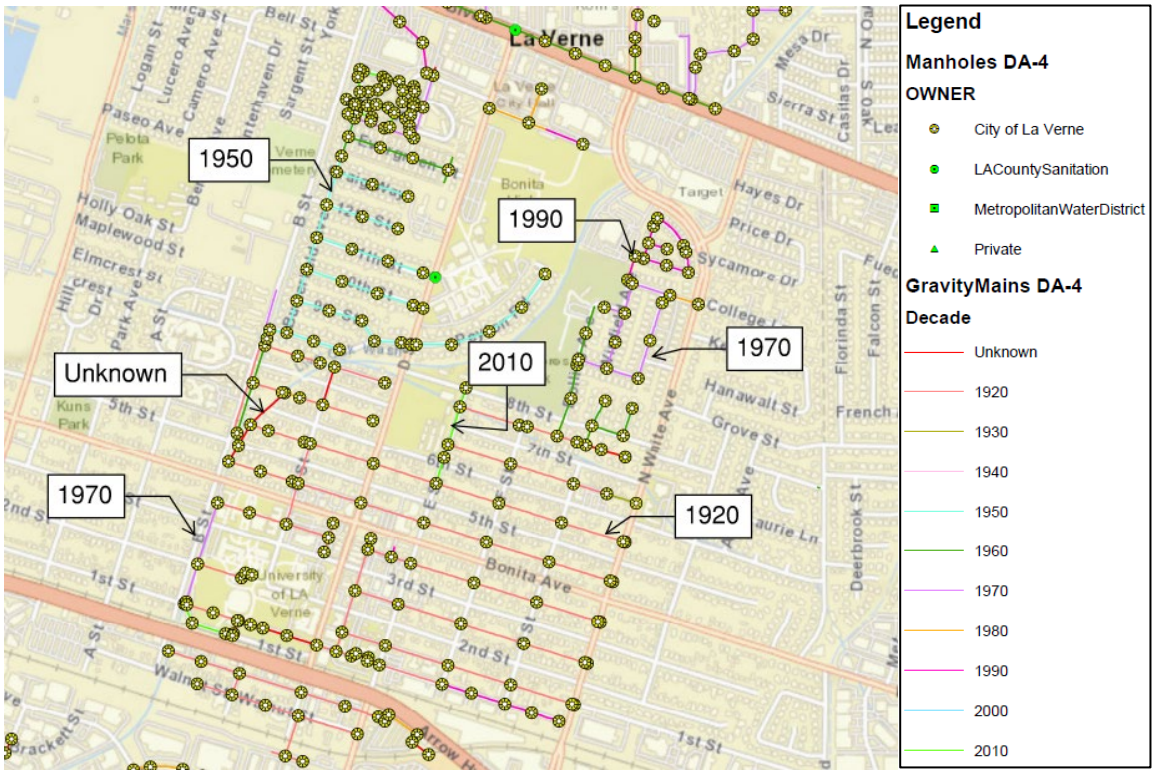


Figure 6.6 – Wastewater Mains by Decade in DA-5

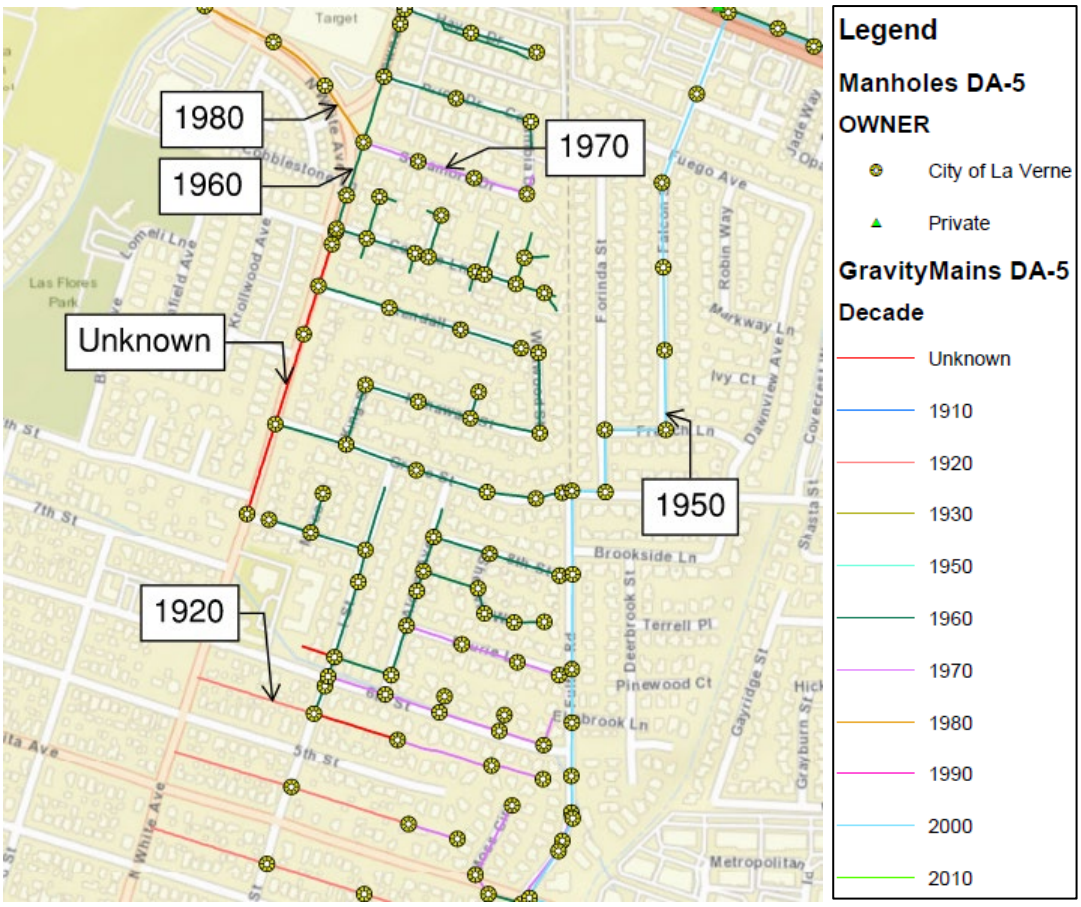


Exhibit A – Sphere of Influence

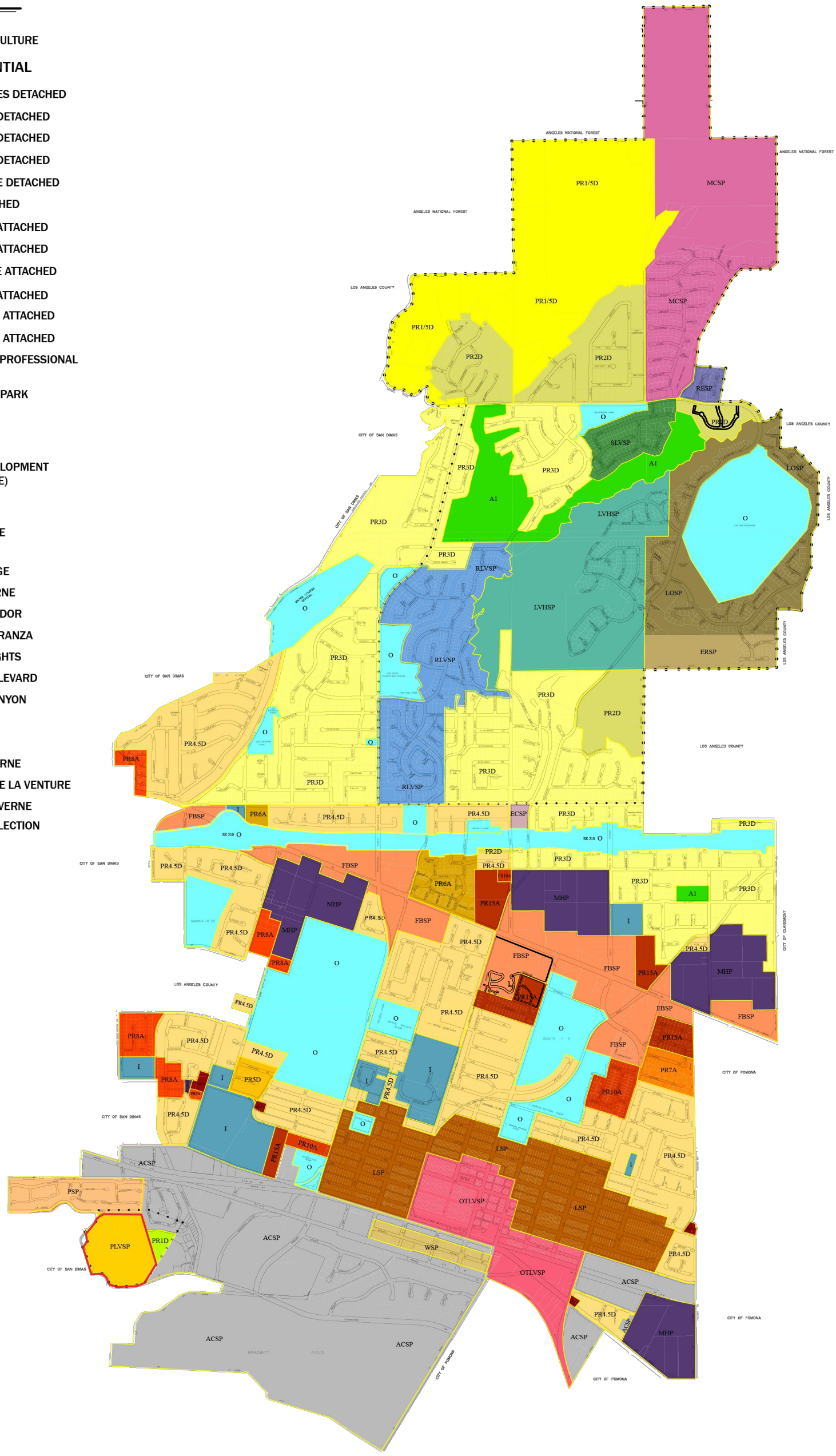
LEGEND

- A1 — LIMITED AGRICULTURE

PLANNED RESIDENTIAL

- PR1/5D — 1 D.U. / 5 ACRES DETACHED
- PR1D — 1 D.U. / ACRE DETACHED
- PR2D — 2 D.U. / ACRE DETACHED
- PR3D — 3 D.U. / ACRE DETACHED
- PR4.5D — 4.5 D.U. / ACRE DETACHED
- PR5D — 5 D.U. / DETACHED
- PR6A — 6 D.U. / ACRE ATTACHED
- PR7A — 7 D.U. / ACRE ATTACHED
- PR7.5A — 7.5 D.U. / ACRE ATTACHED
- PR8A — 8 D.U. / ACRE ATTACHED
- PR10A — 10 D.U. / ACRE ATTACHED
- PR15A — 15 D.U. / ACRE ATTACHED
- CPD — COMMERCIAL/PROFESSIONAL DISTRICT
- MHP — MOBILE HOME PARK
- O — OFFICIAL
- I — INSTITUTIONAL
- HILLSIDE DEVELOPMENT (OVERLAY ZONE)

- WSP — WALNUT
- PSP — PUDDINGSTONE
- LOSP — LIVE OAK
- ERSP — EMERALD RIDGE
- SLVSP — SIERRA LA VERNE
- ACSP — ARROW CORRIDOR
- RESP — RANCHO ESPERANZA
- LVHSP — LA VERNE HEIGHTS
- FBSP — FOOTHILL BOULEVARD
- MCSP — MARSHALL CANYON
- LSP — LORDSBURG
- 900BSP — 900 BONITA
- RLVSP — RANCHO LA VERNE
- PLVSP — PUDDINGSTONE LA VENTURE
- OTLVSP — OLD TOWN LA VERNE
- ECSP — EMERALD COLLECTION



NOT TO SCALE

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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

SPHERE OF INFLUENCE

EXHIBIT A

Exhibit B – 1993 Drainage Areas

Legend

LAYER

- DA-1
- DA-2
- DA-3
- DA-4
- DA-5

DA-1

DA-2

DA-3

DA-4

DA-5

0 0.175 0.35 Miles

N

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

1993 DRAINAGE AREA

EXHIBIT
B

P:\X2019\2019101.00-La Verne-Sewer Master Plan\GIS\ArcGIS\Demand Test\Demand System.mxd D: 5/17/2022

Exhibit C – Revised Drainage Areas

Legend

Revised DA-1993

LAYER

- DA-1
- DA-2
- DA-3
- DA-4
- DA-5

DA-1

DA-2

DA-3

DA-4

DA-5

La Verne

North Pomona

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

0 0.175 0.35 Miles

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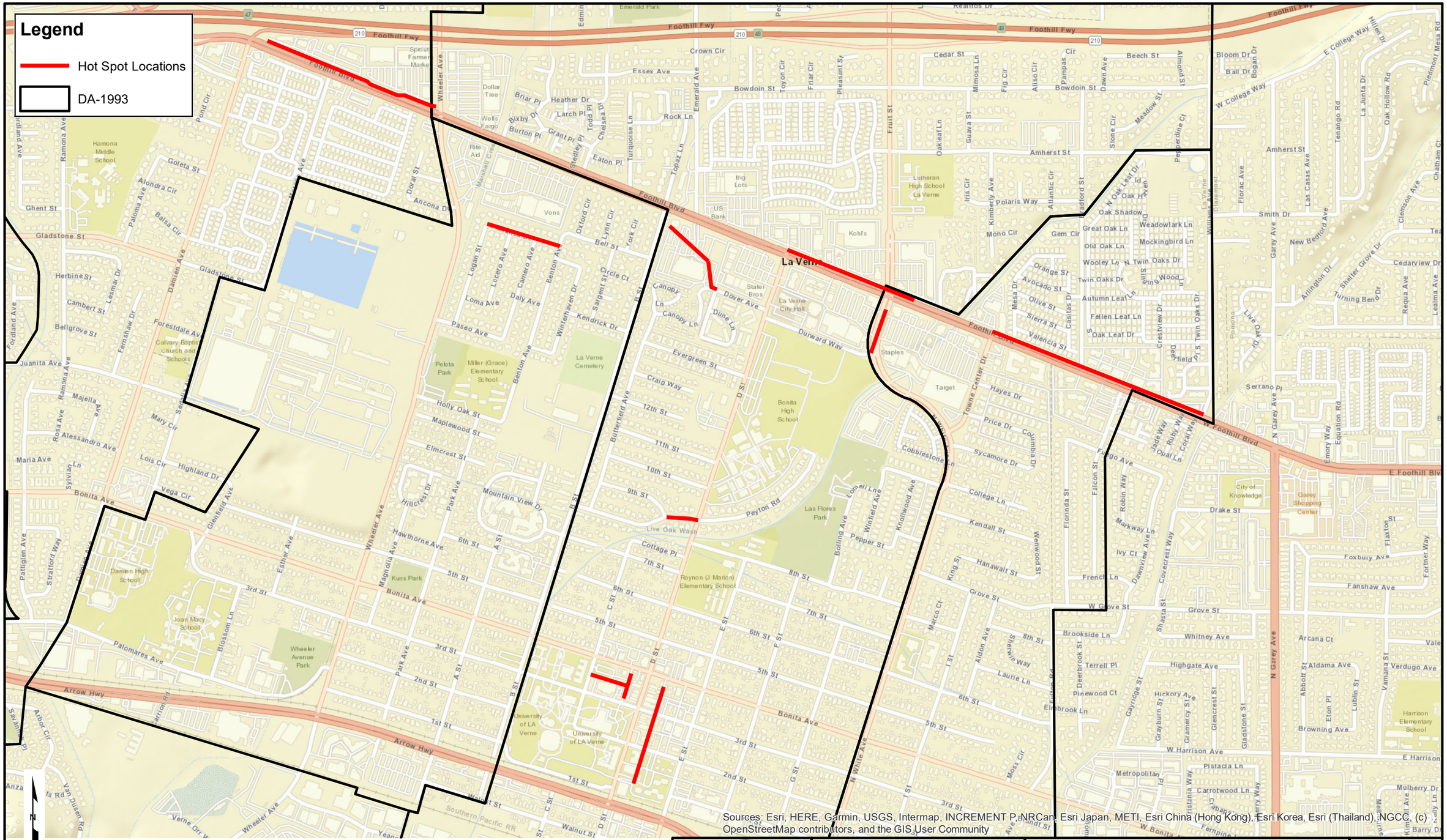
CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

REVISED DRAINAGE AREA

EXHIBIT
C

P: X:\2019\19019101.00-LaVerne-Sewer Master Plan\GIS\ArcGIS\Demand Test\Demand System.mxd D: 5/24/2022

Exhibit D – Current Hot Spot Maintenance Locations



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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

CURRENT HOT SPOT
MAINTENANCE LOCATIONS

EXHIBIT
D

P:\2019\19101.00\La Verne Sewer Master Plan\GIS\ArcGIS\Exhibits\Manholes Tested.mxd D: 3/24/2022

Exhibit E – CIP Manhole Age of Concern

Legend

Manholes Old Age Exhibit

Decade

- Unknown
- 1920
- 1930
- 1940
- 1950
- 1960
- 1970
- 1980
- 1990
- 2000
- 2010
- 2020

N

0 0.15 0.3 0.6 Miles

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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

CIP MANHOLE
OLD AGE

EXHIBIT
E-1

P:\X\2019\2019101.00\LaVerne-Sewer Master Plan\GIS\ArcGIS\Demand Test\Demand System.mxd D: 5/17/2022

Legend

Manholes Old Age Exhibit

Decade

- Unknown
- 1920
- 1930
- 1940
- 1950
- 1960
- 1970
- 1980
- 1990
- 2000
- 2010
- 2020

0 0.15 0.3 0.6 Miles

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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

CIP MANHOLE
OLD AGE

EXHIBIT
E-2

P: X:\2019\2019101.00-LaVerne-Sewer Master Plan\GIS\ArcGIS\Demand Test\Demand System.mxd D: 5/17/2022

Exhibit F – CIP Pipe Age of Concern

Legend

Gravity Mains Old Age Exhibit

Pipe Age

- Unknown
- 1920
- 1930
- 1940
- 1950
- 1960
- 1970
- 1980
- 1990
- 2000
- 2010
- 2020

0 0.15 0.3 0.6 Miles

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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

CIP PIPE OLD AGES

EXHIBIT
F-1

Legend

Gravity Mains Old Age Exhibit

Pipe Age

- Unknown
- 1920
- 1930
- 1940
- 1950
- 1960
- 1970
- 1980
- 1990
- 2000
- 2010
- 2020

0 0.15 0.3 0.6 Miles

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

CIP PIPE OLD AGES

EXHIBIT
F-2

P:\X\2019\2019101.00\LaVerne-Sewer Master Plan\GIS\ArcGIS\Demand Test\Demand System.mxd D. 2/16/2023

Exhibit G – Tested Manholes with Revised Drainage Areas

Legend

Gravity Mains

Manholes Tested

Revised Drainage Area

LAYER

DA-1

DA-2

DA-3

DA-4

DA-5

N-29143

M-28134

N-23101

P-25122

P-21129

N-19105

M-18102

O-19112

O-19118

Q-17101

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

0 0.15 0.3 Miles

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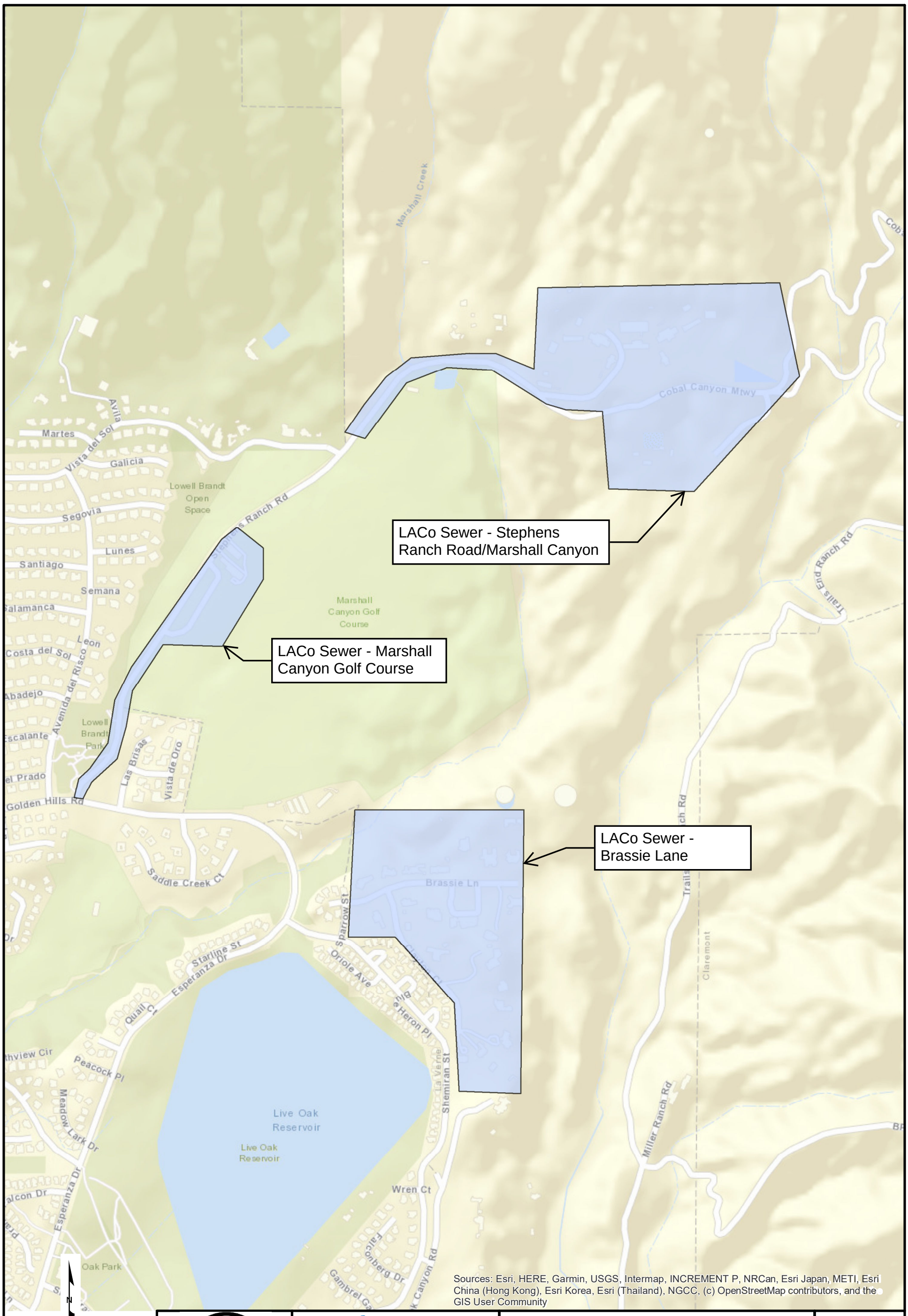
CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

TESTED MANHOLES WITH REVISED DRAINAGE AREAS

EXHIBIT
G

P: X:\2019\2019101.00-LaVerne-Sewer Master Plan\GIS\ArcGIS\Demand Test\Demand System.mxd D: 5/24/2022

Exhibit H – Interagency Agreements



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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

LACo INTERAGENCY AGREEMENTS

EXHIBIT
H-1

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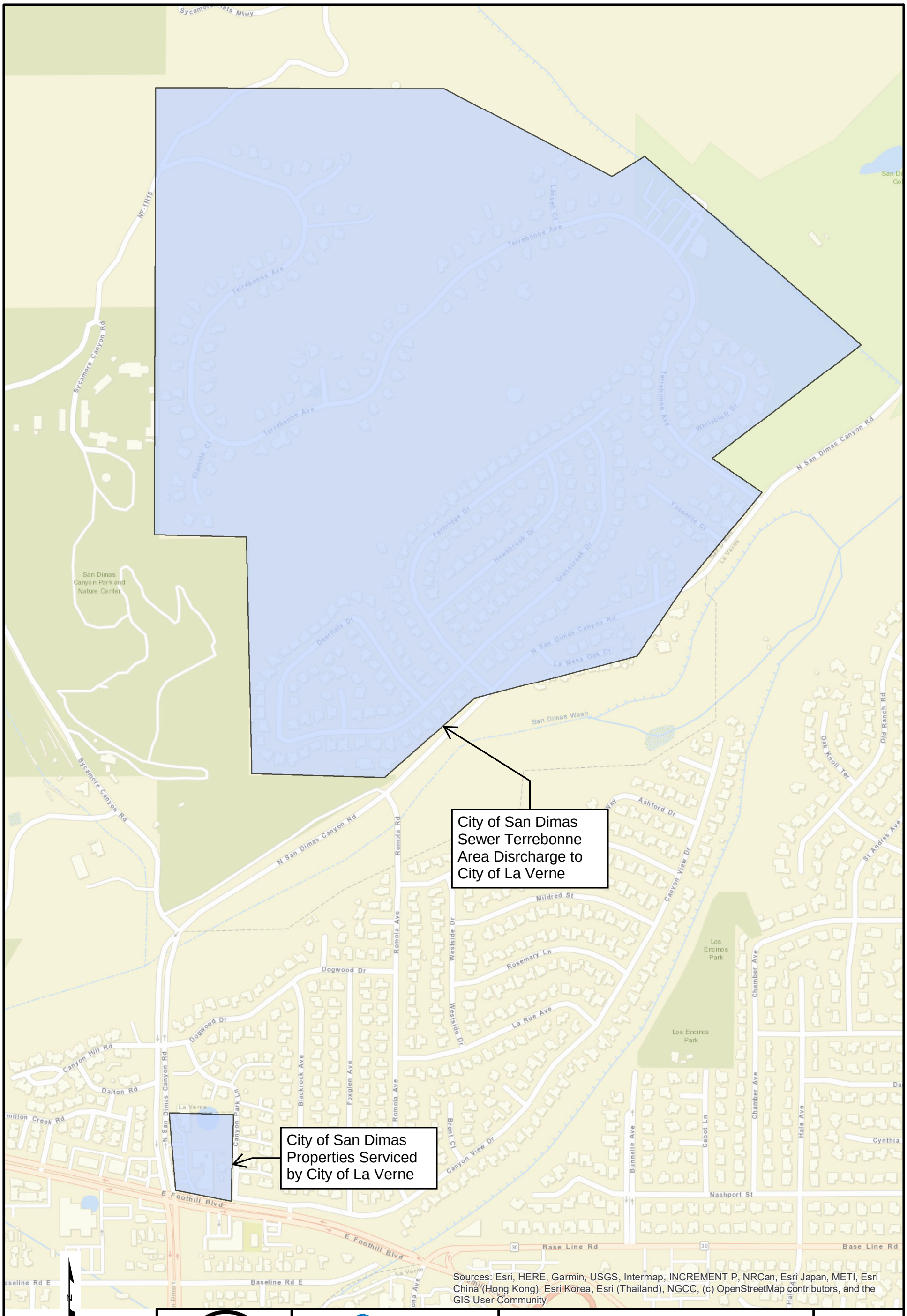

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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

CITY OF SAN DIMAS
INTERAGENCY AGREEMENTS

EXHIBIT
H-2

P:\X\2016\20161668.00\La Verne-2016 Water Master Plan\GIS\La Verne Water Model\In_Progress_LaVerne_v3.mxd D: 1/23/2023

La Verne Properties Serviced by LACSD

La Verne Properties Served by LACSD

LA Verne Properties Serviced by LACSD

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

0 0.04 0.08 Miles

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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

LACSD INTERAGENCY AGREEMENTS

EXHIBIT
H-3

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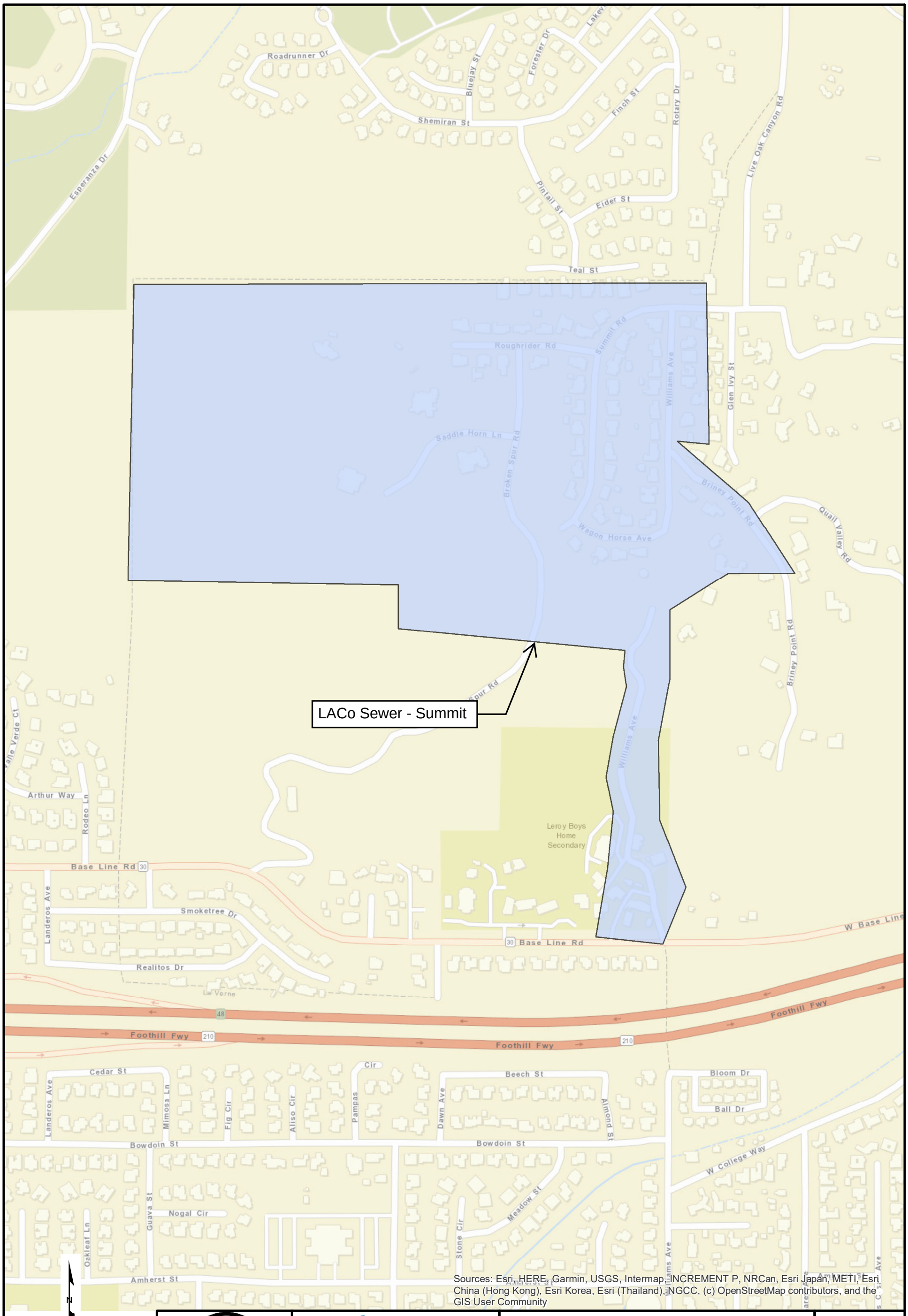
Roadrunner Dr
Bluejay St
Forester Dr
Finch St
Rotary Dr
Shemiran St
Esperanza Dr
Live Oak Canyon Rd
Pintail St
Elder St
Teal St
Roughrider Rd
Summit Rd
Williams Ave
Glen Ivy St
Saddle Horn Ln
Broken Spur Rd
Briney Point Rd
Wagon Horse Ave
Quail Valley Rd
LACo Sewer - Summit
Arthur Way
Rodeo Ln
Leroy Boys Home Secondary
Base Line Rd
Smoketree Dr
Landeros Ave
Realitos Dr
La Verne
Foothill Fwy
Cedar St
Beech St
Bloom Dr
Ball Dr
Mimosa Ln
Fig Cir
Aliso Cir
Pampas
Dawn Ave
Almond St
Bowdoin St
W College Way
Guava St
Nogal Cir
Meadow St
Stone Cir
Oakleaf Ln
Amherst St
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
0 0.04 0.08 Miles
CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN
LACo INTERAGENCY AGREEMENTS
EXHIBIT
H-4
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City of Pomona Sewer
Laredo/Munster

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

0 0.01250.025 Miles

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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

CITY OF POMONA
INTERAGENCY AGREEMENTS

EXHIBIT
H-5

P: X:\2016\62016168.00-La Verne-2016 Water Master Plan\GIS\La Verne Water Model\In_Progress_LaVerne_v3.mxd D: 1/23/2023

Exhibit I – Drainage Area 1 Potential CIPs

Legend

Manholes DA-1

OWNER

- City of La Verne
- LACountySanitation
- Private

GravityMains DA-1

Over_Half

- Existing Pipeline
- Potential CIP

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

0 0.035 0.07 0.14 Miles

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CITY OF LA VERNE
2022 WASTEWATER MASTER PLAN

DRAINAGEA AREA 1
POTENTIAL CIPS

EXHIBIT
1

P: X:\2019\2019101.00-LaVerne-Sewer Master Plan\GIS\ArcGIS\DA-1-1999\DA-1.mxd D: 2/1/2023

Exhibit J – Cost Estimates for Pipeline CIPs

Name: W David Byrum Department: Engineering Date: 2/9/2023

Select: ☑ Design ☑ Build Project #: Not assigned

Project Name: Bunnelle Avenue Pipeline Improvements - Medium Priorty

Select: ☑ Gravity Mains ☐ Force Mains ☐ Lift Stations ☐ Manholes ☐ Pumps ☐ Septic Tanks

Justification:

Flow Depth Capacity is currently exceeding the allowable design criteria requirement for an 8-inch pipeline.

Description:

Replace approximately 275 feet of existing 8-inch VCP along Bunnelle Avenue, beginning at the intersection of Bunnelle Avenue and Baseline Road (MH# N-28144), and ending at the intersection of Bunnelle Avenue and Nashport Street (MH# N-28133). There are a total of 6 laterals that are branched off this existing segment of wastewater main but no active laterals would have to be reconnected to the new wastewater pipeline to be installed.

Description:	Qty.	Unit Cost	YEAR 1	YEAR 2	
Design	1	$ 14,750	$ 14,750		* Design is 20% of Construction Costs.
CEQA	0	$ -	$ -		* CEQA will not be required
Site Investigations	1	$ 4,031	$ 4,031		* Investigations are 5% of Construction Costs.
Service Transitions	0	$ 1,500		$ -	Estimated # of services to transition to new pipe.
Pump By-pass System	1	$ 5,000		$ 5,000	A temporary pump system is required btw MHs
Gravity Main Pipeline Construction	275	$ 250		$ 68,750	
Force Main Pipeline Construction	0	$ -		$ -	
Construction Management	1	$ 6,875		$ 6,875	* CM is 10% of Construction Costs.
		Subtotal =	$ 18,781	$ 80,625	
10	% Contingency =		$ -	$ 7,375	
15	% Admin Overhead =		$ -	$ 11,063	
		Subtotal =	$ 18,781	$ 99,063	
		2023 Grand Total =		$ 117,844	
		2028 Grand Total (+30%) =		$ 153,197	

Name: W David Byrum Department: Engineering Date: 2/9/2023

Select: ☑ Design ☑ Build Project #: Not assigned

Project Name: Golden Hills Road Pipeline Improvements - Medium Priorty

Select: ☑ Gravity Mains ☐ Force Mains ☐ Lift Stations ☐ Manholes ☐ Pumps ☐ Septic Tanks

Justification:

Flow Depth Capacity is currently exceeding the allowable design criteria requirement for an 8-inch pipeline.

Description:
Replace approximately 350 feet of existing 8-inch VCP along Golden Hills Road, beginning the intersection of Golden Hills Road and Wheeler Avenue (MH# P-33119), and ending at the intersection of Golden Hills Road and Melinda Lane (MH# P-33117). There are a total of 3 plugged laterals that are branched off this existing segment of wastewater main but no active laterals would have to be reconnected to the new wastewater pipeline to be installed.

Description:	Qty.	Unit Cost	YEAR 1	YEAR 2	
Design	1	$ 18,500	$ 18,500		* Design is 20% of Construction Costs.
CEQA	0	$ -	$ -		* CEQA will not be required
Site Investigations	1	$ 5,063	$ 5,063		* Investigations are 5% of Construction Costs.
Service Transitions	0	$ 1,500		$ -	Estimated # of services to transition to new pipe.
Pump By-pass System	1	$ 5,000		$ 5,000	A temporary pump system is required btw MHs
Gravity Main Pipeline Construction	350	$ 250.00		$ 87,500	
Force Main Pipeline Construction	0	$ -		$ -	
Construction Management	1	$ 8,750		$ 8,750	* CM is 10% of Construction Costs.
		Subtotal =	$ 23,563	$ 101,250	
10	% Contingency =		$ -	$ 9,250	
15	% Admin Overhead =		$ -	$ 13,875	
		Subtotal =	$ 23,563	$ 124,375	
		2023 Grand Total =		$ 147,938	
		2028 Grand Total (+30%) =		$ 192,319	

Name: W David Byrum Department: Engineering Date: 2/9/2023

Select: ☑ Design ☑ Build Project #: Not assigned

Project Name: Wheeler Avenue Pipeline Improvements - Low Priorty

Select: ☑ Gravity Mains ☐ Force Mains ☐ Lift Stations ☐ Manholes ☐ Pumps ☐ Septic Tanks

Justification:

Flow Depth Capacity is currently exceeding the allowable design criteria requirement for an 8-inch pipeline.

Description:
Replace approximately 305 feet of existing 8-inch VCP along Wheeler Avenue, beginning 150 feet south of the intersection of Sherwood Drive and Wheeler Avenue (MH# O-32110), and ending approximately 150 feet north of the intersection of Sherwood Drive and Wheeler Avenue (MH# O-32106). There are a total of 7 laterals that are branched off this existing segment of wastewater main, but only 4 active laterals would need to be reconnected to the new wastewater pipeline to be installed.

Description:	Qty.	Unit Cost	YEAR 1	YEAR 2	
Design	1	$ 17,450	$ 17,450		* Design is 20% of Construction Costs.
CEQA	0	$ -	$ -		* CEQA will not be required
Site Investigations	1	$ 4,774	$ 4,774		* Investigations are 5% of Construction Costs.
Service Transitions	4	$ 1,500		$ 6,000	Estimated # of services to transition to new pipe.
Pump By-pass System	1	$ 5,000		$ 5,000	A temporary pump system is required btw MHs
Gravity Main Pipeline Construction	305	$ 250.00		$ 76,250	
Force Main Pipeline Construction	0	$ -		$ -	
Construction Management	1	$ 8,225		$ 8,225	* CM is 10% of Construction Costs.
		Subtotal =	$ 22,224	$ 95,475	
10	% Contingency =		$ -	$ 8,725	
15	% Admin Overhead =		$ -	$ 13,088	
		Subtotal =	$ 22,224	$ 117,288	
		2023 Grand Total =		$ 139,511	
		2028 Grand Total (+30%) =		$ 181,365	

Prepared By:

CIVILTEC
engineering inc.

www.civiltec.com

Civil, Water, Wastewater, Drainage, Transportation and
Electrical/Controls Engineering.
Construction Management and Surveying.

Attachment D – City of La Verne SSMP Triennial Audit Report Form

City of La Verne

SSMP Biennial Audit Report Form

Date of Audit:	***From:***	***Through:***
Prepared by:		
Reviewed by:		

Introduction	**Yes**	**No**
Is the current system description complete and up to date? Are all infrastructure statistics current and complete?		
Discussion:		

	Section 1 – Goals	**Yes**	**No**
A	Are the goals stated in the SSMP still appropriate and accurate?		
Discussion:			

	Section 2 -- Organization	Yes	No
A	Is the Contact Information current?		
B	Is the Legally Responsible Official and Data Submitter list current?		
C	Is the Organization Chart of the SSMP current?		
D	Are the position descriptions an accurate portrayal of staff responsibilities?		
E	Is the chain of communication for reporting and responding to SSOs (in the OERP) accurate and up-to-date?		
Discussion:			

	Section 3 – Legal Authority	Yes	No
Does the SSMP contain current references to the City's Code documenting the City's legal authority to:			
A	Prevent illicit discharges?		
B	Require proper design and construction of sewers and connections?		
C	Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the City?		
D	Limit discharges of fats, oil and grease?		
E	Enforce any violation of its sewer ordinances?		
F	Were any changes or modifications made in the past year or since the last SSMP audit to City Ordinances, Regulations, or standards?		
Discussion:			

	Section 4 – Operations and Maintenance Program	Yes	No
Collection System Maps			
A	Does the SSMP reference the current process and procedures for maintaining the City's sanitary sewer system maps?		
B	Are the City's wastewater collection system maps complete, current, and sufficiently detailed?		
Prioritized Preventive Maintenance			
C	Does the SSMP describe current preventive maintenance activities and the system for prioritizing the cleaning of sewer lines?		
D	Based upon the SSO information in CIWQS and internal annual review, are the City's preventive maintenance activities sufficient and effective in minimizing SSOs and blockages?		
Rehabilitation and Replacement Program			
E	Is there an ongoing condition assessment program sufficient to rank the condition of sewer pipes and schedule rehabilitation? Are the current components of this program documented in the SSMP?		
F	Does the rehabilitation and replacement plan include a capital improvement plan that addresses proper management and protection of the infrastructure assets? Does the plan include a time schedule for implementing the short and long-term plans plus a schedule for developing the funds needed for the capital improvement plan?		
Training			
G	Are the training records current?		
H	Does the SSMP document current training expectations and programs?		

Section 4 – Operations and Maintenance Program		Yes	No
Contingency Equipment and Replacement Inventory			
I	Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system?		
J	Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?		
Discussion:			

Section 5 – Design and Performance Provisions		Yes	No
A	Does the SSMP reference current design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?		
B	Does the SSMP document current procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and the rehabilitation and repair of existing sewer lines?		
Discussion:			

Section 6 – Overflow and Emergency Response Plan		Yes	No
A	Does the City's Overflow Emergency Response Plan (OERP) contain proper notification procedures so that the primary responders and regulatory agencies are informed of all sanitary sewer overflows (SSOs) as required by the WDR and MRP?		
B	Does the OERP have a program to ensure an appropriate response to all overflows?		

	Section 6 – Overflow and Emergency Response Plan	Yes	No
C	Does the OERP contain procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities of all SSOs that potentially affect public health or reach waters of the State in accordance with the MRP? Does the SSMP identify the officials who will receive immediate notification of such SSOs?		
D	Are staff aware of and appropriately trained on the procedures of the OERP?		
E	Does the OERP contain procedures to address emergency operations such as traffic and crowd control and other necessary response activities?		
F	Does the OERP ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge?		
G	Considering SSO performance data, is the OERP effective in handling SSOs in order to safeguard public health and the environment?		
H	Is the Water Quality Monitoring Plan current and has it been trained on and practiced by staff that would be involved in an SSO of large		
Discussion:			

	Section 7 – Fats, Oils, and Grease Control Program	Yes	No
A	Does the Fats, Oils, and Grease (FOG) Control Program include a description of public education outreach efforts that promote proper handling and disposal of FOG?		
B	Does the FOG program include a plan for the disposal of FOG generated within the sewer system service area?		
C	Does the City have sufficient legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG?		
D	Are there requirements to install grease removal devices (such as traps or interceptors), best management practices (BMP) requirements, record keeping, maintenance requirements and reporting requirements established in the City's FOG Control Program?		
E	Does the City have authority to inspect grease producing facilities and have sufficient staff to inspect and enforce the FOG ordinance?		
F	Does the FOG control program identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?		
G	Does the FOG control program implement source control measures for sources of FOG discharged to the collection system?		
H	Is the current FOG program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?		
Discussion:			

	Section 8 – System Evaluation and Capacity Assurance Plan	Yes	No
A	Does the System Evaluation and Capacity Assurance Plan evaluate hydraulic deficiencies in the system and provide estimates of peak flows associated with conditions similar to those causing overflow events, if applicable?		
B	Does the City's capital improvement program (CIP) establish a schedule of approximate completion dates for both short-term and long-term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?		
C	Does the City take steps needed to establish a short and long-term CIP to address hydraulic deficiencies, including prioritization, alternatives analysis, and schedules? Are repair and replacement projects developed based upon condition assessment and/or field maintenance results?		
Discussion:			

	Section 9 – Monitoring, Measurement, and Program Modifications	Yes	No
A	Does the City maintain relevant information that can be used to establish and prioritize appropriate SSMP activities?		
B	Does the City monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP?		
C	Does the City assess the success of the preventive maintenance program?		
D	Does the City update program elements, as appropriate, based upon monitoring or performance evaluations?		
E	Does the SSMP identify and illustrate SSO trends, including frequency, location and volume of SSOs?		
Discussion:			

	Section 10 - SSMP Program Audits	Yes	No
A	Does the audit focus on the effectiveness of the SSMP? If not, what needs to be changed to increase the effectiveness of the overall collection system program?		
B	Were the audit results shared with the City Council and the public, via the City website?		
C	Will the SSMP Audit be completed, reviewed, and filed as an Appendix to the SSMP, Volume II on a biennial basis?		
D	Do any proposed changes to the SSMP require Board approval as they have a substantial change in the policies and procedures for collection system operations and maintenance?		
Discussion:			

	Section 11 – Communication Program	Yes	No
A	Does the City communicate on a regular basis with the public and other agencies about the development, implementation, and performance of the SSMP? Does the communication system provide the public the opportunity to provide input as the program is developed and implemented?		
Discussion:			

	Change Log	Yes	No
A	Is the SSMP Change Log current and up to date?		
Discussion:			

Attachment E – Attachment E1 and E2 from the Statewide Sanitary Sewer Systems General Order 2022-0103-DWQ

ATTACHMENT E1 – NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

Table of Contents

ATTACHMENT E1– NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

The Notification Requirements (section 1), Spill-specific Monitoring Requirements (section 2), Reporting Requirements (section 3) and Recordkeeping Requirements (section 4) in this Attachment are pursuant to Water Code section 13267 and section 13383, and are an enforceable component of this General Order. For the purpose of this General Order, the term:

- Notification means the notifying of appropriate parties of a spill event or other activity.
- Spill-specific Monitoring means the gathering of information and data for a specific spill event to be reported or kept as records.
- Reporting means the reporting of information and data into the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database.
- Recordkeeping means the maintaining of information and data in an official records storage system.

Failure to comply with the notification, monitoring, reporting and recordkeeping requirements in this General Order may subject the Enrollee to civil liabilities of up to $10,000 a day per violation pursuant to Water Code section 13385; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement.

Water Code section 13193 et seq. requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Resources Control Board (State Water Board) to collect sanitary sewer spill information for each spill event and make this information available to the public. Sanitary sewer spill information for each spill event includes but is not limited to: Enrollee contact information for each spill event, spill cause, estimated spill volume and factors used for estimation, location, date, time, duration, amount discharged to waters of the State, response and corrective action(s) taken.

1. NOTIFICATION REQUIREMENTS

1.1. Notification of Spills of 1,000 Gallons or Greater to the California Office of Emergency Services

Per Water Code section 13271, for a spill that discharges in or on any waters of the State, or discharges or is deposited where it is, or probably will be, discharged in or on any waters of the State, the Enrollee shall notify the California Office of Emergency Services and obtain a California Office of Emergency Services Control Number as soon as possible **but no later than two (2) hours** after:

- The Enrollee has knowledge of the spill; and
- Notification can be provided without substantially impeding cleanup or other emergency measures.

The notification requirements in this section apply to individual spills of 1,000 gallons or greater, from an Enrollee-owned and/or operated laterals, to a water of the State.

1.2. Spill Notification Information

The Enrollee shall provide the following spill information to the California Office of Emergency Services before receiving a Control Number, as applicable:

- Name and phone number of the person notifying the California Office of Emergency Services;
- Estimated spill volume (gallons);
- Estimated spill rate from the system (gallons per minute);
- Estimated discharge rate (gallons per minute) directly into waters of the State or indirectly into a drainage conveyance system;
- Spill incident description:
  - Brief narrative of the spill event, and
  - Spill incident location (address, city, and zip code) and closest cross streets and/or landmarks;
- Name and phone number of contact person on-scene;
- Date and time the Enrollee was informed of the spill event;
- Name of sanitary sewer system causing the spill;
- Spill cause or suspected cause (if known);
- Amount of spill contained;
- Name of receiving water body receiving or potentially receiving discharge; and
- Description of water body impact and/ or potential impact to beneficial uses.

1.3. Notification of Spill Report Updates

Following the initial notification to the California Office of Emergency Services and until such time that the Enrollee certifies the spill report in the online CIWQS Sanitary Sewer System Database, the Enrollee shall provide updates to the California Office of Emergency Services regarding substantial changes to:

- Estimated spill volume (increase or decrease in gallons initially estimated);
- Estimated discharge volume discharged directly into waters of the State or indirectly into a drainage conveyance system (increase or decrease in gallons initially estimated); and
- Additional impact(s) to the receiving water(s) and beneficial uses.

2. SPILL-SPECIFIC MONITORING REQUIREMENTS

2.1 Spill Location and Spread

The Enrollee shall visually assess the spill location(s) and spread using photography, global positioning system (GPS), and other best available tools. The Enrollee shall document the critical spill locations, including:

- Photography and GPS coordinates for:
  - The system location where spill originated.

    For multiple appearance points of a single spill event, the points closest to the spill origin.
- Photography for:
  - Drainage conveyance system entry locations,
  - The location(s) of discharge into surface waters, as applicable,
  - Extent of spill spread, and
  - The location(s) of clean up.

2.2 Spill Volume Estimation

To assess the approximate spill magnitude and spread, the Enrollee shall estimate the total spill volume using updated volume estimation techniques, calculations, and documentation for electronic reporting. The Enrollee shall update its notification and reporting of estimated spill volume (which includes spill volume recovered) as further information is gathered during and after a spill event.

2.3. Receiving Water Monitoring

2.3.1. Receiving Water Visual Observations

Through visual observations and use of best available spill volume-estimating techniques and field calculation techniques, the Enrollee shall gather and document the following information for spills discharging to surface waters:

- Estimated spill travel time to the receiving water;
- For spills entering a drainage conveyance system, estimated spill travel time from the point of entry into the drainage conveyance system to the point of discharge into the receiving water;
- Estimated spill volume entering the receiving water; and
- Photography of:
  - Waterbody bank erosion,
  - Floating matter,
  - Water surface sheen (potentially from oil and grease),

- Discoloration of receiving water, and
- Impact to the receiving water.

2.3.2. Receiving Water – Water Quality Sampling and Analysis

For sewage spills in which an estimated 50,000 gallons or greater are discharged into a surface water, the Enrollee shall conduct the following water quality sampling no later than **18 hours** after the Enrollee's knowledge of a potential discharge to a surface water:

- Collect one water sample, each day of the duration of the spill, at:
  - The DCS-001 location as described in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment, if sewage discharges to a surface water via a drainage conveyance system; and/or
  - Each of the three receiving water sampling locations in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment;

    If the receiving water has no flow during the duration of the spill, the Enrollee must report "No Sampling Due To No Flow" for its receiving water sampling locations.

The Enrollee shall analyze the collected receiving water samples for the following constituents per section 2.3.3 (Water Quality Analysis Specifications) of this Attachment:

- Ammonia, and
- Appropriate bacterial indicator(s) per the applicable Basin Plan water quality objectives, including one or more of the following, unless directed otherwise by the Regional Water Board:
  - Total Coliform Bacteria
  - Fecal Coliform Bacteria
  - *E-coli*
  - Enterococcus

  Dependent on the receiving water(s), sampling of bacterial indicators shall be sufficient to determine post-spill (after the spill) compliance with the water quality objectives and bacterial standards of the California Ocean Plan or the California Inland Surface Water Enclosed Bays, and Estuaries Plan, including the frequency and/or number of post-spill receiving water samples as may be specified in the applicable plans.

The Enrollee shall collect and analyze additional samples as required by the applicable Regional Water Board Executive Officer or designee.

2.3.3. Water Quality Analysis Specifications

Spill monitoring must be representative of the monitored activity (40 Code of Federal Regulations section 122.41(j)(1)).

Sufficiently Sensitive Methods

Sample analysis must be conducted according to sufficiently sensitive test methods approved under 40 Code of Federal Regulations Part 136 for the sample analysis of pollutants. For the purposes of this General Order, a method is sufficiently sensitive when the minimum level of the analytical method approved under 40 Code of Federal Regulations Part 136 is at or below the receiving water pollutant criteria.

Environmental Laboratory Accreditation Program-Accredited Laboratories

The analysis of water quality samples required per this General Order must be performed by a laboratory that has accreditation pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code. (Water Code section 13176(a).) The State Water Board accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP).

2.3.4. Receiving Water Sampling Locations

The Enrollee shall collect receiving water samples at the following locations.

Sampling of Flow in Drainage Conveyance System (DCS) Prior to Discharge

Sampling Location	Sampling Location Description
DCS-001	A point in a drainage conveyance system before the drainage conveyance system flow discharges into a receiving water.

Receiving Surface Water Sampling (RSW)[1]

Sampling Location	Sampling Location Description
RSW-001 Point of Discharge	A point in the receiving water where sewage initially enters the receiving water.
RSW-001U: Upstream of Point of Discharge	A point in the receiving water, upstream of the point of sewage discharge, to capture ambient conditions absent of sewage discharge impacts.

Sampling Location	Sampling Location Description
RSW-001D: Downstream of Point of Discharge	A point in the receiving water, downstream of the point of sewage discharge, where the spill material is fully mixed with the receiving water.

[1] The Enrollee must use its best professional judgment to determine the upstream and downstream distances based on receiving water flow, accessibility to upstream/downstream waterbody banks, and size of visible sewage plume.

2.4. Safety and Access Exceptions

If the Enrollee encounters access restrictions or unsafe conditions that prevents its compliance with spill response requirements or monitoring requirements in this General Order, the Enrollee shall provide documentation of access restrictions and/or safety hazards in the corresponding required report.

3. REPORTING REQUIREMENTS

All reporting required in this General Order must be submitted electronically to the online CIWQS Sanitary Sewer System Database (https://ciwqs.waterboards.ca.gov), unless specified otherwise in this General Order. Electronic reporting may solely be conducted by a Legally Responsible Official or Data Submitter(s) previously designated by the Legally Responsible Official, as required in section 5.8 (Designation of Data Submitters) of this General Order.

The Enrollee shall report any information that is protected by the Homeland Security Act, by email to SanitarySewer@waterboards.ca.gov, with a brief explanation of the protection provided by the Homeland Security Act for the subject report to be protected from unauthorized disclosure and/or public access, and for official Water Board regulatory purposes only.

3.1. Reporting Requirements for Individual Category 1 Spill Reporting

3.1.1. Draft Spill Report for Category 1 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 1 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;

5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;
    - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
    - Description of the drainage conveyance system transporting the spill;
    - Photographs of the drainage conveyance system entry location(s);
    - Estimated spill volume fully recovered from the drainage conveyance system;
    - Estimated spill volume remaining within the drainage conveyance system;
11. Description and photographs of all discharge point(s) into the surface water;
12. Estimated spill volume that discharged to surface waters; and
13. Estimated total spill volume recovered.

3.1.2. Certified Spill Report for Category 1 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for Category 1 spills, to the online CIWQS Sanitary Sewer System Database. Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.1.1 (Draft Spill Report for Category 1 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
    - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
    - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;

4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, lateral, pump station, etc.);
6. Description of the pipe material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion;
14. Name and type of receiving water body(s);
15. Description of the water body(s), including but not limited to:
    - Observed impacts on aquatic life,
    - Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill,
    - Responsible entity for closing/restricting use of water body, and
    - Number of days closed/restricted as a result of the spill.
16. Whether or not the spill was located within 1,000 feet of a municipal surface water intake; and
17. If water quality samples were collected, identify sample locations and the parameters the water quality samples were analyzed for. If no samples were taken, Not Applicable shall be selected.

3.1.3. Spill Technical Report for Individual Category 1 Spill in which 50,000 Gallons or Greater Discharged into a Surface Water

For any spill in which 50,000 gallons or greater discharged into a surface water, **within 45 calendar days** of the spill end date, the Enrollee shall submit a Spill Technical Report to the online CIWQS Sanitary Sewer System Database. The Spill Technical Report, at minimum, must include the following information:

1. Spill causes and circumstances, including at minimum:
    - Complete and detailed explanation of how and when the spill was discovered;

- Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;
- Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations;
- Detailed description of the methodology employed, and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;
- Detailed description of the spill cause(s);
- Description of the pipe material, and estimated age of the pipe material, at the failure location;
- Description of the impact of the spill;
- Copy of original field crew records used to document the spill; and
- Historical maintenance records for the failure location.

2. Enrollee's response to the spill:
   - Chronological narrative description of all actions taken by the Enrollee to terminate the spill;
   - Explanation of how the Sewer System Management Plan Spill Emergency Response Plan was implemented to respond to and mitigate the spill; and
   - Final corrective action(s) completed and a schedule for planned corrective actions, including:
     - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable,
     - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences, and
     - Necessary modifications to the Emergency Spill Response Plan to incorporate lessons learned in responding to and mitigating the spill.
3. Water Quality Monitoring, including at minimum:
   - Description of all water quality sampling activities conducted;
   - List of pollutant and parameters monitored, sampled and analyzed; as required in section 2.3 (Receiving Water Monitoring) of this Attachment;
   - Laboratory results, including laboratory reports;
   - Detailed location map illustrating all water quality sampling points; and
   - Other regulatory agencies receiving sample results (if applicable).
4. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

3.1.4. Amended Certified Spill Reports for Individual Category 1 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.2. Reporting Requirements for Individual Category 2 Spill Reporting

3.2.1. Draft Spill Report for Category 2 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 2 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;

   If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
    - Description of the drainage conveyance system transporting the spill;
    - Photographs of the drainage conveyance system entry location(s);
    - Estimated spill volume fully recovered from the drainage conveyance system;
    - Estimated spill volume remaining within the drainage conveyance system;

- Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable; and

11. Estimated total spill volume recovered.

3.2.2. Certified Spill Report for Category 2 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for the Category 2 spill, to the online CIWQS Sanitary Sewer System Database (https://ciwqs.waterboards.ca.gov). Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.2.1 (Draft Spill Report for Category 2 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
   - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
   - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, pump station, etc.);
6. Description of the pipe/infrastructure material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion; and

14. Whether or not the spill was located within 1,000 feet of a municipal surface water intake.

3.2.3. Amended Certified Spill Reports for Individual Category 2 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.3. Monthly Certified Spill Reporting for Category 3 Spills

The Enrollee shall report and certify all Category 3 spills to the online CIWQS Sanitary Sewer System Database within 30 calendar days after the end of the month in which the spills occurred. (For example, all Category 3 spills occurring in the month of February shall be reported and certified by March 30th). After the Legally Responsible Official certifies the spills, the online CIWQS Sanitary Sewer System Database will issue a spill event identification number for each spill.

The monthly reporting of all Category 3 spills must include the following items for each spill:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Description, photographs, and GPS coordinates where the spill originated:
    - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
7. Estimated total spill volume exiting the system;
8. Description and photographs of the extent of the spill and spill boundaries;
9. Did the spill reach a drainage conveyance system? If Yes:
    - Description of the drainage conveyance system transporting the spill;
    - Photographs of the drainage conveyance system entry locations(s);
    - Estimated spill volume fully recovered from the drainage conveyance system; and

- Estimated spill volume discharged to a groundwater infiltration basis or facility, if applicable.

10. Estimated total spill volume recovered;
11. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reaches of the spill;
12. Spill end date and time;
13. Description of how the spill volume estimations were calculated, including, at minimum:
    - The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
    - The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;
14. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
15. System failure location (for example, main, pump station, etc.);
16. Description of the pipe/infrastructure material, and estimated age of the pipe/infrastructure material, at the failure location;
17. Description of the impact of the spill;
18. Whether or not the spill was associated with a storm event;
19. Description of spill response activities including description of immediate spill containment and cleanup efforts;
20. Description of spill corrective actions, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of the major milestones for those steps; including, at minimum:
    - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and
    - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the same spill event location, including:
      - Adjusted schedule/method of preventive maintenance,
      - Planned rehabilitation or replacement of sanitary sewer asset,
      - Inspected, repaired asset(s), or replaced defective asset(s),
      - Capital improvements,
      - Documentation verifying immediately implemented system modifications and operating/maintenance modifications,
      - Description of spill response activities,

- Spill response completion date, and
- Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of spill;

21. Detailed narrative of investigation and investigation findings of cause of spill.

3.4. Monthly Certified Spill Reporting for Category 4 Spills

The Enrollee shall report and certify the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, within 30 calendar days after the end of the month in which the spills occurred.

3.5. Amended Certified Spill Reports for Category 3 Spills

Within 90 calendar days of the certified Spill Report due date, the Enrollee may update or add additional information to a certified Spill Report by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After 90 calendar days, the Legally Responsible Official shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a certified Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the 90-day timeframe for amending the certified Spill Report, as provided above.

3.6. Annual Certified Spill Reporting of Category 4 and/or Lateral Spills

For all Category 4 spills and spills from its owned and/or operated laterals that are caused by a failure or blockage in the lateral and that do not discharge to a surface water, the Enrollee shall:

- Maintain records per section 4.4. of this Attachment;

  The Enrollee shall provide records upon request by State Water Board or Regional Water Board staff.

- Annually upload and certify a report, in an appropriate digital format, of all recordkeeping of spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occurred.

A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the Enrollee shall report all Category 1 spills per section 3.1 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

3.7. Monthly Certification of "No-Spills" or "Category 4 Spills" and/or "Non-Category 1 Lateral Spills"

If either (1) no spills occur during a calendar month or (2) only Category 4, and/or Enrollee-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the Enrollee shall certify, within 30 calendar days after

the end of each calendar month, either a “No-Spill” certification statement, or a “Category 4 Spills” and/or “Non-Category 1 Lateral Spills” certification statement, in the online CIWQS Sanitary Sewer System Database, certifying that there were either no spills, or Category 4 and/or Non-Category 1 Lateral Spills that will be reported annually (per section 3.6 of this Attachment) for the designated month.

If a spill starts in one calendar month and ends in a subsequent calendar month, and the Enrollee has no further spills of any category, in the subsequent calendar month, the Enrollee shall certify “no-spills” for the subsequent calendar month.

If the Enrollee has no spills from its systems during a calendar month, but the Enrollee voluntarily reported a spill from a private lateral or a private system, the Enrollee shall certify “no-spills” for that calendar month.

If the Enrollees has spills from its owned and/or operated laterals during a calendar month, the Enrollee shall not certify “no spills” for that calendar month.

3.8. Electronic Sanitary Sewer System Service Area Boundary Map

The Legally Responsible Official shall submit, to the State Water Board, an up-to-date electronic spatial map of its sewer system service area boundaries. The map must be in accordance with section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order and the specification provided on the statewide Sanitary Sewer Systems program website. The map must include the location of wastewater treatment facility(ies) that treats the sewer system waste, if in the same sewer service boundary.

By the Effective Date of this General Order, specifications for the electronic sanitary sewer service area boundary map format will be provided on the statewide Sanitary Sewer Systems Order program website.

3.9. Annual Report (Previously termed as Collection System Questionnaire in General Order 2006-0003-DWQ)

A new Enrollee shall complete and submit its first certified Annual Report into the online CIWQS Sanitary Sewer System Database, **within 30 days of obtaining a CIWQS account**; Subsequent Annual Reports are due by April 1 of each year.

All enrollees shall update their previous year’s Annual Report, **by April 1 of each year after the Effective Date of this General Order,** for each calendar year (January 1 through December 31)**.**

The Annual Report must be entered directly into the online CIWQS Sanitary Sewer System Database. The Enrollee’s Legally Responsible Official shall certify the Annual Report as instructed in CIWQS;

The Annual Report must address, and update as applicable, the following items:

- Population served;

- Updated sewer system service area boundary map, if service area boundary has changed from original map submitted per section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order;
- Number of system operation and maintenance staff:
  - Entry level (less than two years of experience),
  - Journey level (greater than two years of experience),
  - Supervisory level, and
  - Managerial level;
- Number of operation and maintenance staff certified as a certified collection system operator by the California Water Environmental Association (CWEA), with:
  - Corresponding number of certified collection system operator grade levels (Grade I, II, III, IV, and V);
- System information:
  - Miles of system gravity and force mains,
  - Number of upper and lower service laterals connected to system,
  - Estimated number of upper and lower laterals owned and/or operated by the Enrollee,
  - Portion of laterals that is Enrollee's responsibility,
  - Average age the major components of system infrastructure,
  - Number and age of pump stations, and
  - Estimated total miles of the system pipeline not accessible for maintenance;
- Name and location of the treatment plant(s) receiving sanitary sewer system's waste;
- Name of satellite sewer system tributaries;
- Number of system's gravity sewer above or underground crossings of water bodies throughout system;
- Number of force main (pressurized pipe) above or underground crossings of water bodies throughout system;
- Number of siphons used to convey waste throughout the sewer system;
- Miles of sewer system cleaned;
- Miles of sewer system video inspected, or comparable (i.e., video closed-circuit television or alternative inspection methods);
- System Performance Evaluation as specified in section 5.11 (System Performance Analysis) of this General Order;
- Major spill causes (for example, root intrusion, grease deposition);

- System infrastructure failure points (for example, main, pump station, lateral, etc.);
- Ongoing spill investigations; and
- Actions taken to address system deficiencies.

3.10. Sewer System Management Plan Audit Reporting Requirements

The Enrollee shall submit its Sewer System Management Plan Audit and other pertinent audit information, in accordance with section 5.4 (Sewer System Management Plan Audits) of this General Order, to the online CIWQS Sanitary Sewer System Database **by six (6) months after the end of the 3-year audit period**.

If a Sewer System Management Plan Audit is not conducted as required: the Enrollee shall:

- Update the online CIWQS Sanitary Sewer System Database and select the justification for not conducting the Audit; and
- Notify its corresponding Regional Water Board (see Attachment F (Regional Water Quality Control Board Contact Information)) of the justification for the lapsed requirements.

The Enrollee's reporting of a justification for not conducting a timely Audit does not justify non-compliance with this General Order. The Enrollee shall:

- Submit the late Audit as required in this General Order; and
- Comply with subsequent Audit requirements and due dates corresponding with the original audit cycle.

3.11. Sewer System Management Plan Reporting Requirements

For an Existing Enrollee previously regulated by Order 2006-0003-DWQ: **Within every six (6) years after the required due date of its last Plan Update**, the Legally Responsible Official shall upload and certify a local governing entity-approved Sewer System Management Plan Update to the online CIWQS Sanitary Sewer System Database. If the electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its updated Sewer System Management Plan posted on its own website.

Order 2006-0003-DWQ required each enrollee to develop its initial Sewer System Management Plan per the following schedule, with required Plan updates at a frequency of 5-years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2009

Between 100,000 and 10,000: August 2, 2009

Between 10,000 and 2,500: May 2, 2010

Less than 2,500: August 2, 2010

This Order carries forth the previously-required Plan Update schedule per Order 2006-0003-DWQ. Per the six-year Plan Update frequency required in this Order, the Enrollee shall upload and certify its first Plan Update, to the online CIWQS Sanitary Sewer System Database by the following due dates, with subsequent Plan Updates at the frequency of six years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2025

Between 100,000 and 10,000: August 2, 2025

Between 10,000 and 2,500: May 2, 2026

Less than 2,500: August 2, 2026

For a New Enrollee: **Within twelve (12) months of its Application for Enrollment Approval date**, the Legally Responsible Official of a new Enrollee shall upload and certify a local governing entity-approved Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database. If electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its Sewer System Management Plan posted on its own website. The due date for subsequent 6-year Plan updates, is six (6) years from the submittal due date of the new Enrollee's first Sewer System Management Plan.

4. RECORDKEEPING REQUIREMENTS

The Enrollee shall maintain records to document compliance with the provisions of this General Order, and previous General Order 2006-0003-DWQ as applicable, for each sanitary sewer system owned, including any required records generated by an Enrollee's contractor(s).

4.1. Recordkeeping Time Period

The Enrollee shall maintain records of documents required in this Attachment, including records collected for compliance with this General Order, and records collected in accordance with previous General Order 2006-0003-DWQ, for five (5) years.

4.2. Availability of Documents

The Enrollee shall make the records required in this General Order readily available, either electronic or hard copies, for review by Water Board staff during onsite inspections or through an information request.

4.3. Spill Reports

The Enrollee shall maintain records for each of the following spill-related events and activities:

- Spill event complaint, including but not limited to records documenting how the Enrollee responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
    - Date, time, and method of notification,

- Date and time the complainant first noticed the spill, if available,
- Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available,
- Complainant's contact information, if available, and
- Final resolution of the complaint;

- Records documenting the steps and/or remedial action(s) undertaken by the Enrollee, using all available information, to comply with this General Order, and previous General Order 2006-0003-DWQ as applicable;
- Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated;
- All California Office of Emergency Services notification records, as applicable; and
- Records, in accordance with the Monitoring Requirements in this Attachment.

4.4. Recordkeeping of Category 4 Spills and Non-Category 1 Lateral Spills

An Enrollee must maintain the following records for each individual Category 4 spill and for each individual non-Category 1 Enrollee-owned and/or operated lateral spill, and report in accordance to section 3.6 (Annual Certified Spill Reporting of Category 4 and/or Lateral Spills) of this Attachment.

Recordkeeping of Individual Category 4 Spill Information:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Description and GPS coordinates for the system location where the spill originated;
4. Did the spill reach a drainage conveyance system? If Yes:
   - Description of drainage conveyance system location,
   - Estimated spill volume fully recovered within the drainage conveyance system, and
   - Estimated spill volume remaining within the drainage conveyance system;
5. Estimated total spill volume exiting the sanitary sewer system;
6. Spill date and start time;
7. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
8. System failure location (for example, main, pump station, etc.);
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of how the volume estimation was calculated, including, at minimum:

- The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
- The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;

11. Description of implemented system modifications and operating/maintenance modifications.

Recordkeeping of Individual Lateral Spill Information:

1. Date and time the Enrollee was notified of, or self-discovered, the spill;
2. Location of individual spill;
3. Estimated individual spill volume;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.); and
5. Description of how the volume estimations were calculated.

Total Annual Spill Information:

1. Estimated total annual spill volume;
2. Description of spill corrective actions, including at minimum:
   - Local regulatory enforcement action taken against the sewer lateral owner in response to a spill, as applicable, and
   - System operation, maintenance and program modifications implemented to prevent repeated spill occurrences at the same spill location.

4.5. Sewer System Telemetry Records

The Enrollee shall maintain the following sewer system telemetry records if used to document compliance with this General Order, and previous General Order 2006-0003-DWQ as applicable, including spill volume estimates:

- Supervisory control and data acquisition (SCADA) system(s);
- Alarm system(s);
- Flow monitoring device(s) or other instrument(s) used to estimate sewage flow rates, and/or volumes;
- Computerized maintenance management system records; and
- Asset management-related records.

4.6. Sewer System Management Plan Implementation Records

The Enrollee shall maintain records documenting the Enrollee's implementation of its Sewer System Management Plan, including documents supporting its Sewer System Management Plan audits, corrections, modifications, and updates to the Sewer System Management Plan.

4.7. Audit Records

The Enrollee shall maintain, at minimum, the following records pertaining to its Sewer System Management Plan audits, and other internal audits:

- Completed audit documents and findings;
- Name and contact information of staff and/or consultants that conducted or involved in the audit; and
- Follow-up actions based on audit findings.

4.8. Equipment Records

The Enrollee shall maintain a log of all owned and leased sewer system cleaning, operational, maintenance, construction, and rehabilitation equipment.

4.9. Work Orders

The Enrollee shall maintain record of work orders for operations and maintenance projects.

ATTACHMENT E2 – SUMMARY OF NOTIFICATION, MONITORING AND REPORTING REQUIREMENTS

This Attachment provides a summary of notification, monitoring and reporting requirements, by spill category, and for Enrollee-owned and/or operated laterals as required in Attachment E1 of this General Order, for quick reference purposes only.

Table E2-1

Spill Category 1: Spills to Surface Waters

Spill Requirement	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters: Notify the California Office of Emergency Services and obtain a notification control number.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	• Conduct spill-specific monitoring; • Conduct water quality sampling of the receiving water within **18 hours** of initial knowledge of spill of 50,000 gallons or greater to surface waters.	(Section 2 of Attachment E1)
Reporting	• Submit Draft Spill Report **within three (3) business days** of the Enrollee's knowledge of the spill; • Submit Certified Spill Report **within 15 calendar days** of the spill end date; • Submit Technical Report **within 45 calendar days** after the spill end date for a Category 1 spill in which **50,000 gallons or greater** discharged to surface waters; and • Submit Amended Spill Report **within 90 calendar days** after the spill end date.	(Section 3.1 of Attachment E1)

Table E2-2
Spill Category 2: **Spills of 1,000 Gallons or Greater That Do Not Discharge to Surface Waters**

Spill Requirements	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State: Notify California Office of Emergency Services and obtain a notification control number.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• Submit Draft Spill Report **within three (3) business days** of the Enrollee's knowledge of the spill; • Submit Certified Spill Report **within 15 calendar days** of the spill end date; and • Submit Amended Spill Report **within 90 calendar days** after the spill end date.	(Section 3.2 of Attachment E1)

Table E2-3
Spill Category 3: Spills of Equal or Greater than 50 Gallons and Less than 1,000 Gallons That Does Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database within **30 calendars days** after the end of the month in which the spills occur; and • Submit Amended Spill Reports **within 90 calendar days** after the Certified Spill Report due date.	(Section 3.3 and 3.5 of Attachment E1)

Table E2-4
Spill Category 4: Spills Less Than 50 Gallons That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer System Database, within 30 days after the end of the calendar month in which the spills occurred. • Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur.	(Section 3.4, 3.6, 3.7 and 4.4 of Attachment E1)

Table E2-5
Enrollee Owned and/or Operated Lateral Spills That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a spill of 1,000 gallons or greater, from an enrollee-owned and/or operated lateral, discharging or threatening to discharge to waters of the State: Notify California Office of Emergency Services and obtain a notification control number. Not applicable to a spill of less than 1,000 gallons.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	Conduct visual monitoring.	(Section 2 of Attachment E1)
Reporting	• Upload and certify a report, in an acceptable digital format, of all lateral spills (that do not discharge to a surface water) to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. • Report a lateral spill of any volume that discharges to a surface water as a Category 1 spill.	(Sections 3.6, 3.7 and 4.4 of Attachment E1)