# Appendix H: Infrastructure Analysis

# CITY OF LOMITA
# GENERAL PLAN UPDATE

## Proposed Conditions Infrastructure Report for Hydrology, Sewer, Water, and Water Quality

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Los Angeles County, California

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**Date Prepared: March 29, 2024**

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# 1. OVERVIEW

## 1.1 BACKGROUND

The City of Lomita ("City") is currently undergoing a General Plan Update (GPU) which is intended to shape redevelopment opportunities in the City over the next 30-plus years. A General Plan is the principal long-range policy and planning document for guiding the physical development, conservation, and enhancement of California cities and counties. As part of the GPU, infrastructure such as water systems, sewer systems, drainage systems, and water quality that support the existing and proposed land uses will be evaluated at a citywide level and in connection with the opportunity areas. This report in particular will evaluate how the City's proposed GPU will impact the City's infrastructure.

## 1.2 SCOPE OF WORK

This infrastructure assessment report focuses on describing the primary wet utility infrastructure systems that support the City of Lomita including water, sewer, storm drainage systems, and water quality programs. As part of the California Environmental Quality Act (CEQA) process associated with GPUs, infrastructure, and utilities that support the existing and proposed land uses will be analyzed at a level consistent with the GPU city-wide program-level planning of an Environmental Impact Report ("EIR"). Under the proposed GPU buildout, land use changes will alter demands on existing infrastructure and utilities. Thus, this report will review, identify, and summarize the effects of the proposed conditions on the existing infrastructure within the water, sewer, storm drainage, or water quality systems, noting any major deficiencies, and if there are any major Capital Improvements Plans (CIP) planned within the City area to remedy existing or prospective deficiencies.

## 1.3 LAND USE DESCRIPTION

The City is located in the south portion of Los Angeles County, approximately 26 miles south of downtown Los Angeles and is bounded by the city of Torrance to the north and west, the city of Los Angeles to the east, the city of Rolling Hills Estates to the southwest, the city of Rancho Palos Verdes to the south, and Unincorporated Los Angeles County areas to the north. The entire City encompasses approximately 1,228 acres or 1.92 square miles. Existing land uses include approximately 8,274 residential dwelling units (DUs) and over 2.5 million non-residential square-feet (SF). See Figure 1 for an aerial extent of the Lomita GPU and Table 1 for a breakdown of the City's individual general plan designations, land uses, and footprints.

***Table 1 Existing Land Use Plan***

| General Plan Designation | Existing Conditions | |
|---|---|---|
| | Residential Dwelling Units | Non-Residential Square Footage |
| **Residential – Agricultural (R-AG)** | 512 | 15,296 |
| **Residential – Low Density (R-LD)** | 4,318 | 134,843 |
| **Residential – Medium Density (R-MD)** | 1,028 | 33,974 |
| **Residential – High Density (R-HD)** | 724 | 35,300 |
| **Manufacturing – Commercial (M-C)** | 6 | 252,355 |
| **Mixed-Use – 30 (MU30)** | 36 | 281,626 |
| **Mixed-Use – 40 (MU40)** | 1,191 | 1,167,385 |
| **Mixed-Use – 70 (MU70)** | 459 | 606,518 |
| **Publicly Owned Land (POL)** | 0 | 0 |
| ***TOTAL*** | ***8,274*** | ***2,527,297*** |

Source: De Novo Planning, *City of Lomita General Plan Existing Conditions Report*, 2023.

As shown above the City's current land use designations consist of a total of 8,274 dwelling units and 2.5 million non-residential square-feet. The majority of existing residential land uses consists of low-density single-family units, medium-density multifamily units, and mixed-use land plan designations. Non-residential uses throughout the City consist largely of mixed-use 40 and 70 land uses, which encourages both non-residential and residential developments. Notably the City's proposed GPU does not identify any specific development projects but does anticipate more growth to occur in mixed-use 40 and 70 land use designations.

See Table 2 below for the City's total GPU buildout which could a yield a total of up to 11,159 residential housing units and 3.1 million non-residential square-feet of building floor area.

***Table 2 Proposed Land Use Plan***

| General Plan Designation | Proposed GPU (2045) | |
|---|---|---|
| | Residential Dwelling Units | Non-Residential Square Footage |
| **Residential – Agricultural (R-AG)** | 785 | 0 |
| **Residential – Low Density (R-LD)** | 4,398 | 0 |
| **Residential – Medium Density (R-MD)** | 1,130 | 0 |
| **Residential – High Density (R-HD)** | 868 | 0 |
| **Manufacturing – Commercial (M-C)** | 0 | 141,646 |
| **Mixed-Use – 30 (MU30)** | 146 | 202,124 |
| **Mixed-Use – 40 (MU40)** | 1,883 | 1,816,303 |
| **Mixed-Use – 70 (MU70)** | 1,949 | 950,655 |
| **Publicly Owned Land (POL)** | 0 | 0 |
| ***TOTAL*** | ***11,159*** | ***3,110,728*** |

Source: De Novo Planning, *City of Lomita General Plan Existing Conditions Report*, 2023.

Overall, the City expects to increase residential land uses by 2,885 dwelling units and 583,431 square-feet (SF) of non-residential uses from the existing to proposed land use conditions, as shown in Table 3. A majority of the residential and non-residential land use increases consists of mixed-use units and mixed-use non-residential SF.

***Table 3 Net Change in Land Use Plan (Existing to Proposed)***

| General Plan Designation | Net Change (Existing to Proposed) | |
|---|---|---|
| | Residential Dwelling Units | Non-Residential Square Footage |
| **Residential – Agricultural (R-AG)** | 273 | -15,296 |
| **Residential – Low Density (R-LD)** | 79 | -134,843 |
| **Residential – Medium Density (R-MD)** | 102 | -33,974 |
| **Residential – High Density (R-HD)** | 144 | -35,300 |
| **Manufacturing – Commercial (M-C)** | -6 | -110,709 |
| **Mixed-Use – 30 (MU30)** | 110 | -79,502 |
| **Mixed-Use – 40 (MU40)** | 692 | 648,918 |
| **Mixed-Use – 70 (MU70)** | 1,490 | 344,137 |
| **Publicly Owned Land (POL)** | 0 | 0 |
| ***TOTAL*** | ***2,885*** | ***583,431*** |

Source: De Novo Planning, City of Lomita General Plan *Existing Conditions Report*, 2023.
Note: Numbers are rounded to the nearest whole number.

While the General Plan Update proposes no specific development projects, the update would accommodate future growth in the City, including new businesses, expansion of existing businesses, and new residential units. The primary location of the anticipated growth is expected to occur along the City's major arterials, including Pacific Coast Highway, Lomita Boulevard, Narbonne Avenue, Western Avenue, and Palos Verdes Drive North. The buildout analysis assumes that growth would happen over a 20-year planning horizon with a full build-out occurring by 2045, with much of the land use changes transitioning from commercial to mixed-use development.

This report analyzes the proposed land uses associated with the City's proposed land use plan and the infrastructure systems that serve the Lomita GPU area. The analysis will utilize GIS tools, data, and communication with City staff in order to review and summarize the baseline conditions of the water, wastewater, storm drainage systems, and existing water quality regulations currently in place.

## 1.4 SUMMARY OF INFRASTRUCTURE FINDINGS

As discussed in the sections below, the City of Lomita in conjunction with several other agencies operates and maintains utility systems within the Lomita GPU area. All existing infrastructure in the City has a process in place for identifying and correcting deficiencies and addressing any potential capacity issues to ensure a robust infrastructure network. Summaries of each utility system are provided below and further described throughout this technical report.

### 1.4.1 WATER DEMAND & SUPPLY

The Lomita Water Department, along with California Water Service (CWS) for a portion of the southwest area, maintain the local water infrastructure throughout the GPU area, which includes two pumps, one booster station, two storage reservoirs, two connections with the Metropolitan Water District (MWD), one groundwater well, three emergency interconnections with other cities, a standby well, and approximately 46 miles of distribution pipelines. Water demands from the City's proposed land use plan have been conservatively estimated to be approximately 1,388 AFY (See Table 6). The additional demands generated from the project will not exceed the City's projected water supplies. As shown in the City's 2022 Water Resources Master Plan (WRMP), the water infrastructure system effectively conveys existing demands. The overall distribution system was found to be in good condition, and the WRMP identifies several capital improvement projects and recommendations in order to address any current or projected water system deficiencies. Additional development projects will require site specific studies to be conducted and approved by the Lomita Water Department in order to determine potential impacts to water infrastructure and supply.

### 1.4.2 SEWER & WASTEWATER

The Los Angeles County Department of Public Works (LACDPW) helps to maintain, evaluate, and operate the City's local sewer facilities through the Consolidated Sewer Maintenance District (CSDM), while the City maintains ownership of the sewer system and is responsible for evaluating capacity and making improvements when necessary. The local sewer systems tie into the Los Angeles County Sanitation District No. 5 (LACSD) larger regional trunk sewer systems, which are located within some the City's major arterials, including Lomita Boulevard, Narbonne Avenue, Western Avenue, and 250$^{th}$ Street. Sewer flows generated from the City's proposed land use plan have been conservatively estimated to be approximately 277 million gallons (MG) per year or 0.76 million gallons per day (MGD) (See Table 11). The additional demands generated from the project will not exceed the current treatment capacity of

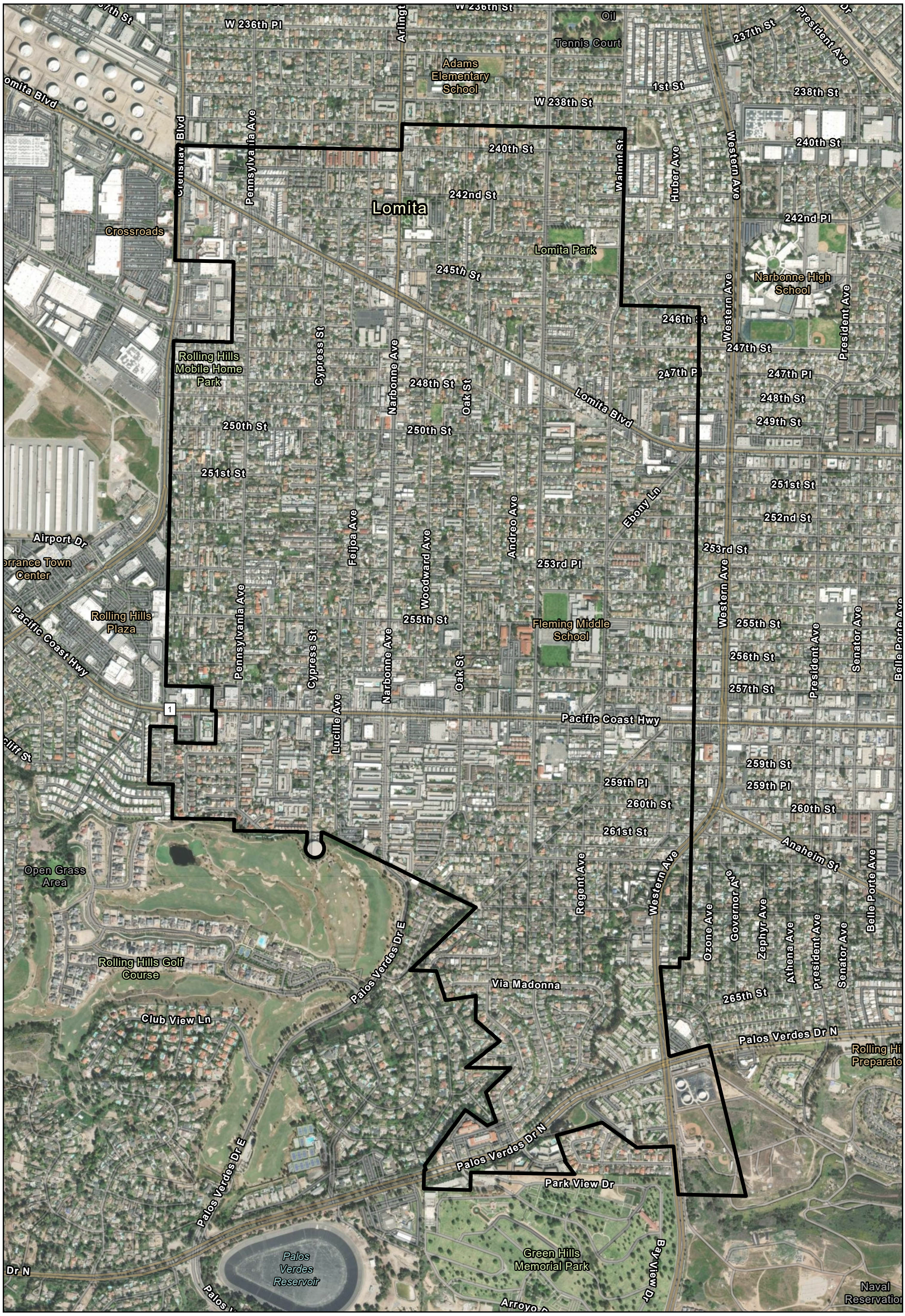
LACSDs A.K. Warren Water Resource Facility (formerly known as the Joint Water Pollution Control Plant or JWPCP), which has a design capacity for up to 400 MGD per day and is currently treating an average of 260 MGD. Locally, LACSD's existing sewer infrastructure system effectively conveys existing flows through the City to the Warren Facility, located about 1 mile easterly of the City's boundary. The City has programs in place via the Capital Improvement Program (CIP) to address any deficiencies within the City's sewer system. Additionally, the City is currently preparing a Sewer System Master Plan (SMP), which is expected to identify any know deficiencies. The SMP is anticipated to be available by Summer 2024.

### 1.4.3 STORM DRAINAGE

Storm drainage throughout the City is conveyed via local catch basins and storm drain facilities which are managed and maintained by the City. In addition, the Los Angeles Flood Control District (LACFCD) drainage facilities are also located within the City and are owned and maintained by LACFCD. These facilities tend to be larger size pipes, reinforced concrete boxes (RCB), and trapezoidal flood control channels. The City's storm drain infrastructure is generally in good condition as confirmed by the City's Public Works Department. Alongside LACFCD, the City constantly monitors and maintains stormwater pumping stations to ensure they are functioning efficiently to minimize the potential for flooding. The City is primarily built out and any additional developments are not anticipated to cause major changes to flood or drainage flows.

### 1.4.4 WATER QUALITY

The City resides within the Dominguez Channel Watershed Management Group and includes watershed management areas (WMA) for the Dominguez Channel Watershed, the Machado Lake Watershed, and the Los Angeles/Long Beach Harbors Watershed, which falls within the Los Angeles Regional Water Quality Control Board (LARWQCB) and its respective Basin Plan. The Lomita GPU area discharges into several receiving water bodies, each with various Total Maximum Daily Loads (TMDL) specifications and beneficial uses aimed at protecting water quality. The Lomita GPU area also overlies the West Coast Groundwater Basin, which has prescribed beneficial uses and water quality objectives. Future projects and developments that meet certain water quality thresholds within the GPU area must follow the requirements of the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit, which includes incorporating Low Impact Development (LID) Best Management Practices (BMP) into individual projects to help further protect water quality in receiving waters.




# City of Lomita GPU Aerial Extent

**Figure 1**

3/29/2024

City Boundary

N

1 inch = 1,000 feet

0 1,000 2,000 Feet

FUSCOE ENGINEERING

FULL CIRCLE THINKING

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# 2. ENVIRONMENTAL SETTING

## 2.1 WATER ENVIRONMENTAL SETTING & INFRASTRUCTURE

### 2.1.1 EXISTING WATER SYSTEM

The City's existing potable water system consists of 4,659 connections, approximately 46 miles of pipelines, two storage reservoirs with a total capacity of 140,000 gallons per day, and one pressure reducing station with a backup booster pump station. The water supply is managed by the Lomita Water Department, along with California Water Service (CWS) for a small portion at the southwest corner of the City. Water is imported from two Metropolitan Water District (MWD) connections via the West Basin Municipal Water District (WBMWD) connections (WB-7 and WB-8) and one groundwater well, Well No. 5, a treatment system that is not currently in service. The City also has three emergency connections with the City of Los Angeles (LADWP) and City of Torrance, and one stand-by well beside the Cypress Street reservoir, which has a capacity of 5.3 MG.

As mentioned above, water supply is also provided by California Water Service, Palos Verdes (CWS) for the southwest portion of the City. The water for this area is served off of Palos Verdes Drive North. This separate water system is necessary, due to the hilly topography in this area. CWS also obtains its water supply from the MWD, and water is stored in the Palos Verdes Reservoir, which has a capacity of up to 360 million gallons (MG).

Distribution pipelines within the City range In diameter between 2" to 16" and have a total length of 245,789 ft (46 miles). The majority of water pipes throughout the City are 6" and 8" lines which account for 60.5% of the pipes throughout the City and most were constructed in the 1960's (28.5%).[1] See Figure 2 for the water infrastructure and facilities within the City.

### 2.1.2 EXISTING WATER DEMANDS

For existing land uses within the City, water demands were estimated from the City of Lomita's Urban Water Management Plan (UWMP). The City only records water use per service connection and bills customers based on a single water rate structure. Water sales data is compiled by City staff and recorded on the California Department of Water Resources (DWR) Form No. 38 (Public Water System Statistics) and submitted to DWR annually. Nearly 94% of the total service connections are residential (single or multi-family) since the City consists primarily of residential properties. Commercial and institutional accounts comprise about 6% of the total accounts. Landscape and "other" accounts comprise less than 1% of the City's metered connections.

As shown in Table 4 below the existing water service connections in the City had a combined water demand of approximately 2,071 acre-feet (AF) in 2020. The water system is functioning effectively to deliver these demands and the City consistently tracks and monitors the condition of the water infrastructure to provide a reliable water infrastructure network.

[1] Dudek. January 2022. City of Lomita Water Master Plan. Found here: https://lomita.granicus.com/MetaViewer.php?view_id=3&clip_id=672&meta_id=37611

***Table 4 Existing Water Demands***

| Sector | 2016 (AF) | 2017 (AF) | 2018 (AF) | 2019 (AF) | 2020 (AF) |
|---|---|---|---|---|---|
| Single-Family Residential | 1,410 | 1,391 | 1,446 | 1,390 | 1,490 |
| Multi-Family Residential | 98 | 96 | 101 | 97 | 104 |
| Commercial | 218 | 211 | 228 | 224 | 202 |
| Institutional | 154 | 156 | 159 | 188 | 182 |
| Other | - | - | - | - | - |
| **Total Water Sales** | **1,880** | **1,855** | **1,934** | **1,899** | **1,979** |
| Unaccounted for Water | 140 | 161 | 107 | 86 | 92 |
| **Total Water Consumption (Total Supply into System)** | **2,021** | **2,016** | **2,041** | **1,955** | **2,071** |
| Source: City of Lomita 2020 UWMP Table 6.4 current and Historic Water Demand by Sector (AF) | | | | | |

As indicated by Table 4, the City's unaccounted for water ranged from 86 to 140 AF, which is about 5% of the total water supply into the City's distribution system. All service connections in the City are metered. Thus, unaccounted for water in the City consists of routine flushing and water losses. Although water losses have cost impacts on the City, they cannot be prevented entirely. Instead, effort is given to controlling the quantity of water losses in order to reduce the cost impact of water losses. For this reason, the City has prepared water loss audits using AWWA software. The water loss audits for 2016 to 2019 are provided in the City's 2020 UWMP. The 2019 Audit shows that the City's Leakage Index (the ratio of real loss to unavoidable loss) was 1.16, which is an overall excellent score for water agencies.

### 2.1.3 PROPOSED WATER DEMANDS

#### WATER DEMANDS – UWMP PROJECTIONS

Future water use projections throughout the City must consider significant factors on water demand, such as development and/or redevelopment, and climate patterns. See Table 5 for the City's estimated water demands for 2020 and projected demands for 2025 to 2045 in acre-feet per year (AFY).

***Table 5 Projected Water Demands***

| Land Use Type | Projected Water Use (AFY) | | | | | |
|---|---|---|---|---|---|---|
| | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
| Single Family | 1,490 | 1,559 | 1,558 | 1,557 | 1,556 | 1,554 |
| Multi-Family | 104 | 109 | 109 | 109 | 109 | 109 |
| Commercial | 202 | 238 | 238 | 238 | 238 | 238 |
| Institutional | 182 | 182 | 182 | 182 | 182 | 182 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 |
| Unaccounted for Water | 92 | 128 | 128 | 128 | 128 | 128 |
| **TOTAL** | **2,071** | **2,216** | **2,215** | **2,214** | **2,212** | **2,209** |
| Source: City of Lomita 2020 UWMP Table 6.4 and 6.7 | | | | | | |

As seen in the table above, the District estimates that from 2020 to 2045 the City's water demands will increase to 2,209 acre-feet per year (AFY). This increase in demands is largely driven by the City's Housing Element which is projected to add an additional 363 additional low to very low-income units. Potential reductions in water use will come from the ongoing effects of appliance standards and plumbing codes, the City's conservation, and customer assistance programs.

The City's UWMP will be updated in 2025 by June 2026 and will account for the changes in land use growth associated with the City's proposed GPU.

**WATER DEMANDS – PROPOSED GPU LAND USE PLAN**

Under the proposed land use condition, the GPU will increase the number of residential units by 2,885 DUs and 583,431 non-residential square-feet (SF). Projected demands were generated based on a review of the available UWMP, the City's 2022 Water System Master Plan (WSMP), and other available resources.

The water demand factor of 330 gpd/DU for the City's proposed general plan buildout was derived from the projected 2031 demand projections outlined in the City's WSMP. This water use factor is highly conservative and was based on data from 65 residential development projects scheduled for construction between 2020 and 2031. Seeing that the City's WSMP does not provide a water use factor for non-residential square-feet an alternate resource, the Los Angeles County Sanitation District's (LACSD) Table 1, Loadings for Each Class of Land Use factors, was used to estimate the GPUs non-residential demands[2]. Each of the GPUs non-residential land use designations were aligned to applicable land use types listed on LACSD's sewerage loadings sheet, summed and averaged, and then multiplied by 110% to yield a conservative indoor and outdoor water use factor. Take for example the City's non-residential land use category for Manufacturing – Commercial (M-C), several of LACSDs loading factors for manufacturing, office buildings, restaurants, etc. were summed together and averaged to yield a conservative indoor and outdoor sewer flow factor of 369 gallons per day (GPD)/ per 1,000 square foot (KSF). Most factors from LACSD's Table 1 loading factors are initially listed in KSF and were converted to SF by dividing the factor by 1,000 thus resulting in an applicable factor based on GPD/SF. Thus, the water use factor for Manufacturing – Commercial (M-C) of 369 GPD/KSF was divided by 1,000 and converted to 0.369 GPD/SF and then multiplied by the 110% to yield a conservative indoor and outdoor water use factor of 0.41 GPD/KSF.

It's important to note that land uses, such as the non-residential component of the mixed-use overlay districts, within the City did not permit hotels, motels, fueling service stations, institutional, industrial uses, etc.[3] and these restrictions were taken into consideration when determining which land use categories to utilize.

See Table 6 below for an estimate of the City's total net change in water demands from existing to proposed land uses and Appendix A and B for further details on the calculation's methodology.

[2] Los Angeles County Sanitation District, Table 1, Loadings for Each Class of Land Use. Found here: https://www.lacsd.org/home/showpublisheddocument/3644/637644575489800000

[3] City of Lomita, Municipal Code. Accessed March 2024. Found here: https://library.municode.com/ca/lomita/codes/code_of_ordinances?nodeId=MUCO_TITXIPLZO_CH1ZO_PT5.8MIEOVDI_ART58MIEOVDI_S11-1.58.05PRUS

***Table 6 Projected Water Demands from Existing to Proposed Land Uses***

| General Plan Land Use Designation | Net Change (Existing to Proposed) Residential Land Uses | | | | | | |
|---|---|---|---|---|---|---|---|
| | Residential Dwelling Units | Residential Water Use Factor | | Water Demand (GPD) | | Water Demand (AFY) | |
| Residential – Agricultural (R-AG) | 273 | 330 | GPD/ DU | 90,090 | GPD | 101 | AFY |
| Residential – Low Density (R-LD) | 80 | 330 | GPD/ DU | 26400 | GPD | 30 | AFY |
| Residential – Medium Density (R-MD) | 102 | 330 | GPD/ DU | 33,660 | GPD | 38 | AFY |
| Residential – High Density (R-HD) | 144 | 330 | GPD/ DU | 47520 | GPD | 53 | AFY |
| Manufacturing – Commercial (M-C) | -6 | 330 | GPD/ DU | -1,980 | GPD | -2 | AFY |
| Mixed-Use – 30 (MU30) | 110 | 330 | GPD/ DU | 36300 | GPD | 41 | AFY |
| Mixed-Use – 40 (MU40) | 692 | 330 | GPD/ DU | 228,360 | GPD | 256 | AFY |
| Mixed-Use – 70 (MU70) | 1,490 | 330 | GPD/ DU | 491700 | GPD | 551 | AFY |
| Publicly Owned Land (POL) | 0 | 330 | GPD/ DU | 0 | GPD | 0 | AFY |
| ***TOTAL*** | ***2,885*** | | | ***952,050*** | GPD | ***1,066*** | AFY |
| **General Plan Designation** | **Non-Residential Square Footage** | **Non-Residential Water Use Factor** | | **Water Demand (GPD)** | | **Water Demand (AFY)** | |
| Residential – Agricultural (R-AG) | -15,296 | 0.48 | GPD/ SF | -7,319 | GPD | -8 | AFY |
| Residential – Low Density (R-LD) | -134,843 | 0.48 | GPD/ SF | -64,522 | GPD | -72 | AFY |
| Residential – Medium Density (R-MD) | -33,974 | 0.48 | GPD/ SF | -16,257 | GPD | -18 | AFY |
| Residential – High Density (R-HD) | -35,300 | 0.48 | GPD/ SF | -16,891 | GPD | -19 | AFY |
| Manufacturing – Commercial (M-C) | -110,709 | 0.41 | GPD/ SF | -44,914 | GPD | -50 | AFY |
| Mixed-Use – 30 (MU30) | -79,502 | 0.48 | GPD/ SF | -38,042 | GPD | -43 | AFY |
| Mixed-Use – 40 (MU40) | 648,918 | 0.48 | GPD/ SF | 310,507 | GPD | 348 | AFY |
| Mixed-Use – 70 (MU70) | 344,137 | 0.48 | GPD/ SF | 164,670 | GPD | 184 | AFY |
| Publicly Owned Land (POL) | 0 | 0 | GPD/ SF | 0 | GPD | 0 | AFY |
| ***TOTAL*** | ***583,431*** | | | ***287,232*** | GPD | ***322*** | AFY |
| ***TOTAL RESIDENTIAL + NON-RESIDENTIAL WATER DEMANDS*** | | | | **1,239,282** | **GPD** | **1,388** | **AFY** |

As shown above, it is projected that the City's proposed land use changes will produce an estimated water demand increase of 1,388 AFY (1,239,282 GPD). See Appendix A and B to review the water demand calculations and notes detailing how each of the listed water use factors are calculated.

### 2.1.4 EXISTING AND PROJECTED WATER SUPPLY

The City is supplied by a mix of local groundwater and imported water through the District and WBMWD. These water resources are described below.

#### LOCAL GROUNDWATER

The City lies within the Coastal Plain of Los Angeles Groundwater Basin and is within the adjudicated West Coast Groundwater Subbasin ("West Coast Basin" or "Basin")[4]. The West Coast Subbasin is shaped by the Ballona Escarpment, Newport-Inglewood fault, and the Pacific Ocean. Overdraft issues emerged in the 1930s due to the increased pumping linked to population growth and industrialization. Adjudication efforts began in 1945 and lead to the formation of the WBMWD in 1947. The Water Replenishment District of Southern California (WRD), established in 1959, collaborated with the West Coast Basin Water Association to address overdraft and seawater intrusion. In 1965, stakeholders agreed to adjudicate water from the Basin with a limiting Allowable Pumping Allocation (APA) of 80%. The Basin provides approximately 64,468 AF of groundwater annually to the City and several other jurisdictions in the region, the City specifically has an APA right to extract 1,352 AFY from the Basin.

#### IMPORTED WATER

The WBMWD acts as a secondary wholesale water agency and purchases imported water from Metropolitan Water District of Southern California (MWD) and resells it to the City's Water Department. WBMWD's imported water comes from the State Water Project (SWP) and Colorado River via MWD pipelines and aqueducts. The SWP is owned and operated by the California Department of Water Resources (DWR) and MWD transports water stored in the Oroville Dam through the Bay-Delta and California Aqueduct. The Colorado River Aqueduct (CRA) is owned and operated by MWD and transports water from Lake Havasu, at the border of California and Arizona, approximately 242 miles west to its end at Lake Matthews.

The City expects to reduce dependency on imported water through groundwater production from its Well No. 5 once it goes back online. Water from Well No. 5 is treated by the City's Cypress Water Production Facility (CWPF)[5], which was built to decrease reliance on imported water. Well No. 5, the treatment plant, and the Cypress Street Reservoir all work together to supply up to two-thirds of all the City's water needs.

#### RECYCLED WATER

The City does not own or maintain any sewer collection or treatment facilities. The A.K. Warren Water Treatment Facility A. K. Warren Water Resource Facility (formerly known as the Joint

[4] Map of the West Coast Groundwater Basin. Found here: https://dwr.maps.arcgis.com/apps/Styler/index.html?appid=740d10eefd6148579321a3abcd065a36

[5] City of Lomita Water Department, Cypress Water Production Facility. Accessed March 2024. Found here: https://www.lomitawater.com/infrastructure/cypress-water-production-facility/

Water Pollution Control Plant (JWPCP)) is the only wastewater treatment facility for the City and currently provides only primary and secondary treatment, which does not meet Title 22 Standards for recycled water. In the future the City may begin to use recycled water but has yet to make any specific plans to due to the lack of infrastructure within the City's distribution system.

See Table 7 for the City's estimated supply in 2020 and supply projections for 2025 to 2045.

***Table 7 Existing and Projected Water Supply***

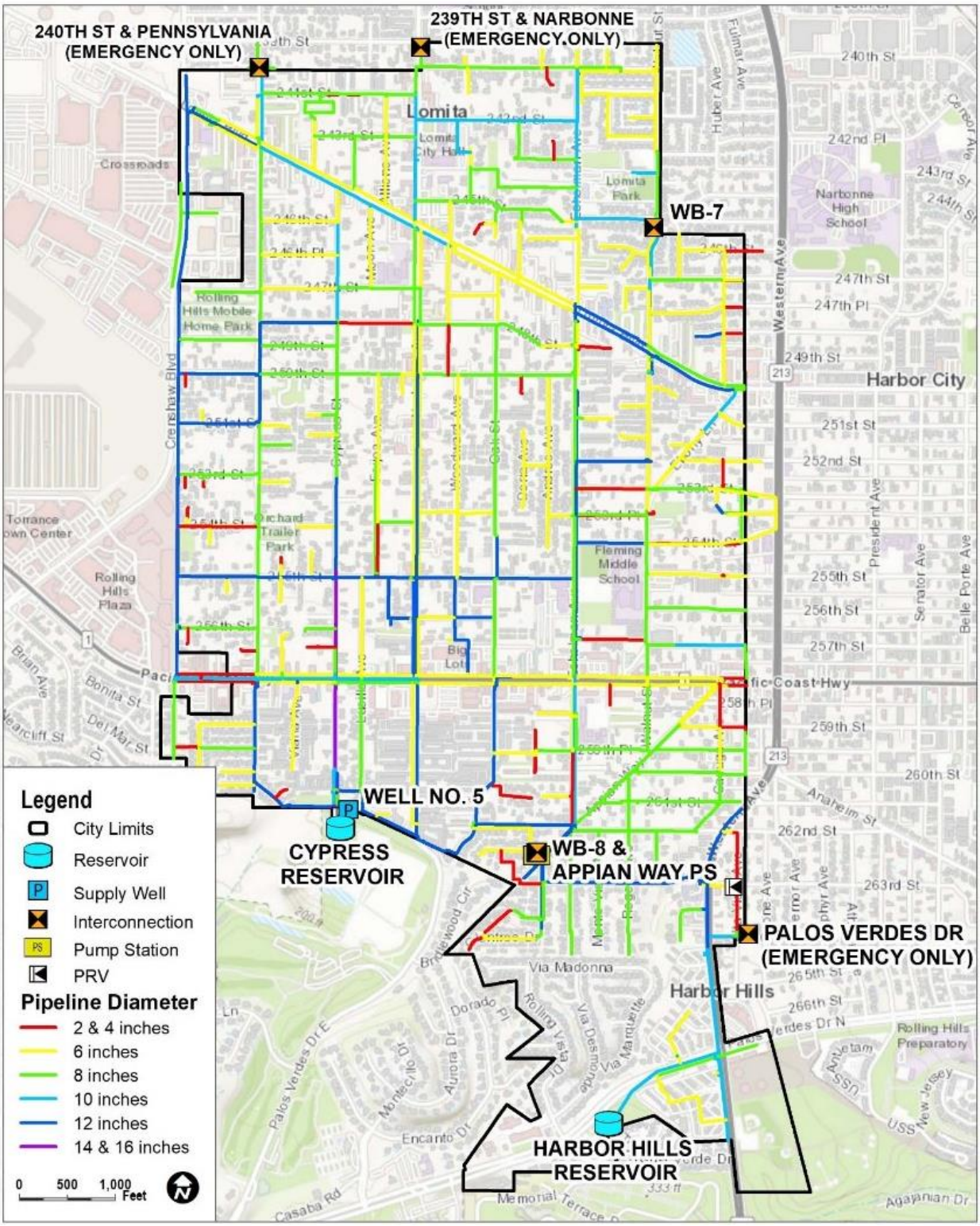
| Water Supply | Existing & Projected Water Supply (AFY) | | | | | |
|---|---|---|---|---|---|---|
| | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 |
| Imported | 2,070 | 2,648 | 2,648 | 2,648 | 2,648 | 2,648 |
| Groundwater | 1 | 1,352 | 1,352 | 1,352 | 1,352 | 1,352 |
| **Total (AF)*** | **2,071** | **4,000** | **4,000** | **4,000** | **4,000** | **4,000** |

Source: City of Lomita UWMP Table 3.1, 3.3, and 3.4 Projected Water Supply Availability (AF)
* Five percent of the City's population is serviced by California Water Service, Palos Verdes, water estimates were not available for these areas. The City expects that supply will stay the same during normal dry, single, dry, and multiple dry years.

Within the City's service area water demands should remain relatively constant over the next 25 years due to minimal population growth projections, water use efficiency measures, and the potential use of recycled water. Any new water supply sources will likely be to replace or upgrade insufficient wells and infrastructure rather than to support population growth and new development. The projects that have been identified to improve the City's water supply reliability and enhance the operations of the City's facilities include replacement of water meters, fire hydrants, valves, and pipelines. Although the additional demands generated from the project will not exceed the City's projected water supplies, future projects will further support and mitigate any negative impacts associated with the proposed GPU's.

See Figure 2 for an overview of the City's overall existing water system.

***Figure 2 City of Lomita Existing Water System Facilities***




Source: Dudek. January 2022. City of Lomita Water Master Plan – Figure 2-3 Existing Water System by Pipeline Diameter.

### 2.1.5 WATER CAPACITY ASSESSMENT

Water system operation and maintenances is provided by the City's Public Works Department (Water Division). See the following sections for a description of the resources that the City uses to assess, maintain, and improve water capacity and infrastructure throughout the City.

#### URBAN WATER MANAGEMENT PLAN (UWMP)

Through the Urban Water Management Plan (UWMP) reporting, the City uses population growth, climate scenarios, water supplies, water conservation, large development projects, and approved specific plans to estimate future water demands and evaluate the ability to meet this demand through various water supply sources over a 20-year projection. The California Water Code requires this document, and it is updated every five years; the latest was prepared in 2020 and the City's next 2025 UWMP will be updated by June 2026.

#### SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA)

The SGMA addresses the sustainable management of groundwater in California. This legislation results from water shortages in California, long-term issues with land subsidence, and over drafting of groundwater aquifers. The Department of Water Resources (DWR) identified the status of water basins by overdraft and priority levels (e.g., very low, low, medium, or high). The consistency requirement between the District's UWMP and SGMA is not applicable because the West Coast Subbasin is categorized as very-low priority. Thus, the implementation of a Groundwater Sustainability Plan (GSP) is not required as groundwater storage and extraction in the West Coast Basin is governed by basin adjudication, with excess production restricted to emergencies[6].

#### 2022 LOMITA WATER SYSTEM MASTER PLAN (WSMP)

The City's 2022 Water Master Plan, updated in July 2021 by Dudek, serves as a strategic tool for planning water system needs. It aimed to update the hydraulic model, prioritize system improvements for fire flow conditions, and provide accurate cost estimates. The plan evaluates current and future water demands, considering both online and off-line scenarios due to Well No. 5 being offline. Recommendations included pipeline replacement and studies for pressure and redundancy improvements based on capacity and fire flow analyses.

### 2.1.6 WATER CAPITAL IMPROVEMENT PLANS

The 2022 WSMP was developed to better understand water supplies, existing and future demands, and to update the City's hydraulic computer model to assess the capacity of the water infrastructure and ultimately update the City's 10-year CIP. Six pipeline capital improvement plan (CIP) projects were identified to address system fire flow capacity and aging pipelines, along with four (4) study recommendations to improve supply reliability and system pressures. Projects identified in the WSMP are also included in the City's CIP Master Plan from 2022-2027. See Figure 3 for the locations of some of these improvement projects.

[6] U.S. Department of the Interior Bureau of Reclamation Engineering Services Office, Los Angeles Basin Groundwater Adjudication Summary. July 2014. Found here: https://www.usbr.gov/lc/socal/basinstudies/LA%20Adjudication%20Dec%202014.pdf

***Table 8 Water System Projects***

| Project Name | CIP Fiscal Year | Project Summary |
|---|---|---|
| Emergency Generator for Appian Way | FY 22-23 | This project will design and construct an emergency generator for the Appian Way Pump Station. An emergency generator would allow for pumping during power outages. |
| 246th St., 247th Pl, 247th St Western Water Main Replacement | FY 22-23 | This project replaces pipe and 'loops' the water system for improved water quality and will reduce risk of water lines breaking and damaging private property. |
| Cypress Water Production Facility Upgrades | FY 22-23 | This project upgrades the Cypress Water Production Facility with granular activated carbon vessels, new chemical tanks, relocation of generator, updated security and SCADA. To treat for benzene and taste and odor. |
| Narbonne South Pipe Replacement | FY 23-24 | This project replaces a portion of an aging pipe on Narbonne south of Pacific Coast Highway. |
| Second Potable Well Evaluation | FY 22-23 | This project evaluates locations and feasibility of locating a second groundwater production well. This well would provide flexibility and redundancy in the event of contamination or other damage to the City's one groundwater well. |
| Narbonne Avenue Pipeline Upsizing | FY 26-27 | Upsize 1,200 LF of Zone 1 6-inch and 8-inch pipe and tie into new 12-inch pipe on Lomita Blvd. To handle fire flows in the commercial area. |
| W. Lomita Blvd Pipeline Upsizing | FYs 25-32 | Upsize 5,700 LF of Zone 1 6-inch and 8-inch pipe to 12-inch pipe on Lomita Blvd. To handle fire flows in the commercial area. |
| PCH Pipeline Upsizing | FY 24-25 | Upsize 3,700 LF of Zone 2 6-inch to 12-inch pipe. To handle fire flows in the commercial area. |
| Annual Pipe Rehabilitation and Replacement (R&R) Project | FYs 22-32 | Replace aged pipes, 1928 installation. The City's water infrastructure has many old pipes that need replacement. A significant portion was installed in 1928. These pipes have frequent breaks causing emergency outages. |
| Annual Pipeline Upsizing Project | FYs 23-27 | Upsize 2- and 4- inch to 6 inch if looped or 8-inch to last hydrant. Upsize 4-inch dead end pipes to 8-inch. To improve residential fire flows. |
| Zones 2 and 3 Booster Feasibility Study | FY 24-25 | This project evaluates the feasibility of booster water from Zone 1 to Zones 2 and 3. I f the City could boost water from Zone 1, it could allow locally pumped and treated water to be supplied to Zones 2 and 3. Local water can be supplied at a lower cost and environmental impact than imported water. |
| Pressure Zone Boundary Modification Study | FY 24-25 | This project will evaluate the pressure zone boundaries and determine if changes are feasible for improving pressures. To address areas in Zone 1 with low pressures. |
| New Interconnection at Narbonne Ave Oak Street PRS Study | FY 24-25 | This project will evaluate the feasibility of a new interconnection at Narbonne-Ave Oak Street PRS for backup water supply to Zone 2. To improve supply redundancy. |

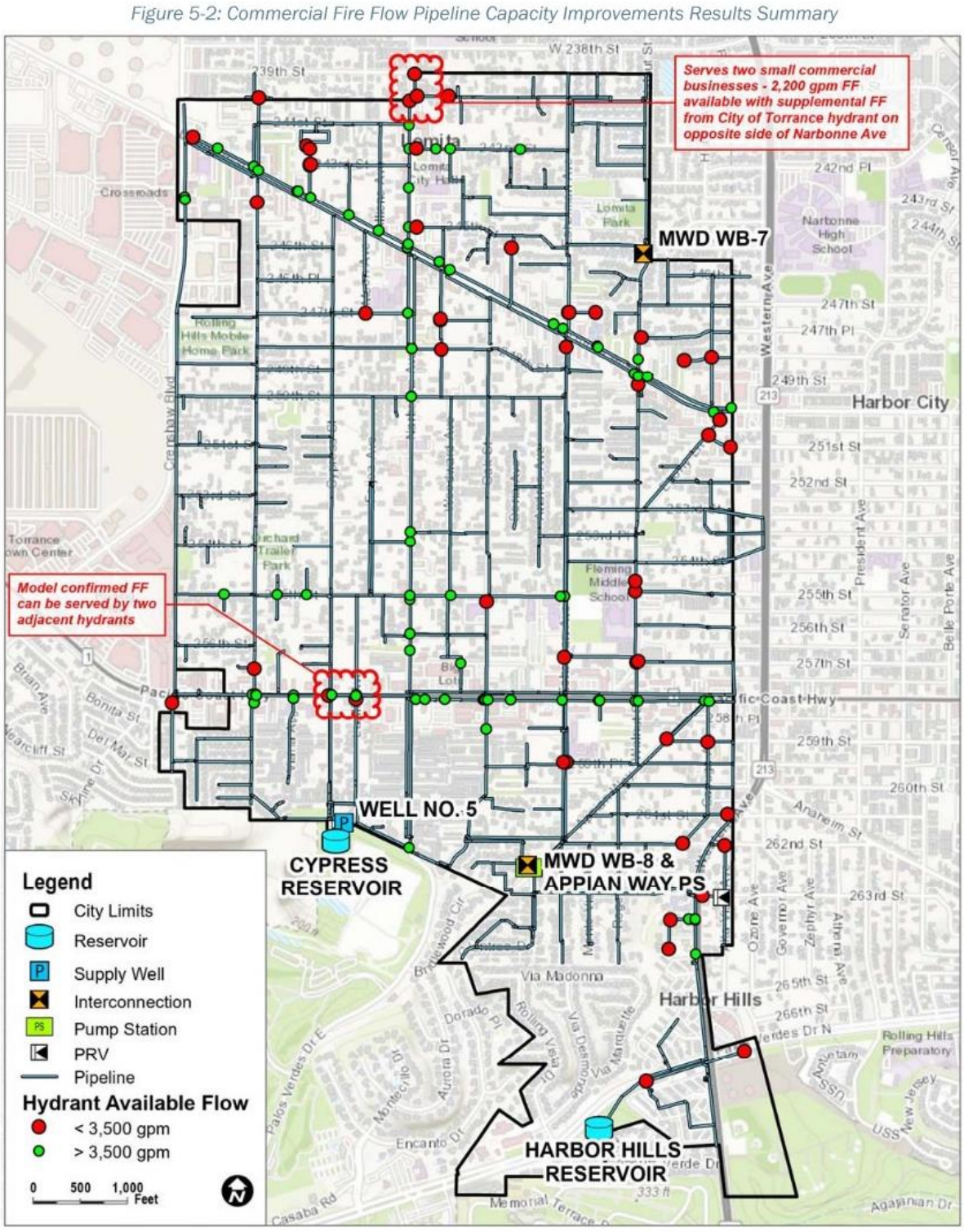
| Project Name | CIP Fiscal Year | Project Summary |
|---|---|---|
| Water Quality Sample Station Upgrades | FY 23-24 | This project will upgrade/replace sample stations within the distribution system |
| Second Potable Well Evaluation | FYs 22-32 | Evaluation potential for second potable water supply well. Improve supply reliability |

Sources
1. City of Lomita, June 2022. CIP Master Plan 2022-2027. Found here: https://lomitacity.com/wp-content/uploads/2023/03/Attachment-A-CIP-Master-Plan-2022.pdf
2. Dudek. January 2022. City of Lomita Water System Master Plan.

In general, the City's water distribution system was found to have adequate pressures, does not have excessive velocities, and provides adequate supplies for normal and emergency fire suppression operations. The reservoir storage system was also found to be adequate and there is currently no need for additional storage to meet existing or projected water demands. Any limitations related to fire flow capacity, storage, low pressure, and aging infrastructure are addressed individually by the City's individual CIP projects. Additionally, CWS, Palos Verdes has not identified any known deficiencies in the water supply, infrastructure, or facilities that serve the portion of the City within its service area.

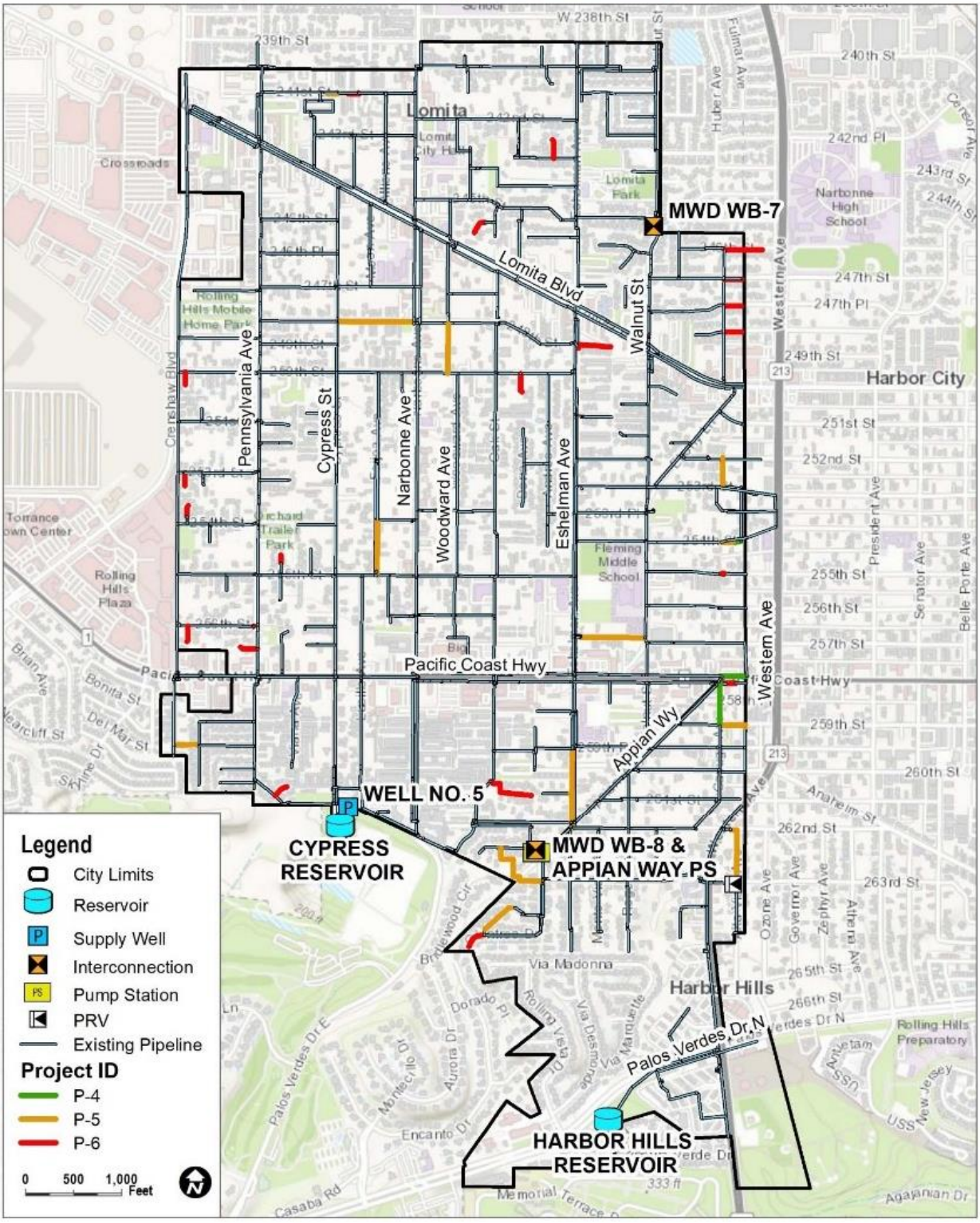
See Figure 3 for a view of some of the City's water system improvement projects.

***Figure 3 City of Lomita Water System Projects***




Source: Dudek. January 2022. City of Lomita Water Master Plan – Figure 5-2: Commercial Fire Flow Pipeline Capacity Improvements Results Summary.

*Figure 5-3: Pipeline Upsizing Capacity Improvements Summary*




Source: Dudek. January 2022. City of Lomita Water Master Plan – Figure 5-3: Pipeline Upsizing Capacity Improvements Summary.

## 2.2 PROPOSED LAND USE AND CEQA THRESHOLD ANALYSIS – WATER SYSTEM

The following question regarding Utilities and Service Systems are identified in the CEQA Checklist related to water.

Would the Project:

A. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Should the answer to this prove to be a potentially significant impact, mitigation measures would be required to reduce those impacts to a less-than-significant threshold. The following impact assessments are based on the significance criteria established earlier in the section.

***Impact A: Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

**Impact Analysis:** Implementation of proposed land uses within the GPU will have the potential for water demands to increase in the range of 1.24 MGD or 1,388 AFY over the City's existing conditions. The additional demands generated from the project will not exceed the City's projected water supplies. Implementation of projects consistent with the land use will require the construction of new water infrastructure where existing water lines are not sufficient to accommodate the increased supply demands. These determinations will be made on a project-by-project basis including the application of a will-serve process, payment of connection fees, site specific fire flow tests, and hydraulic pressure analyses. The application of the will-serve process requires the applicant to provide a detailed description of the proposed project including the existing water demands and the proposed water demands. Based on the increased demand, connection fees will be applied to ensure the City is able to collect funds to provide the additional demand while maintaining services to existing consumers and setting aside reserves for future upgrades where needed. The results of the fire flow and hydraulic pressure analyses determine the on-site and off-site improvements required to ensure proper delivery of domestic and fire flows to the project site while maintaining services to existing clients. Lomita Water typically requires a minimum of 20 psi (pounds per square inch) as a lower limit of pressure within the water pipeline during fire suppression operations. This will ensure that firefighters have access to water of sufficient pressure. Additionally, the American Water Works Association recommends a normal static pressure of 60 – 75 psi throughout the water system. A minimum normal operating pressure of 35 – 45 psi is typically permitted for peak-hour flow conditions. Maximum allowable velocities within the pipelines range from 5 – 8 fps (feet per second) for peak-hour scenarios, and 10 – 12 fps for fire suppression operations. This comprehensive process covers both potable water system and recycled water systems.

Proposed improvements may include upsizing water lines on-site and off-site and additions of boosters in low pressure areas. The construction of the on-site and off-site water lines and associated improvements will primarily include trenching for the pipelines. All construction will be performed in accordance with the Construction General Permit (CGP) and all associated requirements. Any work that may affect

services to the existing water lines will be coordinated with the City, including the procurement of encroachment permits from the City for all improvements within the public right of way. The City also conducts a Water System Survey to ensure the protection of the public water system from potential contamination. This involves reviewing requests for new services and assessing the need for backflow protection infrastructure. Plans and specifications must be submitted to the City for review and approval, and if deemed necessary, backflow prevention assemblies must be designed installed before service is granted. The City may also require on-premises inspections to evaluate cross-connection hazards, with written notices sent to affected water users. Failure to allow inspections may result in mandated installation of necessary backflow prevention assemblies. Additionally, the City reserves the right to conduct re-inspections of premises where water is served, with the same protocol for scheduling inspections and enforcing installations if necessary.

When considering impacts resulting from the installation of any required water infrastructure, all impacts are of a relatively short-term duration and would cease to occur once the installation is complete. Therefore, the Project's impacts on water associated with construction activities would be less than significant.

## 2.3 SEWER ENVIRONMENTAL SETTING & INFRASTRUCTURE

### 2.3.1 EXISTING SEWER SYSTEM

#### CITY OF LOMITA

The City of Lomita consists of approximately 36 miles of gravity sewer lines that the City designs, evaluates, operates, and maintains alongside the Los Angeles County Department of Public Works (LACDPW). The City, on June 30, 1964, granted the County of Los Angeles the consent and jurisdiction to annex portions of the sewer system into the Consolidated Sewer Maintenance District (CSMD). By that action, the City has entrusted the management, operation, and maintenance of its local sanitary sewer system the CSMD. The City, however, maintains ownership of the sewer system, and is responsible for ensuring that the public sewer infrastructure is correctly designed, adequately sized, and easily maintained. Conveyance, treatment, and disposal sewer services are also provided to the City through the Los Angeles County Sanitation District (LACSD) No. 5. The City's Public Works Department works closely with LACDPW (through the CSDM agreement) and LACSD (through their Will-Serve process) to ensure the sewer collection system is functioning effectively within the City boundaries.

#### LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS (LACDPW) – CONSOLIDATED SEWER MAINTENANCE DISTRICT (CSDM)

As mentioned above, on June 30, 1964, the City granted the LACDPW consent to annex portions of the City's sewer system into the CSDM, which is maintained by LACDPW. In addition to the City, the CSDM serve's multiple incorporated and unincorporated jurisdictions throughout Los Angeles County. The CSDM is responsible for prioritizing a proactive approach to sewer maintenance, emphasizing preventive measures, and timely responses to emergencies. Their strategy includes implementing minimum design standards, regular inspections, and as-needed cleaning to detect and address potential issues before they escalate. By following Best Management Practices (BMPs), CSDM aims to protect public health, preserve infrastructure investments, prevent environmental harm from sewage overflows, and ensure continual service availability to the City and its other service areas. The CSDM also has an Infiltration/ Inflow monitoring and control program alongside the City's ongoing sewer line cleaning and maintenance program, which includes closed-circuit television (CCTV) and other mechanisms to detect Infiltration/ Inflow. The most recent CCTV inspections for the City were conducted in 2019, in coordination with the CSDM.

#### LOS ANGELES COUNTY SANITATION DISTRICT'S (LACSD)

Sewer flows from the City ultimately connect to LACSD sewer trunk lines that convey wastewater to LACSDs regional treatment plants. The majority of the local sewer system serving the City, as part of the CSMD, is comprised of vitrified-clay pipe ranging from 6" to 12" in diameter. The sewage from the City is collected and conveyed from the local sewer mains and is discharged into larger LACSD sewer trunk mains along Narbonne Avenue, Lomita Boulevard, Western Avenue, and Crenshaw Boulevard, and travel towards the LACSD's A. K. Warren Water Resource Facility (formerly known as the Joint Water Pollution Control Plant (JWPCP)), which is located in the City of Carson. The smaller sewer mains are owned by the City of Lomita, while the larger sewer trunk lines in the main arterial roadways are owned and operated by the LACSD. The A.K Warren Water Resource Facility (Warren Facility) is also operated by LACSD and is designed to process up to 400 million gallons per day (MGD) and

currently processes approximately 260 MGD[7]. Treated wastewater from the Warren Facility is disposed of through two outfalls into the Pacific Ocean located about two miles offshore and 200 feet below the sea. Sludge from the Warren Facility is composted onsite or transported to the Puente Hills Landfill. As of now the City's wastewater is not treated to recycled water standards at the regional waste treatment facility and LACSD does not plan to construct any additional recycling facilities through 2045. See Figure 4 for the City's existing sewer infrastructure and facilities.

[7] Los Angeles County Sanitation District, Wastewater Treatment Process at the Warren Facility. Found here: https://www.lacsd.org/services/wastewater-sewage/facilities/ak-warren-water-resource-facility/wastewater-treatment-process

# City of Lomita Existing Sewer Facilities

**Figure 4**

3/29/2024

City Boundary
LACSD Underground Utilities
CSMD Sanitary Sewer Network

FUSCOE ENGINEERING
FULL CIRCLE THINKING

N
1 inch = 1,000 feet

0 1,000 2,000 Feet

X:\Projects\4052\03\mxd\2023_GPU_Exhibits\4_ExistingSewer.aprx

### 2.3.2 EXISTING SEWER FLOWS

For existing land uses within the City, sewer generation was estimated by employing the City of Lomita's 2020 Urban Water Management Plan (UWMP). The City estimated these wastewater flows by assuming wastewater generation is equivalent to 75% of the water demands, as this ratio conforms with typical wastewater master plans for municipal sewers. As of June 2024, the City of Lomita is planning to establish an updated Sewer System Master Plan (SMP), which may include a more detailed estimate of Citywide wastewater flows and precise sewer loadings per land use including projections for the City's proposed GPU buildout.

***Table 9 Existing Wastewater Generation 2016 – 2020***

| Year | Wastewater (AF) | Wastewater (MG) |
|---|---|---|
| 2020 | 1,484 | 484 |
| 2019 | 1,424 | 464 |
| 2018 | 1,451 | 473 |
| 2017 | 1,391 | 453 |
| 2016 | 1,410 | 459 |
| **Average Wastewater Generation*** | **1,432** | **467** |

Source: City of Lomita 2020 UWMP Table 4.1 "Wastewater Flows Collected in the City"
* Five percent of the City's population is serviced by California Water Service, Palos Verdes , sewer estimates were not available for these areas.

As shown above, approximately 467 million gallons (MG) per year or 1.3 million gallons per day (MGD) is generated annually from the City. Thus, the City accounts for less than 1 % of the daily wastewater flows treated at the Warren Facility. Approximately 5% of the City's population is serviced by California Water Service, Palos Verdes and estimates of water and sewer are not available for this portion of the City.

### 2.3.3 PROPOSED SEWER FLOWS

#### SEWER FLOWS – UWMP PROJECTIONS

Treated wastewater from the Warren Facility includes advanced primary treatment and secondary treatment that is currently discharged to the ocean, thus none of the City's wastewater is treated to recycled water standards. The quantities of wastewater generated within the City are proportional to the population and the water used in the City's service area. The City's UWMP estimates that wastewater flows in the City's service area were equivalent to about 75% of the water demands. See Table 10 below for the City's estimated sewer flows for 2020 and projected demands for 2025 to 2045 in acre-feet (AF).

***Table 10 Existing and Projected Sewer Flows***

| Existing & Projected Sewer Flows (AF) | | | | | |
|---|---|---|---|---|---|
| **2020** | **2025** | **2030** | **2035** | **2040** | **2045** |
| 1,484 | 1,565 | 1,646 | 1,616 | 1,587 | 1,558 |

Source: City of Lomita UWMP Table 4.1, and 4.2 Projected Wastewater Flows Collected in the City

As seen in the table above, the District estimates that from 2020 to 2045 the City's water demands will increase to 1,558 AF. This increase in wastewater flows is driven by the City's projected growth and potential reductions in sewer flows will come from the ongoing effects of increased water use efficiency.

**SEWER FLOWS – PROPOSED GPU LAND USE PLAN**

Under the proposed land use condition, the GPU will increase the number of residential units by 2,885 DUs and 583,431 non-residential square-feet (SF). Projected sewer flows were generated based on a review of the available UWMP, the City's 2016 Sewer System Management Plan (SSMP), coordination with LACSD, and other available resources.

All of the sewer flow factors for the City's proposed general plan buildout were derived from the Los Angeles County Sanitation District's (LACSDs) Table 1, Loadings for Each Class of Land Use factors[8]. Each of the GPUs residential and non-residential land use designations were aligned to land use types listed on LACSD's sewerage loadings sheet and averaged by the number of applicable land uses. Take for example the City's non-residential land use category for Manufacturing – Commercial (M-C), several of LACSDs loading factors for manufacturing, office buildings, restaurants, etc. were summed together and averaged to yield a conservative indoor and outdoor sewer flow factor based on potential land uses. It's important to note that land uses, such as the non-residential component of the mixed-use overlay districts, within the City did not permit hotels, motels, fueling service stations, institutional, industrial uses, etc.[9] and these restrictions were taken into consideration when determining which land use categories to utilize.

Most factors from LACSD's Table 1 loading factors are initially listed per 1,000 square foot (KSF) and were converted to SF by dividing the factor by 1,000 thus resulting in an applicable factor based on GPD/SF. See Table 11 below for an estimate of the City's total net change in sewer flows from existing to proposed land uses and Appendix B and C for further details on the calculation's methodology.

[8] Los Angeles County Sanitation District, Table 1, Loadings for Each Class of Land Use. Found here: https://www.lacsd.org/home/showpublisheddocument/3644/637644575489800000

[9] City of Lomita, Municipal Code. Accessed March 2024. Found here: https://library.municode.com/ca/lomita/codes/code_of_ordinances?nodeId=MUCO_TITXIPLZO_CH1ZO_PT5.8MIEOVDI_ART58MIEOVDI_S11-1.58.05PRUS

***Table 11 Projected Sewer Generation from Existing to Proposed Land Uses***

| General Plan Land Use Designation | Net Change (Existing to Proposed) Residential Land Uses | | | | | | |
|---|---|---|---|---|---|---|---|
| | Residential Dwelling Units | Residential Sewer Flow Factor | | Sewer Flows (GPD) | | Sewer Flow (AFY) | |
| Residential – Agricultural (R-AG) | 273 | 260 | GPD/ DU | 70,980 | GPD | 80 | AFY |
| Residential – Low Density (R-LD) | 80 | 260 | GPD/ DU | 20800 | GPD | 23 | AFY |
| Residential – Medium Density (R-MD) | 102 | 260 | GPD/ DU | 26,520 | GPD | 30 | AFY |
| Residential – High Density (R-HD) | 144 | 156 | GPD/ DU | 22464 | GPD | 25 | AFY |
| Manufacturing – Commercial (M-C) | -6 | 156 | GPD/ DU | -936 | GPD | -1 | AFY |
| Mixed-Use – 30 (MU30) | 110 | 156 | GPD/ DU | 17160 | GPD | 19 | AFY |
| Mixed-Use – 40 (MU40) | 692 | 156 | GPD/ DU | 107,952 | GPD | 121 | AFY |
| Mixed-Use – 70 (MU70) | 1,490 | 156 | GPD/ DU | 232440 | GPD | 260 | AFY |
| Publicly Owned Land (POL) | 0 | 0 | GPD/ DU | 0 | GPD | 0 | AFY |
| ***TOTAL*** | ***2,885*** | | | ***497,380*** | GPD | ***557*** | AFY |
| **General Plan Designation** | **Non-Residential Square Footage** | **Residential Sewer Flow Factor** | | **Sewer Flows (GPD)** | | **Sewer Flow (AFY)** | |
| Residential – Agricultural (R-AG) | -15,296 | 0.44 | GPD/ SF | -6,654 | GPD | -7 | AFY |
| Residential – Low Density (R-LD) | -134,843 | 0.44 | GPD/ SF | -58,657 | GPD | -66 | AFY |
| Residential – Medium Density (R-MD) | -33,974 | 0.44 | GPD/ SF | -14,779 | GPD | -17 | AFY |
| Residential – High Density (R-HD) | -35,300 | 0.44 | GPD/ SF | -15,356 | GPD | -17 | AFY |
| Manufacturing – Commercial (M-C) | -110,709 | 0.37 | GPD/ SF | -40,831 | GPD | -46 | AFY |
| Mixed-Use – 30 (MU30) | -79,502 | 0.44 | GPD/ SF | -34,583 | GPD | -39 | AFY |
| Mixed-Use – 40 (MU40) | 648,918 | 0.44 | GPD/ SF | 282,279 | GPD | 316 | AFY |
| Mixed-Use – 70 (MU70) | 344,137 | 0.44 | GPD/ SF | 149,700 | GPD | 168 | AFY |
| Publicly Owned Land (POL) | 0 | 0 | GPD/ SF | 0 | GPD | 0 | AFY |
| ***TOTAL*** | ***583,431*** | | | ***261,120*** | GPD | ***292*** | AFY |
| ***TOTAL RESIDENTIAL + NON-RESIDENTIAL SEWER GENERATION*** | | | | **758,500** | **GPD** | **850** | **AFY** |

As shown above, it is projected that the City's proposed land use changes will produce an estimated sewer flow increase of 850 AFY (758,500 GPD). See Appendix B and C to review the sewer flow calculations and notes detailing how each of the listed sewer flow factors are calculated.

### 2.3.4 SEWER CAPACITY ASSESSMENT

As described in the section below, the existing sewer infrastructure system is functioning effectively to convey these existing and proposed sewer flows and the City has policies in place to address structural and hydraulic deficiencies as they arise.

#### 2016 CITY OF LOMITA SEWER MANAGEMENT PLAN

A sewer system management plan (SSMP) is a comprehensive approach to managing the City's sewer system. It is designed so that the sewer system is properly operated, maintained, and managed to protect public health, safety, and the environment. The City's 2016 SSMP is a shorter-term planning document that ensures sewer system overflows, system deficiencies, and restorations are identified and addressed by the City's sewer system operators, employees, and contractors. Furthermore, as a member of the Consolidated Sewer Maintenance District (CSMD) an assessment of the City's sewer system was conducted in 2019 using closed circuit television (CCTV). Findings from the assessment were presented by the Los Angeles County Department of Public Works (LACDPW), as they are responsible for the management and administration of the program.[10]

The 2019 CCTV inspections assessed all 36 miles (186,796 ft) of City-owned CSMD sewer lines throughout the City and checked for maintenance needs, structural defects, high water levels, and pipe infiltration. Theses defects were categorized by grades established by the Pipeline Assessment and Certification Program (PACP), which ranges from a Grade 1. indicating a pipe segment is in excellent condition with minor defects, to Grade 5, indicating a pipe segment may require immediate attention.[11]

***Table 12 Sewer System Condition Structural Rating Criteria***

| PACP Condition Grading | Condition | Grading Definition |
|---|---|---|
| Grade 1 – Minor | Excellent | No observed defects |
| Grade 2 – Minor to Moderate | Good | Defects that have not begun to deteriorate |
| Grade 3 – Moderate | Fair | Moderate defects that will continue to deteriorate |
| Grade 4 – Significant | Poor | Severe defects that will become Grade 5 defects within the foreseeable future |

[10] City of Lomita. 2016. Sewer System Management Plan.
[11] Los Angeles County Department of Public Works. January 2019. Consolidated Sewer Maintenance District – Condition Assessment Report Project No. Y0TV1112C. Found here: https://pw.lacounty.gov/smd/cctv/city/Lomita/Lomita - Y0TV1112C CCTV Inspection Project Report.pdf

| PACP Condition Grading | Condition | Grading Definition |
|---|---|---|
| Grade 5 – Most Significant | Very Poor | Defects requiring immediate attention |

The Inspections highlighted the following defects with the highest risks sewer segments to be analyzed by the City and prioritized for upgrades. Sewer projects were developed based on structural condition of the sewer segments within the same vicinity and likeliness the sewers would share the same type of rehabilitation design and construction costs.

- **Maintenance Needs**: 50.6% (94,494 ft) of the sewer system is free of significant blockages or restrictions that would impede sewer flows. The remaining 49.4% (92,302 ft) of pipe segments had a PACP Grade of 3,4, or 5 and have been incorporated into LACDPW's periodic cleaning schedule with corrective actions where necessary.

- **Structural Defects**: 89.5% (167,200 ft) of the sewer system is free of severe structural defects. The remaining 10.5% (19,596 ft) of pipe segments had a PACP grade of 4 or 5 and have been placed on LACDPW's priority list based on severity.

- **High Water Levels**: 99.2% (ft) of the sewer system has adequate capacity. The remaining 0.8% of the sewer system exhibited visual signs associated with high water levels. PACP determines capacity using water level, water mark, and other remarks that indicate the CCTV camera was underwater or encountered a sag in the sewer line.

- **Pipe Infiltration**: Infiltration was not detected in any of the sewer lines.

### 2.3.5 SEWER CAPITAL IMPORVEMENT PLANS

#### CITY OF LOMITA CAPITAL IMPROVEMENT PROGRAM

In addition to the improvements noted in LACDPW's CCTV inspections, the City has identified two capital improvements plans (CIP) for the sewer system in the CIP Master Plan for 2022-2027; these include developing a Sewer System Master Plan and a Sewer System Management Plan Update and Audit. The purpose of the City's Capital Improvement Program (CIP) is to identify CIP projects and funding sources, to strategically plan and prioritize projects within a budget to maximize the efficient use of funds and to preserve existing publicly-owned property and infrastructure.

The City is currently updating it's Sewer System Master Plan, which will be a comprehensive long-term assessment of the City's current and future sewer system needs, based on hydraulic capacities of the City's existing sewer system. The Sewer System Master Plan aims to address and guide the development, expansion, and improvements with respect to projected general plan growth and development patterns. This document may include a more detailed estimate of Citywide wastewater flows, sewer conditions, and capital improvement projects than what has been identified in this report and is anticipated to be completed by the Summer of 2024.

See Table 13 below for a description of the sewer CIPs occurring throughout the City.

***Table 13 Sewer Capital Improvement Plans within the City of Lomita***

| Project Name | Sewer Facility | CIP Year | Project Description |
|---|---|---|---|
| Sewer System Master Plan | City-wide | FY 23-24 | This report will review sewer hydraulic capacity and identify needs in anticipation of potential increased development. |
| Sewer System Management Plan Update and Audit | City-wide | FY 23-24 | This report will update the City's 2016 Sewer System Management Plan and conduct an audit to meet regulatory requirements. |
| Source: City of Lomita, June 2022. CIP Master Plan 2022-2027. Found here: https://lomitacity.com/wp-content/uploads/2023/03/Attachment-A-CIP-Master-Plan-2022.pdf | | | |

**LACSD CAPITAL IMPROVEMENT PROGRAM**

Los Angeles County Sanitation District's (LACSD) has an active Capital Improvement Program (CIP) to ensure the addition and repair of sewer infrastructure and facilities as needed. Two of the programs active improvement plans include the following;

- Clearwater Project
    - Warren Facility (formerly JWPCP) Joint Outfall Sewer Repair
- Joint Outfall B Sewer Repair #4 5483

The Clearwater Project will protect local waterways by addressing aging infrastructure and overflow concerns within LACSD's service area. A major component of this project is the Warren Facility's Joint Outfall Sewer Repair, new 7-mile-long tunnel that will be constructed almost entirely underneath public right-of-way (streets) and is expected to be completed in 2027.[12]

The Joint Outfall B Sewer Repair #4 5483 will involve rehabilitation of approximately 6,500 feet of existing 144-inch diameter reinforced concrete pipe (RCP) by slip lining with Fiberglass Reinforced Polymer (FRP) liner pipe. The project will also rehabilitate six (6) manholes. Instead of excavating streets and private properties to construct a new sewer, the Districts will rehabilitate the existing sewer with a pipe lining system, which can be installed inside the old pipe. The lining work will be less disruptive and can be completed in less time than building a new sewer. The existing sewer pipe is nearly 70 years old and has deteriorated over time due to normal wear and age. The project will take place within the A.K. Warren Water Resource Facility east of Figueroa Street and then construction will continue in industrial and residential public and private property from Main Street to Broad Street along Realty Street. The entire

[12] Los Angeles County Sanitation District, Clearwater Project Overview. Accessed March 2024. Found here: https://www.clearwater.lacsd.org/projectOverview.asp

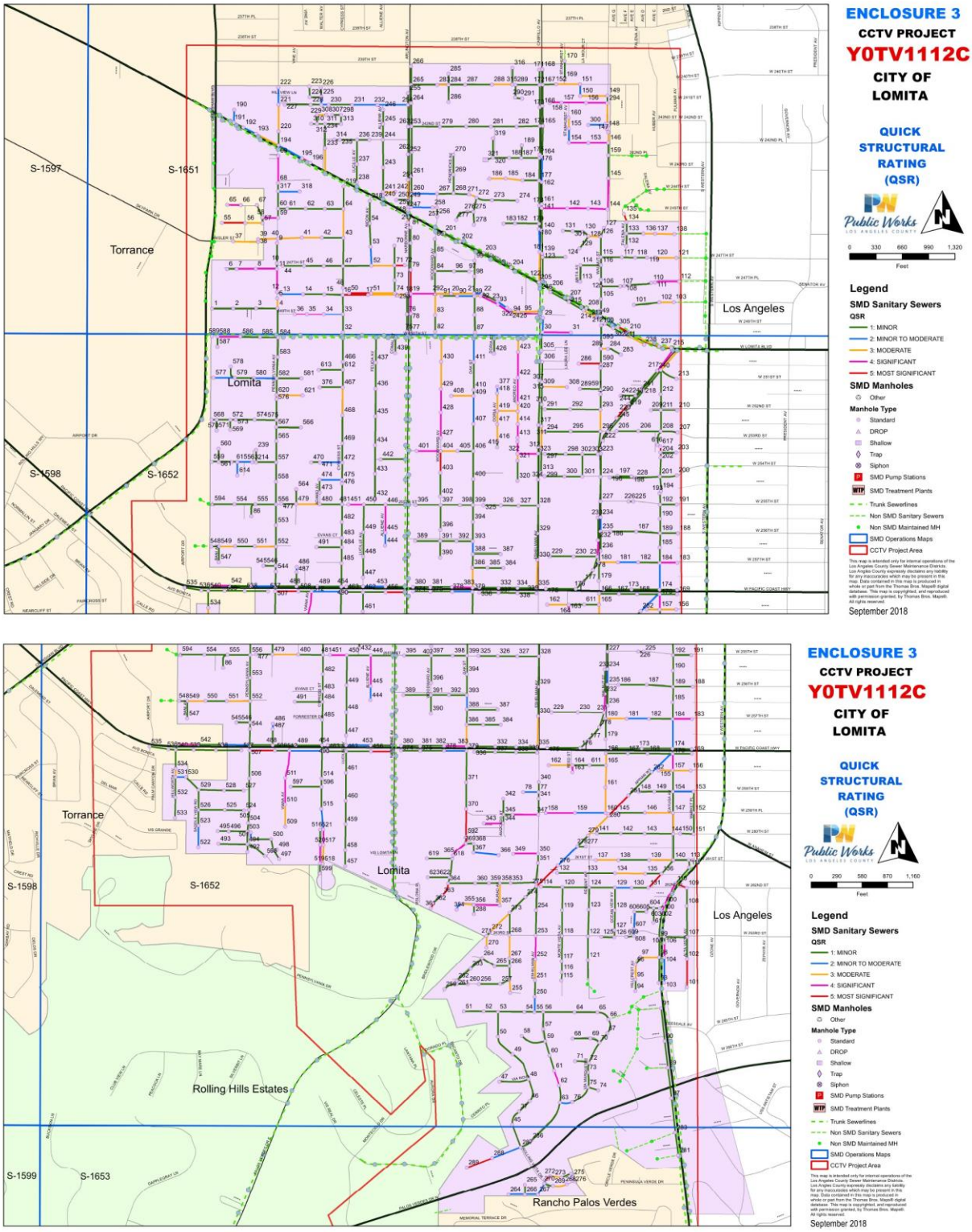
construction is within the City of Carson. Construction was scheduled to take place from February 2023 through January 2024.

In addition to the Capital improvement Program LACSD also tracks the peak flows from sewer trunks and facilities in its service area and determined that presently there are no deficiencies identified in the Districts' facilities that serve the City of Lomita and there is sufficient capacity for growth within and upstream of the City's limits[13].

These are a few of the CIP projects located near the City and other active and proposed projects are documented through LACSD's online monitoring program.[14] Regarding the CSMD program, see Figure 5 for the Grade 1 through 5 structural deficiencies noted in LACDPW's CCTV inspection.

[13] Los Angeles County Sanitation District, Mandy Huffman. "RE: City of Lomita Peak Flow Inquiry". Email to Danielle Adili, received 31 July 2023.
[14] Los Angeles County Sanitation District, Construction Projects. Accessed March 2024. Found here: https://www.lacsd.org/services/wastewater-sewage/construction-updates

***Figure 5 City of Lomita Sewer Deficiencies***




Source: Los Angeles County Department of Public Works. January 2019. Consolidated Sewer Maintenance District – Condition Assessment Report Project No. Y0TV1112C - Quick Structural Rating (QSR).

## 2.4 PROPOSED LAND USE AND CEQA THRESHOLD ANALYSIS – SEWER SYSTEM

The following questions regarding Utilities and Service Systems are identified in the CEQA Checklist related to sewer.

**Would the Project:**

A. Require or result in the relocation or construction of new or enhanced water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
B. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Should the answers to these environmental factors prove to be a potentially significant impact, mitigation measures would be required to reduce those impacts to a less-than-significant threshold.

***Impact A: Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

**Impact Analysis:** Implementation of proposed land uses within the City's GPU has the potential to increase sewer demands by 0.76 million gallons per day (MGD) spread out throughout the City with a focus on the previously mentioned corridors. As redevelopment occurs with projects in these corridors, it will likely require construction of new sewer infrastructure where existing sewer lines are not sufficient to accommodate the increased demand. These determinations will be made on a project-by-project basis including site specific sewer flow monitoring and hydraulic sewer analysis. CSDM criteria include d/D (flow depth over diameter ratio) of not greater than 50 – 75 percent.

The construction of the on-site and off-site sewer lines and associated improvements, if any, would primarily include trenching for installation of the pipelines. All construction will be performed in accordance with the Construction General Permit and all associated requirements. Any work that may affect services to the existing sewer lines will be coordinated with the City, and LACSD shall review all future developments within the city to determine whether or not sufficient trunk sewer capacity exists to serve each development, and if the LACSD's facilities would be impacted by the development. This review is accomplished through the LACSD's Will-Serve Program. Important information gleaned from the LACSD's review will be presented in the form of the Will-Serve letter. The Will-Serve letter includes information regarding the anticipated wastewater flows that would be generated by the proposed development, along with a statement of whether the LACSD's trunk sewer system and the downstream Warren Facility would have capacity to accept and process the flows. The City will be responsible for evaluating and installing any improvements to City-owned CSMD sewer systems.

Furthermore, a Construction Management Plan or equivalent, which would ensure safe pedestrian access as well as emergency vehicle access and safe vehicle travel in general, will be implemented to reduce any temporary pedestrian and traffic impacts

occurring as a result of construction activities. Moreover, when considering impacts resulting from the installation of any required wastewater infrastructure, all impacts are of a relatively short-term duration and would cease to occur once the installation is complete. Therefore, Project impacts on wastewater associated with construction activities would be less than significant.

***Impact B: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

**Impact Analysis:** The proposed land uses within the GPU are expected to increase sewer flows by approximately 277 million gallons (MG) per year or 0.76 million gallons per day (MGD), which is well within the Warren Facility's remaining treatment capacity of 140 MGD. The Warren Facility has a design capacity of up to 400 MGD and is currently treating an average of 260 MGD. As development occurs sewer flow increases will be evaluated alongside the Warren Facility's other service areas.

## 2.5 STORM DRAINAGE ENVIRONMENTAL SETTING & INFRASTRUCTURE

### 2.5.1 EXISTING WATERSHED SETTING

The City resides within the Dominguez Channel Watershed Management Group (WMG), which includes the watershed management areas (WMA) for the Dominguez Channel Watershed, the Machado Lake Watershed, and the Los Angeles/Long Beach Harbors Watershed. The majority of the City is encompassed into the Machado Lake WMA with a small southern portion of the City falling within the Los Angeles/Long Beach Harbors (LA/LB Harbors) WMA. Each watershed is comprised of a number of channels that ultimately deliver stormwater primarily to Machado Lake, but also into the Los Angeles Harbor. The City drains to the following receiving water bodies via the Wilmington Drain, Machado Lake and the Los Angeles Harbor:

- Machado Lake
    - Wilmington Drain
    - Machado Lake

- Los Angeles Harbor
    - Inner Harbor
    - Cabrillo Marina
    - Inner Cabrillo Beach
    - Outer Cabrillo Beach
    - Consolidated Slip
    - Los Angeles Outer Harbor

The Wilmington Drain is a Los Angeles County Flood Control District (LACFCD) facility managed by the Los Angeles County Department of Public Works (LACDPW) and is one of the local drains' tributary to Machado Lake. See Figure 6 for a visual of the watershed's located within the City.

### 2.5.2 EXISTING DRAINAGE FACILITIES

Stormwater is collected by a series of local catch basins, inlets, and storm drain pipes throughout the City of Lomita and generally drains in a west to east direction, within LACFCD facilities before discharging into LACFCD regional conveyance facilities (Lomita, Wilmington, and BI0077 – Line A, and BI1004 – Unit 1 storm drains). The City owns and maintains a number of catch basins and smaller storm drain laterals, while LACDPW owns and maintains the majority of the local storm drain main lines, along with the larger regional storm drain lines, reinforced concrete boxes (RCBs), and flood control channels. LACFCD has a detailed GIS-based inventory of the drainage facilities throughout the City including storm drain pipes, catch basins (with BMPs/ filters), and outfalls for both public and private properties. Refer to Figure 8 for a depiction of the LA County storm drain system within the City limits. The City's GIS storm drain linework is not available or presented in this report.

***Figure 6 City of Lomita Watersheds***

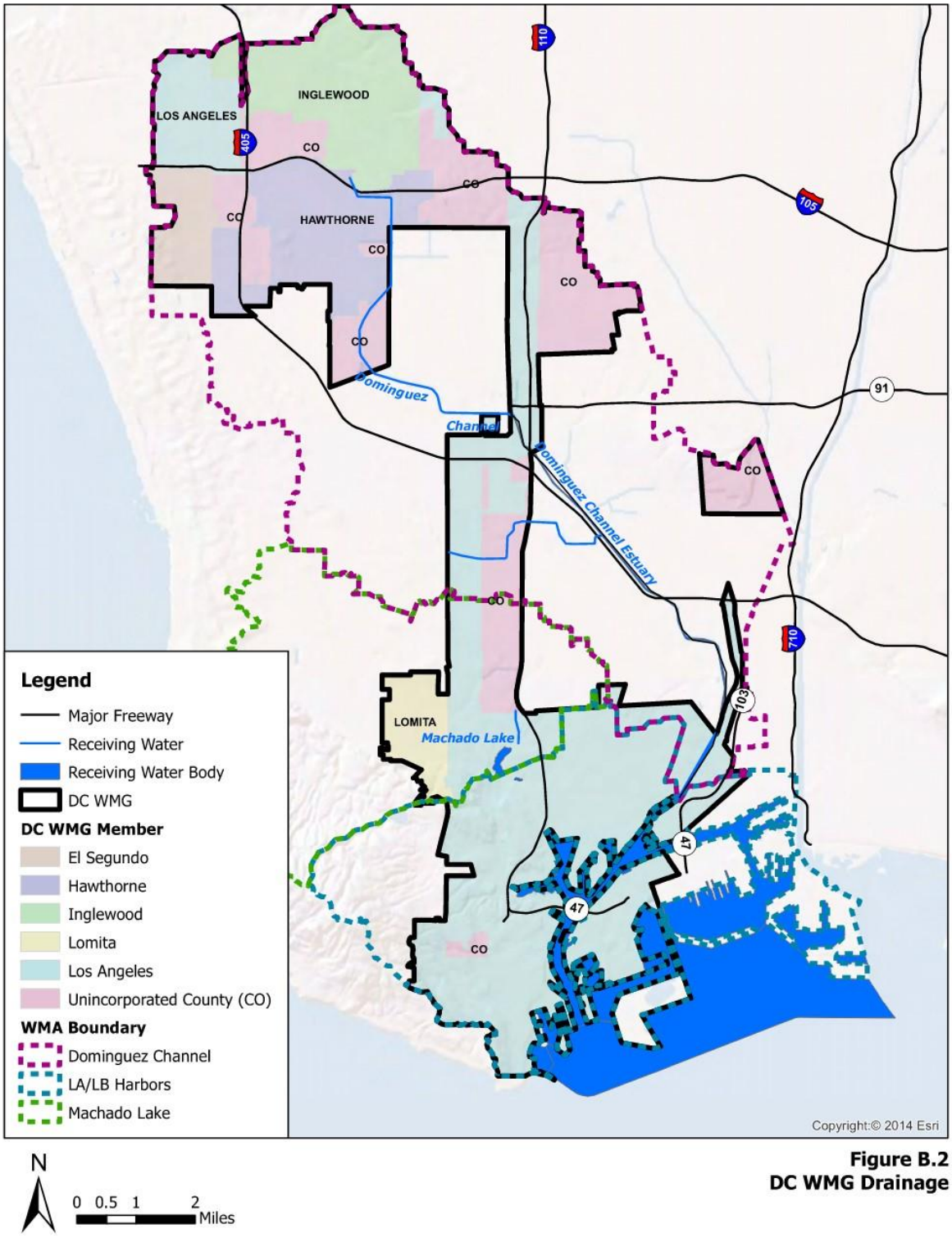



**Figure B.2**
**DC WMG Drainage**

Source: Dominguez Channel Watershed Management Area Group, 02/2016, Enhanced Watershed Management Program – Figure B.2. DC WMG Drainage

### 2.5.3 STORM DRAINAGE CAPACITY SSESSMENT

#### CITY OF LOMITA STORMWATER MANAGEMENT

The City is largely built out with a storm drain system comprised of catch basins and storm drain lines that convey stormwater runoff within roadways and underground. The City and LACFCD monitor and maintain their respective infrastructure to ensure the system functions effectively. As of 2022, the City expects to continue the design of a multi-benefit project in downtown Lomita to reduce zinc and lead contaminants and an additional feasibility study via the Safe Clean Water Program is pending to identify additional MS4 stormwater improvements needed to remove contaminants entering the storm drain system.[15]

#### FLOODPLAIN MANAGEMENT

The National Flood Insurance Act (1968) established the National Flood Insurance Program, which is based on the minimal requirements for flood plain management and is designed to minimize flood damage within Special Flood Hazard Areas. The Federal Emergency Management Agency (FEMA) is the agency that administrates the National Flood Insurance Program. Special Flood Hazard Areas (SFHA) are defined as areas that have a 1 percent chance of flooding within a given year, also referred to as the 100-year flood. Flood Insurance Rate Maps (FIRMs) were developed to identify areas of flood hazards within a community.

According to the Flood Zone determination, the entire City is designated as unshaded Zone X. Unshaded Zone X is defined as the area determined to be outside the 500-year flood and mandatory flood insurance is not required. Although the City is not subject to flooding from FEMA floodways, localized flooding can still occur during large rain events due to the inadequacy of existing drainage facilities including drainage inlets, culverts, catch basins, storm drain pipes and curb and gutters. Specific storm drain deficiencies that exist in the City of Lomita include the following[16]:

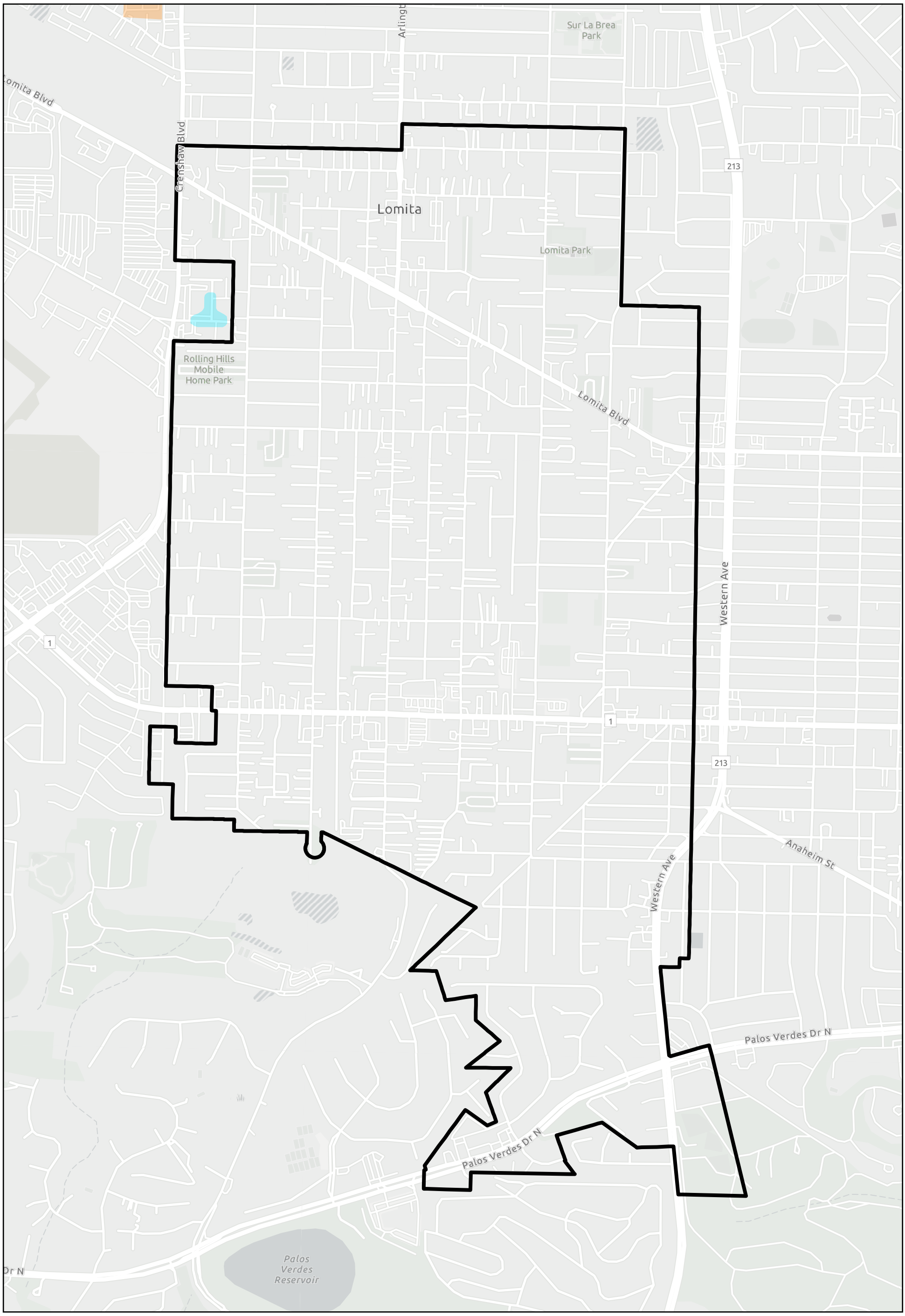
- Eshelman Ave / 262nd Street / Appian Way
- Pennsylvania Avenue from approximately 251st to 254th
- Western terminus of 256th Street
- Lomita Blvd and Pennsylvania

See Figure 7 below for a map of the FEMA flood zones within the Lomita GPU[17].

[15] City of Lomita – Safe Clean Water Program. July 2021. Downtown Lomita Multi-Benefit Stormwater Project. Found here: https://portal.safecleanwaterla.org/projects-module-api/api/reportdownload/pdf/13/260

[16] City of Lomita, December 2018, Hazard Mitigation Plan. Found here: https://lomitacity.com/wp-content/uploads/2021/11/Lomita-Hazmit-Plan-12-18-18.pdf

[17] FEMA, Flood Map Service Center. Accessed March 2024. Found here: https://msc.fema.gov/portal/search?AddressQuery=Lomita%2C%20CA




## City of Lomita Flood Zones

**Figure 6**

3/29/2024

City Boundary

Flood Hazard Zones

Zone AH: 1% Annual Chance Flood Hazard

Zone X: 0.2% Annual Chance Flood Hazard

FUSCOE ENGINEERING
FULL CIRCLE THINKING

N

1 inch = 1,000 feet

0 1,000 2,000 Feet

X:\Projects\4052\03\mxd\2023_GPU_Exhibits\3_FloodZones.aprx

## 2.6 WATER QUALITY ENVIRONMENTAL SETTING & INFRASTRUCTURE

### 2.6.1 EXISTING WATER QUALITY SYSTEM

The Lomita GPU area discharges into several receiving water bodies and each has various Total Maximum Daily Load's (TMDL) and beneficial uses aimed at protecting water quality. The Lomita GPU area also overlies the West Coast Groundwater Basin which has prescribed beneficial uses and water quality objectives. Future projects that meet certain thresholds within the GPU area must follow development requirements of the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit which includes incorporating Low Impact Development (LID) Best Management Practices (BMP) into individual projects to further help protect water quality in receiving waters.

**TOTAL MAXIMUM DAILY LOADS (TMDLS)**

Once a water body has been listed as impaired on the 303(d) list, a TMDL for the constituent of concern (pollutant) must be developed for that water body. A TMDL is an estimate of the daily load of pollutants that a water body may receive from point sources, non-point sources, and natural background conditions (including an appropriate margin of safety), without exceeding its water quality standard. Those facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL. In general terms, Municipal Separate Storm Sewer System (MS4) and other dischargers within each watershed are collectively responsible for meeting the required reductions and other TMDL requirements by the assigned deadline.

Identifying water quality priorities is a main component of the EWMP process as the MS4 Permit requires that water quality characterization, water body pollutants, and source assessments are prioritized. The MS4 Permit describes three categories of priority as follows:

- Category 1 – Highest Priority
    - Water body pollutants with an established TMDL in the MS4 Permit.
- Category 2 – High Priority
    - Pollutants that indicate water quality impairment according to the State's Water Quality Control Policy 303(d) list and MS4 discharges that could be contributing to water quality impairment.
- Category 3 – Medium Priority
    - Pollutants that have exceeded applicable receiving water limitations in the MS4 Permit but have insufficient data to indicate they contribute to water quality impairment or exceedance in the receiving water(s).

In addition, the California State Water Resources Control Board (State Board) has adopted the statewide Trash Provisions[18] that requires implementation of best management practices (BMPs) that mitigate or abate trash within Priority Land Use Areas (PLUs). PLUs are defined as, "high density residential, industrial, commercial, mixed urban, and public transportation

[18] State Water Resources Control Board - Statewide Storm Water Program – Trash Implementation Program. Accessed March, 2024 Found here: https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html

stations." The purpose of the Trash Provisions is to establish a statewide water quality objective that ensures the quality of surface waters that enter storm drains and eventually lead out to major water ways are free of trash. State and Regional Water Board MS4 permits have or will contain trash control implementation requirements and compliance milestones to demonstrate progress towards 100 percent compliance with the Trash Provisions. The City is currently undergoing and implementing this process through the LARWQCB requirements.

Presented below in Table 14 are the 303(d) list and TMDLs for the regional channels and water bodies that receive flows from the Lomita GPU area.

***Table 14 List of 303(d) Impairments and TMDLs***

| Water Body / Channel | List of 303(d) Impairments | TMDL |
|---|---|---|
| Machado Lake | Algae, Ammonia, ChemA, Chlordane, DDT, Dieldrin, Eutrophic, Odor, PCBs, Trash | Machado Lake Trash TMDL, Pesticides and PCBs TMDL |
| Wilmington Drain | Indicator Bacteria | |
| LA/LB WMA - Inner Harbor | Benthic Community Effects, Benzo(a)pyrene, Chrysene (C1-C4), Copper, DDT, PCBs, Toxicity, Zinc | LA Harbor Waters Toxic Pollutants TMDL, Bacteria TMDL |
| LA/LB WMA- Cabrillo Marina | Benzo(a)pyrene, DDT , PCBs (Polychlorinated biphenyls) | LA Harbor Waters Toxic Pollutants TMDL, Bacteria TMDL |
| LA/LB WMA- Inner Cabrillo Beach | DDT, Indicator Bacteria, PCBs | LA Harbor Waters Toxic Pollutants TMDL, Bacteria TMDL |
| LA/LB WMA- Outer Cabrillo Beach | DDT, PCBs | LA Harbor Waters Toxic Pollutants TMDL, Bacteria TMDL |
| LA/LB WMA - Consolidated Slip | 2-Methylnaphthalene, Benthic Community Effects, Benzo(a)anthracene, Benzo(a)pyrene, Cadmium (sediment), Chlordane (tissue & sediment), Chromium, Chrysene (C1-C4), Copper (sediment), DDT (tissue & sediment), Dieldrin, Lead (sediment), Mercury (sediment), PCBs (tissue & sediment), Phenanthrene, Pyrene, Toxaphene (tissue), Toxicity, Zinc (sediment) | LA Harbor Waters Toxic Pollutants TMDL, Bacteria TMDL |
| LA/LB WMA - Los Angeles Outer Harbor | DDT, PCBs, Toxicity | LA Harbor Waters Toxic Pollutants TMDL, Bacteria TMDL |

Source: California Water Boards, 2020-2022 Integrated Report (303(d) List/305(b) Report). Found here:https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=6cca2a3a181546559920126637 3cbb7b

### 2.6.2 EXISTING SURFACE WATER CONDITIONS

As described above, the City resides within the Dominguez Channel WMG which drains to various regional drainage conveyance channels within the Dominguez Channel Watershed, the Machado Lake Watershed, and Los Angeles/Long Beach Harbors Watershed. Some of those channels have prescribed beneficial uses and water quality objectives to protect water quality within the receiving waters. Details on the beneficial uses and water quality objectives are presented below for the surface waters that receive runoff from the Lomita GPU area.

#### BENEFICIAL USES

According to the Los Angeles RWQCB Basin Plan, beneficial uses have been established for several of the water bodies that receive runoff from the Lomita GPU area. These are listed below.

***Table 15 List of Receiving Waters and Beneficial Uses***

| **Machado Lake & Wilmington Drain** | |
|---|---|
| Existing Beneficial Uses<br>WARM – Warm Freshwater Habitat<br>WILD – Wildlife Habitat<br>WET – Wetland Habitat<br>REC 1 – Water Contact Recreation<br>REC 2 – Non-Contact Water | Potential Beneficial Uses<br>None |
| **Los Angeles Harbors - Consolidated Slip, Inner Harbor, & Fish Harbor** | |
| Existing Beneficial Uses<br>IND – Industrial Service Supply<br>NAV - Navigation<br>REC 2 – Non-Contact Water<br>COMM – Commercial and Sport Fishing<br>MAR – Marine Habitat<br>RARE – Rare, Threatened, or Endangered Species | Potential Beneficial Uses<br>REC 1 – Water Contact Recreation<br>SHELL – Shellfish Harvesting |
| **Los Angeles / Long Beach Harbors - Inner & Outer Cabrillo Beach** | |
| Existing Beneficial Uses<br>NAV - Navigation<br>REC 1 – Water Contact Recreation<br>REC 2 – Non-Contact Water<br>COMM – Commercial and Sport Fishing<br>MAR – Marine Habitat<br>WILD – Wildlife Habitat<br>MIGR – Migration of Aquatic Organisms<br>SPWN – Spawning, Reproduction, and/or Early Development<br>SHELL – Shellfish Harvesting | Potential Beneficial Uses<br>None |
| Source: Dominguez Channel Watershed Management Area Group, 02/2016, Enhanced Watershed Management Program. Found here: https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/dominguez_channel/DCWMG_EWMP_2-25-15.pdf | |

**WATER QUALITY OBJECTIVES**

General water quality objectives have been prescribed in the Basin Plan for all surface waters within the Dominguez Channel WMG. There are currently several numeric water quality objectives for the City's receiving waters located in Attachment E of the EWMP. These objectives aim to address Category 1, 2, and 3 water body pollutants outlined in the compliance schedule for all receiving waters in the Dominguez Channel Watershed Management Areas.

### 2.6.3 EXISTING GROUNDWATER CONDITIONS

The City of Lomita lies within the Coastal Plain of Los Angeles Groundwater Basin and specifically under the adjudicated West Coast Groundwater Subbasin (West Coast Basin)[19]. The City has the right to extract 1,352 AF of from the West Basin provides a source of approximately 64,468 AF of groundwater annually to the entire City of Lomita and over 11 other cities in the region. The Water Replenishment District of Southern California (WRD) is responsible for maintaining and replenishing the West Coast Basin. To maintain groundwater quality WRD conducts an extensive monitoring program that serves and manages the West Coast Basin's groundwater production, contamination, and compliance with all required laws and regulations. Additionally, to ensure accurate data WRD uses depth specific (nested) monitoring wells that tap discrete aquifer zones. In the most recent Regional Groundwater Monitoring Report[20] WRD presents water quality results from the 22 WRD nested monitoring wells (112 individual wells zones) during the 2021- 2022 water year. The WRD collected over hundreds of samples from these wells and concluded that groundwater in their service area is of generally good quality and suitable for use. Noting that any localized areas with marginal to poor water quality can be treated and utilized as potable water.

The West Coast Basin also has prescribed beneficial uses and water quality objectives as stated in the Los Angeles RWQCB Basin Plan that are described below.

**BENEFICIAL USES**

According to the Los Angeles RWQCB Basin Plan, beneficial uses have been established for the West Coast Groundwater Management Zone which underlies the Lomita GPU area. These beneficial uses are listed below in Table 16.

[19] Map of the West Coast Groundwater Basin. Found here: https://dwr.maps.arcgis.com/apps/Styler/index.html?appid=740d10eefd6148579321a3abcd065a36

[20] WRD. March 2023. Regional Groundwater Monitoring Report. Found here: https://www.wrd.org/files/997eea70a/Regional+Groundwater+Monitoring+Report+2021-2022.pdf

***Table 16 Beneficial Uses of the West Coast Basin***

| West Coast – Underlying Ports of Los Angeles & Long Beach* | |
|---|---|
| Existing Beneficial Uses<br>MUN – Municipal and Domestic Supply<br>IND – Industrial Service Supply<br>PROC – Industrial Process Supply<br>AGR – Agricultural Supply | Potential Beneficial Uses<br>None |
| *Note – Areas underlying terminal Island and portions of LA / LB Harbors have no MUN beneficial use | |

**WATER QUALITY OBJECTIVES**

Numeric water quality objectives within the Basin Plan have been established for the West Coast Basin and are listed below in Table 17[21]:

***Table 17 Numeric Water Quality Objectives***

| LARWQCB Basin Plan – West Coast Basin Groundwater Management Zone | |
|---|---|
| **Water Quality Objective** | **Numeric Objective (mg/l)** |
| Total Dissolved Solids (TDS) | 800 |
| Sulfate | 250 |
| Chloride | 250 |
| Boron | 1.5 |
| Nitrate (as Nitrogen) | 10 |

Salinity is a significant water quality problem in many parts of southern California, including Los Angeles County that has affected Water Quality Objectives (WQOs) and Secondary Maximum Contaminant Level (SMCL) due to historical sea water intrusion.

In general, SMCLs are established for pollutants that impact the aesthetics of the water (taste, odor, color, etc.) but do not impact health. In recent years TDS and chloride concentrations have exceeded the WQOs and SMCL as a result of historical sea water intrusion in the West Coast Basin. Thus, WRD continually monitors the levels of TDS in wells throughout the Basin and aims to decrease TDS and chloride concentrations in overtime as a result of current groundwater management practices to manage salt and nutrients loading.

Nitrates are one of the most common and widespread contaminants in groundwater supplies, originating from fertilizer use, animal feedlots, wastewater disposal systems, and other sources. The SMCL for nitrate in drinking water is set at 10 mg/L. WRD regularly monitors

[21] Los Angeles RWQCB Basin Plan. May, 2019. West Coast Basin Groundwater Management Zone. Found here: https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/2020/Chapter_3/Chapter_3.pdf

nitrate levels in groundwater and works with producers to treat wells that have exceeded safe levels of nitrate concentrations. WRD manages the nitrate concentration of water recharged by its facilities to reduce nitrate concentrations in groundwater. None of the 33 production wells tested in the West Coast Basin for nitrate exceeded the MCL during WYs 2019-2022.

Other contaminants that WRD monitors within the West Coast Basin include:

- Iron
- Manganese
- Trichloroethylene (TCE)
- Tetrachloroethylene (PCE)
- Arsenic
- Perchlorate
- Hexavalent Chromium
- 1,4-Dioxane

### 2.6.4 WATER QUALITY CAPACITY ASSESSMENT

#### LOS ANGELES COUNTY MS4 PERMIT

The current Los Angeles County MS4 Permit (Order No. R4-2012-0175; NPDES Permit No. CAS004001) became effective on December 28, 2012, and contains effluent limitations, receiving water limitations (RWLs), minimum control measures (MCMs), TMDL provisions, and outlines the process for developing watershed management programs. The Enhanced Watershed Management Program (EWMP) for the Dominguez Channel Watershed Management Area is pursuant to the requirements set forth by Order No. R4-2012-0175, Los Angeles County MS4 National Pollutant Discharge Elimination System (NPDES) Permit.

#### BASIN PLAN FOR THE DOMINGUEZ CHANNEL REGION

The City resides within the Dominguez Channel Watershed Management Group which includes watershed management areas (WMA) for the Dominguez Channel Watershed, the Machado Lake Watershed, and Los Angeles/Long Beach Harbors (LA/LB Harbors) WMA and falls within the Los Angeles Regional Water Quality Control Board (LARWQCB) and its respective Basin Plan[22]. The Basin Plan specifically (i) designates beneficial uses for surface waters and ground waters, (ii) sets narrative and numerical objectives that must be met in order to protect the beneficial uses and conform to the state's antidegradation policy, and (iii) describes implementation programs to protect all waters in the Region. The LARWQCB Basin Plan provides all relevant information necessary to carry out federal mandates for the antidegradation policy, 303(d) listing of impaired waters, and related TMDLs, and provides information relative to NPDES and Waste Discharge Requirement (WDR) permit limits. See more details below for specifics on these items and Figure 6 which highlights the watersheds and receiving waters of the Lomita GPU area.

[22] Source: Water Boards, 2020, Basin Plan for the Coastal Watersheds of Los Angeles & Ventura Counties "Table 2-2". Found here: https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html

**EHANCED WATERSHED MANAGEMENT PROGRAM (EWMP)**

The Dominguez Channel Watershed Management Group consists of the City of Los Angeles as the lead agency for the Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program development along with Los Angeles County, Los Angeles County Flood Control District, and the cities of El Segundo, Hawthorne, Inglewood, and Lomita. This program was initiated following the adoption of the 2012 Los Angeles Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System Permit(NPDES). Over subsequent years, the EWMP underwent multiple revisions, to incorporate changes within the Beach Cites area and comply with regulatory requirements, with the latest EWMP approved in April 2016. The EWMP focuses on managing stormwater within the Dominguez Channel which includes the incorporated MS4 areas of the jurisdictions within the area. The local MS4 Permit requires each regulated entity, including the City of Lomita, to participate in regional watershed working groups to identify regional projects to improve water quality in the local receiving waters. One regional project identified in the EWMP falls within the City of Lomita as noted below in Table 18 (Downtown Lomita Multi-Benefit Project). This project was funded for final design in the 2022/2023 funding cycle.

**SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA)**

The California Sustainable Groundwater Management Act ("SGMA"), a three-bill package signed into law in 2014, creates a framework for the management of groundwater sources throughout the state. Under SGMA, local agencies form Groundwater Sustainability Agencies ("GSAs") and create Groundwater Sustainability Plans (GSPs) for basins designated as high and medium priority. Other than annual reporting, SGMA does not apply to existing adjudicated areas, such as the West Coast Basin, because they have existing court-mandated governance, oversight, and management in place. Furthermore, local agencies, in low- or very-low-priority basins, like the West Coast Basin, are not required to form GSAs and develop GSPs, but may do so voluntarily. They may also develop groundwater management plans to actively manage their groundwater resources, as noted previously with the LARWQCBs Basin Management Plan.

### 2.6.5 STORM DRAINAGE & WATER QUALITY CAPITAL IMPROVEMENT PLANS

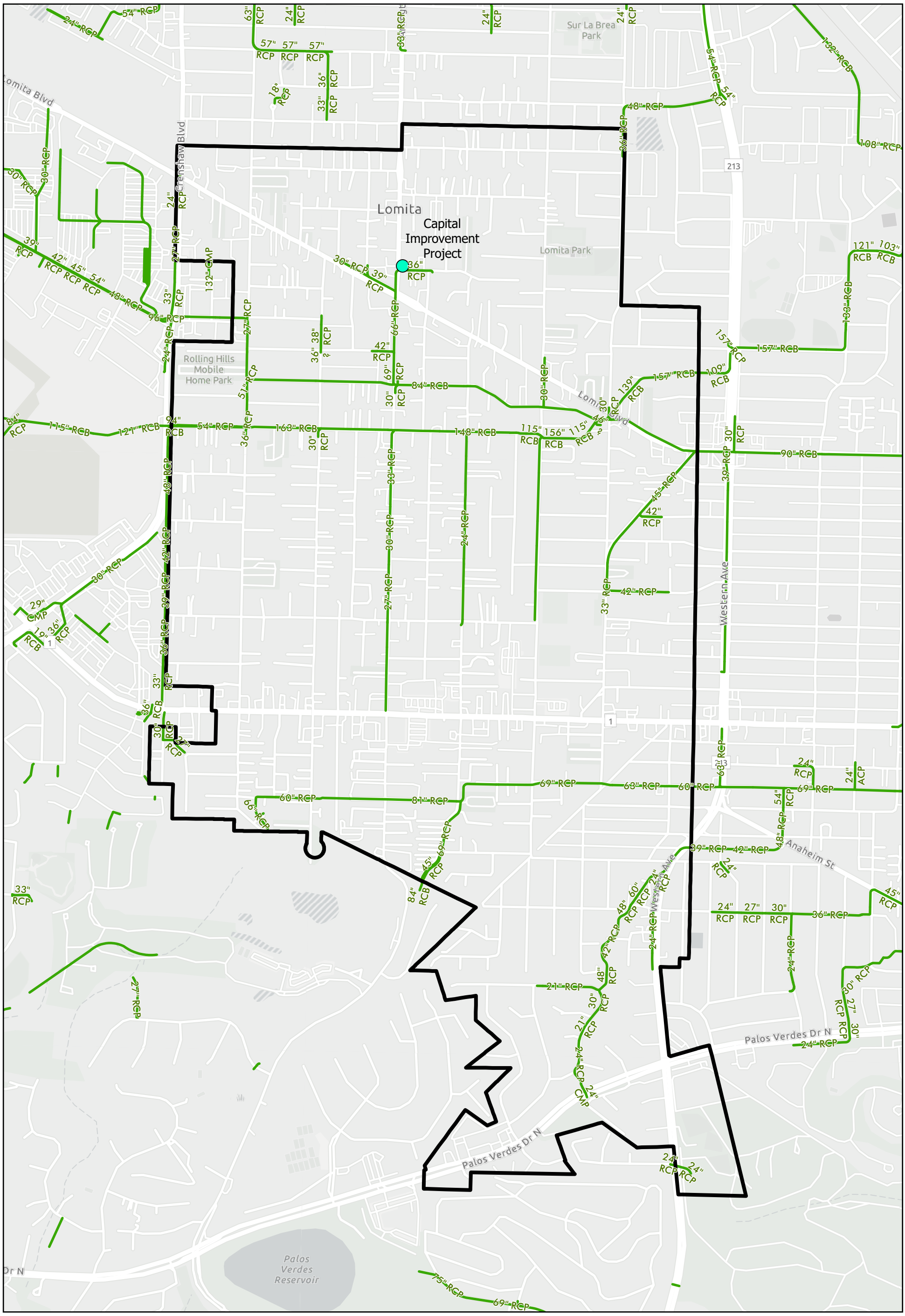
The City of Lomita has a 5-Year CIP Master Plan in place, which includes a plan for future stormwater projects. Summarized below are two projects that impact drainage facilities within the Lomita GPU area.

***Table 18 Stormwater Capital Improvement Plans within the City of Lomita***

| Project Name | Drainage Facility | CIP Year | Project Description |
|---|---|---|---|
| Downtown Lomita Multi-Benefit Project | LACFCD Storm Drains | FY 22-23 to FY 25-26 | Divert 5.6 acre-feet of stormwater from LACFCD storm drains to an infiltration gallery and series of dry wells. Project will reduce zinc and lead contaminants, flooding, and increase infiltration. |

| Project Name | Drainage Facility | CIP Year | Project Description |
|---|---|---|---|
| Feasibility Study for Another Stormwater Project (Measure W / Safe Clean Water Program) | City-wide | FY 22-23 | This study will identify potential stormwater project(s) that comply with MS4 permit requirements. Project aims to remove contaminants entering the storm drain system. |
| Source: City of Lomita, June 2022. CIP Master Plan 2022-2027. Found here: https://lomitacity.com/wp-content/uploads/2023/03/Attachment-A-CIP-Master-Plan-2022.pdf | | | |

As shown above, there are two CIP projects within the City of Lomita's GPU area and over the next five years these projects will improve the regional drainage infrastructure and water quality serving the GPU area. See Figure 8 for the location of the Downtown Lomita Multi-Benefit storm drain improvements.




# City of Lomita Existing Storm Drain Facilities and LACFCD Improvement Projects

**Figure 8**

3/29/2024

City Boundary
LAFCD Gravity Main Storm Drain
point

N

1 inch = 1,000 feet

0 1,000 2,000 Feet

X:\Projects\4052\03\mxd\2023_GPU_Exhibits\2_ExistingStormDrain.aprx

## 2.7 PROPOSED LAND USE AND CEQA THRESHOLD ANALYSIS – STORM DRAINAGE & WATER QUALITY SYSTEMS

California Environmental Quality Act (CEQA) significance criteria are used to evaluate the degree of impact caused by a development project on environmental resources such as hydrology and water quality. According to Appendix G of the CEQA Guidelines[23], a project would normally have a significant effect on the environment if the project would impact any of the items listed below.

Would the Project:

A. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?
B. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
C. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

    (i) Result in a substantial erosion or siltation on- or off-site;
    (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
    (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    (iv) Impede or redirect flood flows?

D. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
E. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Should the answers to these environmental factors prove to be a potentially significant impact, mitigation measures would be required to reduce those impacts to a less-than-significant threshold.

***Impact A: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?***

**Impact Analysis:** Construction activities within the GPU area could potentially result in soil erosion and temporary adverse impacts to surface water quality from construction materials and wastes if left unregulated or unmitigated.

[23] California Natural Resources Agency, CEQA appendix G. Found here: https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/ab52/final-approved-appendix-G.pdf

Both State and Local regulations will effectively mitigate construction storm water runoff impacts from the proposed land use changes. Standard erosion control practices shall be implemented for all construction within the City.

Additionally, construction sites will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the Statewide Construction General Permit and subject to the oversight of the Los Angeles Regional Water Quality Control Board. The SWPPP must include BMPs to reduce or eliminate erosion and sedimentation from soil disturbing activities, as well as proper materials and waste management. Implementation of these State and Local requirements would effectively prohibit projects from violating any water quality standards or waste discharge requirements resulting from construction activities.

In terms of post-construction related impacts, the incorporation of site design, LID features and BMPs as required under the Los Angeles County MS4 Permit, the individual development and redevelopment projects within the GPU will effectively retain or treat the 85th percentile 24-hour storm water runoff for pollutants such as bacteria, metals, nutrients, oil & grease, organics, pesticides, sediment, trash, and oxygen demanding substances prior to discharge off their property. As properties within the City undergo redevelopment, existing properties that do not have water quality BMPs will be replaced with projects incorporating LID BMPs. Therefore, long-term surface water quality of runoff from the GPU areas would be expected to improve over existing conditions as more LID BMPs are implemented. This is considered an overall benefit of the proposed land use changes associated with implementation of the GPU.

Impacts to surface water and groundwater quality will be less than significant.

***Impact B: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.***

**Impact Analysis:** Since groundwater is actively managed throughout the City by groundwater sustainability agencies and stakeholders, individual projects will not utilize site-specific wells for groundwater supply. All groundwater is managed through agencies and planning documents such as the Urban Water Management Plans. It is also possible that through LID features, infiltration will be feasible and will augment groundwater recharge. Through management by the groundwater sustainability agencies, land development and redevelopment within the City will not result in interference with groundwater recharge or management of the groundwater basin.

***Impact C: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would***:

(i) Result in a substantial erosion or siltation on- or off-site;

(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

(iv) Impede or redirect flood flows?

**Impact Analysis:** Under the existing conditions and proposed conditions, drainage patterns will largely be maintained and will utilize the existing drainage facilities within the public right of way. Current runoff is captured and conveyed by existing City storm drain infrastructure throughout the City before discharging to County flood control facilities and channels before ultimately reaching Machado Lake or the Los Angeles Harbor. The City is primarily built-out and no major changes in flood flows are anticipated.

For proposed development that would include storm drain system improvements that would directly connect to Los Angeles County Flood Control systems, hydrology and LID studies shall be prepared, and reviewed and approved by Los Angeles County Department of Public Works. Los Angeles County Flood Control District (LACFCD) published its Hydraulic Design Manual in 1982. This manual presents the design criteria to be used for both closed conduits and open channels. Additionally, Chapter 14 of the 2006 Los Angeles County Department of Public Works Hydrology Manual includes procedures for requesting Q-allowable, or the maximum stormwater discharges that would be allowed from the proposed development associated with the proposed storm drain connection.

The majority of storm drainage facilities that collect runoff within the City are concrete lined and not susceptible to scour or erosion. For areas that are tributary to streams and may be susceptible to scour, hydromodification requirements, as part of the regional MS4 permit, will ensure that impacts are minimized. Overall impacts to erosion and siltation, as a result of GPU land use changes, are anticipated to be less than significant.

***Impact D: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?***

**Impact Analysis:** The City of Lomita is located outside the 100-year flood zone, and potential impacts to flooding are less than significant.

The City is not subject to impacts from tsunami or seiche zones, and thus are not applicable to these occurrences.

***Impact E: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

**Impact Analysis:** New development and redevelopment within the City of Lomita is not anticipated to impact implementation of local or regional water quality control plans or sustainable groundwater management plans. All development within the City will follow the Los Angeles County MS4 permit including provisions for protecting groundwater. Groundwater levels are managed by various stakeholders, and development projects with infiltration will be reviewed for conformance with the LA County MS4 permit. Impacts to water quality and groundwater management will be less than significant.

# 3. APPENDICES

**Appendix A** City of Lomita Water Demand Calculations
**Appendix B** Los Angeles County Sanitation District's Sewerage Generation Factors Chart
**Appendix C** City of Lomita Sewer Flow Calculations

# APPENDIX A

## CITY OF LOMITA WATER DEMAND CALCULATIONS

| WATER DEMANDS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| General Plan Designation | Net Change (Existing to Proposed) Residential Land Uses | | | | | | | |
| | Residential Dwelling Units | Residential Water Use Factor | | Water Demand (GPD) | | Water Demand (AFY) | | |
| Residential – Agricultural (R-AG) | 273 | 330 | GPD/ DU | 90,090 | GPD | 101 | AFY | |
| Residential – Low Density (R-LD) | 80 | 330 | GPD/ DU | 26400 | GPD | 30 | AFY | |
| Residential – Medium Density (R-MD) | 102 | 330 | GPD/ DU | 33,660 | GPD | 38 | AFY | |
| Residential – High Density (R-HD) | 144 | 330 | GPD/ DU | 47520 | GPD | 53 | AFY | |
| Manufacturing – Commercial (M-C) | -6 | 330 | GPD/ DU | -1,980 | GPD | -2 | AFY | |
| Mixed-Use – 30 (MU30) | 110 | 330 | GPD/ DU | 36300 | GPD | 41 | AFY | |
| Mixed-Use – 40 (MU40) | 692 | 330 | GPD/ DU | 228,360 | GPD | 256 | AFY | |
| Mixed-Use – 70 (MU70) | 1,490 | 330 | GPD/ DU | 491700 | GPD | 551 | AFY | |
| Publicly Owned Land (POL) | 0 | 330 | GPD/ DU | 0 | GPD | 0 | AFY | |
| ***TOTAL*** | ***2,885*** | | | ***952,050*** | GPD | ***1,066*** | AFY | |
| **General Plan Designation** | **Non-Residential Square Footage** | **Non-Residential Water Use Factor** | | **Water Demand (GPD)** | | **Water Demand (AFY)** | | |
| Residential – Agricultural (R-AG) | -15,296 | 0.48 | GPD/ SF | -7,319 | GPD | -8 | AFY | |
| Residential – Low Density (R-LD) | -134,843 | 0.48 | GPD/ SF | -64,522 | GPD | -72 | AFY | |
| Residential – Medium Density (R-MD) | -33,974 | 0.48 | GPD/ SF | -16,257 | GPD | -18 | AFY | |
| Residential – High Density (R-HD) | -35,300 | 0.48 | GPD/ SF | -16,891 | GPD | -19 | AFY | |
| Manufacturing – Commercial (M-C) | -110,709 | 0.41 | GPD/ SF | -44,914 | GPD | -50 | AFY | |
| Mixed-Use – 30 (MU30) | -79,502 | 0.48 | GPD/ SF | -38,042 | GPD | -43 | AFY | |
| Mixed-Use – 40 (MU40) | 648,918 | 0.48 | GPD/ SF | 310,507 | GPD | 348 | AFY | |
| Mixed-Use – 70 (MU70) | 344,137 | 0.48 | GPD/ SF | 164,670 | GPD | 184 | AFY | |
| Publicly Owned Land (POL) | 0 | 0 | GPD/ SF | 0 | GPD | 0 | AFY | |
| ***TOTAL*** | ***583,431*** | | | ***287,232*** | GPD | ***322*** | AFY | |
| ***TOTAL RESIDENTIAL + NON-RESIDENTIAL WATER DEMANDS*** | | | | **1,239,282** | **GPD** | **1,388** | **AFY** | |

**Sources**

1. Dudek. January 2022. City of Lomita Water Master Plan. Accessed March 2024. Found here: https://lomita.granicus.com/MetaViewer.php?view_id=3&clip_id=672&meta_id=37611

2. Los Angeles County Sanitation District, Table 1, Loadings for Each Class of Land Use. Accessed March 2024. Found here: https://www.lacsd.org/home/showpublisheddocument/3644/637644575489800000

**Notes**

* 330 GPD/DU is derived from the City of Lomita's 2022 Water System Master Plan

* 0.48 GPD/SF is derived for all non-residential land use designations of the GPUs, excluding Manufacturing - Commercial (M-C). These designations were aligned with relevant land use types listed on LACSD's sewerage loadings sheet, then summed, averaged, and multiplied by 110% to yield a conservative indoor and outdoor water use factor. Averaging the sum of applicable LACSD land uses results in a total of 435 GPD produced per every 1000 square feet. Assuming indoor and outdoor water demands are 110% greater than sewer flows, the water demand would be (435 GPD/1000 SF) * 1.1 = 0.48 GPD/SF.

* 0.41 GPD/SF is derived for the non-residential land use designation of Manufacturing - Commercial (M-C) within the GPUs. This designation was aligned with applicable land use types listed on LACSD's sewerage loadings sheet, summed, averaged, and then multiplied by 110% to yield a conservative indoor and outdoor water use factor. Averaging the sum of all applicable LACSD land uses results in a total of 435 GPD produced per every 1000 square feet. Estimating that indoor and outdoor water demands are 110% greater than sewer flows, the water demand would be (435 GPD/1000 SF) * 1.1 = 0.48 GPD/SF.

# APPENDIX B

## LOS ANGELES COUNTY SANITATION DISTRICT'S SEWERAGE GENERATION FACTORS CHART

| If the Land Use is Applicable Mark With | | AVERAGE OF ALL MARKED "X" USE FACTORS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | GPU LU | R-AG | R-LD | R-MD | R-HD | M-C | MU30 | MU40 | MU70 |
| | | GPD/SF | 435 | 435 | 435 | 435 | 369 | 435 | 435 | 435 |
| X | | GPD/DU | 260 | 260 | 260 | 156 | 156 | 156 | 156 | 156 |
| **LACSD's Table 1 Loading Factors** | | | **General Plan Land Use Designations** | | | | | | | |
| **LACSD LU CATEGORY** | **UNIT OF MEASURE** | **FLOW (GPD)** | **R-AG** | **R-LD** | **R-MD** | **R-HD** | **M-C** | **MU30** | **MU40** | **MU70** |
| **RESIDENTIAL** | | | | | | | | | | |
| Condominiums | Parcel | 195 | | | | | | | | |
| Duplex | Parcel | 312 | | | | | | | | |
| Five Units or More | No. of Dwlg. Units | 156 | | | | X | X | X | X | X |
| Fourplex | Parcel | 624 | | | | | | | | |
| Mobile Home Parks | No. of Spaces | 156 | | | | | | | | |
| Single Family Home | Parcel | 260 | X | X | X | | | | | |
| Single Family Home (reduced rate) | Parcel | 156 | | | | | | | | |
| Triplex | Parcel | 468 | | | | | | | | |
| **COMMERCIAL** | **UNIT OF MEASURE** | **FLOW (GPD)** | **R-AG** | **R-LD** | **R-MD** | **R-HD** | **M-C** | **MU30** | **MU40** | **MU70** |
| Animal Kennels | 1000 ft2 | 100 | X | X | X | X | X | X | X | X |
| Auditorium, Amusement | 1000 ft2 | 350 | X | X | X | X | X | X | X | X |
| Auto Sales/Repair | 1000 ft2 | 100 | | | | | | | | |
| Bowling/Skating | 1000 ft2 | 150 | X | X | X | X | X | X | X | X |
| Car Wash<br>Tunnel - No Recycling | 1000 ft2 | 3700 | | | | | | | | |
| Club | 1000 ft2 | 125 | X | X | X | X | X | X | X | X |
| Convalescent Home | Bed | 125 | | | | | | | | |
| Convention Center, Fairground, Racetrack, Sports Stadium/Arena | Average Daily Attendance | 10 | | | | | | | | |
| Drive-in Theatre | 1000 ft2 | 20 | X | X | X | X | X | X | X | X |
| Dry Manufacturing | 1000 ft2 | 25 | | | | | X | | | |
| Financial Institution | 1000 ft2 | 100 | | | | | | | | |
| Golf Course, Camp, and Park (Structures and Improvements | 1000 ft2 | 100 | X | X | X | X | X | X | X | X |
| Health Spa, Gymnasium Without Showers | 1000 ft2 | 300 | | | | | | | | |
| Health Spa, Gymnasium<br>With Showers | 1000 ft2 | 600 | | | | | | | | |
| Hotel/Motel/Rooming House | Room | 125 | | | | | | | | |
| Indoor Theatre | 1000 ft2 | 125 | X | X | X | X | X | X | X | X |
| Laundry | 1000 ft2 | 3825 | X | X | X | X | X | X | X | X |
| Lumber Yard | 1000 ft2 | 25 | | | | | | | | |
| Manufacturing | 1000 ft2 | 200 | | | | | X | | | |
| Mortuary/Cemetery | 1000 ft2 | 100 | | | | | | | | |
| Night Club | 1000 ft2 | 350 | X | X | X | X | X | X | X | X |
| Nursery/Greenhouse | 1000 ft2 | 25 | X | X | X | X | X | X | X | X |
| Office Building | 1000 ft2 | 200 | X | X | X | X | X | X | X | X |
| Open Storage | 1000 ft2 | 25 | | | | | | | | |
| Professional Building | 1000 ft2 | 300 | X | X | X | X | X | X | X | X |
| Recreational Vehicle Park | No. of Spaces | 55 | | | | | | | | |
| Regional Mall | 1000 ft2 | 150 | X | X | X | X | X | X | X | X |
| Restaurant | 1000 ft2 | 1000 | X | X | X | X | X | X | X | X |
| Service Shop | 1000 ft2 | 100 | | | | | | | | |
| Service Station | 1000 ft2 | 100 | | | | | | | | |
| Shopping Center | 1000 ft2 | 325 | X | X | X | X | X | X | X | X |
| Store | 1000 ft2 | 100 | X | X | X | X | X | X | X | X |
| Supermarket | 1000 ft2 | 150 | X | X | X | X | X | X | X | X |
| Tunnel - Recycling | 1000 ft2 | 2700 | | | | | | | | |
| Wand | 1000 ft2 | 700 | | | | | | | | |
| Warehousing | 1000 ft2 | 25 | | | | | X | | | |
| Wholesale Outlet | 1000 ft2 | 100 | | | | | X | | | |
| **INSTITUTIONAL** | **UNIT OF MEASURE** | **FLOW (GPD)** | **R-AG** | **R-LD** | **R-MD** | **R-HD** | **M-C** | **MU30** | **MU40** | **MU70** |
| Church | 1001 ft2 | 50 | | | | | | | | |
| College/University | Student | 20 | | | | | | | | |
| Private School | 1000 ft2 | 200 | | | | | | | | |

# APPENDIX C

## CITY OF LOMITA SEWER FLOW CALCULATIONS

| SEWER FLOWS | | | | | | | |
|---|---|---|---|---|---|---|---|
| General Plan Designation | Net Change (Existing to Proposed) Residential Land Uses | | | | | | |
| | Residential Dwelling Units | Residential Sewer Flow Factor | | Sewer Flows (GPD) | | Sewer Flows (AFY) | |
| Residential – Agricultural (R-AG) | 273 | 260 | GPD/ DU | 70,980 | GPD | 80 | AFY |
| Residential – Low Density (R-LD) | 80 | 260 | GPD/ DU | 20800 | GPD | 23 | AFY |
| Residential – Medium Density (R-MD) | 102 | 260 | GPD/ DU | 26,520 | GPD | 30 | AFY |
| Residential – High Density (R-HD) | 144 | 156 | GPD/ DU | 22464 | GPD | 25 | AFY |
| Manufacturing – Commercial (M-C) | -6 | 156 | GPD/ DU | -936 | GPD | -1 | AFY |
| Mixed-Use – 30 (MU30) | 110 | 156 | GPD/ DU | 17160 | GPD | 19 | AFY |
| Mixed-Use – 40 (MU40) | 692 | 156 | GPD/ DU | 107,952 | GPD | 121 | AFY |
| Mixed-Use – 70 (MU70) | 1,490 | 156 | GPD/ DU | 232440 | GPD | 260 | AFY |
| Publicly Owned Land (POL) | 0 | 0 | GPD/ DU | 0 | GPD | 0 | AFY |
| ***TOTAL*** | ***2,885*** | | | ***497,380*** | GPD | ***557*** | AFY |
| **General Plan Designation** | **Non-Residential Square Footage** | **Non-Residential Sewer Flow Factor** | | **Sewer Flows (GPD)** | | **Sewer Flows (AFY)** | |
| Residential – Agricultural (R-AG) | -15,296 | 0.44 | GPD/ SF | -6,654 | GPD | -7 | AFY |
| Residential – Low Density (R-LD) | -134,843 | 0.44 | GPD/ SF | -58,657 | GPD | -66 | AFY |
| Residential – Medium Density (R-MD) | -33,974 | 0.44 | GPD/ SF | -14,779 | GPD | -17 | AFY |
| Residential – High Density (R-HD) | -35,300 | 0.44 | GPD/ SF | -15,356 | GPD | -17 | AFY |
| Manufacturing – Commercial (M-C) | -110,709 | 0.37 | GPD/ SF | -40,831 | GPD | -46 | AFY |
| Mixed-Use – 30 (MU30) | -79,502 | 0.44 | GPD/ SF | -34,583 | GPD | -39 | AFY |
| Mixed-Use – 40 (MU40) | 648,918 | 0.44 | GPD/ SF | 282,279 | GPD | 316 | AFY |
| Mixed-Use – 70 (MU70) | 344,137 | 0.44 | GPD/ SF | 149,700 | GPD | 168 | AFY |
| Publicly Owned Land (POL) | 0 | 0 | GPD/ SF | 0 | GPD | 0 | AFY |
| ***TOTAL*** | ***583,431*** | | | ***261,120*** | GPD | ***292*** | AFY |
| ***TOTAL RESIDENTIAL + NON-RESIDENTIAL SEWER FLOWS*** | | | | **758,500** | **GPD** | **850** | **AFY** |

**Sources**

1. Dudek. January 2022. City of Lomita Water Master Plan. Accessed March 2024. Found here: https://lomita.granicus.com/MetaViewer.php?view_id=3&clip_id=672&meta_id=37611

2. Los Angeles County Sanitation District, Table 1, Loadings for Each Class of Land Use. Accessed March 2024. Found here: https://www.lacsd.org/home/showpublisheddocument/3644/637644575489800000

**Notes**

* 260 GPD/DU is derived for all residential land use designations of the GPUs, including Agriculture, Low, and Medium Density. These land uses were aligned with applicable land use types listed on LACSD's sewerage loadings sheet, then summed and averaged to yield a conservative indoor and outdoor sewer flow factor. Averaging the sum of all applicable LACSD land uses results in a total of 260 GPD/DU.

* 156 GPD/DU is derived for all residential land use designations of the GPUs, including High Density, Manufacturing - Commercial, and Mixed Uses (30, 40, 70). These land uses were aligned with applicable land use types listed on LACSD's sewerage loadings sheet, then summed and averaged to yield a conservative indoor and outdoor sewer flow factor. Averaging the sum of all applicable LACSD land uses results in a total of 156 GPD/DU.

* 0.44 GPD/SF is derived for all non-residential land use designations of the GPUs, excluding Manufacturing - Commercial (M-C). These land uses were aligned with applicable land use types listed on LACSD's sewerage loadings sheet, then summed and averaged to yield a conservative indoor and outdoor sewer flow factor. Averaging the sum of all applicable LACSD land uses results in a total of 435 GPD produced per every 1000 square feet, which when converted, equals 0.44 GPD/SF.

* 0.37 GPD/SF is derived for the non-residential land use designation of Manufacturing - Commercial (M-C) within the GPUs. These land uses were aligned with applicable land use types listed on LACSD's sewerage loadings sheet, then summed and averaged to yield a conservative indoor and outdoor sewer flow factor. Averaging the sum of all applicable LACSD land uses results in a total of 369 GPD produced per every 1000 square feet, which when converted, equals 0.37 GPD/SF.