LAFCO 3190

Countywide Service Review for Wastewater (Collection, Treatment, Disposal)

LAFCO

for San Bernardino County

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Primers

Recycled Water
Sphere of Influence
Out-of-Agency Service
Disadvantaged Communities – DUCs, DACs, & More
Inland Empire Brine Line (SARI)
Onsite Wastewater Treatment Systems (OWTS)

List of Acronyms and Abbreviations

APCWD	Arrowbear Park County Water District
APMP	Advance Protection Management Program
APUA	Adelanto Public Utility Authority
APUA	Adelanto Public Utilities Authority
AVWD	Apple Valley Water District
BBARWA	Big Bear Area Regional Wastewater Agency
BBCCSD	Big Bear City Community Services District
BBLDWP	Big Bear Lake Department of Water and Power
BOD	Biochemical Oxygen Demand
CCR	California Code of Regulations
CCWRF	Carbon Canyon Water Recycling Facility
CIM	California Institute for Men
CIP	Capital Improvement Program
CIWQS	California Integrated Water Quality System
County EHS	County Environmental Health Services
Crestline SD	Crestline Sanitation District
CSA 70	County Service Area 70
CSA 70BL	County Service Area 70 Zone Bloomington
CSA	County Service Area
CVWD	Cucamonga Valley Water District
DACs	Disadvantaged Communities
DIF	Development Impact Fees
DDW	California Division of Drinking Water
DUCs	Disadvantaged Unincorporated Communities
EDUs	Equivalent Dwelling Units
FEMA	Federal Emergency Management Agency
FOG	Fats, Oils, Grease Program
FY	Fiscal Year
GIS	Geographic Information Systems
GPD	Gallons per Day
HDWD	Hi-Desert Water District
Helendale CSD	Helendale Community Services District
IERCF	Inland Empire Regional Composting Facility
IEUA	Inland Empire Utilities Agency
LACSD	Lake Arrowhead Community Services District
LAIF	Local Agency Investment Fund
LAMP	Local Agency Management Plan

LCNWRP	Lytle Creek North Wastewater Recycling Plant
MBR	Microfiltration Membrane Bioreactor System
MCLB	U.S. Marine Corps Logistics Base
MWA	Mojave Water Agency
NPDES	National Pollutant Discharge Elimination Permit
NPDES	National Pollutant Discharge Elimination System
NRW	Non-Reclaimable Wastewater
OCSD	Orange County Sanitation District
OIG	Office of the Inspector General
OWTS	On-Site Wastewater Treatment Systems
RDA	Redevelopment Agency
RIX	Regional Rapid Infiltration and Extraction Facility
RP-1	Regional Water Recycling Plant No. 1
RP-2	Regional Water Recycling Plant No. 2
RP-4	Regional Water Recycling Plant No. 4
RP-5	Regional Water Recycling Plant No. 5
RSWD	Running Springs Water District
S-7	County Service Area 70 Zone S-7
SAMPA	Santa Ana Watershed Project Authority
SCLA	Southern California Logistics Airport
SFR	Single Family Residential
SP-2	County Service Area 70 Zone SP-2
SSMP	Sewer System Master Plan
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
Town	Town of Apple Valley
UWMP	Urban Water Management Plan
VVWRA	Victor Valley Wastewater Reclamation Authority
WFMP	Wastewater Facilities Master Plan
WRP	Water Reclamation Plant
WRWRF	Wochholz Regional Water Recycling Facility
WTS	Wastewater Treatment Strategy
WWTF	Wastewater Treatment Plant
WWTP	Wastewater Treatment Plant
YVWD	Yucaipa Valley Water District
Zone CG	County Service Area 70 Zone CG
Zone GH	County Service Area 70 Zone GH
Zone S-3	County Service Area 70 Zone S-3

Executive Summary

This service review consists of a countywide service review on wastewater (collection, treatment, and disposal) within San Bernardino County. It fulfills the service review requirements identified in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code §56000 et. seq.). The report is organized geographically by the county's four major regions: Valley, Mountain, North Desert and South Desert. A draft copy was circulated to all wastewater systems reviewed in this report as well as interested parties for review and comment. A meeting was held in each region, with all agencies and interested parties invited, to review the draft report. The final version of this report includes LAFCO staff's responses to the comments. LAFCO may use this report as a basis to initiate agency sphere of influence updates or continue to monitor agencies, where warranted, and to help address identified service deficiencies.

Approach

Legislation adopted since 2012 impacting service reviews or the provision of services has been incorporated into the report's analysis. These laws address:

- Disadvantaged unincorporated communities
- Pilot program for San Bernardino LAFCO regarding services outside an agency sphere of influence
- The Sustainable Groundwater Management Act of 2014, and
- Authorization for the State Water Resources Control Board to consolidate water systems (some water retailers are also wastewater collectors) that are serving disadvantaged communities with unreliable and unsafe drinking water with other water systems.

The primary objective of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, (2) initiate sphere of influence updates where appropriate, and (3) monitor specific agencies where appropriate.

The identification of "hot spots"[1] is used to arrive at these recommendations - those agencies within the County which have significant wastewater issues. This Executive Summary summarizes the hot spots identified in the report and staff recommendations for Commission action. Additionally, staff has identified opportunities for efficiencies for the community at large to consider – these do not have a recommendation for Commission action. Furthermore, this service review identifies areas where agencies are providing service outside their boundaries. For properties that have been connected to a wastewater system lacking prior LAFCO approval, this report provides a recommendation to bring the matter into compliance.

[1] In wastewater parlance, "hot spot" is a term to identify distressed areas of a wastewater pipe. For its second round of service reviews, San Bernardino LAFCO uses "hot spot" as an agency that has significant challenges.

What Did We Learn?

Wastewater Industry

- The wastewater industry is a part of the water industry. First, treatment and disposal, or lack of, affect water quality. Second, recycled wastewater provides a supplemental water source – hence water quantity.
- Semantics – The terms "collection" and "service" have varied meanings.
    - Does collection include collection mains or feeders to the treatment plant? Agencies interpret "collection" differently.
    - "Does your agency provide service to this area" – what is service, since service includes collection and/or treatment? What if an agency contracts the service to another agency? LAFCO received varied answers to the question depending upon the agency's interpretation of "service".
- Advances in technology and design, and the commitment of water and wastewater agencies to work together with surrounding residents, have resulted in new wastewater treatment plants being good neighbors (e.g., Apple Valley subregional plant). Many new plants have paid special attention to building design, landscaping, noise buffering, and odor control to better fit with surrounding neighborhoods.

On-Site Septic Systems

- Cumulatively, the largest nitrate contributors are onsite Wastewater Treatment Systems "OWTS".
- Overall, there are more properties on septic tanks within a wastewater agency than outside a wastewater agency. Therefore, maximizing connections within an agency would more effective than formation of a new agency elsewhere.
- For some, city and/or district imposed fees prevent homeowners from connecting to a sanitary sewer system. Options for homeowners to pay connection fees over time through low interest loans or other financing mechanisms are needed to reduce the financial burden and encourage conversion from on-site septic systems to a conventional sewer system.
- Most cities and special districts lack information programs advising residents of wastewater disposal options (e.g., location of nearby sewer lines, procedures/process to get off septic, etc.).
- When a wastewater district overlays a city, it is the city as the planning agency that is responsible for the siting, design, and permitting of OWTS. The city and the district coordinate during the planning phase for OWTS requirements.

Countywide

- Many wastewater systems identified in the first round of service reviews as having experienced significant challenges, remain as having significant challenges.
- 80% of the land in the county is primarily vacant and generally outside the governing control of the County's Board of Supervisors and 24 cities.
- San Bernardino County and the broader Inland Empire region are anticipated to see more population growth in the near term than the coastal regions of Southern

California. The high cost of housing in the coastal counties of Los Angeles, Orange and San Diego has made the Inland Empire a destination of choice for many residents willing to commute to those areas.

- Other State agencies, such as the California EPA, use alternative criteria to identify disadvantaged communities for grant funding purposes. The different criteria at the local and state government levels is confusing and complicates implementation of a consistent approach to address our disadvantaged residents. While staff recognizes the difficulty in developing a one-size-fits-all definition, LAFCO staff's position is that additional work needs to be done state-wide to develop a method for identifying disadvantaged communities that is more consistent yet recognizes the diversity of communities and geographies in California.
- As with water agency mapping, wastewater mapping is in demand. LAFCO staff has comprehensively digitally mapped all the wastewater systems identified in this report. The following entities requested access to this data which LAFCO has provided or will provide: State Water Resources Control Board, California Environmental Health Tracking Program of the Department of Public Health, and the County of San Bernardino as a part of its upcoming General Plan update.
- There is a systemic lack of understanding and compliance with the California Land Conservation Act of 1965 (known as the Williamson Act) statutes and implementation by the County and cities. Government Code §51243 states that when annexing properties into a city, "...the city shall succeed to all rights, duties, and powers of the county under the contract." As a whole, the data provided to LAFCO by the County and cities is either incomplete, outdated, and/or not in compliance between Agricultural Preserves and Williamson Act parcels.

<u>Wastewater Agencies</u>

- Many Sewer Master Plans do not contain a sphere of influence component.
- As a part of this service review, LAFCO staff coordinated with agencies to identify areas where agencies are providing service outside their boundaries. A number of agencies found they are not billing all connected properties outside their boundaries.
- The Inland Empire Utilities Agency provides, or plans to provide, service outside of its sphere of influence. This is addressed in the context of Gov't. Code §56133.5 - a pilot program, through 2020, for Napa and San Bernardino LAFCOs to authorize a city or district to extend services outside of a sphere for additional purposes beyond responding to threat to public health or safety.
- Joint Powers Authorities have been formed between cities and a city redevelopment agency ("RDA") for the purpose of providing financing for public capital improvements for the city and the RDA. With the dissolution of redevelopment agencies effective 2014, some cities voted and approved to become the successor agencies to the JPA with the City Council as the respective governing boards. However, effective July 1, 2018, the redevelopment oversight boards in each county in the State of California were consolidated into one seven-member board (Health & Safety Code § 34179(j)). In turn, the city will no longer be the successor agency to the JPA – the newly created redevelopment oversight board will be the successor agency. Therefore, the JPA will extinguish and the JPA will wholly integrate into the city's reporting. This means that all long-term obligations of the JPA will become long-term obligations of the city.

Regional (Valley, Mountain, North Desert, South Desert)

- In the Victor Valley, the relative density of the populated areas is not projected to increase significantly by year 2040 given the availability of developable land. These dynamics can, however, contribute to urban sprawl as growth continues to expand at the periphery of the current urban cores.
- In the Mountain, even though the land use designations are not anticipated to significantly increase density, the permanent population is anticipated to increase as more people move to the Mountain and establish full-time residency. Note that this does not include the transient and vacation population.
- Despite a common perception that Mountain communities are generally not served by conventional sewer systems, the San Bernardino Mountain Region has organized wastewater collection and treatment systems serving the majority of its residents.
- It is important to note that the identification of disadvantaged communities is based on census block groups, which tabulate data based upon permanent residents. The Mountain Region, especially the areas surrounding the lakes, includes significant second and vacation homes which are not reflected by this identification.

Regional Water Quality Control Boards

- The Regional Water Quality Control Boards ("Regional Boards") perform a complex and varied mission with limited resources which cover vast areas.
- As the population grows in rural areas, there is a pressing need to focus on new facilities while re-prioritizing work at other facilities throughout the region. Staff must re-allocate and re-adjust their workload and priorities to maintain a consistent level of water quality protection at facilities throughout the Region.
    - Regional Water Quality Control inspections are lagging – sometimes inspections are conducted only once in every five years.
    - Package treatment plants, maintained by HOAs or other private entities, often do not receive the regular, professional maintenance to provide a safe and reliable long-term alternative to a conventional sewage treatment. Understaffed Regional Boards are not always able to provide timely inspections of these facilities.
- The State Water Quality Control Board's California Integrated Water Quality System Project (CIWQS) and GeoTracker computer systems track detailed and valuable data on wastewater providers; however, the data is difficult to navigate.

Staff Recommendations for Commission Action – Hot Spots

The following outlines staff's recommendations for the Commission. The recommendations stem from the agencies being identified as a "hot spot".

City of Adelanto

- Issue – Serious financial, operational and managerial challenges.
- Hot Spot Identification – The City of Adelanto has been identified in this service review as a hot spot due to the issues identified in Section VII of this report.
- *Staff Recommendation - Indicate the Commission's intent to initiate a sphere of influence update for the City of Adelanto to determine the appropriate sphere of influence for the City, and direct that this process include a meeting between City and County representatives to discuss the current sphere area and LAFCO staff's proposed sphere amendment.*

Victorville Water District and City of Victorville

- Issue – Increasing operation and maintenance payments affecting debt service and needed capital expenditures.
- Hot Spot Identification – The City of Victorville has been identified in this service review as a hot spot due to the issues identified in Section VII of this report.
  Staff Recommendation – Staff recommends that the Commission continue to monitor the Victorville Water District and the City of Victorville, and direct staff to return to the Commission six months following completion of this service review.

Victor Valley Wastewater Reclamation Authority

- Issue – Negative impact to revenue cash flows affecting ability to service debt for the following reasons: (1) City of Victorville diverted approximately 1 MGD of flow reducing revenue; (2) City of Hesperia withholding payment due to disagreement with VVWRA board of directors; and (3) Unresolved differences with Federal Emergency Management Agency regarding grant for constructing the Mojave Upper Narrows tunnel project.
- Hot Spot Identification - VVWRA has been identified in this service review as a hot spot due to the issues identified in Section VII of this report.
  Staff Recommendation - Staff recommends that the Commission continue to monitor the Victor Valley Wastewater Reclamation Authority, and direct staff to return to the Commission six months following completion of this service review.

Twentynine Palms Community

The Twentynine Palms community currently lacks a municipal wastewater system. The City of Twentynine Palms and Twentynine Palms Water District are aware that the Colorado River Basin Regional Water Quality Control Board is concerned about potential contamination, and the parties are concerned that an order from the Regional Board to immediately develop a wastewater system is imminent. Meanwhile, the neighboring Marine Base has an aging wastewater treatment facility.

Staff recommends that the Commission identify the Twentynine Palms community as a "hot spot" and recognize that an opportunity exists for the community to develop a joint wastewater system with the nearby Marine Corps base.

Staff Recommendations for Commission Action – Out of Agency Service

The following outlines staff's recommendations for the Commission. The recommendations stem from the agencies and LAFCO staff identifying that agencies have been providing service outside their boundaries, without LAFCO authorization, but these circumstances qualify for an exemption from Commission review. Per San Bernardino LAFCO policy, the Commission shall make the determination that the service to be provided is exempt from LAFCO review.

Inland Empire Utilities Agency

LAFCO staff recommends that the Commission determine the following for the Inland Empire Utilities Agency's service outside its boundary, as shown in Figure 3-3 in yellow color:

- *Parcels connected on or before January 1, 2001 are exempt from LAFCO review pursuant to Gov. Code §56133(e)(4).*

- *Parcels connected after January 1, 2001, including the currently developed parcels as listed by the City of Fontana per maps included in Attachment #1 to the staff report for LAFCO 3190 dated August 8, 2018, as a result of the 1995 settlement agreement between IEUA and the City of Fontana which outlines an agreement for services to be rendered by IEUA.*

- *Connecting the remaining unserved area will come under the provisions of Gov. Code §56133.5, which can be considered by the Commission through a blanket authorization for the entire area.*

City of San Bernardino

LAFCO staff recommends that the Commission determine that the parcels identified in Section III were provided service on or before January 1, 2001 and are exempt from LAFCO review pursuant to Gov. Code §56133(e)(4).

LAFCO staff recommends that the Commission request the City of San Bernardino submit an Out-of-Agency Service application to LAFCO to encompass all of the parcels that were provided wastewater service after January 1, 2001, to date, as identified in Section III of this report.

City of Upland

LAFCO staff recommends that the Commission determine that the City of Upland 1982 agreement with the City of Claremont and Los Angeles County Sanitation District is exempt from LAFCO review as it is:

- *Service between two public agencies where the public service provided is an alternative to, or substitute for, public services already being provided by an existing public service provider (the City of Upland) and where the service*

provided is consistent with the level of service of the existing service provider (the City of Upland). (Gov. Code §56133(e)(1)

- *An extended service that was provided on or before January 1, 2001. (Gov. Code §56133(e)(4)*

City of Rialto

LAFCO staff recommends that the Commission:

- *Determine that the three parcels identified in Section III provided service by the City of Rialto are exempt from LAFCO review as they are an extended service that was provided on or before January 1, 2001. (Gov. Code §56133(e)(4).*

- *Determine that the 1991 Rialto/Fontana Extraterritorial Wastewater Service Agreement is exempt from LAFCO review as it is:*

    - *Service between two public agencies where the public service provided is an alternative to, or substitute for, public services already being provided by an existing public service provider (the City of Rialto) and where the service provided is consistent with the level of service of the existing service provider (the City of Rialto). (Gov. Code §56133(e)(1).*

    - *An extended service that was provided on or before January 1, 2001. (Gov. Code §56133(e)(4).*

- *Request the City of Rialto to submit an Out-of-Agency Service application to LAFCO to encompass all of the City's other extraterritorial service agreements that have not been authorized by LAFCO to date.*

Staff Recommendations for Commission Action – Clarification of Services

Inland Empire Utilities Agency

LAFCO and IEUA staffs recommend, as a part of this service review, that the LAFCO Policy and Procedure Manual, Section VI (Special Districts), Chapter 3 (Listing of Special Districts within San Bernardino County LAFCO Purview – Authorized Functions and Services), reflect the following for IEUA, as these are the functions and services that IEUA has historically and actively provides:

Water	*Wholesale, replenishment*
Sewer	*Collection, regional treatment, reclamation, disposal, recycled water, composting, non-reclaimable wastewater collection*
Energy	*Energy recovery and production*
Total Basin Management	*Planning for Chino hydrological basin*

Opportunities for Future Consideration

The opportunities outlined below are identified in the service review as for future agency and community consideration. There is no recommendation to the Commission for action.

Opportunities – Valley Region

Agency	Issue	Opportunity
City of Chino	Lack of sewer service in City's sphere of influence area.	Additional out-of-agency service agreements with landowners within City's SOI would reduce nitrates from entering the groundwater; a City outreach program to inform landowners with properties along collection lines may encourage connection.
City of Montclair	Lack of sewer service in City's sphere of influence area.	Additional out-of-agency service agreements with landowners within City's SOI would reduce nitrates from entering the groundwater; a City outreach program to inform landowners with properties along collection lines may encourage connection.
City of Rialto and West Valley Water District	The unincorporated community of Bloomington, a disadvantaged community, lacks sewer infrastructure and sewage treatment capability.	Options to provide sewer collection and treatment for Bloomington include: (1) the City of Rialto, and (2) the West Valley Water District (collection) with treatment by contract with the City of Rialto.
City of San Bernardino	Unincorporated islands within the City's sphere of influence, portions of which are disadvantaged, are largely served by septic systems; some homes are adjacent to existing sewer lines.	Additional out-of-agency service agreements with landowners would reduce nitrates from entering the groundwater; a City outreach program to inform landowners with properties along collection lines may encourage connection.
City of Redlands	The unincorporated Mentone community, within Redland's sphere of influence, is largely served by septic tanks and leach field systems.	Additional out-of-agency service agreements with Mentone landowners would reduce nitrates from entering the groundwater; a City outreach program to inform landowners with properties along collection lines may encourage connection.

Opportunities – Mountain Region

Agency	Issue	Opportunity
Big Bear City Community Services District (BBCSD)	Lake Williams, within the BBCSD's sphere of influence, is an environmentally sensitive area without sewer connection.	BBCSD should explore options to connect the Lake Williams area to sewer.
CSA 70 and City of San Bernardino	Waterman Canyon, a community of 100 residents, lacks sewer connection.	One option would be for the area to form a district or zone to CSA 70 to collect wastewater and then enter into a contract with the City of San Bernardino for treatment and disposal at the City's facilities.
CSA 70	The Angeles Oaks community has a population of 290 full time residents and borders an impaired water body, Mountain Home Creek, which connects to another impaired water body, Mill Creek. The community lacks connection to a sewer system.	Implementation of a localized sewer system, possibly through a zone to County Service Area 70, would benefit the area.
CSA 70	The Forest Falls community, with a population of 950 full time residents, is served by septic and borders an impaired water body, Mill Creek. Forest Home Christian Center, also served by OWTS, is located within Forest Falls and is immediately adjacent to Mill Creek.	Implementation of a localized sewer system, possibly a zone to County Service Area 70, would benefit the area.

Opportunities – North Desert Region

Agency	Issue	Opportunity
Wrightwood Community Services District and/or County of San Bernardino	Wastewater within the Wrightwood community is disposed using OWTS.	Monitoring of groundwater well (down gradient of the Wrightwood community) should be reactivated to provide better data to the community and the Lahontan Board; a single sewer collection and treatment system for the entire Wrightwood and Mountain High area should be explored.
Phelan-Pinon Hills CSD	Phelan-Pinon Hills has a developing commercial core area and numerous adjacent large schools. All wastewater is currently disposed using OWTS.	Ongoing dialog between the Phelan-Pinon Hills CSD and the Lahontan Board should begin to explore long-term wastewater infrastructure solutions.
City of Hesperia	Only small portions of Hesperia are connected to sewer.	Two areas that should be considered by the City for sewer connection (all upgradient of the new Hesperia subregional wastewater reclamation plant) include along Bear Valley Road, historic downtown Hesperia and along Rancho Road.
Town of Apple Valley	Only small portions of the Apple Valley are connected to sewer.	With the new Apple Valley subregional wastewater reclamation plant online, the Town should evaluate options to improve sewage treatment and disposal service.
City of Victorville	Not all populated areas within the City are connected to sewer.	The City should evaluate options to improve sewage treatment and disposal service for Southeast Victorville (generally the area of Bear Valley Road, east of I-15)
Yermo Community Services District	Concentration of land uses (intersection of Daggett Yermo Road and Yermo Road) include two gas stations, restaurants, a motel and Silver Valley High School; all are currently using OWTS and warrant formation of a centralized sewer system.	Dialog between the Yermo CSD and the Lahontan Board should begin to explore long-term wastewater infrastructure needs, including the potential use of the nearby Marine Base wastewater treatment plant.

SECTION I
Introduction

Purpose of Report

This report consists of a countywide service review on wastewater (collection, treatment, disposal) within San Bernardino County. The service review fulfills the service review requirements as identified in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code §56000 et. seq.) In general, service reviews evaluate how agencies currently provide municipal services within their service area and the impacts on those services that may occur over the long-term due to population growth and other issues. While most reports limit an agency evaluation to its current boundary, LAFCO's service reviews take a broader view and explore, where appropriate, a full range of service provision options that are not limited by existing agency boundaries.

LAFCO may then use this service review as a basis to initiate agency sphere of influence updates, where warranted, to help address identified service deficiencies. "Sphere of influence" means a plan for the probable physical boundaries and service area of a local agency, as determined by the Commission (§56076). Spheres are designed to both proactively guide and respond to the need for the extension of infrastructure and delivery of municipal services to areas of emerging growth and development. The requirement for LAFCOs to conduct service reviews was established as an acknowledgment of the importance of spheres of influence, and recognition that periodic updates of agency spheres should be conducted (§56425(g)) with the benefit of current information available through service reviews (§56430(a)).[1]

Service reviews require LAFCO to prepare written statements of six determinations:

- Growth and population projections for the affected area;
- Location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere of influence;
- Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies related to …sewers… in any disadvantaged unincorporated communities within or contiguous to the sphere of influence;
- Financial ability of agencies to provide service;
- Status of, and opportunities for, shared services; and,
- Accountability for community service needs, including governmental structure and operational efficiencies.

[1] Five California counties border San Bernardino County – Inyo, Los Angeles, Orange, Riverside and Kern. With the exception of Kern LAFCO, San Bernardino LAFCO has entered into Memorandums of Understanding with its surrounding LAFCOs to transfer sphere of influence jurisdiction for agencies that cross county boundaries to the county where the sphere of influence territory is located.

Report Objective

A number of wastewater-related reports already exist which address various aspects of wastewater infrastructure and wastewater planning in San Bernardino County (identified below). While the Countywide Wastewater Service Review utilizes and references many of these reports in its analysis, the primary objective of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, (2) initiate sphere of influence updates where appropriate, and (3) monitor specific agencies where appropriate.

Methodology

San Bernardino LAFCO conducted its initial round of service reviews on a community-by-community basis, consistent with its sphere of influence policies, addressing the full range of public services. In April 2016, in an effort to more efficiently conduct the mandatory service reviews, the Commission modified the scope of all of the second round service reviews to address individual services on a countywide basis.

The wastewater agencies addressed in this service review include all municipal collection, treatment, and disposal systems. Table 1-1 includes a listing of the local agencies included in this service review, organized by region (Valley, Mountain, North Desert and South Desert). Not included in this review are tribal systems, which are regulated by the U.S. Environmental Protection Agency, and institutional collection systems that are part of a larger municipal collection system (such as a university system that is part of the overall city collection system). Additionally, a primary tenet of LAFCO is to encourage the preservation of open space and agricultural land. This service review touches upon the impact of agricultural uses on water and wastewater, notably the Valley and North Desert Regions.

Staff referred to a variety of sources for this report, including:

- Local agencies: Agency information reviewed in Appendices B-E to include audits and budgets, wastewater master plans, water master plans, urban water management plans, integrated regional water management plans, sewer system management plans, and local agency management plans.

- Regional Context: Regional information reviewed in Sections IV (Valley), VI (Mountain), VIII (North Desert), and X (South Desert) to include local agency management plans and septic system locations.

- State Water Board: Violations, orders, resolutions, inspections, and overflow.

- LAFCO: Previous service reviews and findings, LAFCO's geographic information system ("GIS") was also used to identify future population growth areas, disadvantaged unincorporated communities, and septic tank use.

The term "hot spot" [2] is used in this service review to identify those areas or agencies within the county which have significant wastewater issues including, but not limited to:

Wastewater Agencies – identification may include one or more of the following:

- Governance (inadequate oversight and monitoring, financial challenges)
- Collection System (deficiencies, challenges)
- Treatment System (deficiencies, challenges)
- Disposal System (deficiencies, challenges)

Agency Sphere of Influence, outside boundary – factors may include:

- Septic prohibition by State Water Board
- Clusters of onsite wastewater treatment systems
- Septic proximity to groundwater wells or impaired water body
- Located within a disadvantaged community
- DWR groundwater basin priority and basin population growth

This service review approach is unique. Given the countywide nature of this review, and the significant number of wastewater systems within the county, this approach provides value to the Commission, the affected agencies, and the public by focusing on those areas and agencies that face significant wastewater related challenges in the short and long-term. Wastewater agencies that have no significant issues are reviewed in the report, but they are not the focus of this service review.

Agency Outreach

LAFCO staff conducted an extensive outreach effort with the agencies addressed in this report, including, but not limited to:

- Site visits, phone interviews, and email requests were conducted when appropriate.
- Each agency was provided with its agency profile and service area map for review and input.
- Each agency and stakeholder was provided with the draft service review for review and comment, and a meeting with LAFCO staff and affected agency representatives was held in each of the four regions to review the draft staff report and receive input.
- LAFCO staff provided responses to comments received on the draft staff report (Appendix A to this service review).
- The Notice of the LAFCO hearing, where the Commission is to consider this service review, was provided to all agencies, stakeholders, and interested parties, which is also noticed on the LAFCO website.
- The staff report, outlining recommendations for Commission action, with service review was provided to all agencies, stakeholders, and interested parties, which is also available on the LAFCO website.

[2] In wastewater parlance, "hot spot" is a term to identify distressed areas of a wastewater pipe. For its second round of service reviews, San Bernardino LAFCO uses "hot spot" as an agency that has significant challenges.

Report Organization

Section I (this section) provides an Introduction to the service review, and Section II provides an Overview of the County.

For the remainder, this service review is organized geographically by the county's four major geographic regions[3]. For example, for the Valley Region, Section III identifies and substantiates hot spots with staff recommendations, as well as a presentation of opportunities for future consideration. In order to fulfill the requirements of Government Code §56430, service review updates are provided on a regional context (Section IV) and for each wastewater agency and its service area (Appendix B) to include an agency profile, service area map, and narrative of the agency wastewater system.

Region	LAFCO Analysis	Service Review Update	
		Regional	Agencies
Valley	Section III	Section IV	Appendix B
Mountain	Section V	Section VI	Appendix C
North Desert	Section VII	Section VIII	Appendix D
South Desert	Section IX	Section X	Appendix E

Comments from the public and wastewater purveyors are included in Appendix A of this report. A detailed listing of treatment systems and municipal collection agencies is included as a part of Appendix F.

[3] These regions reflect the San Bernardino County Fire Protection District's regional service zones. The description is general and does not preclude the review from extending beyond the described boundary.

Table 1-1:
Wastewater Agencies Reviewed – Countywide Wastewater Service Review

Region	Agency
Valley	**Final Treatment Agencies and Underlying Collection Systems** City of Rialto: • City of Rialto • County Service Area 70 Zone BL (Bloomington) City of San Bernardino/City of Colton: • City of Colton • City of Grand Terrace • City of Loma Linda • City of San Bernardino • East Valley Water District Inland Empire Utilities Agency: • City of Chino • City of Chino Hills • City of Fontana • City of Montclair • City of Ontario • City of Upland • Cucamonga Valley Water District **Agencies with Independent Collection and Final Treatment** City of Redlands County Service Area 70 Zone GH (Glen Helen) County Service Area 70 Zone S-3 (Lytle Creek) Yucaipa Valley Water District
Mountain	**Final Treatment Agencies and Underlying Collection Systems** Big Bear Area Regional Wastewater Agency: • Big Bear City Community Services District • City of Big Bear Lake • County Service Area 53 Zone B Running Springs Water District: • Arrowbear Park County Water District • County Service Area 79 (Green Valley Lake) • Running Springs Water District **Agencies with Independent Collection and Final Treatment** Crestline Sanitation District Lake Arrowhead Community Services District

North Desert	**Final Treatment Agencies and Underlying Collection Systems** City of Barstow: • City of Barstow • County Service Area 70 Zone S-7 (Lenwood) Victor Valley Wastewater Reclamation Authority: • County Service Area 42 (Oro Grande) • County Service Area 64 (Spring Valley Lake) • Hesperia Water District (City of Hesperia is the member agency) o County Service Area 70 Zone SP-2 (Oak Hills) • Town of Apple Valley • Victorville Water District (City of Victorville is the member agency) **Agencies with Independent Collection and Final Treatment** Baker Community Services District City of Adelanto via its Adelanto Public Utilities Authority County Service Area 82 (Searles Valley) Helendale Community Services District Victorville Water District (Southern California Logistics Airport system)
South Desert	**Agencies with Independent Collection and Final Treatment** City of Needles Hi-Desert Water District (currently in construction) Joshua Basin Water District (operation of package treatment plant)

PRIMER ON RECYCLED WATER

Treatment

Primary Treatment is a process where solid matter is removed. The remaining liquid may be discharged or subjected to further treatment.

Secondary Treatment is a process where dissolved and suspended biological matter is removed to a nonpotable level so that the water may be disinfected and discharged into a stream or river, or used for irrigation at controlled locations.

Sewage Sludge refers to the residual, semi-solid material that is produced as part of primary and secondary treatment. Sewage sludge is further treated by aerobic or anaerobic digestion and dewatered at a wastewater treatment plant or resource recovery facility to produce biosolids and other byproducts such as methane gas and struvite recovery.

Tertiary (or advanced) Treatment uses additional biological or physical-chemical treatment processes to remove water contaminants not removed by primary and secondary treatment, such as nutrients, toxic materials or additional suspended solids. The purpose of tertiary treatment is to provide a final treatment stage to further improve the effluent quality before it is discharged to the receiving environment (sea, river, lake, wetlands, ground, etc.).

Recycle or Reuse of Treated Water

Treated water can be discharged with the intent of no future use, discharged into the ground as recharge, or used as recycled water[4] as an alternate source to potable water.

In California, the regulations for how treated and recycled water is discharged are stipulated by Title 22 of the California Code of Regulations. Effluent treatment standards are set and enforced by the state's nine regional water quality control boards which are part of the State Water Resources Control Board. Title 22 requires the State Board to develop bacteriological and treatment standards for each level of treated water that is recycled or reused. The regional water boards issue permits for individual water recycling projects in accordance with statewide criteria established by State Board.

Revisions to Title 22 were officially adopted and published in December 2000. The revamped Title 22 lists 40 specific uses with disinfected tertiary recycled water such as park and playground irrigation, school grounds and residential landscaping. Twenty-four specific uses are allowed for disinfected secondary recycled water such as irrigating animal feed and other unprocessed crops, and seven specific uses are allowed with non-disinfected secondary recycled water such as ornamental nursery stock and non-food bearing trees. Other allowed uses of the disinfected recycled water include: air conditioning, commercial laundry, decorative fountains, and flushing toilets in commercial buildings. Recycled water is delivered in purple pipes.

[4] In 1995, portions of the Water, Fish and Game, Health and Safety Codes and other statutes were amended to replace terms such as "wastewater reclamation" and "reclaimed water" with "water recycling" and "recycled water." Now, recycled water is defined in the California Water Code as "…water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource."

SECTION II
San Bernardino County Overview

San Bernardino County's diverse geography and extensive natural resources, as well as its proximity to major economic and population centers, provide unique opportunities for varied industry sectors to thrive, including commerce, education, tourism and recreation. The County is the largest in the contiguous United States and covers over 20,000 sq. miles (enough to encompass the states of Connecticut, Delaware, Rhode Island, and Vermont). The County is commonly divided into four distinct areas – the Valley Region, the Mountain Region, the North Desert Region, and the South Desert Region.

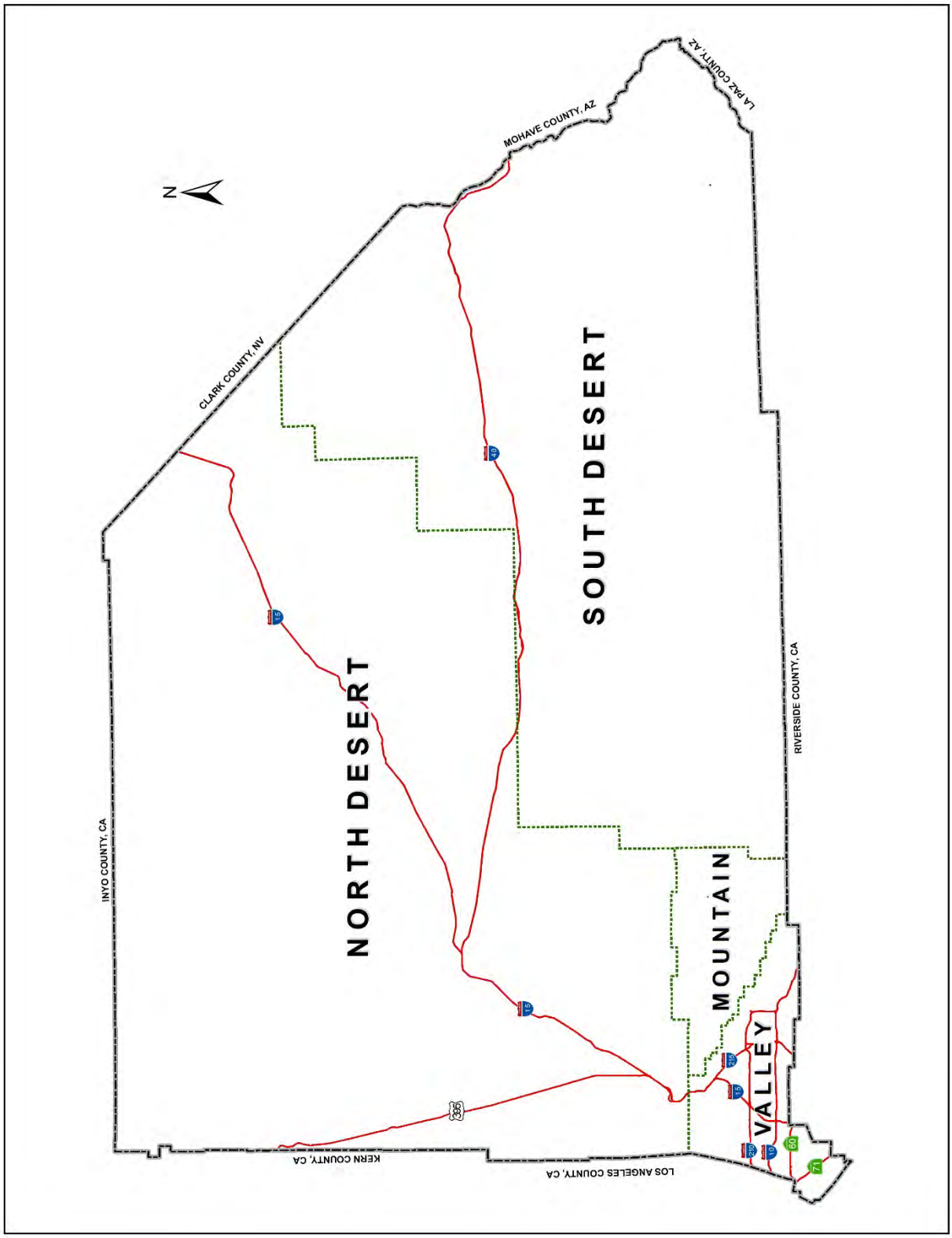
The Valley Region contains the majority of the County's incorporated areas and is the most populous region. The Mountain Region is primarily comprised of public lands owned and managed by federal and state agencies. The North Desert and South Desert Regions are the largest regions (approximately 94% of the County's land area) and include parts of the Mojave Desert. Table 2-1, below, breaks down the County's population by region.

Table 2-1:
San Bernardino County Population by Region

Region	Area (sq. miles)	Population 2016
Valley	665	1,538,716
North Desert	10,778	451,575
South Desert	8,093	77,078
Mountain	571	50,854

Given its vast land area, the County's overall population density is low, estimated at 105 people per square mile which is lower than neighboring Riverside, San Diego, Orange and Los Angeles Counties. Within the Valley Region, however, population density is 2,313 people per square mile which is on par with Los Angeles and Orange Counties. Figure 2-1, below, identifies the county regions.

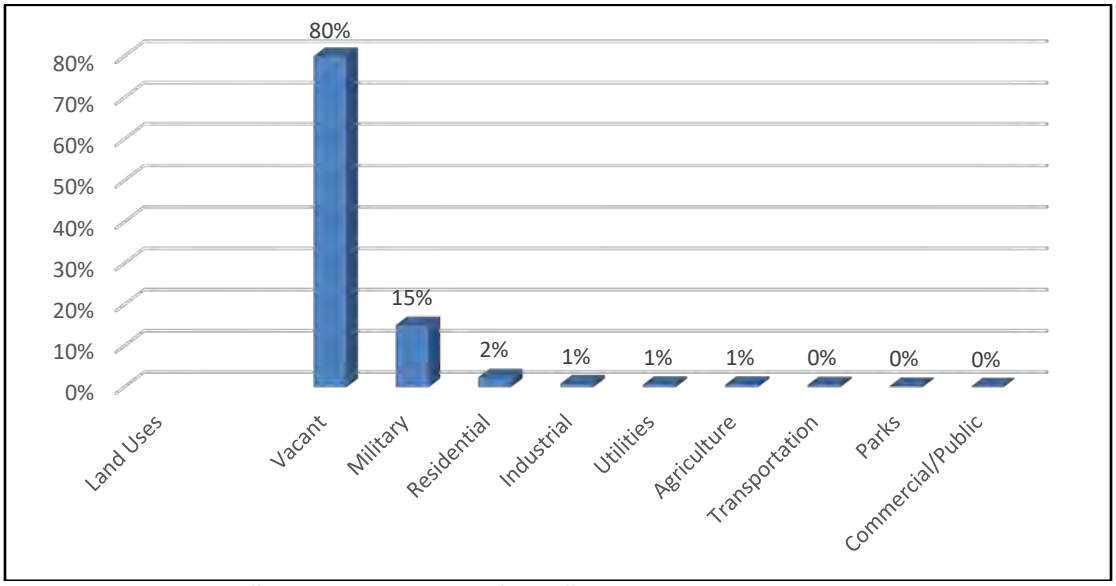
Figure 2-1:
Vicinity Map – Regions



County Vacant Land

It is important to note – 80% of the land (roughly 16,200 sq. miles) is primarily vacant (Figure 2-2) and outside the governing control of the County's Board of Supervisors and 24 cities. This land is largely under federal government ownership and includes forests, wilderness areas, military facilities and national parks/preserves/monuments (Table 2-2). Figure 2-3 on the following page depicts land ownership within the County.

Figure 2-2: Land Uses within San Bernardino County



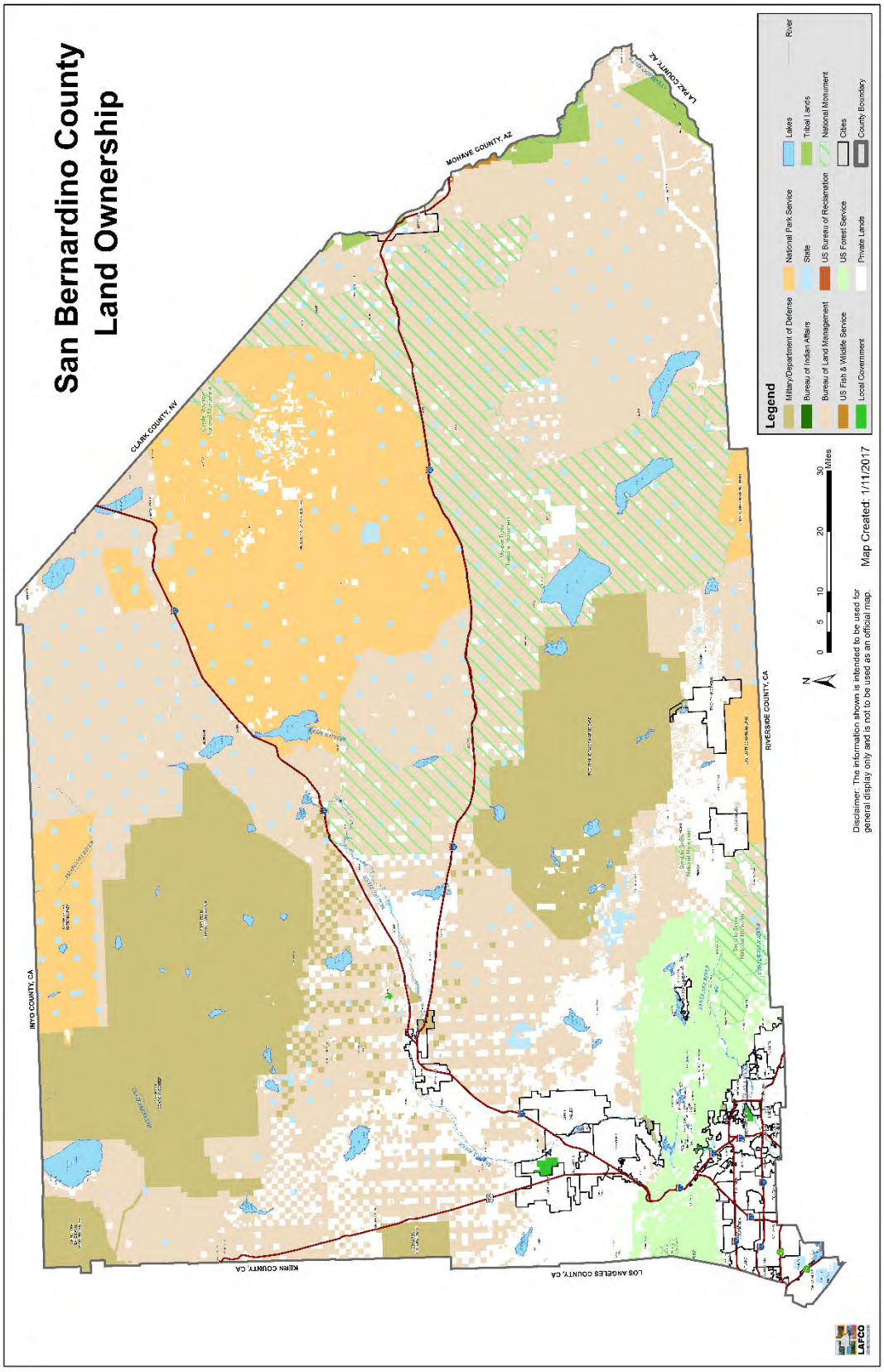
Source: San Bernardino County Community Indicators Report 2015

Table 2-2: Landownership within San Bernardino County

Land Ownership		
Land Owner	**Sq. Miles**	**Percent**
Bureau of Land Management	9,158	45.5%
Dept. of Defense	3,522	17.5%
Private Land	3,309	16.5%
National Park Service	2,849	14.2%
US Forest Service	736	3.7%
State of CA	412	2.0%
Bureau of Indian Affairs	99	0.5%
US Fish & Wildlife Service	10	0.0%
US Bureau of Reclamation	9	0.0%
Local Government	2	0.0%
TOTAL	20,106	100.0%
source: SB County		

In the past decade, four notable changes in public land ownership have occurred: (1) private lands along the railways from the Los Angeles County line to Barstow and east to Needles have transferred to the Bureau of Land Management, (2) expansion of Department of Defense lands, (3) increase of the National Parks Service Holdings with the expansion of Death Valley and Joshua Tree National Parks and the creation of the Mojave National Preserve, and (4) designation of four new national monuments in 2016.

Figure 2-3: Land Ownership Map



SECTION III
Valley Region

Organization

As detailed in the Introduction, the Countywide Wastewater Service Review is organized by San Bernardino County's four regions (Valley, Mountain, North Desert, and South Desert), with each region and its respective retail agencies reviewed as a distinct geographic area.

This section of the service review provides a review of the Valley Region, including:

A. Valley Region Overview
B. Identification of Hot Spots
    (1) Hot Spot Objective and Criteria
    (2) Wastewater Agencies: Boundary and Sphere of Influence
C. Identification of Opportunities
    (1) Objective and Criteria for Opportunities
    (2) Government Structure Options
    (3) Areas with Onsite Wastewater Treatment Systems
D. Staff Recommendations
    (1) Agencies under LAFCO Purview: Service Review Determinations
    (2) Initiation of Sphere of Influence Updates
    (3) Hot Spots – Continued Monitoring
    (4) Inland Empire Utilities Agency – Clarification of Services
    (5) Inland Empire Utilities Agency – Recognition of Service outside Boundary
    (6) City of San Bernardino – Recognition of Service outside Boundary
    (7) City of Upland – Recognition of 1982 Service Agreement
    (8) City of Rialto - Recognition of Service outside Boundary

Service Review Updates

In order to fulfill the requirements of Government Code §56430, service review updates are provided on a regional context (Section IV) and for each wastewater agency and its service area (Appendix B) to include an agency profile, service area map, and narrative of the agency wastewater system. A detailed listing of treatment systems and municipal collection agencies is included as a part of Appendix F.

A. VALLEY REGION OVERVIEW

According to the *County of San Bernardino General Plan* (2012), the Valley covers only 3.3 percent of the total County land but holds approximately 73 percent of the County's population, as shown in Table 3-1, below. Within the Valley Region population density is 2,313 persons per square mile which is on par with Los Angeles and Orange Counties.

Table 3-1:
County Population by Region

Region	Area (sq. miles)	Population 2016
Valley	**665**	**1,538,716**
North Desert	10,778	451,575
South Desert	8,093	77,078
Mountain	571	50,854
TOTAL	20,107	2,118,223

The Valley Region is organized in the west by the Inland Empire Utilities Agency as the sole municipal treatment and disposal entity with seven contracting agencies. In the east treatment and disposal is segmented with localized contracting. For example, County Service Area Zone BL (Bloomington) contracts with the City of Rialto to process its collected product.

History

The past, present and future of the San Bernardino Valley are inextricably linked to the availability and management of water. Agriculture was the initial mainstay of the Valley's economy. Early settlers nourished their crops by diverting water from the Santa Ana River and its primary tributary, Mill Creek. The Valley's earliest irrigation ditch, the Mill Creek Zanja, was built in 1820 by local Serrano Indians and ultimately stretched 12 miles from what is now Mentone through Redlands to Loma Linda, providing water for the cultivation of fruit, grape vines, pumpkins, squashes and grains. Mormons arrived in the valley in 1851, making camp at the mouth of a canyon of what is now known as Lytle Creek.

Before California became a state, the Mexican government placed settlers in the San Bernardino Valley with a colonizing effort led by Jose del Carmen Lugo in 1839. The Lugos' originally focused on raising livestock, but had only limited success and sold their Rancho San Bernardino to a group of Mormon settlers in 1851, a year after California became a state. The Mormons were in the Valley only six years when they were recalled to Salt Lake City. During this period, San Bernardino County was created in 1853 from parts of Los Angeles and San Diego counties, and the City of San Bernardino was incorporated in 1854.

According to San Bernardino Valley Municipal Water District's 2014 publication, *Delivering the Future: 60 Years of Vision and Innovation*, as more settlers moved into

the Valley, conflicts over water and water rights intensified in the Valley and across Southern California even as real estate developers promoted the region's mild climate and growing citrus industry. Despite these early concerns over water rights, entrepreneurs established citrus, wine grapes and other crops across the Valley, and by the late 1880s, San Bernardino Valley had become a thriving business and farming community. A 20-year drought along with population increases caused local residents and businesses to question the ongoing availability of local water supplies and whether there would be a need to import water. The search for supplemental water supplies was rampant throughout Southern California as a means to fuel the economy, nurture residents, and sustain quality of life.

In the early 1950s, the formation of two new water districts to serve the Valley Region were approved by voters – the Chino Basin Municipal Water District (now the Inland Empire Utilities Agency) and the San Bernardino Valley Municipal Water District – both of which can import supplemental water into their service areas through participation in the State Water Project. Inland Empire Utilities Agency is a current member agency of the Metropolitan Water District of Southern California.

Location and Physical Setting

The Valley Region is generally defined as all the area south and west of the U.S. Forest boundaries. The San Bernardino Range, trending southeast, forms the eastern limit of the Valley, along with the Yucaipa and Crafton Hills. The southern limits of the Valley are marked by alluvial highlands extending south from the San Bernardino and Jurupa Mountains. The Valley Region borders Los Angeles, Orange and Riverside counties. According the *County of San Bernardino General Plan* (2012), the Valley covers only 3.3 percent of the total County land but holds approximately 73 percent of the County's population. The vast majority of land within the Valley Region consists of incorporated cities. The western portion of the Valley includes the Cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga and Upland, and the unincorporated communities of San Antonio Heights and West Fontana. The eastern portion of the Valley includes the Cities of San Bernardino, Colton, Loma Linda, Redlands, Rialto, Highland, Grand Terrace, Yucaipa, and the unincorporated communities of Bloomington, Crafton/Mentone, Muscoy and Oak Glen. Figure 3-1 below shows the general Valley Region overlaid by the wastewater collection and treatment agencies.

Valley Wastewater Agencies

In the Valley Region, there are 19 agencies that provide wastewater services. Of the 19, 18 provide collection and eight provide treatment. Figure 3-1 below shows the boundaries (not service area) of the 19 Valley agencies and their role (collection, treatment, or both). Figure 3-2 shows the same agencies and their spheres of influence, if applicable.

Figure 3-1: Valley Region – Agency Boundary Map

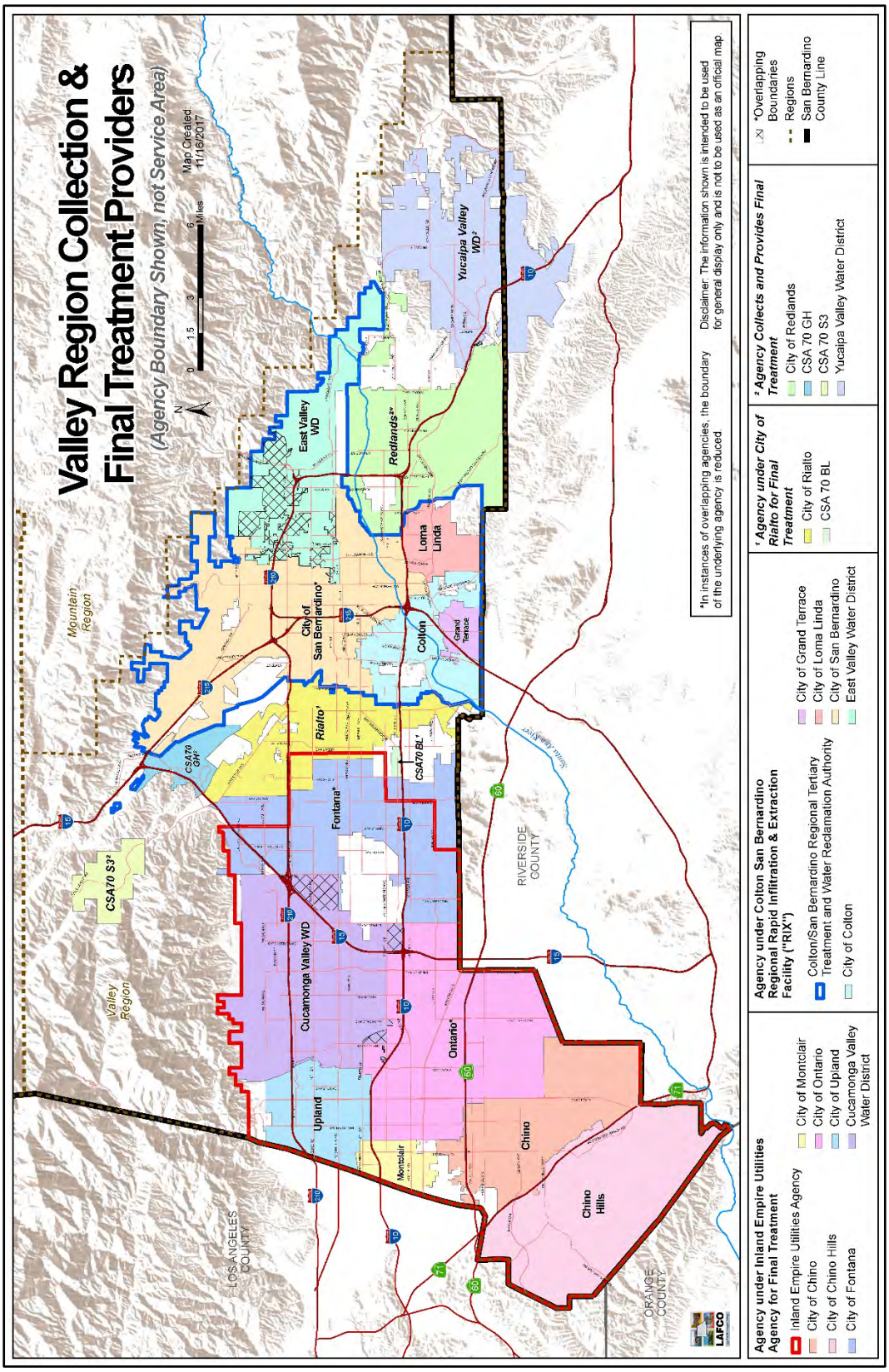
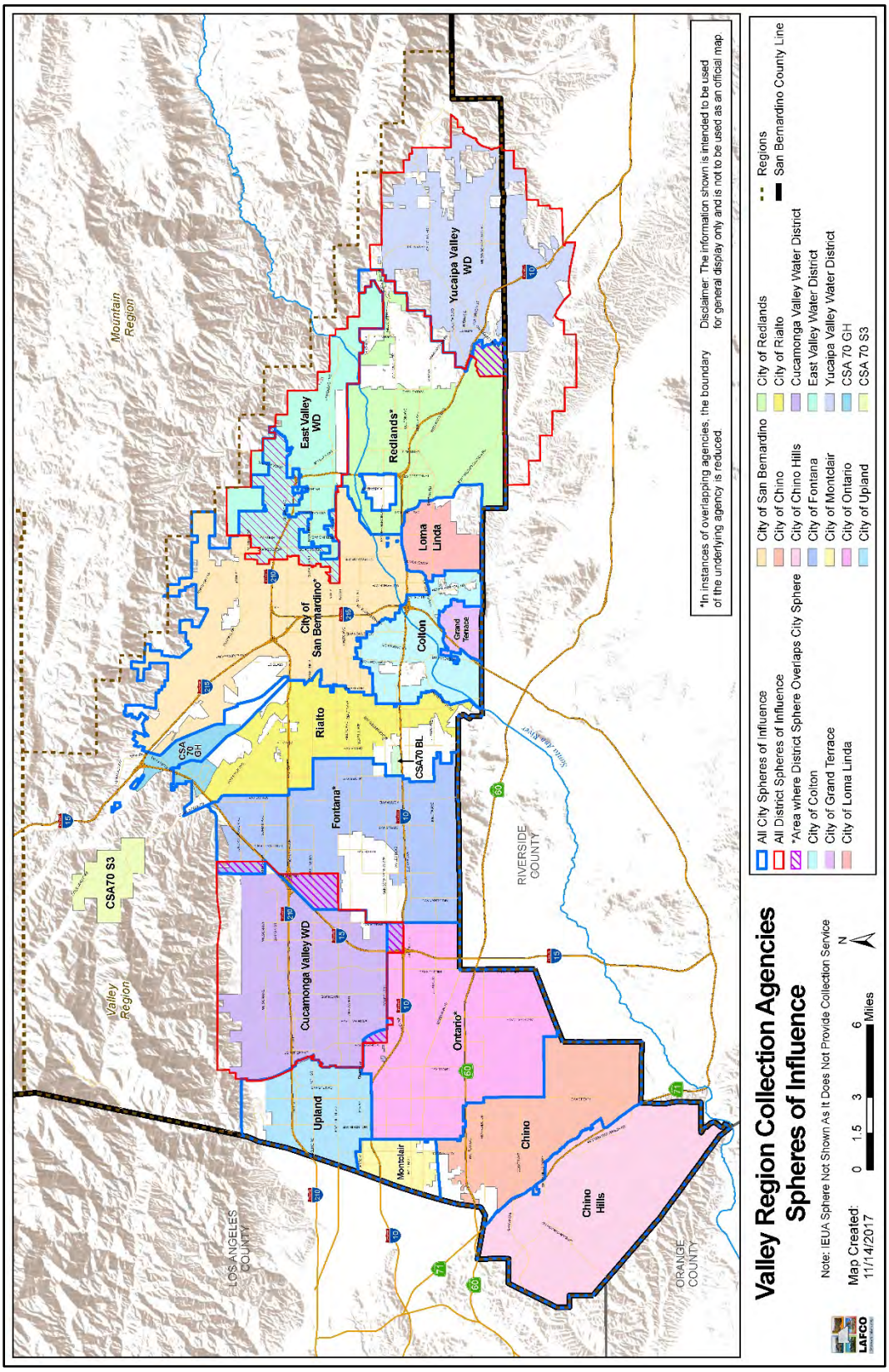


Figure 3-2: Valley Region – Agency Sphere of Influence Map



PRIMER ON SPHERES OF INFLUENCE

Government Code Section 56076 defines a "sphere of influence" as a plan for the probable physical boundaries and service area of a local agency, as determined by the commission.

The purpose of a sphere of influence is to encourage the logical and orderly development and coordination of local government agencies so as to advantageously provide for the present and future needs of the county and its communities. The statement of purpose adopted by San Bernardino LAFCO for spheres of influence include seven points. Those pertinent to this analysis are:

- To promote orderly growth of communities, whether or not services are provided by a city or district (board governed or independently governed);
- To encourage economical use and extension of facilities by assisting governmental agencies in planning the logical and economical extension of governmental facilities and services, thereby avoiding duplication of services;
- To provide assistance to property owners in relating to the proper agency to comprehensively plan for the use of their property;
- To encourage the establishment of urban-type services only within an adopted sphere of influence.

San Bernardino LAFCO has adopted ten polices related to a sphere of influence. Those pertinent to this analysis are:

- RESPONSIBILITY/OBLIGATION FOR A SPHERE OF INFLUENCE AREA

When a sphere of influence is assigned, a city or district is required to commence long range land use and service planning activities, thereby enabling it to respond to any annexation requests it might receive from landowners or residents within the sphere. By accepting a sphere of influence, a city or district agrees to plan for the provision of services.

- URBAN DEVELOPMENT WITHIN A CITY SPHERE

LAFCO takes the position that any new urban development which occurs within a city sphere of influence should take place as close to the city's urban area as possible. This position is emphasized for two reasons: first, so that contiguous areas may easily be annexed to the city; and secondly, so that the new urban area can be served by reasonable extension of the city's already developed municipal services.

PRIMER ON OUT-OF-AGENCY SERVICE

Beginning January 1, 1994 Local Agency Formation Commissions were charged with the responsibility for reviewing and taking action on a city or district contract to extend service outside its jurisdiction under the provisions of Government Code Section 56133. These are unique actions not directly related to the processing of other types of proposals as defined in the Local Government Reorganization Act and these policies and procedures will provide guidance on their processing.

Unlike the normal initiation process for proposals for jurisdictional change, Section 56133 provides that only a city or district may request LAFCO review of an out-of-agency service agreement/contract.

Exemptions

Section 56133(e) provides for six exemptions from written Commission approval to provide new or extended services outside its jurisdictional boundary. Those applicable for this service review are:

- Two or more public agencies where the public service to be provided is an alternative to, or substitute for, public services already being provided by an existing public service provider and where the level of service to be provided is consistent with the level of service contemplated by the existing service provider.

- An extended service that a city/district was providing on or before January 1, 2001.

For a request for exemption pursuant to Section 56133(e), the Commission shall make the determination that the service(s) to be provided is/are exempt from LAFCO review. (Policy and Procedure Manual Section IV, Chapter 2, Policy 5).

Pilot Program

Section 56133.5 (Assembly Bill 402 effective 2016) establishes a pilot program, through 2020, for Napa and San Bernardino LAFCOs to authorize a city or district to extend services outside of a sphere for additional purposes beyond responding to threat to public health or safety, based upon specific criteria. This process requires that the Commission make the following determinations regarding the area to be served outside the agency's sphere of influence, at a noticed public hearing:

- That the proposed service extension was identified and evaluated in a service review;

- That the proposed service extension will not have an adverse impact on open space/agricultural lands and/or is not growth inducing; and,

- That inclusion of the area to be served into the agency's sphere of influence is not feasible or desirable based on adopted commission policies.

B. IDENTIFICATION OF HOT SPOTS

(1) Hotspot Objective and Criteria

The primary objective of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, (2) initiate sphere of influence updates where appropriate, and (3) monitor specific agencies where appropriate. The identification of "hot spots"[1] is used to arrive at these recommendations - those agencies within the county which have significant wastewater issues including, but not limited to:

Wastewater Agencies – identification may include one or more of the following:

- Governance (inadequate oversight and monitoring, financial challenges)
- Collection System (deficiencies, challenges)
- Treatment System (deficiencies, challenges)
- Disposal System (deficiencies, challenges)

Agency Sphere of Influence, outside boundary – factors may include:

- Septic prohibition by State Water Board
- Clusters of onsite wastewater treatment systems
- Septic proximity to groundwater wells or impaired water body
- Located within a disadvantaged community
- DWR groundwater basin priority and basin population growth

To identify the county's wastewater "hot spots", staff utilized a multi-pronged approach. Sources include:

- Local agencies: Agency information reviewed in Appendix B to include audits and budgets, wastewater master plans, water master plans, urban water management plans, integrated regional water management plans, sewer system management plans, and local agency management plans.

- Regional Context: Regional information reviewed in Section IV to include local agency management plans, and septic system locations.

- State Water Board: Violations, orders, resolutions, inspections, and overflow.

- LAFCO: Previous service reviews and findings, LAFCO's geographic information system ("GIS") was also used to identify future population growth areas, disadvantaged unincorporated communities, and septic tank use.

(2) Hot Spots – Wastewater Agencies: Boundary and Sphere of Influence

The criteria listed in Table 3-2, below, were used to identify hot spots. In the Valley Region there are no agencies that warrant a hot spot designation.

[1] In wastewater parlance, "hot spot" is a term to identify distressed areas of a wastewater pipe. For its second round of service reviews, San Bernardino LAFCO uses "hot spot" as an agency that has significant challenges.

Table 3-2: Hot Spot Summary – Valley Region

Key Code	● Yes or High ◑ Portion or Moderate	? Unknown ○ No or Low	CSA = County Service Area WD = Water District											
Agency Boundary and/or Sphere	**Wastewater Agencies**				**Agency Sphere of Influence, beyond boundary**									
	Governance	**Collection System**	**Treatment System**	**Disposal System**	**Septic Prohibition by Water Board**	**Clusters of Septic Systems**	**Septic Proximity to Water Wells**	**Septic Proximity to Impaired Water Body**	**Within Disadvantaged Community**	**DWR Groundwater Basin Priority**	**Basin Population Growth**	**Other Matters Identified by LAFCO**	**Hot Spot, within Boundary**	**Hot Spot, within Sphere**
City of Chino	○	○	--	--	○	●	◑	◑	◔	High	◑	○		
City of Chino Hills	○	○	--	--	○	○	○	●	◔	High	◑	○		
City of Colton	○	○	○	○	○	●	◑	◑	●	High / Med	◑	○		
City of Fontana	○	○	--	--	○	●	●	○	◑	High	◑	○		
City of Grand Terrace	◑	○	--	--	◑	○	○	●	◔	High	◑	○		
City of Loma Linda	○	○	--	--	○	○	○	●	◔	High / Med	◑	○		
City of Montclair	○	○	--	--	○	●	◑	◑	◑	High	◑	○		
City of Ontario	○	○	--	--	○	○	○	○	◑	High	◑	○		
City of Redlands	○	○	○	◑	○	●	◑	◑	◔	High / Med	◑	○		
City of Rialto	◑	○	○	◑	○	●	◑	◑	◑	High / Med	◑	○		
City of San Bernardino	○	○	○	○	○	●	◑	◑	●	High	◑	○		
City of Upland	◑	○	--	--	○	●	◑	◑	◑	High	◑	○		
CSA 70 BL	○	○	--	--	--	--	--	--	--	High	◑	○		
CSA 70 GH	○	○	○	◑	--	--	--	--	--	High	◑	○		
CSA 70 S-3	○	○	○	○	--	--	--	--	--	High	◑	○		
Cucamonga Valley WD	○	○	--	--	○	◑	◑	○	○	High / Med	◑	○		
East Valley WD	○	○	--	--	○	○	○	◑	◑	High	◑	○		
Inland Empire Utilities Agency	○	○	○	○	--	--	--	--	--	High	◑	○		
Yucaipa Valley WD	○	○	○	○	○	○	○	◑	◑	Med	◑	○		

Note: SGMA basin prioritization is undergoing revision and is currently in the draft/public comment stage. The prioritization is expected to be finalized mid-November 2018.

C. IDENTIFICATION OF OPPORTUNITIES

(1) Objective and Criteria for Opportunities

LAFCO Service Reviews

A service review factor requires LAFCO to review governmental structure and operational efficiencies. The State has published advisory guidelines for LAFCOs to address all of the substantive issues required by law for conducting a service review[2]. The Guidelines address 49 factors in identifying an agency's government structure options. Themes among the factors include but are not limited to: more logical service boundaries, elimination of overlapping boundaries that cause service inefficiencies, economies of scale, opportunities to enhance capital improvement plans, and recommendations by a service provider.

In some cases, functional consolidation or integration can reduce costs so that services can be maintained and improved with fewer dollars. A service review should address possible options for the community to consider for the future. Movement towards these scenarios would include, but not be limited to, the requirement to prepare a plan for service, fiscal impact analysis, and any other required studies.

The preamble to the Local Government Reorganization Act states that while the Legislature recognizes the critical role of many limited purpose agencies, especially in rural areas, it finds and declares that a single multipurpose governmental agency accountable for community service needs and financial resources may be the best mechanism for establishing community service priorities.

Little Hoover Commission

The State's Little Hoover Commission[3], like LAFCOs, is a strong proponent of eliminating overlapping, inefficient government agencies. The Commission's website reads that, "While the strengths of special districts include their ability to provide specific, customized services and be responsive to local customers, their challenges include low civic visibility and limited oversight." Historically, the Commission has expressed sentiments such as:

[2] State of California. Governor's Office of Planning and Research. "Local Agency Formation Commission Municipal Service Review Guidelines", August 2003.

[3] The Little Hoover Commission, formally known as the Milton Marks "Little Hoover" Commission on California State Government Organization and Economy, is an independent state oversight agency that was created in 1962. The Commission's mission is to investigate state government operations and – through reports, recommendations and legislative proposals – promote efficiency, economy and improved service. The Commission works to implement its recommendations either through legislation or administrative changes. New hearings are held and progress reports are issued in the years following the initial report until the Commission's recommendations have been enacted or its concerns have been addressed.

- There are far too many special districts in California.
- LAFCOs should act proactively to initiate and/or facilitate district consolidations.
- LAFCOs should follow up on previous service review recommendations and take action when and where it is appropriate.

The Little Hoover Commission recently reviewed California's vast network of local governing agencies known as special districts. A final report, "Special Districts: Improving Oversight & Transparency", was issued in August 2017 and addressed four key topics: (1) opportunities to bolster the effectiveness of Local Agency Formation Commissions; (2) the continued need for districts to improve transparency and public engagement; (3) the evolution of healthcare districts; and, (4) the urgency of climate change adaptation and the role of special districts.

(2) Government Structure Options

LAFCO staff's analysis did not identify any areas in Valley Region where a reorganization of wastewater agencies would increase effectiveness or efficiency.

(3) Opportunities - Areas with Onsite Wastewater Treatment Systems

The focus of this analysis is not to simply show the areas that lack access to a municipal wastewater collection system. The goal is to identify infrastructure needs or deficiencies related to sewers within or contiguous to the sphere of influence, especially those in a disadvantaged unincorporated community (see Govt. Code §56430).

LAFCO staff mapped the developed areas of the Valley Region against the boundary and service areas of the municipal wastewater agencies. The methodology presumes a parcel outside an agency boundary uses a septic system unless it has been identified by LAFCO or the agency as being served. The analysis includes the following criteria: septic prohibition by Water Resources Board, clusters of septics, septic proximity to groundwater wells, and septic proximity to an impaired water body. Additional criteria include if the area is within a disadvantaged community and/or a groundwater basin designated as a high priority by the State. LAFCO staff also considered the groundwater basin's population growth trends.

Given the direction of Gov. Code §56430 and the Commission's policies related to spheres of influence and service reviews, the areas discussed below are identified as areas outside an agency's boundary that would benefit from an organized wastewater collection system.

Opportunities – Chino Sphere of Influence

LAFCO has authorized the City of Chino 27 out-of-agency service contracts (for a total of 92 connections) for wastewater service outside its boundary but within its sphere of influence. In response to this service review, the City has identified that it currently serves 73 parcels outside its boundary but within its sphere. Whereas not

every parcel that has been authorized for connection is currently connected, the out-of-agency service is tied to the parcel in perpetuity, or until annexed. Therefore, the City is obligated to provide sewer service to the remaining 19 parcels should the property landowner request so and meet all requisites.

In 2006, the City adopted Resolution No. 2006-028 which stated that properties within the City's sphere may connect to the City's sewer system by either annexing into the City or, under certain circumstances, obtaining approval of an irrevocable offer to annex. Since adoption of the resolution, several irrevocable offer agreements have been received by the City, but only one annexation has occurred relating to those agreements.

In 2016, recognizing property owners were not pursuing annexation following the City's provision of sewer service to the sphere properties, the City began to no longer approve irrevocable agreements to annex and only approved sewer services to property owners that were willing to go through the annexation process sewer services.[4] However, the City is still obligated to provide sanitary sewer service to any of the 19 parcels in the sphere already authorized by LAFCO, should the property landowner request so and meet any requisites. In February 2018, the City adopted Resolution No. 2018-009 to further clarify its position pertaining to the City's sanitary sewer connection policy. The revised policy states that sphere properties may only connect to the City's sanitary sewer system if (a) the parcel is first annexed into the City, and (b) the parcel is developed in accordance with the City's General Plan provisions applicable to the affected area.

Because adequate access to sewer facilities is a pre-condition for most types of development, this change in policy has resulted in several proposed annexations and land use changes within the sphere over the last two years. The City Council is in the process of obtaining a comprehensive economic analysis of the sphere to assess the potential for future, larger-scale annexations. The analysis will look at several aspects, including costs for services, public improvements, existing land use, and tax revenues. A liability analysis will also be included. This information will help the Chino City Council with both discussions and decisions regarding future annexations of the sphere area. The projected completion of the analysis is January 2019.

If a regional goal is to get properties off septic tanks and onto a municipal collection system, then LAFCO's position is that connection to a municipal collection system is not only preferred, but should be pursued. Therefore, LAFCO supports additional out-of-agency service agreements as this would reduce human created nitrates from entering the groundwater. LAFCO also supports development of a City outreach program to inform those land owners with properties along a connection line that connection to a municipal collection system is a possibility. Consideration should be given to LAFCO supporting the City's efforts to analyze the feasibility of annexing all

[4] City of Chino Agenda Item 8, page 2, from 6 February 2018.

or part of its sphere (including island annexations) or the City's continuance of out-of-agency service agreements in order to connect properties to a municipal collection system.

Additionally, located within the City's boundary is the California Institute for Men ("CIM"), a state-run men's prison. The western portion of the facility is connected to a sewer system, but the eastern portion of the facility has a wastewater discharge permit to treat and dispose of wastewater at its storage ponds and irrigation fields. Consideration should be given to connecting the eastern facility of CIM to the City's collection system, for eventual treatment by IEUA. CIM is roughly one-third of a mile east of the IEUA Carbon Canyon Water Recycling Facility and roughly one-half mile northwest of the IEUA Regional Plant No. 5.

At its Special Meeting of May 8, 2018, the County of San Bernardino gave a presentation on its proposed FY 2018-19 budget programs and issues. As a part of the presentation and materials provided was a line item for a Chino Sewer Survey – to gauge landowner sentiment on forming a county service area or zone to County Service Area 70 as a mechanism to provide wastewater collection.

Opportunities – Montclair Sphere of Influence

The City of Montclair's sphere of influence is located southwest of the City's boundary. The sphere area is densely populated, and a portion of the sphere has been identified as a disadvantaged unincorporated community.

The vast majority of properties utilize septic tanks for treatment. In this area, the City is authorized and obligated to provide service to 555 parcels through 75 out-of-agency service agreements. As a part of this service review, LAFCO staff coordinated with the City to verify the locations of its service outside of the City boundary. The mapping shows that City service is interspersed throughout the sphere. There are many parcels located along a sewer line that are not connected. As a result, the sewer lines are not being utilized to the full extent. It may be that parcels have well-functioning septic tanks and do not desire to connect at this time. It may be that property owners are unaware that connection is a possibility.

If a regional goal is to get properties off septic tanks and onto a municipal collection system, then LAFCO's position is that connection to a municipal collection system is not only preferred, but should be pursued. Therefore, LAFCO supports additional out-of-agency service agreements as this would reduce human created nitrates from entering the groundwater. LAFCO also supports development of a City outreach program to inform those land owners with properties along a connection line that connection to a municipal collection system is a possibility.

Further, consideration should be given to the City studying the feasibility of annexing all or part of its sphere of influence in order to connect properties to a municipal collection system.

Opportunities – Bloomington

The overall unincorporated Bloomington community totals approximately four square miles, and the area is classified as a disadvantaged community. A small portion north of I-10 is provided collection from CSA 70 Zone BL with treatment contracted with the City of Rialto. According to the Draft Bloomington Community Plan, it is characterized as a rural lifestyle, large lots, limited commercial development, and the prevalence of agricultural and animal raising. Even with these characteristics, the community in 2016 had approximate households and population of 3,900 and 17,600, respectively. This service review in the population portion of Section IV identifies the community as an area anticipated for high growth by 2040.

According to the Draft Bloomington Community Plan, the Sewer Goal for Bloomington is to, "Facilitate the provision of sewer infrastructure and sewage treatment capacity to accommodate additional residential and business development in areas of Bloomington planned for more intense development." The proposed actions identified in the Draft Plan are:

1. *Evaluate potential sewer infrastructure needs.* The County Community Development and Housing Agency will present the results of a sewer assessment at a Bloomington Municipal Advisory Committee meeting.

2. *Develop community consensus and strategy.* The County Community Development and Housing Agency will facilitate a community workshop on ways to fund sewer improvements in Bloomington, including likely costs for property owners. The purpose of the workshop is to generate community consensus on a preferred funding mechanism and identify next steps.

One possibility is for the City of Rialto to provide service to the Bloomington community, as most of the unincorporated area is within the Rialto sphere of influence, with the City of Fontana sphere overlaid in the northwest. The City responded to the Draft Service Review (letter included as a part of Attachment A) and identifies that it could be a potential wastewater collection service provider for the Bloomington area. The City already operates in the area; being so it is in a nearby position to serve the community as its wastewater treatment plant is a few miles away. The plant is currently undergoing a $31 million expansion in order to meet the City's needs for the next 30 years. Additionally, the City's 2013 master plan examined services for this area, and the planned update to the master plan will review potential Bloomington service to include capacity and estimated cost.

Another possibility that LAFCO staff presents is for the West Valley Water District to provide wastewater collection with treatment provided by contract with the City of Rialto. The District is currently authorized the Sewer function with a service description of Collection. Therefore, the District could become the responsible entity to provide wastewater collection to the Bloomington community. This possibility would not require a formation, consolidation, expansion of boundaries, sphere of influence amendment, or activation of latent power. The District responded to the Draft Service Review (letter included as a part of Attachment A) and identifies that it could be a potential wastewater collection service provider for the Bloomington area.

Opportunities – San Bernardino Sphere of Influence

The City of San Bernardino has unincorporated islands located within its sphere of influence, portions of which are classified as disadvantaged unincorporated communities. In some cases, sewer lines are located adjacent to many of the islands providing an opportunity for future sewer connection upon annexation by the City.

The vast majority of properties are served by OWTS; however, the City is authorized and obligated to provide service to 16 parcels through 14 out-of-agency service agreements. As a part of this service review, LAFCO staff coordinated with the City to verify the locations of its service outside of the City boundary. The mapping shows that City service is interspersed throughout the sphere. There are many parcels located along a sewer line that are not connected. As a result, the sewer lines are not being utilized to the full extent. It may be that parcels have well-functioning septic tanks and do not desire to connect at this time. It may be that property owners are unaware that connection is a possibility.

If a regional goal is to get properties off septic tanks and onto a municipal collection system, then LAFCO's position is that connection to a municipal collection system is not only preferred, but should be pursued. However, a stipulated agreement settling the San Bernardino Islands case precludes the City from initiating an island annexation until such time as the law regarding waiving the protest process is changed. Therefore, LAFCO supports additional out-of-agency service agreements as this would reduce human created nitrates from entering the groundwater. LAFCO also supports development of a City outreach program to inform those land owners with properties along a collection line that connection to a municipal collection system is a possibility.

Opportunities – Redlands Sphere of Influence, Mentone

The Mentone community is located within the City of Redlands' sphere of influence. The community consists primarily of single- and multi-family residential uses that range in density from one dwelling unit per five acres to 20 units per acre. Small commercial uses are concentrated along Mentone Blvd, consisting of one-story buildings. Sewer service is primarily provided by septic tanks and leach field systems, with no reginal wastewater treatment.

However, the City is authorized and obligated to provide service to 474 parcels through out-of-agency service agreements or service prior to the time when LAFCO authorization is required. As a part of this service review, LAFCO staff attempted to coordinate with the City to verify the locations of its service outside of the City boundary. LAFCO's mapping shows many parcels located along a sewer line that are not connected. As a result, the sewer lines are not being utilized to the full extent. It may be that parcels have well-functioning septic tanks and do not desire to

connect at this time. It may be that property owners are unaware that connection is a possibility.

If a regional goal is to get properties off septic tanks and onto a municipal collection system, then LAFCO's position is that connection to a municipal collection system is not only preferred, but should be pursued. However, there are many constraints to connecting the entire Mentone community. A growth management initiative referred to as Measure U was passed by City voters in 1997. Among the items outlined in Measure U, the City has a total of 550 residential units available for development each calendar year (150 units within the sphere of influence and 400 units within the City). If the proposed service connection is adjacent to the City limits, then annexation is the sole method of obtaining service.

For utility connections for residential development outside of the City limits, the City adopted Ordinance 2080 in July 2015 setting forth requirements:

- The owner of the property to be served enters into a pre-annexation agreement with the City, which requires the owner to irrevocably consent to annexation proceedings.
- Payment to the City of an amount equivalent to all capital improvement and other development fees which would be applicable to the property if it were within city limits.
- The pre-annexation agreement shall provide, among other things, that in the event the property is not annexed to the City in accordance with the terms of the agreement, the owner of the property shall pay each year to the city, as liquidated damages, a sum equal to the property taxes and any sales taxes the City would have received had the property been annexed.
- The pre-annexation agreement shall further provide that the failure to make such liquidated damages payments shall be cause for the City to cease water and/or sewer service to the project.

Therefore, LAFCO supports additional out-of-agency service agreements as this would reduce human created nitrates from entering the groundwater. LAFCO also supports development of a City outreach program to inform those land owners with properties along a connection line that connection to a municipal collection system is a possibility.

D. STAFF RECOMMENDATIONS

As previously stated, the primary objective of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, (2) initiate sphere of influence updates where appropriate, and (3) monitor specific agencies where appropriate.

(1) Agencies under LAFCO Purview: Service Review Determinations

The following are the Valley Region agencies that are under LAFCO purview for a service review:

- City of Chino
- City of Chino Hills
- City of Colton
- City of Fontana
- City of Grand Terrace
- City of Loma Linda
- City of Montclair
- City of Ontario
- City of Redlands
- City of Rialto
- City of San Bernardino
- City of Upland
- County Service Area 70 Zone BL (Bloomington)
- County Service Area 70 Zone GH (Glen Helen)
- County Service Area 70 Zone S-3 (Lytle Creek)
- Cucamonga Valley Water District
- East Valley Water District
- Inland Empire Utilities Agency
- Yucaipa Valley Water District

Based upon new information received since the previous service review, staff recommends that the Commission update the previous service review determinations for the agencies listed above to include:

a. *Population, disadvantaged unincorporated communities, and regional information from Section IV.*
b. *Agency information from Appendix B.*

(2) Initiation of Sphere of Influence Updates and (3) Continued Monitoring

In the Valley Region, there are no wastewater collection or treatment agencies identified as hot spots. Therefore, there are no recommendations for Commission direction to monitor an agency.

(4) Inland Empire Utilities Agency – Clarification of Services

During the first round of service reviews and sphere of influence updates for the Valley Region in 2002, as required when updating a sphere of influence for a special district, the commission shall establish the nature, location, and extent of any functions or classes of services provided by existing special districts (Gov. Code Section 56425(i). For the Inland Empire Utilities Agency's ("IEUA") first round service review (LAFCO 2891), LAFCO staff consulted with IEUA staff as to its functions and classes of services at that time, and both parties agreed that the IEUA functions and classes of services warranted revision. In July 2002, LAFCO Resolution No. 2739 for LAFCO 2891 identified that the IEUA functions and services be: wholesale (supplemental) water service, sewage treatment, co-composting, non-reclaimable wastewater disposal, and energy recovery and production.

Inadvertently, LAFCO staff in 2002 did not update the LAFCO Policy and Procedure Manual to recognize the revisions outlined in Resolution No. 2739. Therefore, the LAFCO Policy and Procedure Manual since 2002 has incorrectly reflected the following functions and services for IEUA:

Water	Wholesale, reclamation, wastewater collection, planning, replenishment
Sewer	Regional treatment, collection
Total Basin Management	Planning for Chino hydrological basin

LAFCO staff recommends, as a part of this service review, that the LAFCO Policy and Procedure Manual, reflect the most recent update to IEUA's functions and services – that from LAFCO Resolution No. 2739 for LAFCO 2891, as shown below:

Water	Wholesale (supplemental) water service
Sewer	Sewage treatment, co-composting, non-reclaimable wastewater disposal
Energy	Energy recovery and production

On a separate matter, subsequent to LAFCO Resolution No. 2739, IEUA began providing wastewater collection, albeit on a limited scale. As identified by Resolution No. 2739, "Wastewater collection" is not an authorized service for IEUA. This service review (LAFCO 3190) can review this matter, but it is not the vehicle for an amendment because changes to a special district's authorized functions and services can only be initiated through a sphere of influence update/amendment or an application to activate a service. When, and if, such an application is received by LAFCO, the IEUA wastewater collection matter can be addressed, and this service review could serve as a background document.

Recommendation

LAFCO staff recommends, as a part of this service review, that the LAFCO Policy and Procedure Manual, Section VI (Special Districts), Chapter 3 (Listing of Special Districts within San Bernardino County LAFCO Purview – Authorized Functions and Services) reflect the most recent update to IEUA's functions and services – that from LAFCO Resolution No. 2739 for LAFCO 2891, as shown below:

Water	*Wholesale (supplemental) water service*
Sewer	*Sewage treatment, co-composting, non-reclaimable wastewater disposal*
Energy	*Energy recovery and production*

(5) Inland Empire Utilities Agency – Recognition of Service outside Boundary

Per the Section 12 of the Chino Basin Regional Sewage Service Contract (as amended October 1994), if an IEUA contracting agency was furnishing sewer service to territory outside the boundaries of IEUA and its Improvement District C, it may continue to furnish such service and shall be entitled to the services and facilities of the Regional Sewerage System for that purpose. If the contracting agency desires to furnish sewer service outside of the IEUA and Improvement District C boundaries after 1994, IEUA authorization is required first. In either case, the contracting agency shall pay IEUA special capital outlay charges.

In January 1997, IEUA approved the City of Fontana's application for extra-territorial sewer service for all areas within the City of Fontana sphere of influence. These are areas that discharge to the City of Fontana sewer system which ultimately goes to IEUA. According to IEUA, it receives influent from 32 commercial and 520 residential connections outside of its boundary. For commercial, this equates to 288 EDUs for a total use of 131,593 gallons per day ("gpd"). As for residential connections, this equates to 1,031 EDUs with an average use of 270 gpd. The extraterritorial areas of IEUA are shown in Figure 3-3 below in yellow color.

Service Provided Prior to 2001

The parcels connected on or before January 1, 2001 are exempt from LAFCO review pursuant to Gov. Code §56133(e)(4). For a request for exemption pursuant to Section 56133(e), the Commission shall make the determination that the service(s) to be provided is/are exempt from LAFCO review. (Policy and Procedure Manual Section IV, Chapter 2, Policy 5). This service review is the mechanism for such a determination.

Service Provided After 2001

Parcels have been provided service by IEUA within the identified area after January 1, 2001 but have not been submitted to LAFCO for review and approval. However,

these parcels are grandfathered as a result of the 1995 settlement agreement between IEUA and the City of Fontana which outlines an agreement for services to be rendered by IEUA.

Connecting the Remaining Area

For connecting the remaining area, these are subject to LAFCO authorization pursuant to Gov. Code §56133.5. Government Code §56133.5 (Assembly Bill 402 effective 2016) establishes a pilot program, through 2020, for Napa and San Bernardino LAFCOs to authorize a city or district to extend services outside of a sphere of influence for additional purposes beyond responding to threat to public health or safety, based upon specific criteria. This process requires that the Commission make the following determinations regarding the area to be served outside the agency's sphere of influence, at a noticed public hearing:

1. That the proposed service extension was identified and evaluated in a service review;
2. That the proposed service extension will not have an adverse impact on open space/agricultural lands and/or is not growth inducing; and,
3. That inclusion of the area to be served into the agency's sphere of influence is not feasible or desirable based on adopted commission policies.

Particular to Item 1 above, this service review identifies the area for any future service extensions, as outlined above and shown in the map below. To evaluate the proposed service extension, LAFCO staff has reviewed all prior service reviews involving IEUA and the area identified. Further, Section IV and Appendix C of this service review provide service review information, on a regional basis, which includes the proposed service extension area.

Recommendation

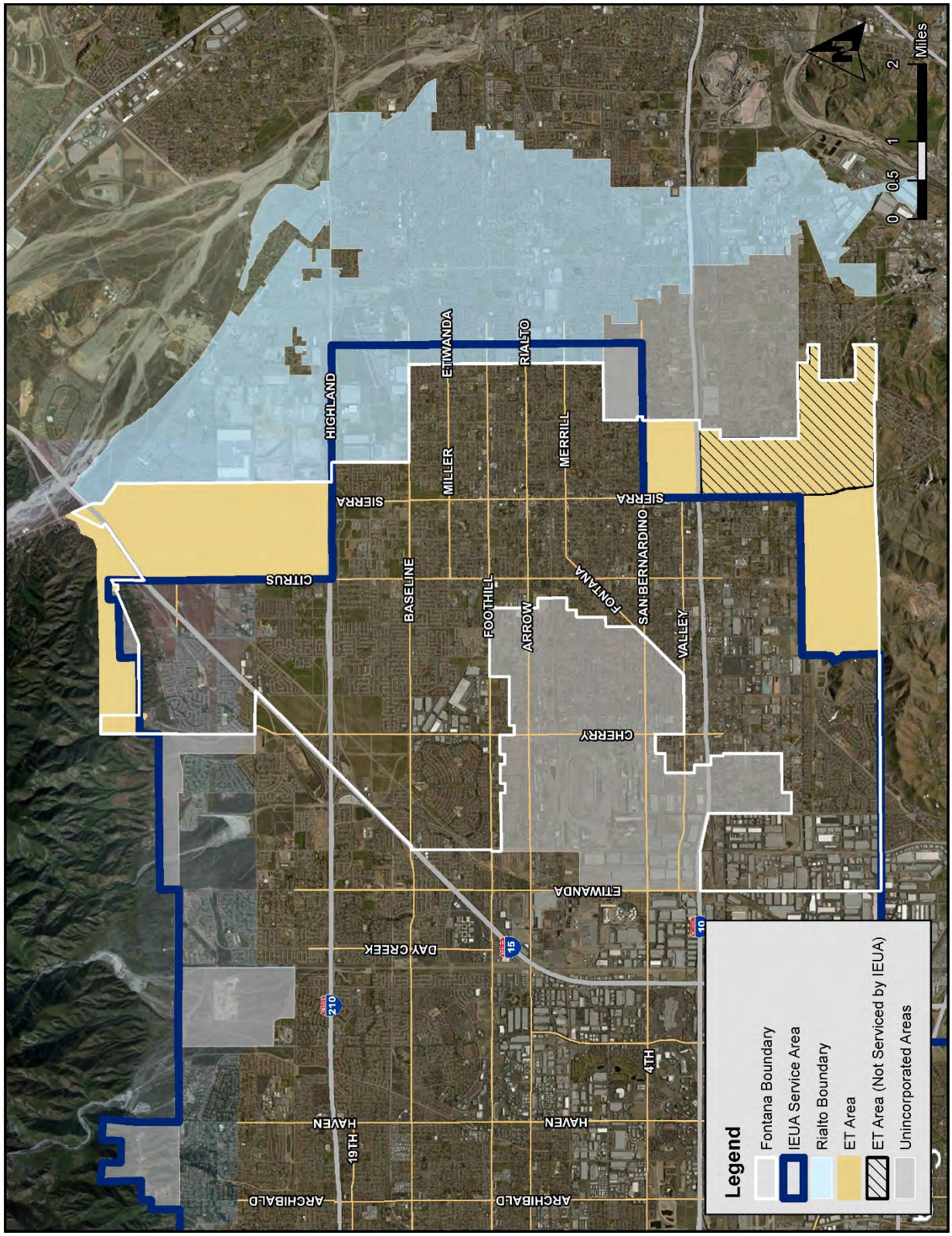
LAFCO staff recommends that the Commission determine the following for the Inland Empire Utilities Agency's service outside its boundary, as shown in Figure 3-3 in yellow color:

- *Parcels connected on or before January 1, 2001 are exempt from LAFCO review pursuant to Gov. Code §56133(e)(4).*

- *Parcels connected after January 1, 2001 to June 20, 2018 are grandfathered as a result of the 1995 settlement agreement between IEUA and the City of Fontana which outlines an agreement for services to be rendered by IEUA.*

- *Connecting the remaining unserved area will come under the provisions of Gov. Code §56133.5, which can be considered by the Commission through a blanket authorization for the entire area.*

Figure 3-3: Inland Empire Utilities Agency Extra-Territorial Service



source: IEUA

(6) City of San Bernardino – Recognition of Service outside Boundary

The City of San Bernardino operates its water and wastewater services through its Municipal Water Department. Prior to May 2017, the wastewater collection services were operated by the City's Public Works Department, and wastewater treatment and disposal were the responsibility of the Municipal Water Department. Effective May 2017, the responsibility for operating and maintaining the sewer collection system within the Water Department's service area formally transferred from the City's Public Works Department to the Water Department. Since that time, the Water Department has been heavily engaged in updating its geographic information systems database and the City's 2002 Sewer Master Plan.

Following the issuance of the Draft Service Review, the Water Department has provided the following information as to its service outside of its boundary. That information below along with LAFCO staff's analysis and recommendation.

Service Provided Prior to 2001

Four parcels were provided service in 1999 or 2000 but have not been submitted to LAFCO for review and approval. These are Assessor Parcel Numbers: 0267-23-113; 0133-23-101; 0268-16-312; and 0268-22-1188.

Gov. Code Section 56133(e) provides for an exemption from Commission approval to provide new or extended services outside its jurisdictional boundary where a city/district was providing service on or before January 1, 2001. For a request for exemption pursuant to Section 56133(e), the Commission shall make the determination that the service(s) to be provided is/are exempt from LAFCO review. (Policy and Procedure Manual Section IV, Chapter 2, Policy 5).

Recommendation

LAFCO staff recommends that the Commission determine that the parcels identified above were provided service on or before January 1, 2001 and are exempt from LAFCO review.

Service Provided After 2001 or Undetermined

Five parcels were provided service between 2006 and 2017 but have not been submitted to LAFCO for review and approval. These are Assessor Parcel Numbers: 0268-03-111; 0164-20-249; 0268-37-129; 0268-21-122; and 0265-27-204.

As for the parcels identified above, these parcels were connected to the City wastewater system after January 1, 2001 and are therefore not exempt from LAFCO review. However, the service is actively provided and with hard infrastructure and disconnection is not an option. Nonetheless, the City lacks

proper authorization to provide service to these parcels located outside its boundary.

Recommendation

LAFCO staff recommends that the Commission request the City of San Bernardino initiate an Out-of-Agency Service application to LAFCO to encompass all of the parcels identified above.

One parcel (0266-01-113) is provided service by the Water Department but the Department is unable to determine the connection date. Should it be determined that service was provided after January 1, 2001, then the City's Out-of-Agency Service application to LAFCO would include this parcel.

(7) City of Upland – Recognition of 1982 Service Agreement

A portion within the City of Upland called the "Claremont Service Area" cannot be served due to unavailability of the City's sewer mains. Instead, it is served by an inter-agency service agreement with the City of Claremont and the Los Angeles County Sanitation District. The agreement was approved in 1982 and expires in 2032. This tributary area flows into the Claremont sewer system for conveyance to the Los Angeles County Sanitation District treatment facilities. The Claremont service area comprises two sub-areas. The first is in the northeast corner of Monte Vista Ave. and Foothill Blvd., where 17 commercial and office buildings are situated. The second is primarily residential houses situated east of the county line, north of Huntington Drive, south of Arrow Route, and west of the College Park Development (bordering Monte Vista Ave. which is west of the San Antonio Channel).

Additionally, the City of Upland and City of Claremont entered into an agreement in December 2016 whereby the City of Upland would provide wastewater collection services within the City of Claremont to the area generally known as Sycamore Hills/ Bravepark/Parkview Specific Plan. The reason for the agreement is that it is more feasible for Upland to serve the area. As for wastewater treatment and disposal, the agreement identifies that the collected product will be delivered to the Inland Empire Utilities' treatment plant(s) via the City of Upland, as well the mechanism for cost recovery. The affected LAFCO for this matter is Los Angeles since determinations on the agreement relate to the area which the service will be delivered. LAFCO staff recommends that the City of Upland notify Los Angeles LAFCO of the December 2016 agreement.

Recommendation

LAFCO staff recommends that the Commission determine that the City of Upland 1982 agreement with the City of Claremont and Los Angeles County Sanitation District is exempt from LAFCO review as it is:

- *Service between two public agencies where the public service provided is an alternative to, or substitute for, public services already being provided by an existing public service provider (the City of Upland) and where the service provided is consistent with the level of service of the existing service provider (the City of Upland). (Gov. Code §56133(e)(1)*

- *An extended service that was provided on or before January 1, 2001. (Gov. Code §56133(e)(4)*

LAFCO staff recommends that the City of Upland notify Los Angeles LAFCO of the December 2016 agreement with the City of Claremont.

(8) City of Rialto – Recognition of Service outside Boundary

Prior to this service review, in correspondence with the City of Rialto, three properties have been identified as being served by the City of Rialto outside its boundary. These properties are identified as: 18777 Bloomington Avenue (existing storage facility), 18790 Valley Boulevard (existing multi-unit facility), and 18772 Valley Boulevard (existing Taco Bell).

Since 1991, through the Rialto/Fontana Extraterritorial Wastewater Service Agreement, the City of Rialto provides sewer treatment services to businesses and residents in the southeastern area of Fontana's jurisdiction. The sewer service area is within Fontana's city limits and the wastewater is conveyed to Rialto's treatment plant located within Rialto. The sewer collection system located in the southeast area of Fontana is owned and operated by the City of Fontana, up to the point of connection at the city boundaries between Fontana and Rialto. Fontana is responsible for billing residents and businesses and collecting monthly sewer service fees, which is roughly twice that of the City of Fontana rate. Fontana pays Rialto monthly sewer service fees per the agreement.

Additionally, by letter dated May 8, 2017 from LAFCO to the City, eight other extraterritorial agreements were identified as being approved by the City without LAFCO approval. This service review cannot be the mechanism to bring these out-of-agency services into compliance since they do not qualify for an exemption. A copy of this letter was provided to the City on three occasions during this service review.

Recommendation

LAFCO staff recommends that the Commission:

- *Determine that the three parcels identified above provided service by the City of Rialto are exempt from LAFCO review as they are an extended service that was provided on or before January 1, 2001. (Gov. Code §56133(e)(4).*

- *Determine that the 1991 Rialto/Fontana Extraterritorial Wastewater Service Agreement is exempt from LAFCO review as it is:*

  - *Service between two public agencies where the public service provided is an alternative to, or substitute for, public services already being provided by an existing public service provider (the City of Rialto) and where the service provided is consistent with the level of service of the existing service provider (the City of Rialto). (Gov. Code §56133(e)(1).*

  - *An extended service that was provided on or before January 1, 2001. (Gov. Code §56133(e)(4).*

- *Request the City of Rialto to initiate an Out-of-Agency Service application to LAFCO to encompass all of the City's other extraterritorial service agreements that have not been authorized by LAFCO to date.*

SECTION IV
Valley Service Review Update
Regional Update

OVERVIEW

As stated in the Introduction to this report, the focus and primary goal of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, and (2) initiate sphere of influence updates where appropriate, and (3) continue monitoring where appropriate. In order to fulfill the service review requirements of Government Code §56430, a review of the items, listed below, are included in this Appendix as they pertain to the Valley Region.

A. Population, Location and Physical Setting
B. Disadvantaged Communities
   (1) Primer
   (2) Disadvantaged Unincorporated Communities
   (3) Disadvantaged Communities
C. Overview of Wastewater Services
   (1) Treatment Organization
   (2) Primer on Inland Empire Brine Line (SARI)
   (3) Age of Pipelines
   (4) Contracting for Operations and Maintenance
   (5) Agricultural Land and Use
D. Onsite Wastewater Treatment Systems
   (1) Regional Board Overview
   (2) Prohibitions and Exceptions
   (3) County of San Bernardino LAMP
   (4) City of Rancho Cucamonga LAMP
   (5) City of Yucaipa LAMP

A service review update specific to each agency and its service area is included in Appendix B, which includes an agency profile, service area map (not necessarily boundary), and narrative of the agency wastewater system.

A detailed listing of treatment systems and municipal collection agencies is included as a part of Appendix F.

A. POPULATION, LOCATION AND PHYSICAL SETTING

As previously indicated in this report, the Valley Region is generally divided between the Inland Empire Utilities Agency service area (generally the West Valley) and the areas to the east of IEUA (generally the East Valley). Table 4-1 below is taken from the *Countywide Service Review for Water* (LAFCO 3187), which includes population projections for IEUA, San Bernardino Valley Municipal Water District (generally the East Valley), and the entire Valley Region through 2040.

Table 4-1:
Population Estimates – Valley Region

Agency	2015	2020	2025	2030	2035	2040
West Valley (IEUA)	856,168	896,533	955,569	1,009,349	1,067,946	1,125,203
East Valley (Valley District)	690,758	721,223	757,015	794,584	834,017	875,407
Other Areas	27,996	29,278	30,994	32,647	34,421	36,207
Valley Region Total	**1,518,930**	**1,564,409**	**1,743,578**	**1,836,580**	**1,936,384**	**2,036,817**

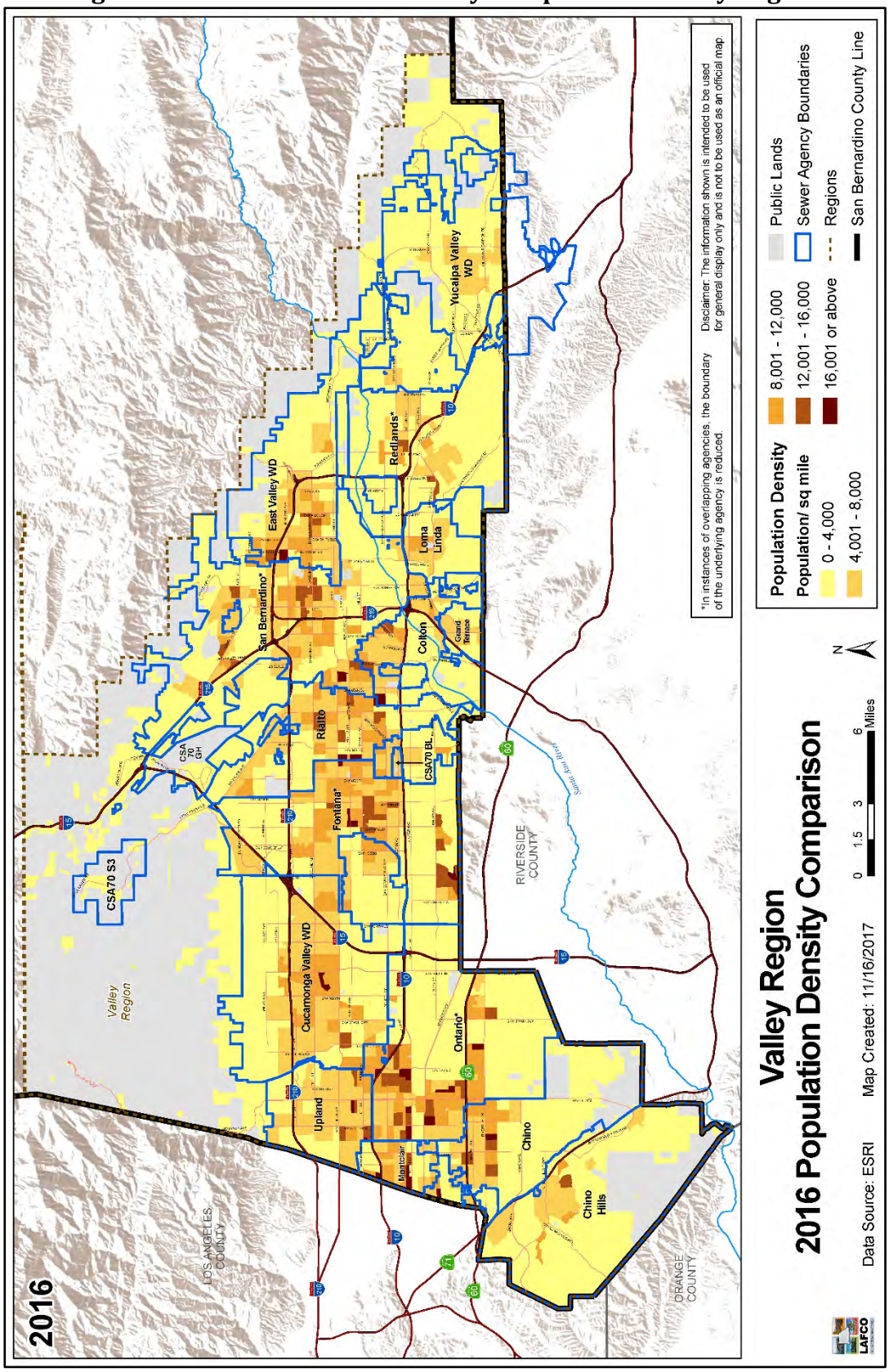
Sources: 2015 IEUA Urban Water Management Plan; 2015 San Bernardino Valley Regional Urban Water Management Plan; ESRI estimates for 2015 and 2020

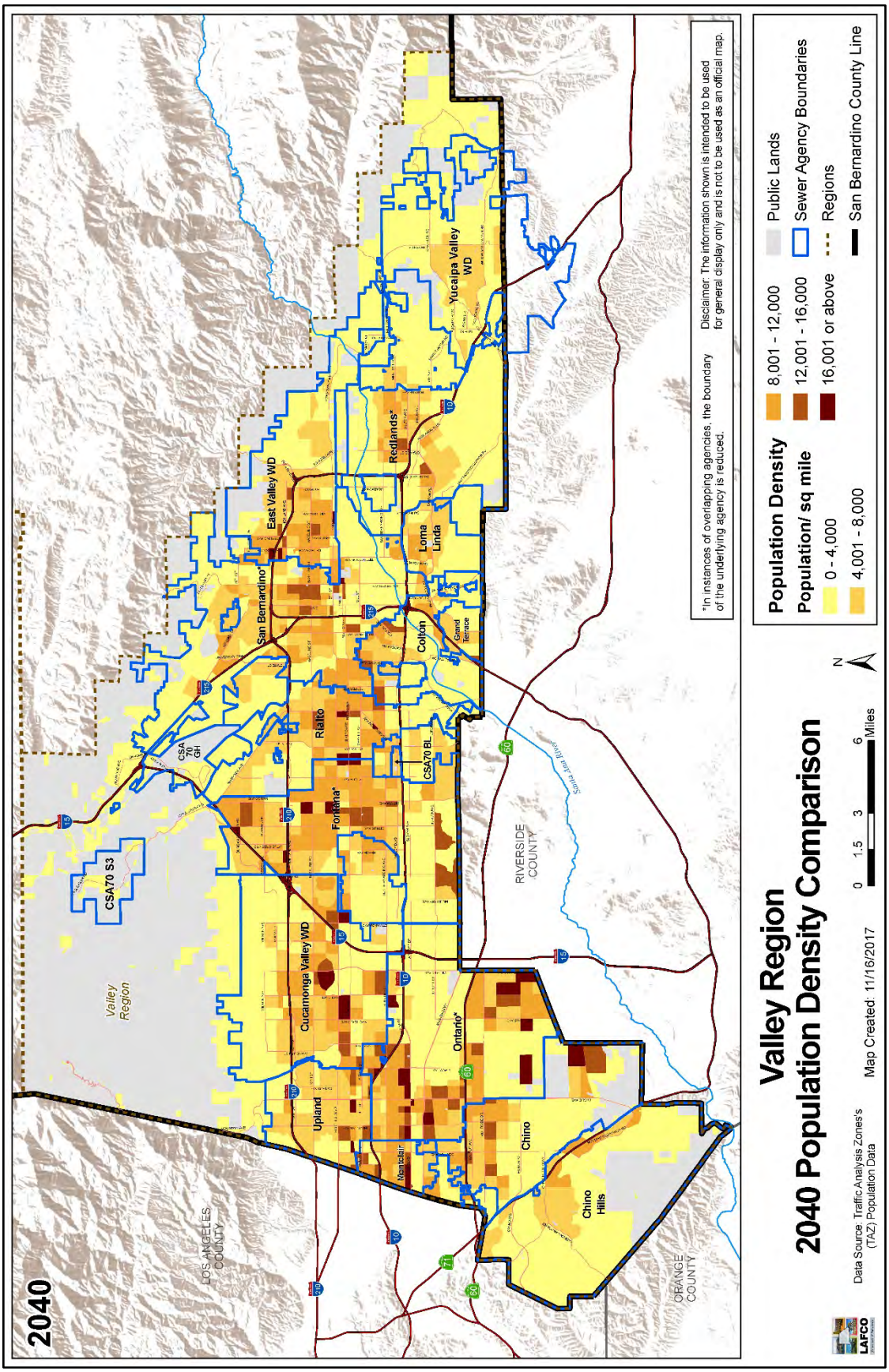
San Bernardino County and the broader Inland Empire region are anticipated to see more population growth in the near term than the coastal regions of Southern California. The high cost of housing in the coastal counties of Los Angeles, Orange and San Diego has made the Inland Empire a destination of choice for many residents willing to commute to those areas. Overall, population for the Valley Region is expected to grow by 34 percent by 2040, which equates to an annual growth rate of 1.2 percent.

Figure 4-1 below, compares population density between 2016 and 2040[1]. As the figure illustrates, over the next 24 years, the Valley Region will see pockets of increased population density across the Region. Most notably, sizeable density increases are projected for the areas served by the following agencies: the Cities of Chino, Chino Hills, Fontana, Montclair, Ontario, and Rialto; Cucamonga Valley Water District; and Yucaipa Valley Water District.

[1] The data sources are 2010 Census and transportation analysis zones from SCAG's 2040 Regional Transportation Plan. For this map, public lands are in the name of: United States of America, Government Land, State of California, and County of San Bernardino, as identified by the County Assessor.

Figure 4-1: 2016 and 2040 Density Comparison - Valley Region




2040
Valley Region
2040 Population Density Comparison
Data Source: Traffic Analysis Zones's (TAZ) Population Data
Map Created: 11/16/2017
0 1.5 3 6 Miles
N
Population Density
Population/ sq mile
0 - 4,000
4,001 - 8,000
8,001 - 12,000
12,001 - 16,000
16,001 or above
Public Lands
Sewer Agency Boundaries
Regions
San Bernardino County Line
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
Valley Region
LOS ANGELES COUNTY
RIVERSIDE COUNTY
ORANGE COUNTY
Santa Ana River
CSA70 S3
CSA 70 GH
CSA70 BL
East Valley WD
San Bernardino*
Rialto
Fontana*
Cucamonga Valley WD
Upland
Montclair
Ontario*
Chino
Chino Hills
Colton
Loma Linda
Redlands*
Grand Terrace
Yucaipa Valley WD

B. DISADVANTAGED COMMUNITIES

Primer on Disadvantaged Communities – DUCs, DACs & More

Disadvantaged Communities
The State of California adopted a definition of disadvantaged community (or "DAC") through passage of Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002. This measure added §79505.5(a) to the California Water Code and defines a disadvantaged community as a *"community with an annual median household income that is less than 80 percent of the statewide annual median household income."* For 2016, 80% of the statewide median household income is $50,043.[2] State law requires various entities (i.e. LAFCO, cities and counties, and water agencies) to, in some manner, identify disadvantaged communities which can be located in both incorporated and unincorporated areas.

Disadvantaged Unincorporated Communities
Particular to LAFCOs, the state mandate is to identify the location and characteristics of disadvantaged unincorporated communities (or "DUCs"). Gov. Code §56375 specifically prohibits an annexation to a city of any territory greater than 10 acres where there exists a disadvantaged unincorporated community that is contiguous to the area of proposed annexation unless an application to annex the entire disadvantaged unincorporated community has also been filed.

Gov. Code §56033.5 defines DUCs as "...*inhabited territory [12 or more registered voters]...or as determined by Commission policy, that constitutes all or a portion of a "disadvantaged community"...* with less than 80% of the median household income.

Need for Consistency
The DAC definition, as defined in Water Code §79505.5(a), differs from the definition of a DUC in two important ways: (1) a DUC must be inhabited, and (2) DUCs comprise unincorporated territory only, not territory within cities. For purposes of further defining a DUC, San Bernardino LAFCO policy defines a community as an *inhabited area comprising no less than 10 dwelling units adjacent or in close proximity to one another.*

Alternatively, Gov. Code §65302.10 (General Plans) identifies a DUC as being 80% or less than the median household income. This is in contrast to Water Code §79505.5 and Gov. Code §56033.5 which reads less than 80%.

Other State agencies, such as the California EPA, use alternative criteria to identify disadvantaged communities for grant funding purposes. The different criteria used to identify disadvantaged communities at the local and state government levels is confusing and complicates implementation of a consistent approach to addressing our disadvantaged residents. While staff recognizes the difficulty in developing a one-size-fits-all definition, LAFCO staff's position is that additional work needs to be done State-wide to develop a method for identifying disadvantaged communities that is more consistent yet recognizes the diversity of communities and geographies in California.

[2] Environmental Systems Research Institute (ESRI)

Disadvantaged Unincorporated Communities (DUCs)

For LAFCOs, the state requires that service reviews identify and describe the characteristics of disadvantaged communities of *unincorporated* areas only (commonly referred to as "DUCs"). For the purposes of defining a DUC, San Bernardino LAFCO policy defines a community as an inhabited area comprising no less than 10 dwellings adjacent or in close proximity to one another. Uninhabited areas include vacant or government lands. Based upon the criteria identified, the table below identifies those areas that meet the criteria of a DUC.[3]

The DUCs identified in the mapping show that the major unincorporated areas in the Valley region meet the criteria of a DUC: South Montclair, West Fontana, Bloomington, Muscoy, Mentone, and San Bernardino. Characteristics of these areas are as follows:

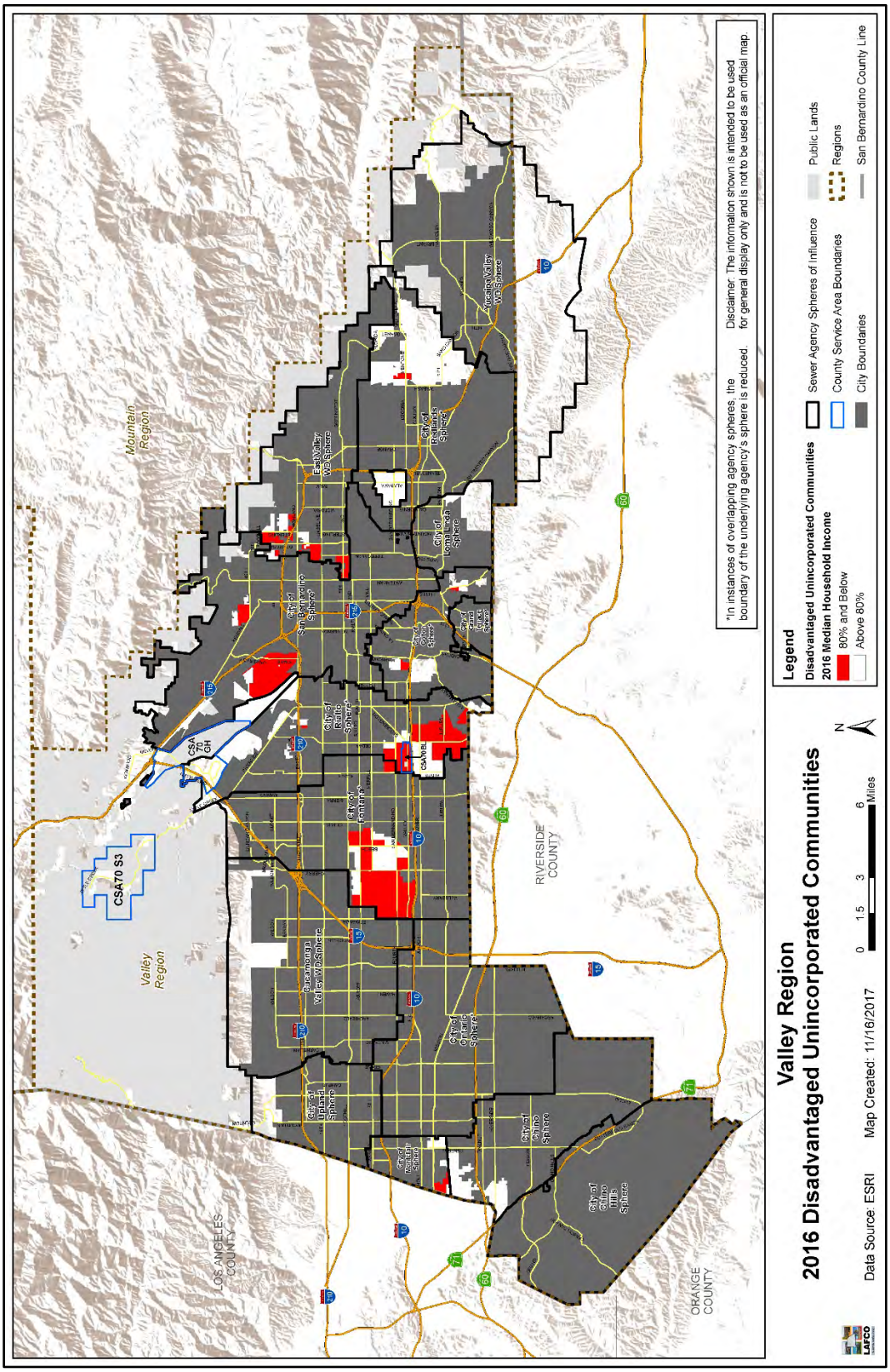
Table 4-2: DUC characteristics – Valley Region

	South Montclair	West Fontana	Bloomington
Area, sq. miles	0.32	5.64	4.07
Pop., 2016	3,047	7,517	17,649
Households, 2016	652	1,604	3,938
Median Household Income	$47,004	$41,833	$43,923
Characteristics	Single and multi-family residential, commercial	Single family dwellings, area of former County of SB Speedway Redevelopment Area, industrial, includes the Auto Club Speedway	Rural lifestyle, predominance of large lots, limited commercial development and the prevalence of agricultural and animal raising (Bloomington Community Plan)
	Muscoy	**Mentone**	**San Bernardino North**
Area, sq. miles	2.50	0.16	1.44
Pop., 2016	9,480	960	12,872
Households, 2016	1,933	323	3,468
Median Household Income	$39,472	$46,049	$31,038
Characteristics	Single-family dwellings on large lots that can support small-scale agriculture. Commercial buildings are generally small (Muscoy Community Plan)	Single and multi-family residential, small commercial, rural living	Single-family dwellings, lack of significant agricultural

source: ESRI Community Analyst

[3] For this map, non-developable areas include lands in the name of: United States of America, Government Land, State of California, and County of San Bernardino, as identified by the County Assessor.

Figure 4-2: Disadvantaged Unincorporated Communities - Valley Region



Disadvantaged Communities (DACs)

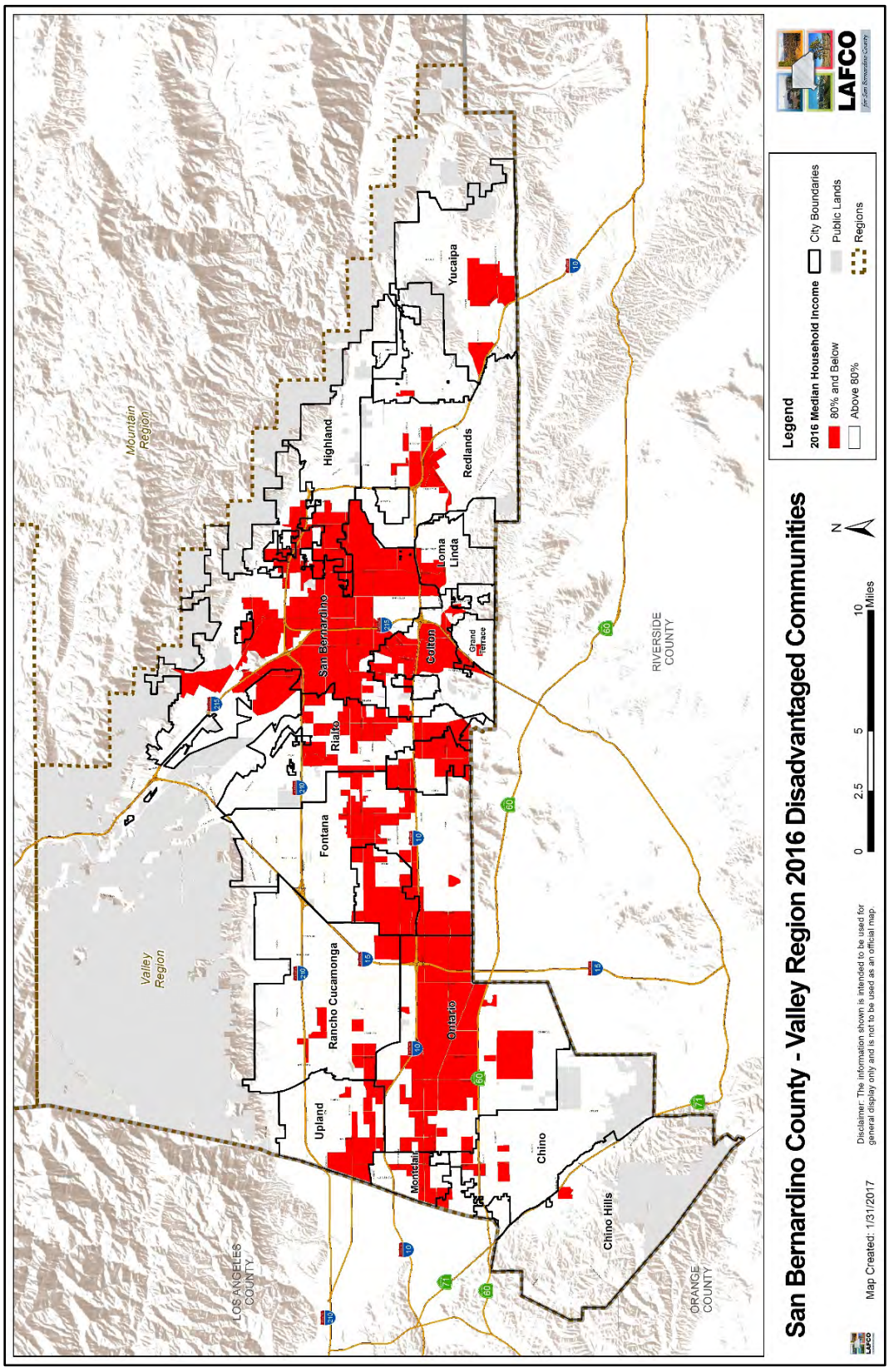
Although the state requires that LAFCOs focus their service review analyses on disadvantaged communities within unincorporated areas (commonly referred to as "DUCs"), the reality is that disadvantaged communities do not necessarily follow jurisdictional boundaries and occur in incorporated areas (cities) as well. It is LAFCO's responsibility to at least recognize disadvantaged communities countywide regardless of jurisdiction. Figure 4-3 identifies Disadvantaged Communities, or "DACs", which include both unincorporated and incorporated areas within the Valley cities and their surrounding areas.

In the West Valley, cluster areas are identified with a central area for DACs located in the City of Ontario. From this central area, DACs are scattered outward westerly (toward Montclair) and easterly (toward Fontana), especially south of I-10. In the East Valley, a large number of census tracts are classified as DACs. A central area for DACs occurs between the east side of the City of San Bernardino and the west side of the City of Highland. From this central area, DACs are scattered outward towards Fontana, Colton and Bloomington. On the eastern portion, central Redlands and Yucaipa are classified as disadvantaged.

As outlined in the Upper Santa Ana River Watershed Integrated Regional Water Management Plan (January 2015), which generally includes the Valley Region in San Bernardino County, efforts were made in 2013 to identify and coordinate outreach with disadvantaged communities to identify potential water resource needs. In the Valley area, the vast majority of DACs receive water supplies that meet all state and federal standards for water quality. Areas with the largest concentrations of DAC residents have developed programs to assist the DAC customers in paying their water related bills while still ensuring their water and wastewater service are meeting all applicable state and federal regulations.

One recent program of note that has assisted DACs in the Santa Ana River Watershed is the 2014 Water-Energy Grant Program, administered by the Department of Water Resources. The program resulted in $2.3 million in funding for the Santa Ana Watershed Authority's regional project called the Water-Energy Community Action Network or "WECAN." WECAN has resulted in bringing water savings to approximately 260 homes and energy savings to approximately 1,703 homes in DACs in the Santa Ana River Watershed.

Figure 4-3: Disadvantaged Communities - Valley Region



C. OVERVIEW OF WASTEWATER TREATMENT SYSTEMS

Similar to imported water services, for wastewater treatment the general Valley Region can be divided into West Valley and East Valley. In the West Valley the Inland Empire Utilities Agency ("IEUA"), as a regional wastewater treatment agency, provides treatment and disposal services to seven contracting agencies under the Chino Basin Regional Sewage Service Contract: the cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Upland, and Cucamonga Valley Water District.[4] IEUA serves approximately 875,000 residents in a 242-square mile area.

Multiple agencies provide wastewater treatment in the eastern portion of the Valley Region. Some agencies through contract convey the collected product to another agency for final treatment. Other East Valley agencies are more self-contained and provide full tertiary treatment within their own service areas.

The table below provides a listing of each wastewater treatment system that has a design flow over 100,000 gallons per day. The table includes design flow, and treatment and disposal summary. While some of the wastewater agencies are planning to expand their treatment capacity in the near future to be able to produce recycled water, others will continue to use their existing treatment facilities. For a table of wastewater treatment systems that have a design flow under 100,000 gallons per day (all are either septic or package plants) see *Table 4-6: Large OWTS - Valley*.

Table 4-3: Valley Treatment Agencies

Treatment Agency/Facility	Design Flow (MGD)	Treatment & Disposal
CA Institution for Men, Chino (West Facility)	1	Storage/percolation ponds, irrigation field
City of Colton	10.4	Disinfected Secondary, conventional and extended aeration process
City of Redlands	12	Secondary treatment, percolation ponds
City of Rialto	11.7	Tertiary
City of San Bernardino Municipal Water Dept.	33	Disinfected secondary
Colton/San Bernardino RIX	40	Extracted tertiary treated and disinfected water
IEUA Regional Plant No. 1	44	Tertiary
IEUA Regional Plant No. 4	14	Tertiary
IEUA Carbon Canyon WWRF	12	Tertiary
IEUA Regional Plant No. 5	15	Tertiary
IEUA Regional Plant No. 2	--	Sludge treatment
CSA 70 Zone GH, Lytle Creek North	1.75	UV disinfected & chlorinated tertiary effluent, recycled
Yucaipa Valley Water District	8	Tertiary treated wastewater & recycled

source: Santa Ana Regional Board

[4] In addition to the contracting agencies, IEUA provides wholesale imported water from the Metropolitan Water District of Southern California to seven retail agencies: the cities of Chino, Chino Hills, Ontario, Upland, Cucamonga Valley Water District in Rancho Cucamonga, Fontana Water Company in Fontana, and the Monte Vista Water District in Montclair.

PRIMER ON THE INLAND EMPIRE BRINE LINE (SARI)

The Inland Empire Brine Line is a pipeline that was constructed to protect the Santa Ana River Watershed from desalter concentrate and various saline wastes. Municipal wastewater treatment plants in inland areas generally have total dissolved solid restrictions which prevent high-saline waste from local disposal. The Brine Line provides a viable wastewater disposal facility for industries that generate salty wastewater during the manufacturing process, or from cooling, boiler blowdown or other processes.

The Brine Line was first envisioned in the early 1970s as a way to remove salt from the watershed and to collect and transport non-reclaimable industrial brine that could not be effectively treated at local treatment facilities. Most of the pipeline was constructed during 20 years in a series of reaches. Reach I, II and III are owned by the Orange County Sanitation District ("OCSD") and located in Orange County parallel to the Santa Ana River. Along the Riverside County line, Reaches IV and V are owned and operated by the Santa Ana Watershed Project Authority ("SAWPA"). Reach IV provides service to areas roughly bounded by the Cities of Riverside, Chino and San Bernardino. Reach V lies along Temescal Wash and terminates near the City of Lake Elsinore. In 2012, the Yucaipa Valley Water District completed a 15-mile extension from the City of Yucaipa to the City of San Bernardino.

SAWPA member agencies own treatment and disposal capacity in the Brine Line system. Treatment and disposal capacity represents the volume of effluent passed through the OCSD treatment plant in Huntington Beach. According to SAWPA staff, all pipeline capacity has been allocated, which may in turn have sold it to others (i.e. industrial users, cities, districts). The total pipeline capacity is 32.558 million gallons per day ("MGD") apportioned as follows:

Western Municipal Water District, Riverside County	11.624 MGD
San Bernardino Valley Municipal Water District	7.188 MGD
Eastern Municipal Water District, Riverside County	5.946 MGD
Inland Empire Utilities Agency	4.130 MGD
Chino Desalter Authority	3.670 MGD

The highest and best use of the Brine Line is the removal of salts from the watershed to keep them from degrading water quality within the watershed, thereby allowing better use of groundwater resources and expanding the ability to reclaim water. Salty wastewater is redirected from local wastewater treatment plants to the Brine Line, reducing the salt discharged from treatment plants into the Santa Ana River. The Brine Line carries the waste directly to specially equipped treatment plants operated by OCSD with discharge into the Pacific Ocean.

It is estimated that operation of the Brine Line removes 500,000 pounds of salt per day. SAWPA manages the Brine Line with substantial assistance from member agencies. The pipeline making up the Brine Line is of varying ages, with the oldest section more than 60 years old and the newest less than five years old.

As of June 30, 2016, approximately 51 industries directly discharge the brine wastewater generated from their manufacturing processes. Some of the largest industries are California Steel Industries, New-Indy Ontario, Frito Lay Inc., GenOn, Ventura Foods, Mission Uniform and Linen Services, Crothall, GE Mobil Water, Clement Pappas North, Cintas Corporation (I) and (II), Nestle (Arrowhead) Water, Unifirst, Sierra Aluminum (II), and Niagara Bottling I and II. The Brine Line also serves approximately six industrial customers that truck their wastewater to special dump discharge stations.

Age of Pipelines

The table below identifies the miles of sewer pipeline of each collection agency and tabulates the percentage by 20-year range.[5] As shown, over 50% of the sewer pipelines in the Valley Region have been built or replaced since 1980. While there are some outliers in age, in general, the overall age of pipelines is good.

Table 4-4:
Age of Pipelines (in miles by 20-year range) – Valley Region

Agency	2000 +	1980-1999	1960-1979	1940-1959	1920-1939	1900-1919	Before 1900	Miles of Sewer
City of Chino	33	56	87	27	20	-	-	**223**
City of Chino Hills	10	152	41	-	-	-	-	**203**
City of Colton	-	13	201	-	-	-	-	**214**
City of Fontana	143	317	62	99	-	-	-	**621**
City of Grand Terrace	-	4	62	-	-	-	-	**66**
City of Loma Linda	19	17	28	2	-	-	-	**67**
City of Montclair	8	15	57	3	-	-	-	**84**
City of Ontario	24	172	189	142	24	18	24	**592**
City of Redlands	44	101	111	44	13	3	-	**316**
City of Rialto	14	142	71	57	-	-	-	**284**
City of San Bernardino	37	140	112	140	23	9	5	**468**
City of Upland	24	75	82	24	16	-	-	**222**
CSA 70 Zone GH	8	-	-	-	-	-	-	**8**
CSA 70 Zone S-3	-	11	-	-	-	-	-	**11**
Cucamonga Valley WD	95	181	142					**418**
East Valley WD	16	66	75	71	-	-	-	**228**
Yucaipa Valley WD	43	164	-	-	-	-	-	**207**
Total Miles of Sewer	**521**	**1,626**	**1,321**	**610**	**95**	**30**	**28**	**4,232**
Percent of Total Age	12.3%	38.4%	31.2%	14.4%	2.3%	0.7%	0.7%	**100%**

source: Regional Board CIWQS, as modified by LAFCO staff from percent to raw number

Contracting for Operations and Maintenance

City Contracts

Irrespective of contracting or joint powers agreements for wastewater treatment, in the Valley there is one instance of a public agency contracting for operations and maintenance.

> In January 2013, the City of Rialto awarded Veolia Water North America, a private company, a 30-year contract to manage the City's water and wastewater systems. All construction, operations, and customer service are performed by Veolia. Under the agreement the City retains full ownership of water and wastewater system assets, water rights and supply, and authority over rate-setting.

[5] The pipleline age information was obtained from the State Water Resources Control Board's (Water Board) California Integrated Water Quality System ("CIWQS") for each agency. This information is also a part of each agency's profile information in the appendices to this service review.

County Contracts

Additionally, institutional collection systems that are County-related have contracted with County Service Area 70 ("CSA 70") for operations and maintenance, with service performed by the County Special Districts Department's Water and Sanitation Division.[6] The staffs at these facilities lack the certifications and experience necessary to meet all regulatory requirements, and these contracts allow for the use of CSA 70's certified and experienced staff. The table below identifies the current contracts between CSA 70 and other entities for water and/or wastewater service. Therefore, in the Valley Region, the County Special Districts Department's Water and Sanitation Division has a significant presence through the contracts identified below, in addition to its three CSA 70 service areas: Zone GH (Glen Helen), Zone S-3 (Lytle Creek), and Zone BL (Bloomington).

Table 4-5:
Current County Contracts with CSA 70

CONTRACT WITH:	SERVICE	CONTRACT #	CONTRACT EXPIRATION	REGION
County Sheriffs: Glen Helen Rehabilitation Center	Sewer Collection	15-334	June 30, 2020	Valley
County Airports: Chino Airport[7]	Sewer Collection	13-945 A2	June 30, 2018	Valley
Arrowhead Regional Medical Center	Sewer Collection	15-335	June 30, 2020	Valley
County Facilities Management: Glen Helen Regional Park	Wastewater Treatment Plant (Holding Tanks)	08-143	February 1, 2038	Valley
County Facilities Management:		15-548	June 30, 2020	
Glen Helen Regional Park	Water System			Valley
Gilbert St. Complex Water System	Water System			Valley
County Regional Parks:		16-369	June 30, 2019	
Prado Regional Park	Sewer Collection & Water			Valley
Yucaipa Regional Park	Sewer Collection & Water			Valley
Cucamonga-Guasti Regional Park	Sewer Collection & Water			Valley
Mojave Narrows Regional Park	Sewer Collection & Water			North Desert
Moabi Regional Park	Sewer Collection & Water			South Desert
Calico Regional Park	Sewer Collection & Water			North Desert
Glen Helen Regional Park	Sewer Collection			Valley
Lake Gregory Regional Park	Sewer Collection & Water			Mountain
Mojave River Forks Regional Park	Sewer Collection & Water			North Desert

source: County Special Districts Department

[6] County Service Area 70 is governed by the County Board of Supervisors. The district is authorized by LAFCO to perform a wide range of services and encompasses the entirety of the unincorporated area of the county. Currently it provides a centralized mechanism for administration of personnel and operations which serve all board governed special districts. The employees are engaged in multi-district operations funded by the various sanitation, water, road, streetlights, and park and recreation districts.

[7] In 2014, LAFCO Service Contract 385 determined that the contract for CSA 70 to provide wastewater collection system services to the Chino Airport operated by the County Airports Department was exempt from the provisions of Government Code Section 56133 (service outside an agency's boundary).

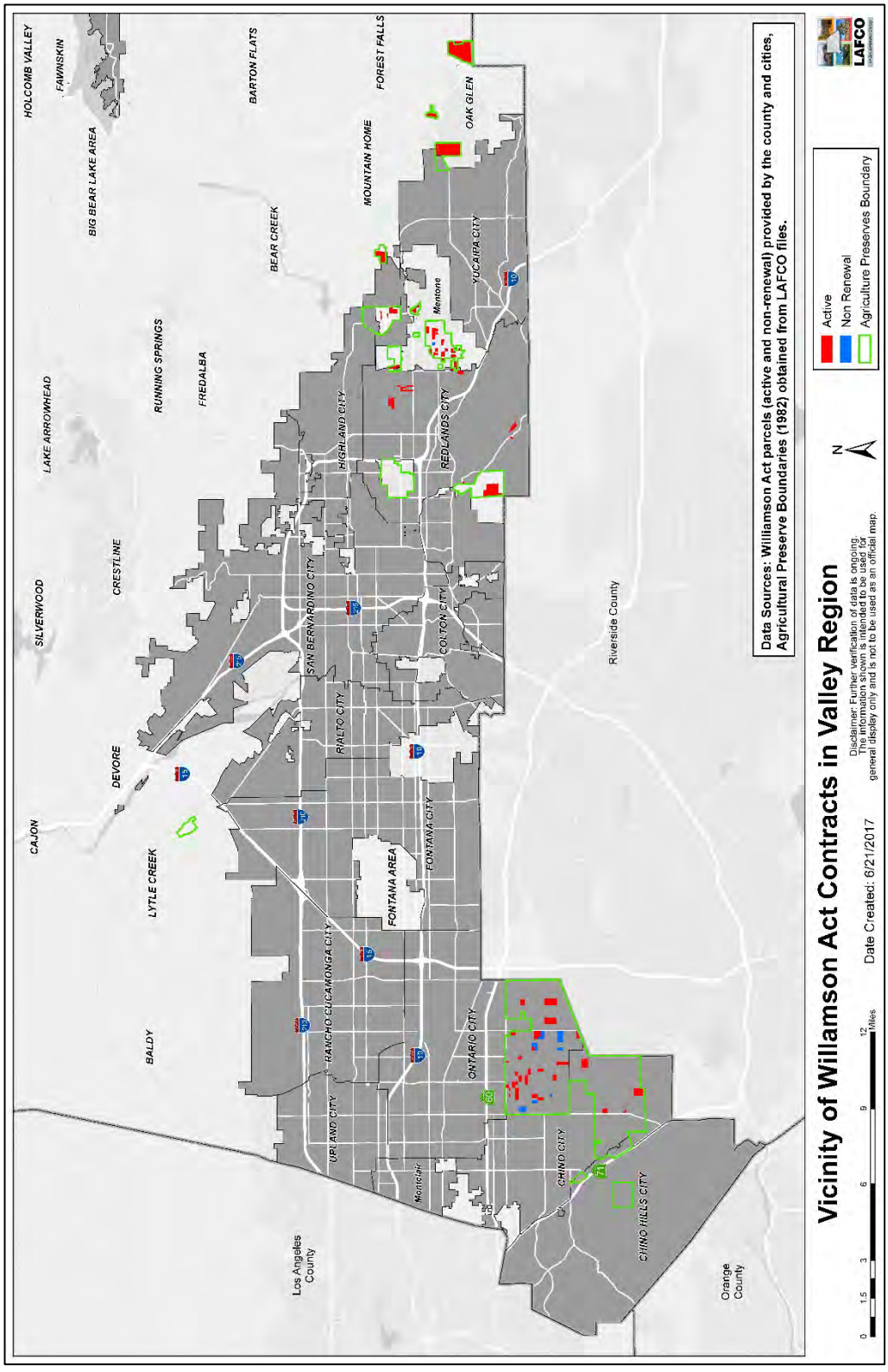
Agricultural Land and Use

A primary tenet of LAFCO is to encourage the preservation of agricultural land and open spaces, and this service review touches upon the impact of agricultural uses. The figure below identifies Williamson Act contracts as of 2015/16. The California Land Conservation Act of 1965--commonly referred to as the Williamson Act--enables local governments to establish an Agricultural or Open Space Preserve. Once the preserve was established, property owners could contract with the county or city for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Government Code Section 51243 states that when annexing properties into a city, "...the city shall succeed to all rights, duties, and powers of the county under the contract."

The Government Code specifically states that the Commission shall not approve a sphere of influence change (§56426.6) or annexation (§56856.5) that is subject to a contract entered into pursuant to the Williamson Act if that local government agency provides, or would provide, facilities or services related to sewers, nonagricultural water, or streets and roads to the territory, unless these facilities or services benefit land uses that are allowed under the contract. Additionally, for sphere changes, the landowner consent is required.

The areas identified in red are "Williamson Act-Active". The areas identified in blue are "Williamson Act-Non Renewal" which is defined as enrolled lands for which non-renewal has been filed pursuant to Government Code Section 51245. Upon the filing of non-renewal, the existing contract remains in effect for the balance of the period remaining on the contract. During the non-renewal process, the annual tax assessment gradually increases. At the end of the nine year non-renewal period, the contract expires and the land is no longer enforceably restricted.

Figure 4-4:
Williamson Act Contracts – Valley Region



Agency Service Review Updates and Remainder of Section IV

A service review update specific to each agency and its service area is included in Appendix B, which includes an agency profile, service area map (not necessarily boundary), and narrative of the wastewater system. A detailed listing of municipal wastewater systems and joint powers authorities is included as a part of Appendix F.

The remainder of this section focuses on areas that lack an organized wastewater collection system, specifically the use of septic tanks.

D. ONSITE WASTEWATER TREATMENT SYSTEMS

Overview

For areas that lack an organized wastewater collection system, Onsite Wastewater Treatment Systems ("OWTS") are the method of collection and disposal. OWTS are wastewater treatment systems that use subsurface disposal, including: individual; community collection and disposal; and alternative collection and disposal systems. The most common OWTS are septic systems. OWTS do not include "graywater" systems pursuant to Chapter 15 of the California Plumbing Code. The table below identifies the large OWTS systems (not to exceed 100,000 gpd design flow).

Table 4-6:
Large OWTS – Valley Region

Treatment Agency/Facility	Design Flow (MGD)	Treatment & Disposal
Glen Helen Amphitheater, Devore	0.02	Secondary, ponds
West Hills Golf Associates, Chino Hills	0.05	Secondary, landscape irrigation, hauled sludge

source: Santa Ana Regional Board

OWTS policies are created to meet the requirements of Assembly Bill (AB) 885 (2000) to promulgate consistent, statewide, standards for the regulation of OWTS. The OWTS Policy was adopted by the State Water Board in June 2012, and became effective May 2013 (Resolution No. 2012-0032). The policy categorized OWTS into the following tiers:

Figure 4-5:
Onsite Wastewater Treatment Systems - Tiers

Tier	Description
0	Applies to all existing systems which function properly, do not meet the conditions of a failing system, and are not contributing to pollution of any waterways.
1	Applies to all new and/or replacement OWTS which meet low risk siting and design requirements in areas which do not have an approved LAMP as specified in Tier 2.
2	Applies to any new and/or replacement OWTS which do not fall into the Tier 3 adjacent to impaired waterways, or in prohibition areas category. This tier is referred to as the LAMP and allows the County to apply standards that differ from the State.
3	Describes all systems currently located within areas denoted as impaired waterways. These systems have been identified as potential sources of pollution, and need to abide by the Advanced Protection Management Program prescribed in Tier 3 of the OWTS Policy.
4	A temporary classification for all systems that have been found to be failing, and/or needing repair. Once the system has been repaired, it will be placed in either Tier 0, Tier 2, or Tier 3.

source: State Water Board

PRIMER ON ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS)

According to the State Regional Water Quality Control Board[8], onsite wastewater treatment systems ("OWTS") are defined as "…individual systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal." When properly sited, designed, operated and maintained, OWTS treat domestic wastewater to reduce its polluting impact on the environment and protect public health. In June 2012, it was estimated by the Regional Board that there are more than 1.2 million onsite systems, the majority which are septic tanks, operating in California.

As waste flows into the tank, heavier solids sink to the bottom, forming the "sludge" layer. Solids are decomposed by the anaerobic bacterial action of the sludge. In theory, a relatively harmless effluent will be produced, and under proper soil conditions, further decontamination can occur. Even under ideal conditions, eventually the amount of sludge will interfere with the bacterial digestive action, and it must be pumped for off-site disposal.

The majority of OWTS operate in a satisfactory manner, and in some cases, remain the only viable option for sewage treatment for locations removed from centralized wastewater treatment systems. However, there are instances in California where OWTS fail to protect water quality and public health. Some common reasons for OWTS failure include:

- Poor design and improper site conditions
- Improper and/or deferred system maintenance
- High geographic concentration of OWTS resulting in a combined effluent flow that cannot be assimilated into the environment

When a community sewer is not available, and a property improvement will generate wastewater, the property owner must demonstrate the following to San Bernardino County Department of Environmental Health to verify the lot will support onsite wastewater disposal:

- Soils are conducive to onsite wastewater disposal.
- Sewer is not available within 200 feet (plus 100 feet per dwelling unit thereafter).
- Enough area is available to install a septic system that meets proper setbacks (for new construction, 100% expansion area must be available).
- OWTS will not impact ground or surface water.
- OWTS is sized appropriately to serve the intended land use.

As California's population continues to grow, the development of higher density housing in rural areas and in more varied terrain increases the risk of OWTS creating public environmental and health issues. Improperly maintained or failing OWTS can result in the discharge of pathogens, nitrates, salts, household chemicals, oils and grease into the environment. As conditions and circumstances change around particular locations, increased scrutiny is necessary to properly site, operate and professionally maintain OWTS.

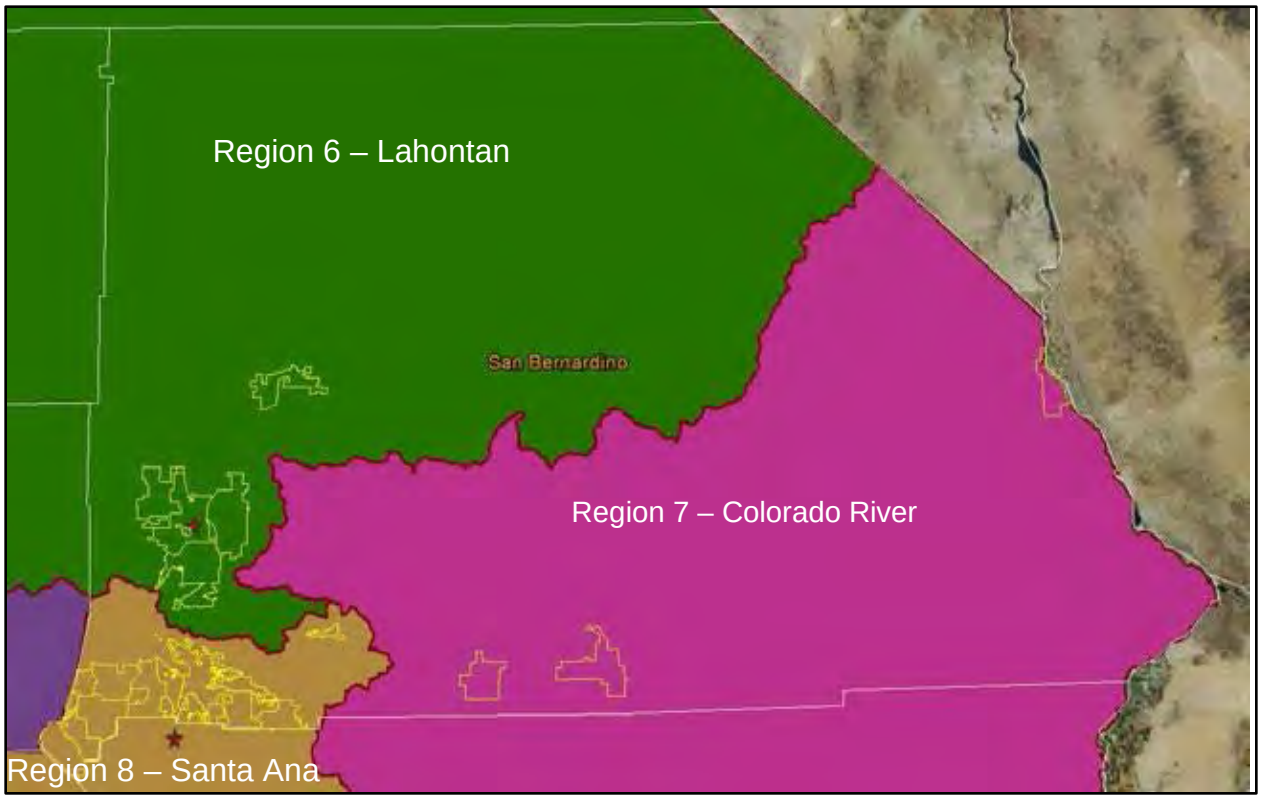
[8] Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (CA Water Boards 2012)

OWTS located within San Bernardino County are governed by the following Regional Water Quality Control Boards, listed below and shown on the following figure:

- Region 6 – Lahontan
- Region 7 – Colorado River
- Region 8 – Santa Ana

Each region has environmental differences that create unique construction design concerns. To address these concerns, the three regional boards have developed individualized basin plans. These basin plans provide criteria for the installation of OWTS, affected waterways and prohibition areas within their region. For example, any new development of one-half acre lots within the Lahontan Regional Board jurisdiction may be subject to conducting a cumulative impact assessment, including a hydrogeological study, to predict future groundwater quality impacts from proposed developments.

Figure 4-6:
Regional Water Quality Control Boards Map



source: San Bernardino County LAMP

Prohibitions and Exemptions

Due to the geology and hydrology of certain areas within the county, discharge prohibitions have been set to protect water quality, public health and safety. Within the Valley Region, these areas include:

- Grand Terrace – area of former County Service Area 70 Zone H
- Yucaipa – Calimesa (Yucaipa Valley Water District)
- Lytle Creek - above 2,600 feet in elevation
- Mill Creek - above 2,600 feet in elevation

Exemptions to prohibitions may be granted by the Regional Board when it determines that an OWTS (on a particular parcel) will not individually or collectively, directly or indirectly, affect water quality from continued system operation, and/or maintenance.

Local Agency Management Program ("LAMP")

A Local Agency Management Program ("LAMP") is a program for the siting, design, operation and maintenance of an OWTS, developed by a local agency[9], and approved by the Regional Board as an alternate method to achieve the same policy purpose as that of OWTS policy. Therefore, for unincorporated areas OWTS siting, design, operations, and maintenance fall under the County's LAMP; and for cities that are not a part of the County LAMP the Regional Board maintains authority. In the Valley Region, only the County of San Bernardino, the City of Rancho Cucamonga, and the City of Yucaipa have adopted LAMPs.

County of San Bernardino LAMP

The County's LAMP covers the unincorporated portions of the County. With development in rural areas of San Bernardino County continuing to grow, and with nearly 25% of housing units using OWTS, the County LAMP states that the requirements defined by Tier 1 of the OWTS Policy do not meet the future development needs of San Bernardino County. The Tier 1 limitations on dispersal depth, the 2.5 acre minimum parcel size for new lots on which OWTS can be installed, and the prohibition of the use of seepage pits is too restrictive. In turn, the County's LAMP Program (May 2017) specifically addresses wastewater issues, County requirements, and scope of coverage for OWTS installation and maintenance. It also allows for the continued use and installation of OWTS.

County EHS maintains a map of all of the sewer lines in the county and incorporated cities so as to prevent the approval of a septic system when a sewer is available. For new developments in the unincorporated county, the County requires connection to a public sewer system: (1) when the property is within the boundary of an established sewer collection area, or (2) when the property outside the boundary of a collection agency and the nearest property line is within 200 feet of an available sewer line. The

[9] Any subdivision of state government responsible for permitting, installation, and regulation of OWTS within its jurisdictional boundaries; typically a county, city, or special district.

latter may require a LAFCO-approved out-of-agency service agreement. This requirement will be increased by 100 feet for each additional equivalent dwelling unit within the development/project. In unincorporated San Bernardino County area, proposed subdivisions with more than 40 lots where the lot sizes are less than 2.5 acres per lot shall require review and approval by County EHS and may require Water Board Permitting or a waiver of waste discharge.

Cesspools are not permitted in the County of San Bernardino. When County staff discovers a cesspool is still in use, the property owner will be required to replace the cesspool with an OWTS, which meets current standards. The timeframe for complying with this requirement will vary based on the condition of the cesspool and the potential threat it represents to water quality, public health and safety. While the County does not have a point of sale requirement for existing septic systems certification, voluntary certifications are performed routinely and system upgrades are permitted and replacements are constructed under Building permit.

Impaired Water Bodies

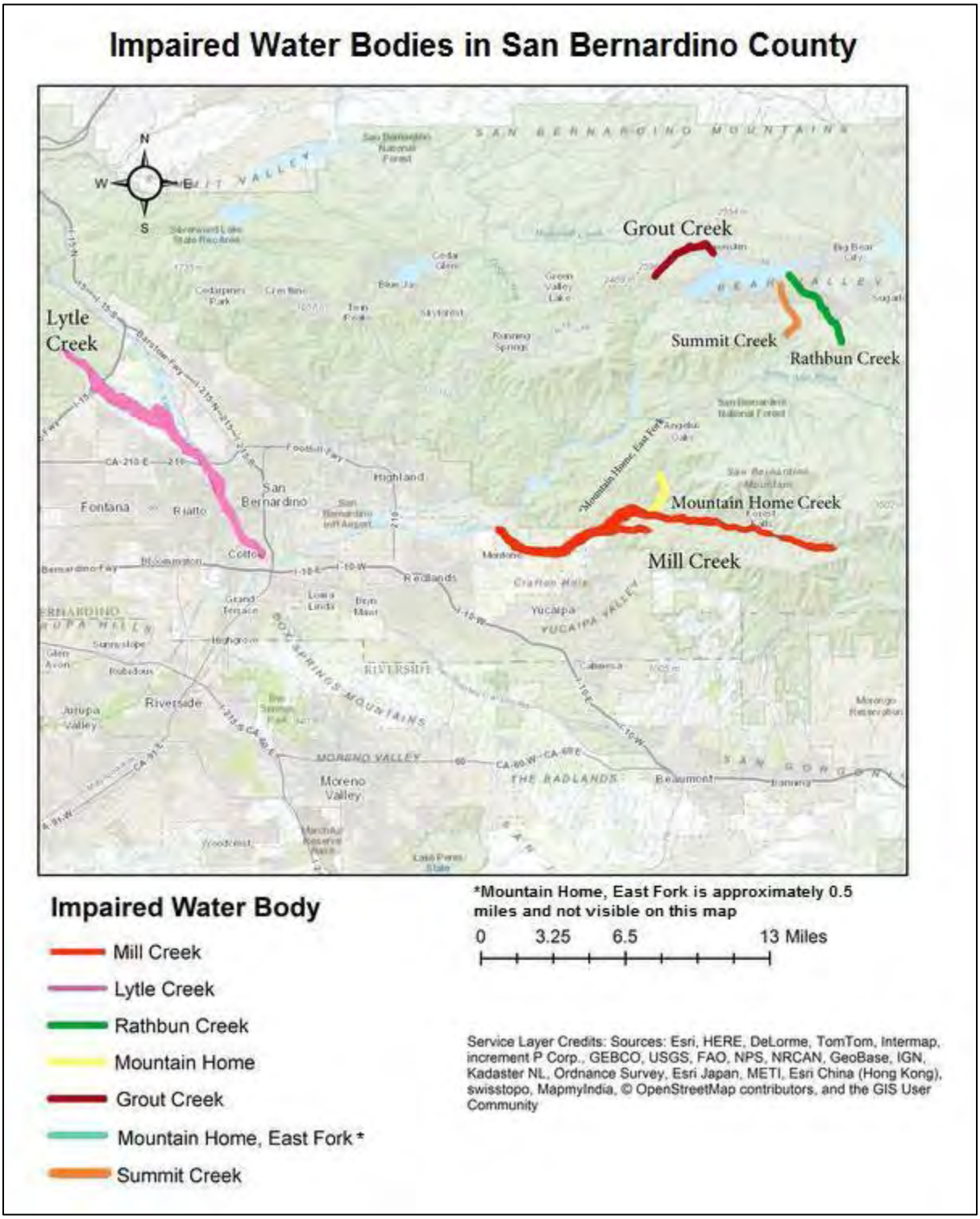
An Advanced Protection Management Program ("APMP") is the minimum required management program for all OWTS located near a water body that has been listed as impaired due to nitrogen or pathogen indicators, pursuant to the Clean Water Act, Section 303(d). Local agencies are authorized to implement APMPs in conjunction with an approved LAMP or when there is no approved LAMP, Tier 1. Per the SWRCB's OWTS Policy, OWTS which are located near impaired water bodies may be addressed by a Total Maximum Daily Load ("TMDL") and its implementation program, or special provisions contained in a LAMP. The County of San Bernardino has chosen to develop an APMP closely derived from Tier 3 requirements provided in the OWTS Policy.

Within San Bernardino County, the SWRCB has identified various surface waterways as impaired, per Attachment 2 of the OWTS Policy. The water bodies listed have been specifically identified per the 303(d) list, where it is likely:

- OWTS will subsequently be determined to be a contribution source of pathogens or nitrogen, and therefore anticipated that OWTS would receive a loading reduction, and
- New OWTS installations discharging within 600 feet of the water body would contribute to the impairment.

The following figure illustrates the impaired water bodies located within San Bernardino County. In the Valley Region, the impaired water bodies are: Mill Creek and Lytle Creek. Mountain Home Creek is within the Commission's defined Mountain Region but this creek has a connection with Mill Creek.

Figure 4-7:
Map of Impaired Water Bodies in San Bernardino County



source: San Bernardino County LAMP

City of Rancho Cucamonga LAMP

The City of Rancho Cucamonga LAMP was approved by the Santa Ana Regional Board in June 2017. The LAMP contains the criteria to be used by the City for siting, design, and permitting of new and replacement onsite wastewater treatment systems. The City LAMP identified areas/parcels that would potentially require OWTS and areas that are currently served by OWTS. It is estimated that about 166 OWTS may be constructed under the requirements of the LAMP.

Although the Cucamonga Valley Water District provides wastewater collection, the City as the planning agency, is responsible for the siting, design, and permitting of OWTS. The City and the CVWD coordinate during the planning phase for OWTS requirements.

The LAMP specifies requirements for seepage pits and sewage holding tanks. It also details required corrective actions in the event of OWTS failure and enforcement actions that the City will take if corrective actions are not completed within acceptable time frame.

The City LAMP identifies the types of proposed waste that will not be allowed which include:

- OWTS with a projected wastewater flow above 10,000 gallons per day
- Any OWTS that receives high strength wastewater (unless waste stream is from a commercial food service facility)
- Any OWTS that receives high strength wastewater with a biological oxygen demand (BOD) higher than 900 mg/L

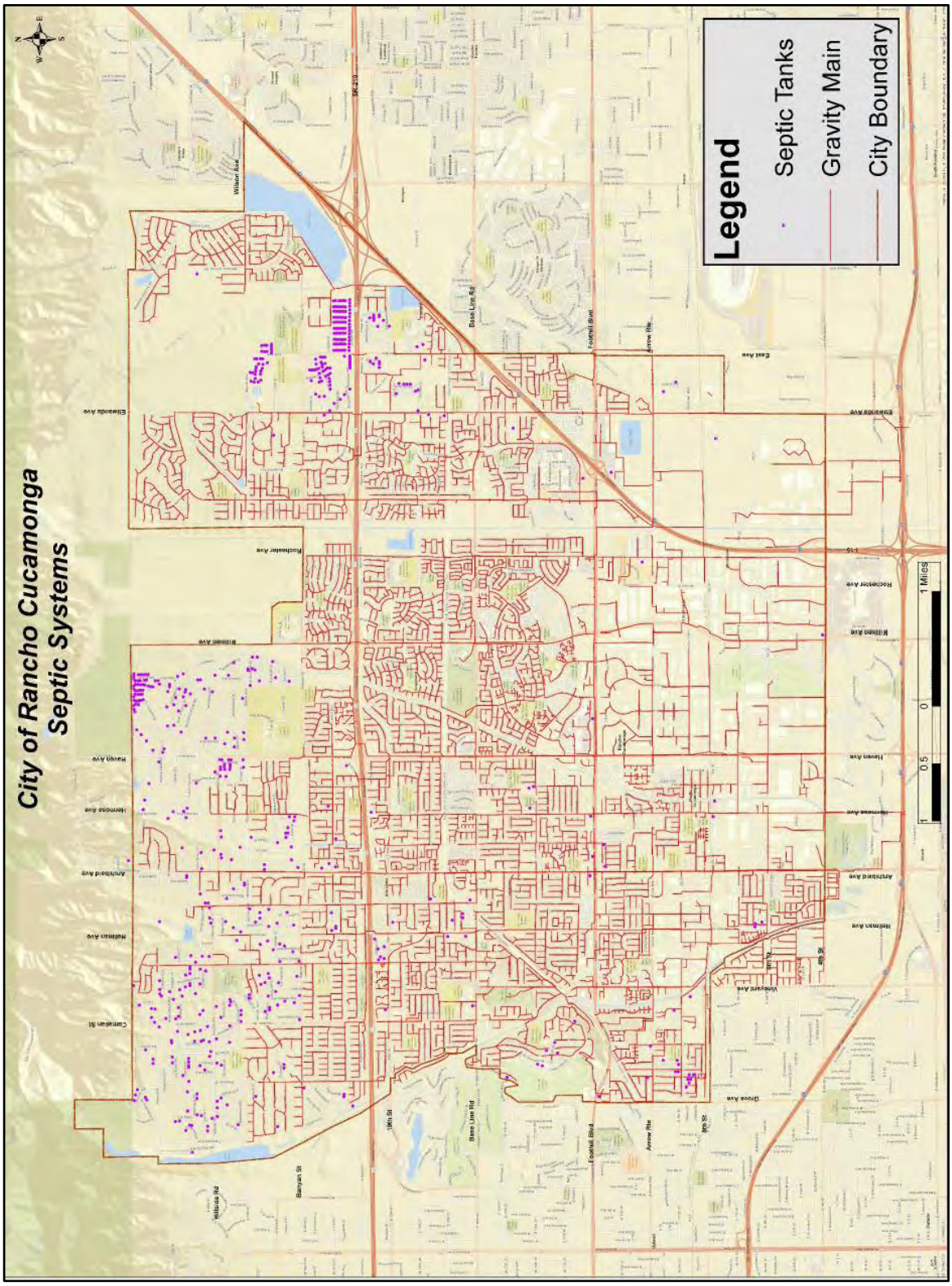
There are no impaired water bodies within the incorporated limits of the City of Rancho Cucamonga and therefore, Tier 3, an Advanced Protection Management Program (APMP), is not included as part of the City LAMP.

Based on the LAMP criteria, the City of Rancho Cucamonga will administer the LAMP OWTS for those OWTS within the jurisdiction of the City of Rancho Cucamonga and maintain minimum one-half (1/2) acre lots for those undeveloped parcels of land which require OWTS and those existing OWTS which require repair or replacement.

The three figures below show following:

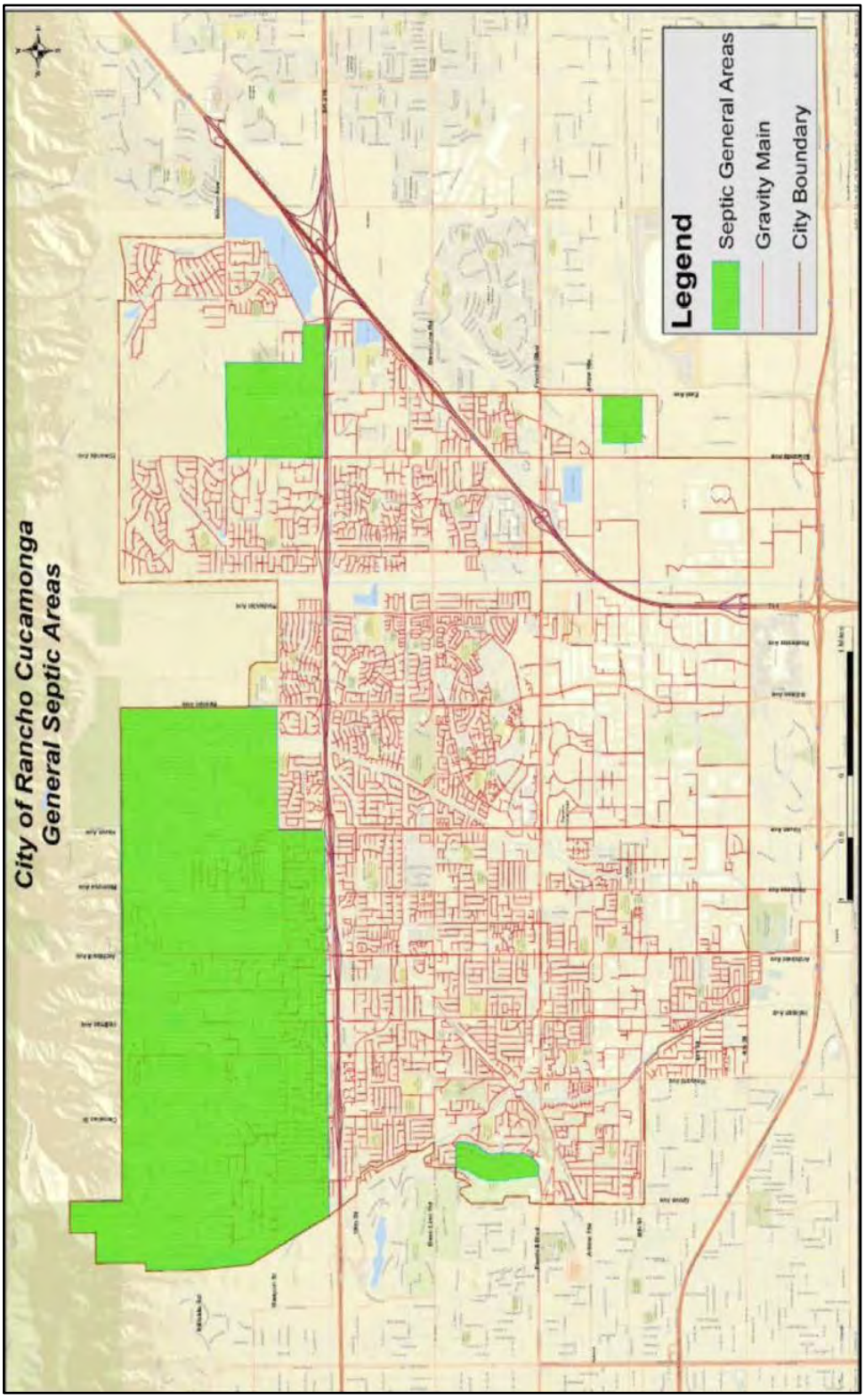
- Map of Septic Systems
- Map of General Septic Areas
- Map of Public Water Wells – since there is a correlation between septic systems and water wells, the City LAMP identifies the known water wells within its city limits. As shown, the general septic areas are the general waterwell areas.

Figure 4-8:
Map of City of Rancho Cucamonga Septic Systems



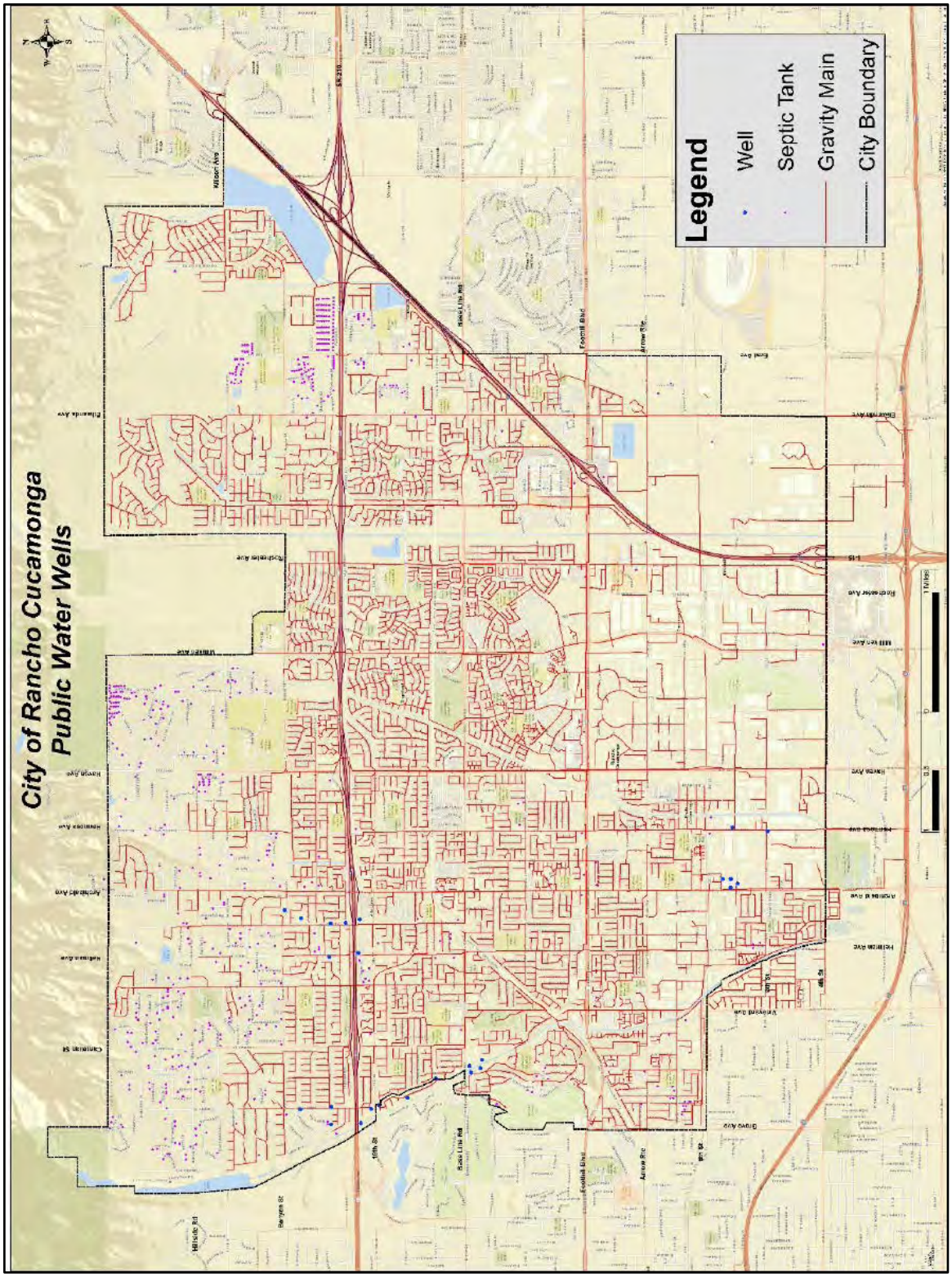
Source: City LAMP, 2017

Figure 4-9:
Map of City of Rancho Cucamonga General Septic Areas



Source: City LAMP, 2017

Figure 4-10:
Map of City of Rancho Cucamonga Public Water Wells



Source: City LAMP, 2017

City of Yucaipa LAMP

The City of Yucaipa is located in the eastern portion of the San Bernardino Valley at the foot of the San Bernardino Mountains. The City is bordered by the City of Calimesa and unincorporated Riverside County to the south; the City of Redlands and unincorporated San Bernardino County to the west; and the foothills of the San Bernardino Mountains to the north and east. The City covers approximately 28 square miles, at an average elevation of 2,600 feet. The 2016 population is approximately 53,800.

According to the City's 2017 LAMP, approximately 75% of development in the City of Yucaipa is connected to sewer facilities. Wastewater is conveyed and treated at the Yucaipa Valley Water District's Wochholz Regional Recycling Facility located in the southern area of the City, south of Interstate 10 and east of Live Oak Canyon Road. This facility captures and treats approximately 4.5 MGD for reuse on parks, green belts, golf courses, and other uses.

According to the City's 2017 LAMP, the most common type of OWTS found within the City consists of a septic tank which allows for the removal of solids in the wastewater prior to being discharged to a dispersal field which consist of vertical seepage pits. Leech line systems are approved on a case by case basis by the City but can only be used if seepage pit installation is not feasible. In some applications where the disposal field is at a higher elevation than the building site, a pressure-system is used to deliver the sewage to a standard disposal field where it is distributed by gravity flow. In all cases, the sewage effluent is discharged below the ground surface and is digested by bacteria in unsaturated soil zones for treatment. These systems are designed to operate in all weather conditions with minimal maintenance, other than periodic septic tank pumping to remove sludge.

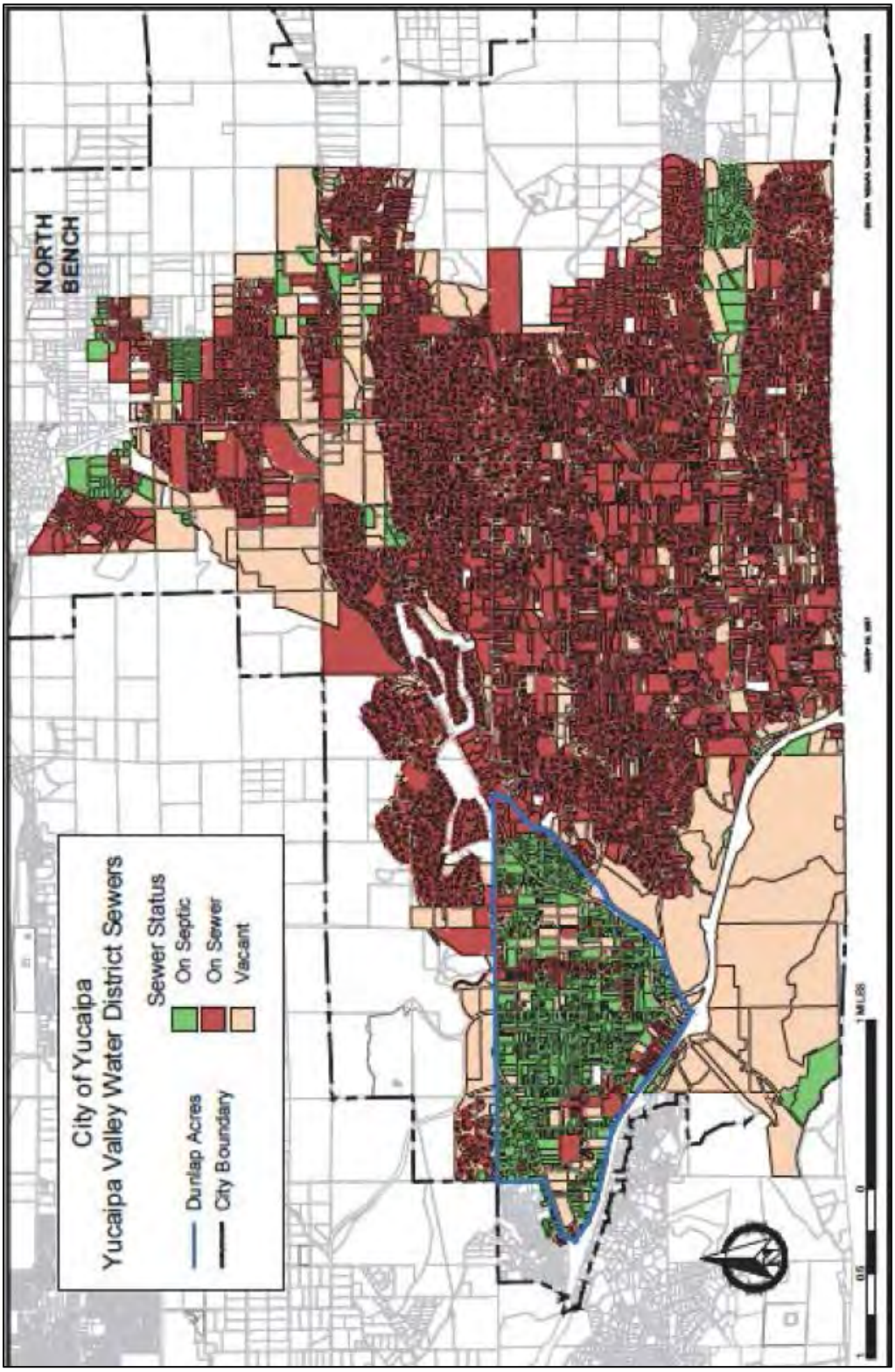
In addition to conventional OWTS, the City allows the use of alternative OWTS with supplemental treatment. These systems are generally used for sites that cannot support a conventional OWTS due to soil depth conditions. Alternative OWTS use different methods of sewage treatment beyond what is provided by the septic tank to allow for a reduction in the amount of unsaturated soil below the dispersal system. All alternative OWTS must be certified by the National Sanitation Foundation or by an approved third party tester. Due to the complexity of these systems, ongoing maintenance contracts and annual operating permits are also required.

The size and type of OWTS needed for a specific building project are dependent on the following factors: Soil Permeability, Unsaturated Soil Interval, Peak Daily Flow, and Net Usable Land Area. Some sites are not acceptable for conventional or alternative OWTS based on low soil permeability, regardless of the unsaturated soil interval available.

The two figures below show following:

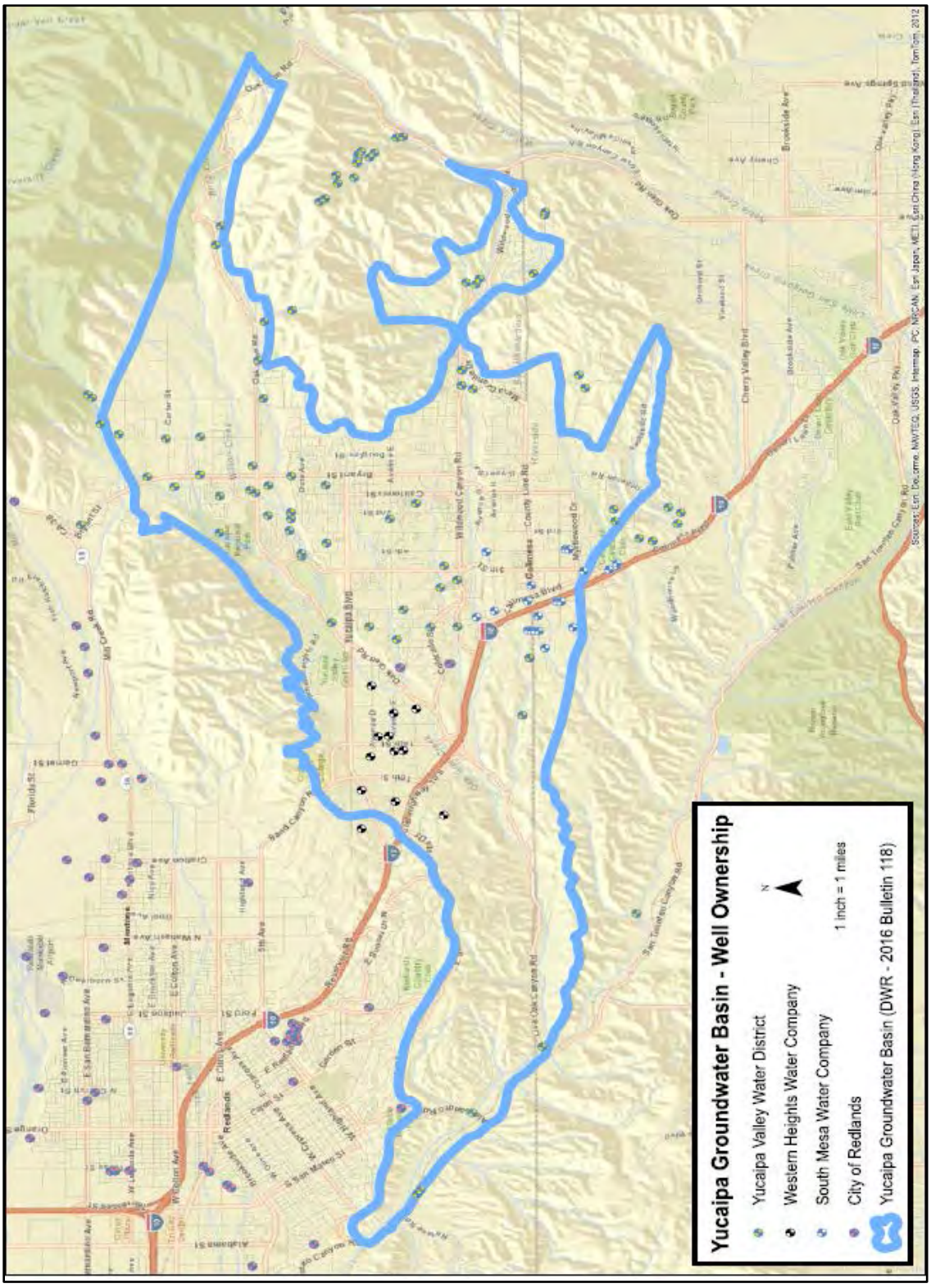
- Map of Yucaipa Valley Water District Septic Systems
- Map of Yucaipa Public Water Wells - since there is a correlation between septic systems and water wells, the City LAMP identifies the public source water wells. As shown, there is overlap between septic systems and wells.

Figure 4-11:
Map of Yucaipa Valley Water District Septic Systems



source: City LAMP, 2017

Figure 4-12:
Map of Yucaipa Public Water System Wells



source: City LAMP, 2017

SECTION V
Mountain Region

Organization

As detailed in the Introduction, the Countywide Wastewater Service Review is organized by San Bernardino County's four regions (Valley, Mountain, North Desert, and South Desert), with each region and its respective retail agencies reviewed as a distinct geographic area.

This section of the service review provides a review of the Mountain Region, including:

A. Mountain Region Overview
B. Identification of Hot Spots
    (1) Objective and Criteria
    (2) Wastewater Agencies: Boundary and Sphere of Influence
C. Identification of Opportunities
    (1) Objective and Criteria
    (2) Government Structure Options
    (3) Areas with Onsite Wastewater Treatment Systems
D. Staff Recommendations
    (1) Agencies under LAFCO Purview: Service Review Determinations
    (2) Initiation of Sphere of Influence Updates
    (3) Hot Spots – Continued Monitoring

Service Review Updates

In order to fulfill the requirements of Government Code §56430, service review updates are provided on a regional context (Section VI) and for each wastewater agency and its service area (Appendix C) to include an agency profile, service area map, and narrative of the agency wastewater system. A detailed listing of treatment systems and municipal collection agencies is included as a part of Appendix F.

A. MOUNTAIN REGION OVERVIEW

According to the *County of San Bernardino General Plan* (2012), the Mountain Region is the smallest of the County's four regions, both in size and population. The Mountain Region covers only 2.8 percent of the total County land and contains only 2.4 percent of the County's total population as shown in Table 5-1, below. Despite the region's small population, however, the San Bernardino Mountains is one of the most densely populated mountain areas within the country, and is the most densely populated urban forest west of the Mississippi River.

Table 5-1:
County Population by Region

Region	Area (sq. miles)	Population 2016
Valley	665	1,538,716
North Desert	10,778	451,575
South Desert	8,093	77,078
Mountain	**571**	**50,854**
TOTAL	20,107	2,118,223

History

Before 1850, the San Bernardino Mountain area was practically uninhabited. In 1851, logging began from Waterman Canyon to the crest of the San Bernardino Mountains. By 1854, the San Bernardino Mountains were a main source of lumber for Southern California and small mountain communities formed in the mountains.

In 1880, Frank Elwood Brown designed the first dam in Big Bear Valley, forming Big Bear Lake – the world's largest reservoir at the time – to supply water to citrus farms around San Bernardino Valley. By 1910, a new dam had been built, significantly increasing the size of the lake. An unintended effect of the lake was to dramatically increase tourism in the San Bernardino Mountains, and its shores were developed with lodges and visitor facilities by the 1920s. The former logging camp of Big Bear Lake was expanded to accommodate increasing numbers of tourists.

In 1891, the Arrowhead Reservoir and Power Company, inspired by the success of the Big Bear Lake project, implemented a plan to contain the water draining off the northwestern San Bernardino Mountains into the San Bernardino Valley to power a hydroelectric plant. A dam was completed in 1907 and created Lake Arrowhead. Although the project was never completed to its fullest extent, Lake Arrowhead became one of the most popular fishing destinations in Southern California and resulted in resort development at Crestline and Running Springs.

Further development occurred due to the construction of the Rim of the World Highway[1] in 1915 and Arrowhead Village in 1921. By the 1930s, the San Bernardino Mountains

[1] This 101-mile route traverses the rim of the San Bernardino Mountains from Cajon Pass to San Gorgonio Pass. This Byway encompasses portions of California Highways 138, 18, and 38.

also became a popular winter destination with the advent of skiing and other winter sports. In the late 1940s and early 1950s, Post-WWII development resulted in a significant population boom for the area.

Location and Physical Setting

The Mountain Region is generally defined as north of the southern base of the San Bernardino Mountains and east of the Cajon Pass. Large portions of the region are comprised of public lands, primarily the San Bernardino National Forest. From west to east, the region's major communities of Crest Forest, Lake Arrowhead, Hilltop (primarily Arrowbear Lake, Green Valley Lake, and Running Springs) and Bear Valley are further described below:

Crest Forest

The Crest Forest community is located in the western section of the Commission's defined Mountain Region and includes most of the Crest Forest Community Plan area (designated by the County General Plan) situated along State Highways 18 and 138. Within the general Crest Forest community are the unincorporated areas known as Arrowhead Highlands, Cedarpines Park, Crestline, Lake Gregory, Skyland, Valley of Enchantment, Valley of the Moon, and Valley View Park. Geographical features include Lake Gregory.

Lake Arrowhead

The Lake Arrowhead community is located in the western section of the Commission's defined Mountain Region and includes the areas commonly known as Lake Arrowhead, Cedar Glen, Grass Valley, Twin Peaks, Crest Park, Rim Forest, Skyforest, Deer Lodge Park and Blue Jay. The community is located approximately 24 miles north of the City of San Bernardino. Lake Arrowhead is a private lake governed by the Arrowhead Lake Association primarily for use by Lake Arrowhead property owners with one public access beach. Prior to 1920, it was called "Little Bear Lake" until a group of Los Angeles investors, the Arrowhead Lake Company, purchased the lake and the land surrounding it and changed the name to Lake Arrowhead.

Hilltop

The Hilltop community is located in the central section of the Commission's defined Mountain Region, approximately 18 miles north of the Cities of San Bernardino and Highland. In addition to Arrowbear Lake, Green Valley Lake, and Running Springs, the Hilltop community includes the areas commonly known as Crab Tree Flats, Fredalba, Nob Hill, Seymour Flats, Smiley Park County Club and the Snow Valley ski area. Highways 18 and 330 converge in Running Springs, and it is often a stopping point for travelers to either Bear Valley or Lake Arrowhead. There are a number of lakes within the community including Green Valley Lake, Arrowbear Lake, and Deep Creek Lake.

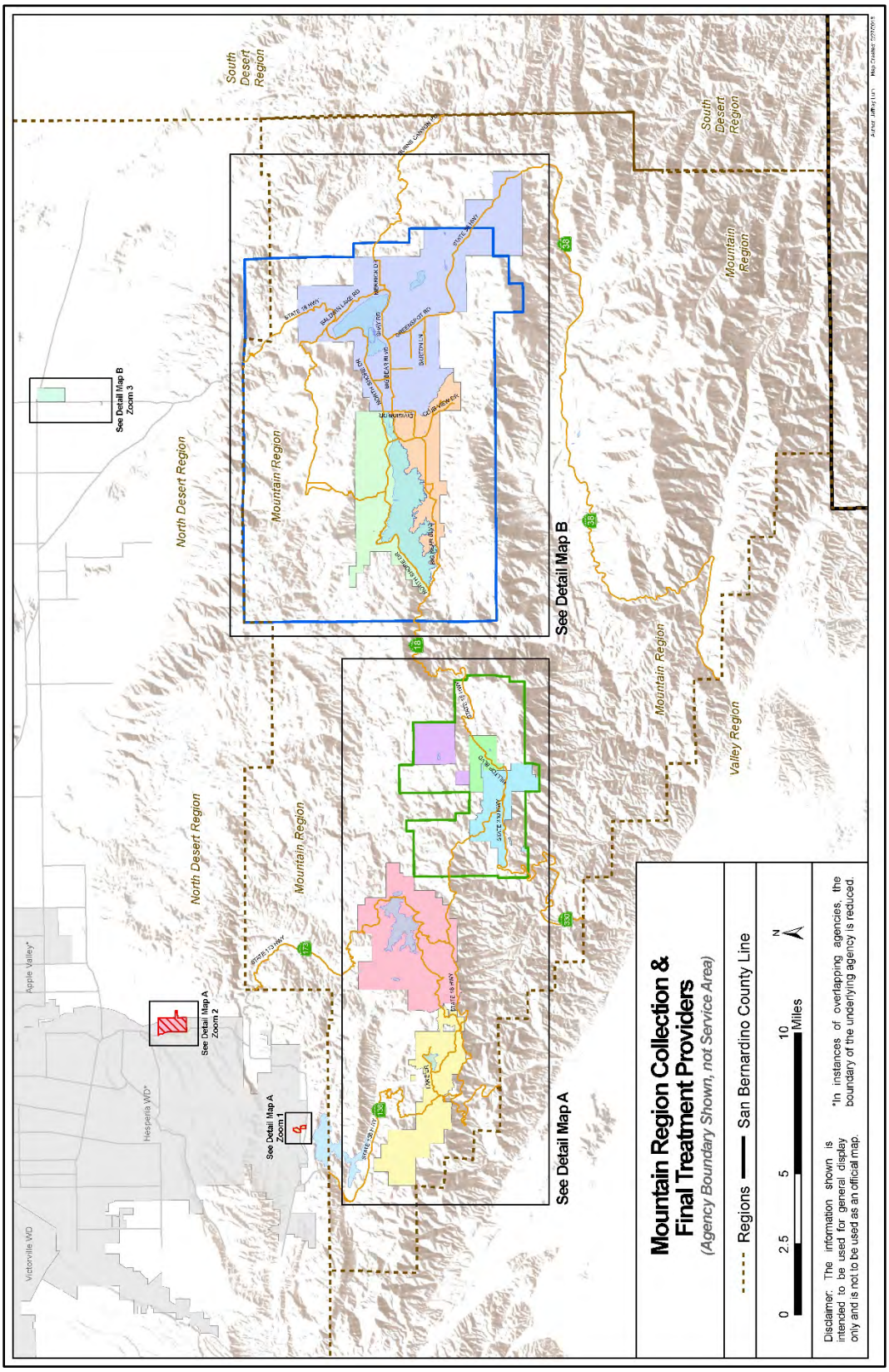
Bear Valley

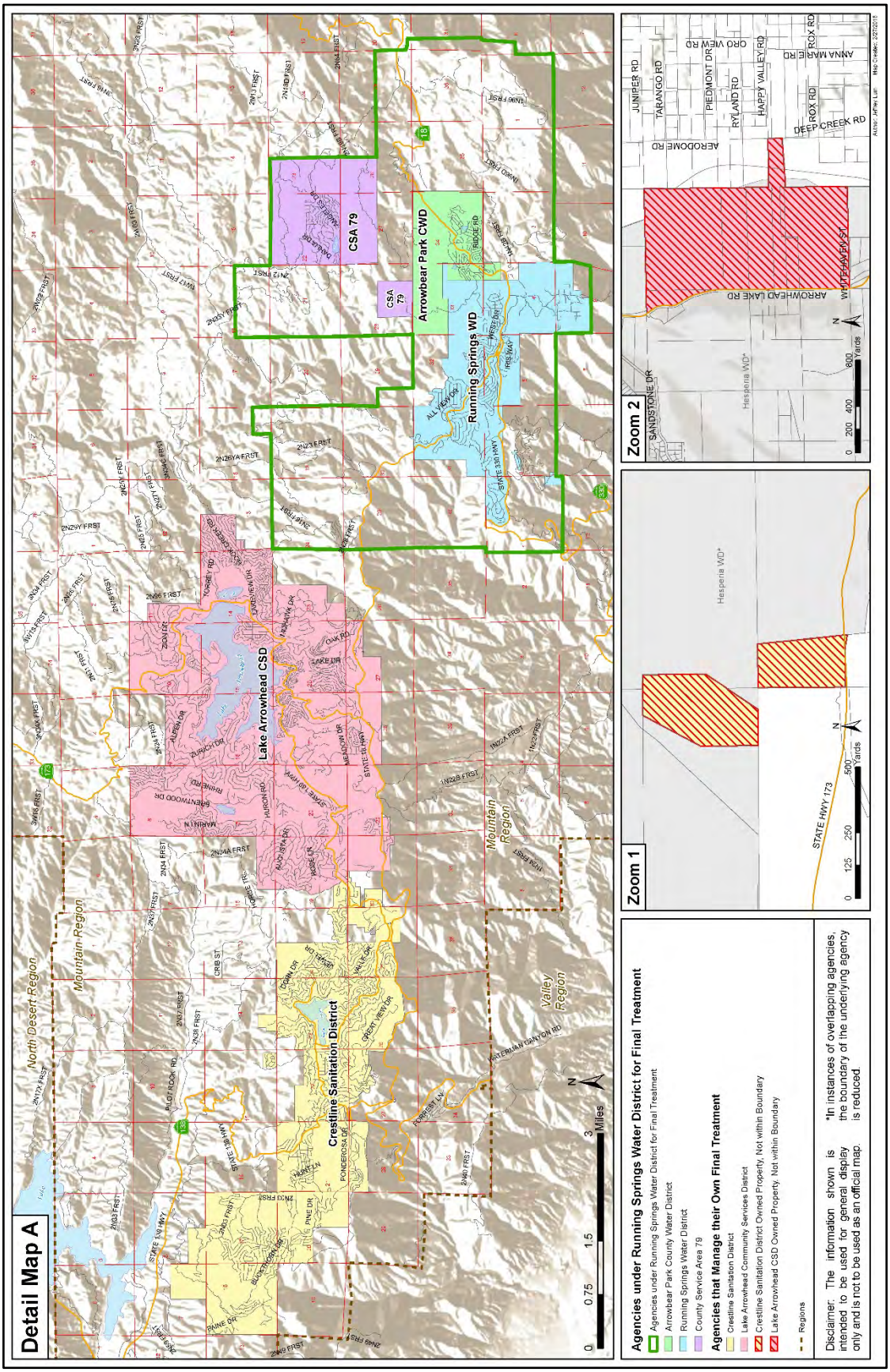
Bear Valley is located at the east end of the Commission's defined Mountain Region, approximately 45 miles northeast of San Bernardino and 48 miles southeast of Hesperia. Accessed by Highway 18 from the west and north and Highway 38 from the east, Bear Valley includes the communities of Big Bear City, Baldwin Lake, Erwin Lake, Lake Williams, Fawnskin, Sugarloaf and Moonridge. The community is located in a 12-mile long valley surrounded by mountain ridges and rugged slopes. There are a number of lakes within the community including: Baldwin Lake, Big Bear Lake, Erwin Lake, Lake Williams (formerly known as Deadman's Lake), Bluff Lake and Cedar Lake.

Mountain Wastewater Agencies

In the Mountain Region, there are nine agencies that provide wastewater services. Of the nine, eight provide collection and four provide treatment. Figure 5-1 below shows the boundaries (not service area) of the Mountain agencies and their role (collection, treatment, or both). Figure 5-2 shows the same agencies and their spheres of influence, if applicable.

Figure 5-1: Mountain Region – Agency Boundary Map




Detail Map A
North Desert Region
Mountain Region
Valley Region
Lake Arrowhead CSD
Crestline Sanitation District
Arrowbear Park CWD
Running Springs WD
CSA 79
Zoom 1
Zoom 2
Hesperia WD*
STATE HWY 173
ARROWHEAD LAKE RD
SANDSTONE DR
JUNIPER RD
TARANGO RD
AERODOME RD
PIEDMONT DR
ORO VIEW RD
RYLAND RD
HAPPY VALLEY RD
ANNA MARIE RD
DEEP CREEK RD
Agencies under Running Springs Water District for Final Treatment
Agencies under Running Springs Water District for Final Treatment
Arrowbear Park County Water District
Running Springs Water District
County Service Area 79
Agencies that Manage their Own Final Treatment
Crestline Sanitation District
Lake Arrowhead Community Services District
Crestline Sanitation District Owned Property, Not within Boundary
Lake Arrowhead CSD Owned Property, Not within Boundary
Regions
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

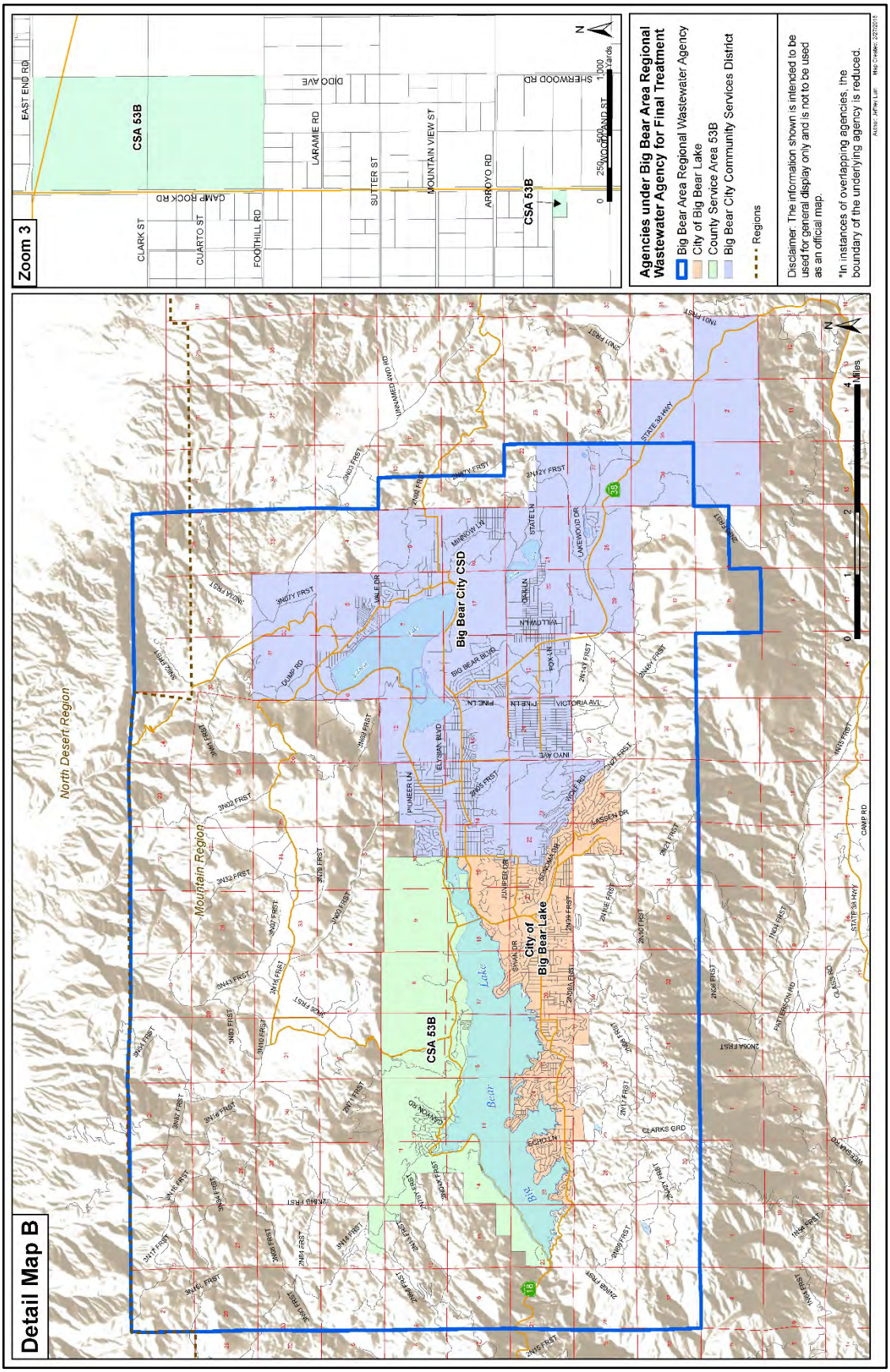
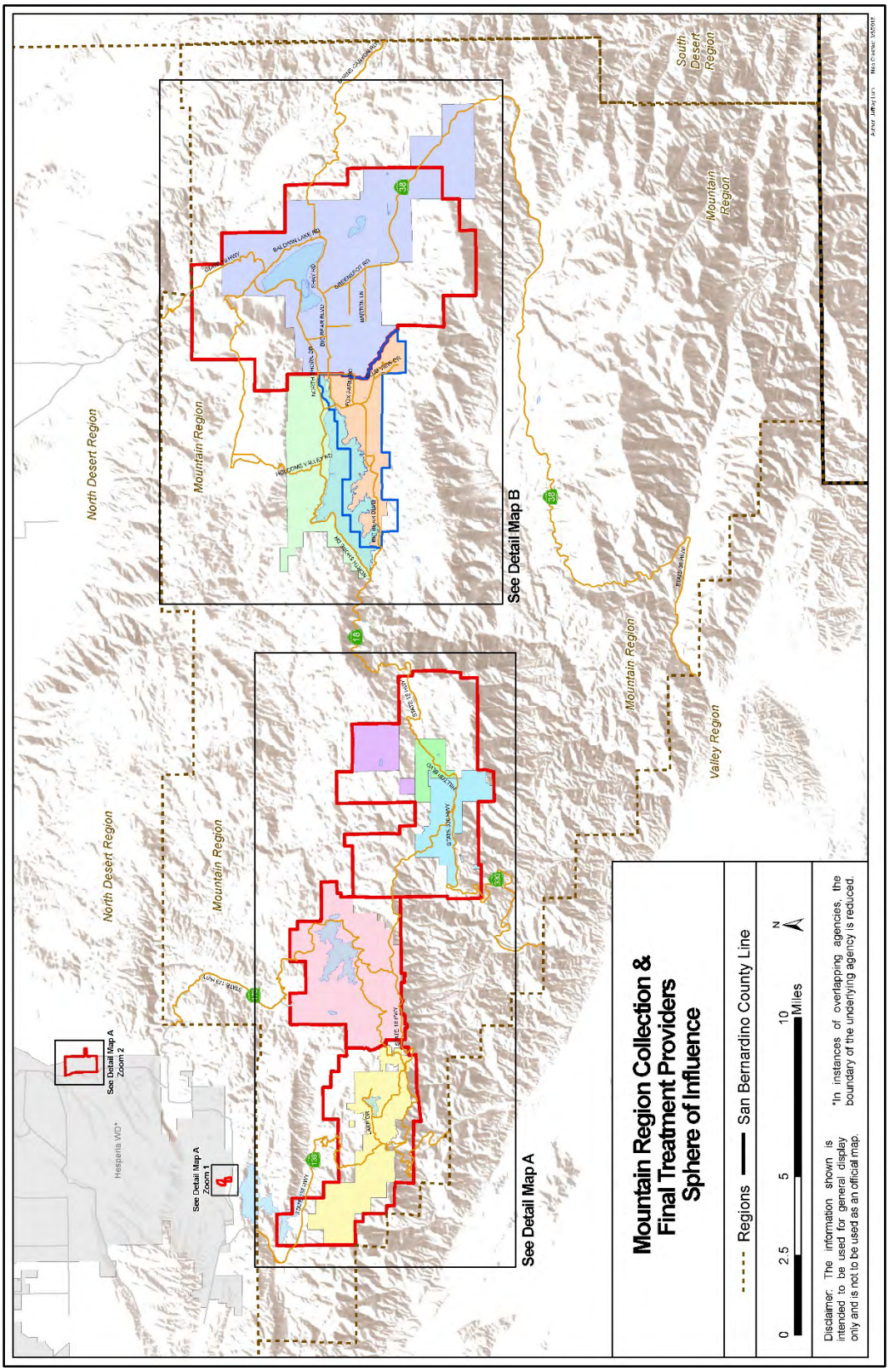
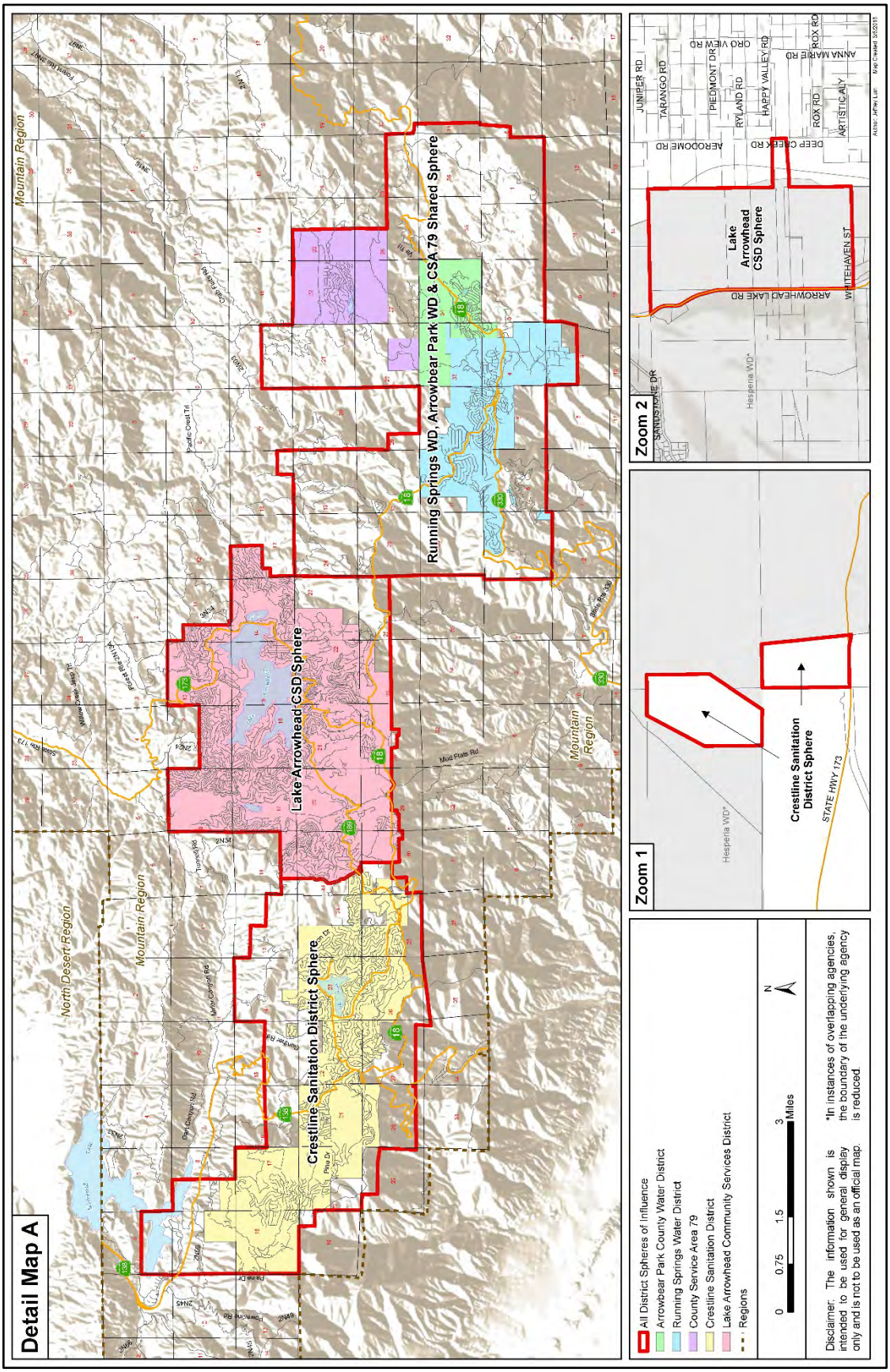
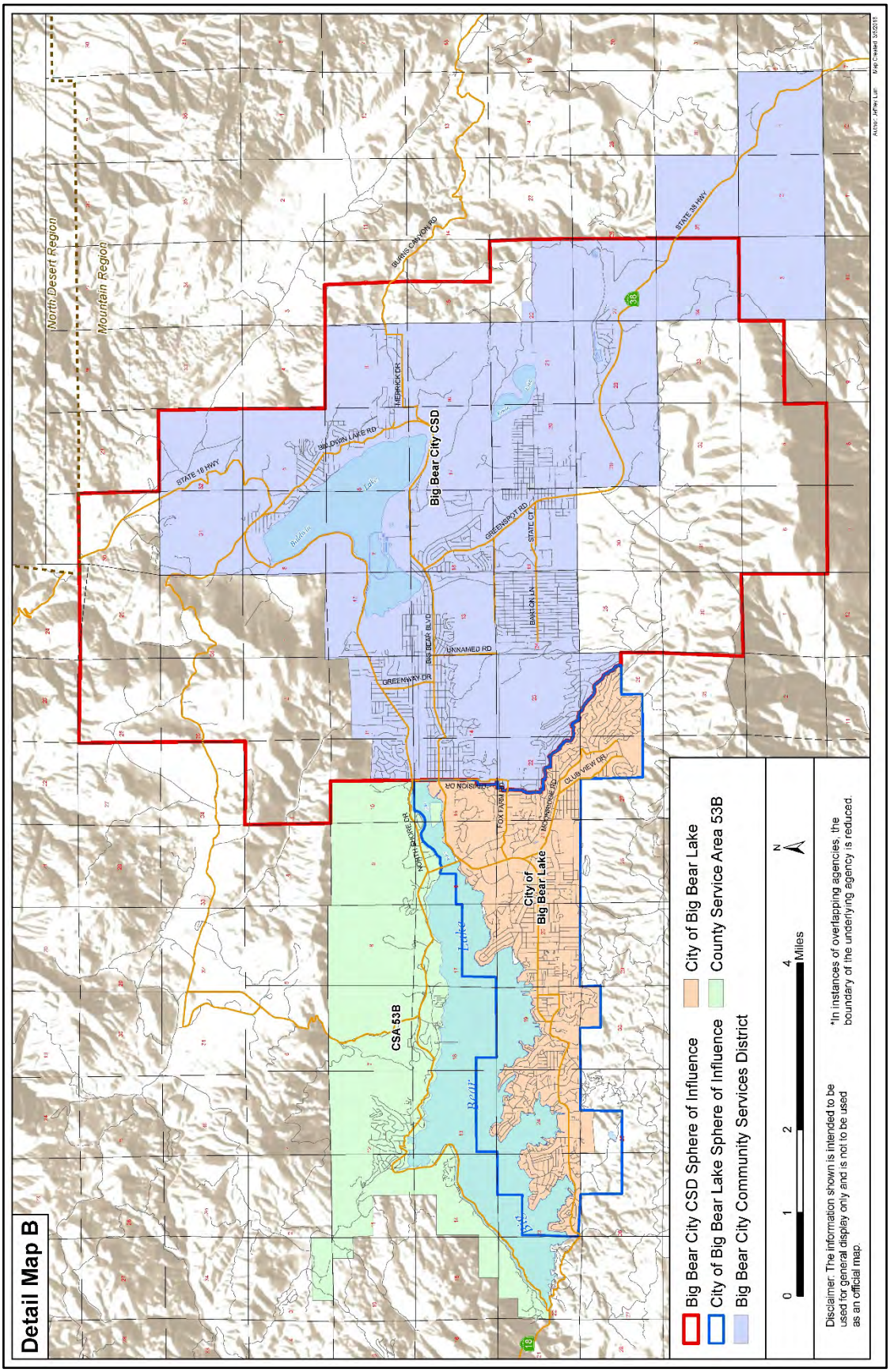

Detail Map B
Zoom 3
CSA 53B
EAST END RD
CLARK ST
CUARTO ST
CAMP ROCK RD
FOOTHILL RD
LARAMIE RD
DIDO AVE
SUTTER ST
MOUNTAIN VIEW ST
ARROYO RD
SHERWOOD RD
WOODLAND ST
Agencies under Big Bear Area Regional Wastewater Agency for Final Treatment
Big Bear Area Regional Wastewater Agency
City of Big Bear Lake
County Service Area 53B
Big Bear City Community Services District
Regions
Disclaimer. The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
North Desert Region
Mountain Region
Big Bear City CSD
City of Big Bear Lake
CSA 53B
Big Bear Lake
STATE 38 HWY
GLEN HELEN PKWY
CAMP RD
CLARKS GRD
MINNOW LN
STATE LN
LAKEWOOD DR
OCEAN BLVD
WILLOW LN
FOX LN
PINE LN
VICTORIA AVE
INYO AVE
BIG BEAR BLVD
GOLF RD
PIONEER LN
JUNIPER DR
SWAN DR
CANYON RD
GLASS RD
FAIRVIEW DR
GOLF COURSE RD
LAKE DR
DUMP RD
CASSEN DR
EAST FERN RD
Miles
Yards

Figure 5-2: Mountain Region – Agency Sphere of Influence Map




Detail Map A
Mountain Region
North Desert Region
Mountain Region
Lake Arrowhead CSD Sphere
Running Springs WD, Arrowbear Park WD & CSA 79 Shared Sphere
Crestline Sanitation District Sphere
Mountain Region
Zoom 1
Hesperia WD*
Crestline Sanitation District Sphere
STATE HWY 173
Zoom 2
Hesperia WD*
Lake Arrowhead CSD Sphere
ARROWHEAD LAKE RD
WHITEHAVEN ST
SANDSTONE DR
JUNIPER RD
TARANGO RD
PIEDMONT DR
ORO VIEW RD
RYLAND RD
HAPPY VALLEY RD
AERODOME RD
DEEP CREEK RD
ROX RD
ANNA MARIE RD
ARTISTIC ALY
All District Spheres of Influence
Arrowbear Park County Water District
Running Springs Water District
County Service Area 79
Crestline Sanitation District
Lake Arrowhead Community Services District
Regions
0 0.75 1.5 3 Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.


Detail Map B
North Desert Region
Mountain Region
Big Bear City CSD
City of Big Bear Lake
CSA 53B
Big Bear Lake
STATE 18 HWY
STATE 38 HWY
BIG DRIFT BLVD
GREENWAY DR
GREENSPOT RD
BARTON LN
UNNAMED RD
CLUB VIEW DR
FOX FARM RD
NORTH SHORE DR
BURRIS CANYON RD
HEIDRICK DR
Big Bear City CSD Sphere of Influence
City of Big Bear Lake Sphere of Influence
Big Bear City Community Services District
City of Big Bear Lake
County Service Area 53B
0
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2
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Miles
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Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

PRIMER ON SPHERES OF INFLUENCE

Government Code Section 56076 defines a "sphere of influence" as a plan for the probable physical boundaries and service area of a local agency, as determined by the commission.

The purpose of a sphere of influence is to encourage the logical and orderly development and coordination of local government agencies so as to advantageously provide for the present and future needs of the county and its communities. The statement of purpose adopted by San Bernardino LAFCO for spheres of influence include seven points. Those pertinent to this analysis are:

- To promote orderly growth of communities, whether or not services are provided by a city or district (board governed or independently governed);

- To encourage economical use and extension of facilities by assisting governmental agencies in planning the logical and economical extension of governmental facilities and services, thereby avoiding duplication of services;

- To provide assistance to property owners in relating to the proper agency to comprehensively plan for the use of their property;

- To encourage the establishment of urban-type services only within an adopted sphere of influence.

San Bernardino LAFCO has adopted ten polices related to a sphere of influence. Those pertinent to this analysis are:

- RESPONSIBILITY/OBLIGATION FOR A SPHERE OF INFLUENCE AREA

When a sphere of influence is assigned, a city or district is required to commence long range land use and service planning activities, thereby enabling it to respond to any annexation requests it might receive from landowners or residents within the sphere. By accepting a sphere of influence, a city or district agrees to plan for the provision of services.

- URBAN DEVELOPMENT WITHIN A CITY SPHERE

LAFCO takes the position that any new urban development which occurs within a city sphere of influence should take place as close to the city's urban area as possible. This position is emphasized for two reasons: first, so that contiguous areas may easily be annexed to the city; and secondly, so that the new urban area can be served by reasonable extension of the city's already developed municipal services.

PRIMER ON OUT-OF-AGENCY SERVICE

Beginning January 1, 1994, Local Agency Formation Commissions were charged with the responsibility for reviewing and taking action on a city or district contract to extend service outside its jurisdiction under the provisions of Government Code Section 56133. These are unique actions not directly related to the processing of other types of proposals as defined in the Local Government Reorganization Act and these policies and procedures will provide guidance on their processing.

Unlike the normal initiation process for proposals for jurisdictional change, Section 56133 provides that only a city or district may request LAFCO review of an out-of-agency service agreement/contract.

Exemptions

Section 56133(e) provides for six exemptions from written Commission approval to provide new or extended services outside its jurisdictional boundary. Those applicable for this service review are:

- Two or more public agencies where the public service to be provided is an alternative to, or substitute for, public services already being provided by an existing public service provider and where the level of service to be provided is consistent with the level of service contemplated by the existing service provider.

- An extended service that a city/district was providing on or before January 1, 2001.

For a request for exemption pursuant to Section 56133(e), the Commission shall make the determination that the service(s) to be provided is/are exempt from LAFCO review. (Policy and Procedure Manual Section IV, Chapter 2, Policy 5).

Pilot Program

Section 56133.5 (Assembly Bill 402 effective 2016) establishes a pilot program, through 2020, for Napa and San Bernardino LAFCOs to authorize a city or district to extend services outside of a sphere for additional purposes beyond responding to threat to public health or safety, based upon specific criteria. This process requires that the Commission make the following determinations regarding the area to be served outside the agency's sphere of influence, at a noticed public hearing:

- That the proposed service extension was identified and evaluated in a service review;

- That the proposed service extension will not have an adverse impact on open space/agricultural lands and/or is not growth inducing; and,

- That inclusion of the area to be served into the agency's sphere of influence is not feasible or desirable based on adopted commission policies.

B. IDENTIFICATION OF HOT SPOTS

(1) Hotspot Objective and Criteria

The primary objective of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, (2) initiate sphere of influence updates where appropriate, and (3) monitor specific agencies where appropriate. The identification of "hot spots"[2] is used to arrive at these recommendations - those agencies within the county which have significant wastewater issues including, but not limited to:

Wastewater Agencies – identification may include one or more of the following:

- Governance (inadequate oversight and monitoring, financial challenges)
- Collection System (deficiencies, challenges)
- Treatment System (deficiencies, challenges)
- Disposal System (deficiencies, challenges)

Agency Sphere of Influence, outside boundary – factors may include:

- Septic prohibition by State Water Board
- Clusters of onsite wastewater treatment systems
- Septic proximity to groundwater wells or impaired water body
- Located within a disadvantaged community
- DWR groundwater basin priority and basin population growth

To identify the county's wastewater "hot spots", staff utilized a multi-pronged approach. Sources include:

- Local agencies: Agency information reviewed in Appendix C to include audits and budgets, wastewater master plans, water master plans, urban water management plans, integrated regional water management plans, sewer system management plans, and local agency management plans.

- Regional Context: Regional information reviewed in Section VI to include local agency management plans, and septic system locations.

- State Water Board: Violations, orders, resolutions, inspections, and overflow.

- LAFCO: Previous service reviews and findings, LAFCO's geographic information system ("GIS") was also used to identify future population growth areas, disadvantaged unincorporated communities, and septic tank use.

(2) Hot Spots – Wastewater Agencies: Boundary and Sphere of Influence

The criteria listed in Table 5-2, below, were used to identify hot spots. In the Mountain Region, there are no agencies that warrant a hot spot designation.

[2] In wastewater parlance, "hot spot" is a term to identify distressed areas of a wastewater pipe. For its second round of service reviews, San Bernardino LAFCO uses "hot spot" as an agency that has significant challenges.

Table 5-2:
Hot Spot Summary – Mountain Region

Key Code	● Yes or High ◑ Portion or Moderate	? Unknown ○ No or Low	CSD = Community Services District

Agency Boundary and/or Sphere	**Wastewater Agencies**				**Agency Sphere of Influence, beyond boundary**									
	Governance	**Collection System**	**Treatment System**	**Disposal System**	**Septic Prohibition by Water Board**	**Clusters of Septic Systems**	**Septic Proximity to Water Wells**	**Septic Proximity to Impaired Water Body**	**Within Disadvantaged Community**	**DWR Groundwater Basin Priority**	**Basin Population Growth**	**Other Matters Identified by LAFCO**	**Hot Spot, within Boundary**	**Hot Spot, within Sphere**
Arrowbear Park CWD	○	○	--	--	○	○	○	○	●	--	--	○		
Big Bear Area Regional Wastewater Agency	○	○	○	○	--	--	--	--	--	--	--	○		
Big Bear City CSD	○	○	--	--	○	◑	◑	●	◑	Med	○	○		
City of Big Bear Lake	○	○	--	--	○	◑	◑	●	◑	Med	○	○		
County Service Area 53 Zone B	○	○	--	--	○	○	◑	●	◑	--	--	○		
County Service Area 79	○	○	--	--	○	○	○	○	●	--	--	○		
Crestline Sanitation District	○	◑	○	◑	●	●	◑	○	◑	--	--	○		
Lake Arrowhead CSD	○	◑	○	◑	●	◑	◑	○	◑	--	--	○		
Running Springs Water District	○	○	○	○	○	○	○	○	○	--	--	○		

C. IDENTIFICATION OF OPPORTUNITIES

(1) Objective and Criteria

LAFCO Service Reviews

A service review factor requires LAFCO to review governmental structure and operational efficiencies. The State has published advisory guidelines for LAFCOs to address all of the substantive issues required by law for conducting a service review[3]. The Guidelines address 49 factors in identifying an agency's government structure options. Themes among the factors include but are not limited to: more logical service boundaries, elimination of overlapping boundaries that cause service inefficiencies, economies of scale, opportunities to enhance capital improvement plans, and recommendations by a service provider.

In some cases, functional consolidation or integration can reduce costs so that services can be maintained and improved with fewer dollars. A service review should address possible options for the community to consider for the future. Movement towards these scenarios would include, but not be limited to, the requirement to prepare a plan for service, fiscal impact analysis, and any other required studies.

The preamble to the Local Government Reorganization Act states that while the Legislature recognizes the critical role of many limited purpose agencies, especially in rural areas, it finds and declares that a single multipurpose governmental agency accountable for community service needs and financial resources may be the best mechanism for establishing community service priorities.

Little Hoover Commission

The State's Little Hoover Commission[4], like LAFCOs, is a strong proponent of eliminating overlapping, inefficient government agencies. The Commission's website reads that, "While the strengths of special districts include their ability to provide specific, customized services and be responsive to local customers, their challenges include low civic visibility and limited oversight." Historically, the Commission has expressed sentiments such as:

[3] State of California. Governor's Office of Planning and Research. "Local Agency Formation Commission Municipal Service Review Guidelines", August 2003.

[4] The Little Hoover Commission, formally known as the Milton Marks "Little Hoover" Commission on California State Government Organization and Economy, is an independent state oversight agency that was created in 1962. The Commission's mission is to investigate state government operations and – through reports, recommendations and legislative proposals – promote efficiency, economy and improved service. The Commission works to implement its recommendations either through legislation or administrative changes. New hearings are held and progress reports are issued in the years following the initial report until the Commission's recommendations have been enacted or its concerns have been addressed.

- There are far too many special districts in California
- LAFCOs should act proactively to initiate and/or facilitate district consolidations.
- LAFCOs should follow up on previous service review recommendations and take action when and where it is appropriate.

The Little Hoover Commission recently reviewed California's vast network of local governing agencies known as special districts. A final report, "Special Districts: Improving Oversight & Transparency", was issued in August 2017 and addressed four key topics: (1) opportunities to bolster the effectiveness of Local Agency Formation Commissions; (2) the continued need for districts to improve transparency and public engagement; (3) the evolution of healthcare districts; and, (4) the urgency of climate change adaptation and the role of special districts.

(2) Government Structure Options

In the Rim Communities (Crest Forest, Lake Arrowhead, Hilltop) multiple agencies provide a variety of services. Therefore, the subject matter overlaps service reviews. This discussion was presented in the Countywide Service Review for Water (2017), and is being presented again in this service review. Following the completion of this service review, LAFCO will conduct a countywide service review for fire protection/emergency response/ambulance services. A final recommendation regarding reorganization options for this area will be included in that service review.

As identified in prior service reviews, there are opportunities within the Crest Forest, Lake Arrowhead and Hilltop communities for service consolidations. The table, below, identifies the service providers (water, sewer, fire) in each of the three communities. (Not shown in the figure is the Rim of the World Recreation and Park District, which provides park and recreation services to the three communities.) Staff is highlighting these potential government reorganizations again for the Commission, the agencies, and the community in this report.

Historically, this Commission has been reluctant to move forward to formally initiate a district consolidation, opting instead to direct staff to conduct community meetings on service issues and/or try to encourage districts or communities to resolve their own issues. Many of these potential organizational consolidations have been discussed for decades and funded at local expense but have not been implemented. The Commission has the power to initiate district consolidations and may want to consider this option in some cases.

Table 5-3: Rim Communities Service Providers

Crest Forest	Lake Arrowhead	Hilltop
Water (wholesale)		
CLAWA	CLAWA	CLAWA
Water (retail)		
Crestline Village WD	Lake Arrowhead CSD	Running Springs WD
	CSA 70 Zone CG	Arrowbear Park CWD
	CLAWA (Imp. Districts A-D)	
Sewer (collection)		
Crestline SD	Lake Arrowhead CSD	Running Springs WD
		Arrowbear Park CWD
		CSA 79
Sewer (treatment)		
Crestline SD	Lake Arrowhead CSD	Running Springs WD
		Arrowbear Park CWD (contract w/ RSWD)
		CSA 79 (contract w/ RSWD)
Fire Protection		
County Fire	County Fire	Running Springs WD
		Arrowbear Park CWD
		County Fire (Green Valley Lake)
Ambulance		
County Fire	County Fire	Running Springs WD (EOA 19)

Key issues identified in prior service reviews, which are still evident are the following:

- Crest Forest – Crestline Village Water District and Crestline Sanitation District serve overlapping territory with matching boundaries in most places within a distinct community.

- Lake Arrowhead – Although Lake Arrowhead CSD is authorized to provide water service, two public agencies provide water within LACSD's boundaries: (1) County Service Area 70 Zone CG, and (2) Crestline-Lake Arrowhead Water Agency via four improvement zones when it assumed the service of failing private systems.

- Hilltop – Running Springs Water District and Arrowbear Park County Water District ("APCWD") serve adjacent territory and operate under the same parent act within a distinct community. APCWD and CSA 79 both contract with Running Springs Water District for wastewater treatment services.

Through reorganization, a reduction in administrative and staffing costs would likely occur for these agencies. Specifically, there would only be the need for a single general manager and fire chief for the consolidated Hilltop area. Through assimilation of these districts into a single structure, the costs for these independent managerial positions can be reduced or eliminated and as well the duplicative

administrative charges of operating an agency (budgets, audits, legal counsel, insurance, purchasing, etc). For example, the Incorporation Feasibility Analysis (potential new city for the Rim Communities) supports the economies of scale notion. The report states, "…costs associated with the various water and sanitation districts are assumed to benefit from a 15% reduction for the consolidation of management, finance, and other administrative expenditures."

These circumstances are reviewed in more detail below.

Crest Forest

The Crestline Village Water District and Crestline Sanitation District serve overlapping territory with matching boundaries in most places within a distinct community. The *2010 Crest Forest Community Service Review* and *2017 Countywide Water Service Review* identified that a consolidation of water and wastewater services under a single agency would benefit the community. The two means of consolidating services would be either:

- Consolidation with the Crestline Village Water District as the successor agency (since county water districts can provide sewer, not vice versa), or

- Formation of a community services district (a single, multi-purpose special district). For San Bernardino LAFCO, the establishment of a community services district has been used to establish independent government structures that allow for the fostering and nurturing of communities for a future incorporation, maintaining their separate identity. Establishment of the Crest Forest community designation is a first step in this process.

These options would provide for an efficient service delivery pattern for the full range of services available within the community through a single agency. Additionally, such a consolidation would solidify the community through a single service agency.

Lake Arrowhead

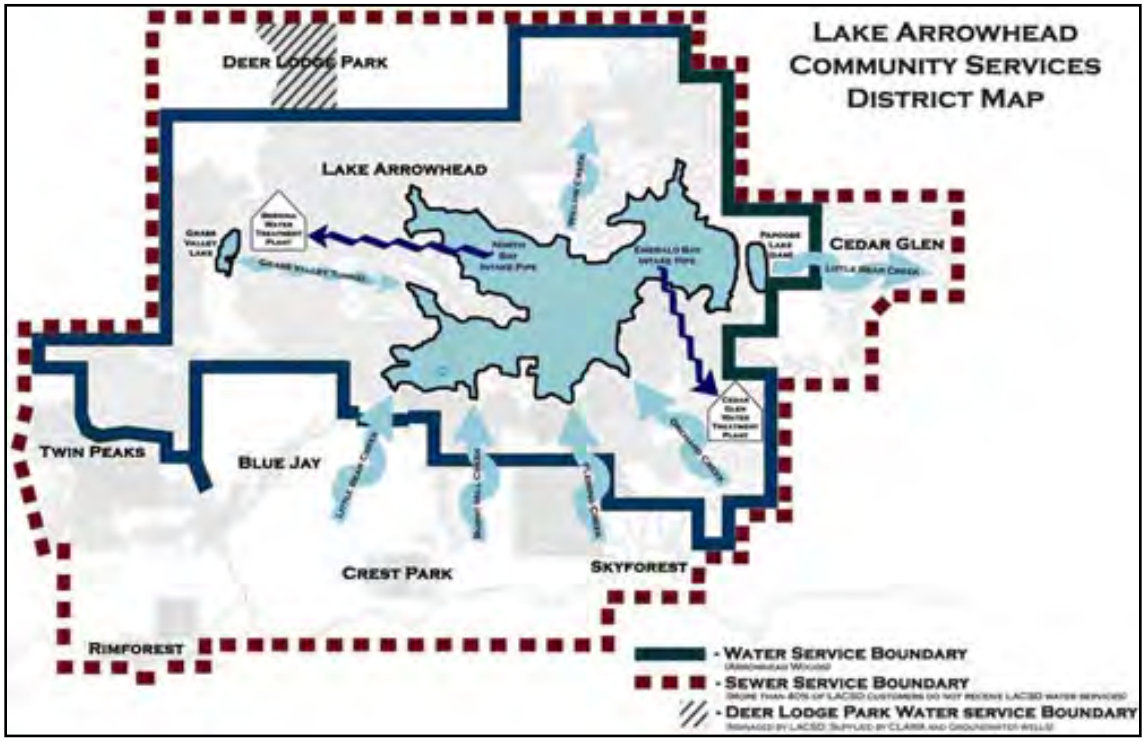
In the last 30 years, there have been four attempts to study potential incorporation for the Lake Arrowhead area, but none have made it past the petition stage for political, not financial, reasons. The most recent attempt to study the matter was an Incorporation Feasibility Analysis for incorporation of the general Rim Communities area (September 2015) sponsored by the Second Supervisorial District.

The *2010 Lake Arrowhead Community Service Review* and *2017 Countywide Water Service Review* identified that there are two public agencies that provide water within Lake Arrowhead Community Services District's ("LACSD") boundaries. The options, outlined below, would reduce multiple public agencies overlaying the same area that provide the same service. Since the service areas of these agencies are already within the boundaries of LACSD, these scenarios would not require LAFCO approval or a vote of the electorate and would be subject to negotiation between the appropriate agencies.

- *CSA 70 Zone CG*. In this scenario, LACSD would assume responsibility for County Service Area 70 Zone CG's ("Zone CG") water service and would succeed to Zone CG's water system, assets, and liabilities.

- *Crestline-Lake Arrowhead Water Agency Improvement Districts.* At the time that CLAWA created Improvement Districts A, B, C, and D, there was no other public water agency available to provide the service. However, in 1983, LACSD was expanded to include the boundaries of the Lake Arrowhead Sanitation District and assumed that agency's services. Today, the majority of CLAWA's improvement districts are within LACSD, and the District could assume the retail responsibility for at least Improvement Districts A and C, and the majority of Improvement District B and the developed portions of Improvement District D.

Figure 5-3:
Lake Arrowhead CSD Water Service Area



Hilltop

The possibility of consolidating the two county water districts (Running Springs Water District and Arrowbear Park County Water District) in the Hilltop community has been discussed since the early 1970s. The 1973 LAFCO staff report recommending sphere boundaries for these two water districts stated that the districts should consider consolidation since both provide similar services and have coterminous boundaries.

In 1995, the Running Springs Water District and the Arrowbear Park County Water District formed a consolidation committee to review the possibility of consolidating the two water districts. During 1995, the districts met voluntarily to review the possibility; however, no outcomes following the meetings were presented to LAFCO. Two years later, at the April 1997 LAFCO hearing, LAFCO staff requested that the Commission consider initiating a study for the consolidation of the two districts. According to the hearing minutes, representatives from both districts stated that consolidation should eventually occur but disparity in service costs existed between the districts. The Commission urged the two districts to continue to discuss consolidation and look for ways to work together.

The Running Springs Water District and Arrowbear Park County Water District serve adjacent territory and operate under the same parent act within a distinct community. Running Springs Water District provides the same services as Arrowbear Park CWD (retail water, sewer collection, and fire protection) and provides the additional services of sewer treatment (Arrowbear Park CWD contracts with Running Springs WD for treatment) and ambulance (serves the Hilltop community and more granted by Exclusive Operating Area 19).

The two districts and CSA 79 already work together and share facilities. The wastewater collected by the agencies flows into the treatment plant maintained by Running Springs WD. The capital investment and maintenance costs for the treatment plant located within the Running Springs WD are shared by Arrowbear Park CWD, CSA 79, and Running Springs WD based on a proportionate share of costs. If the districts consolidate, the roads function of CSA 79 would be removed since the funding mechanism for the service is through its zone R-1 and would be transferred to either a regional road/snow removal entity or through the conversion to a zone of CSA 70.

The *2011 Hilltop Community Service Review* and *2017 Countywide Water Service Review* identified that a consolidation of water and wastewater services under a single agency would benefit the community. The two means of consolidating services would be either:

(1) Consolidation with one of the districts as the successor agency, or

(2) Formation of a community services district (single, multi-purpose).

These options would provide for an efficient service delivery pattern for the full range of services available within the community through a single agency. Additionally, such a consolidation would solidify the community through a single service agency.

In March 2011, the Commission assigned a combined sphere of influence for the Running Springs Water District, Arrowbear Park County Water District, and County Service Area 79.[5] This action signaled the Commission's intent for a future change of organization.

[5] LAFCO Resolutions 3134, 3131, and 3133, respectively.

By way of reference, in January 1977, the Running Springs Water District entered into a contract to provide transportation and treatment of domestic wastewater collected from Arrowbear Park County Water District. The 40-year contract between the two districts expired in June 2017.

A new agreement between the Running Springs and Arrowbear Park Districts was executed on March 21, 2018. The agreement has a ten-year term, with automatic ten-year renewals unless either party provides written notice at least 12 months prior to the end of the current term. LAFCO staff continues to see the long-term financial and operational benefits to the community of a consolidation of districts or the formation of a community services district in this area for all the reasons outlined above. With the recent execution of the new agreement between Running Springs and Arrowbear Park Districts, however, the possibility of either district moving forward in the near term with a reorganization proposal remains unlikely.

(3) Areas with Onsite Wastewater Treatment Systems

The focus of this analysis is not to simply show the areas that lack access to a municipal wastewater collection. The goal is to identify infrastructure needs or deficiencies related to sewers within or contiguous to the sphere of influence, especially those in a disadvantaged unincorporated community (see Gov Code §56430).

LAFCO staff mapped the developed areas of the Mountain Region against the boundary and service areas of the municipal wastewater agencies. The methodology presumes a parcel outside an agency boundary uses a septic system unless it has been identified by LAFCO or the agency as being served. The analysis includes the following criteria: septic prohibition by Water Resources Board, clusters of septics, septic proximity to groundwater wells, and septic proximity to an impaired water body. Additional criteria include if the area is within a disadvantaged community, a groundwater basin designated as a high priority by the State, and the groundwater basin's population growth.

Given the direction of Gov. Code §56430 and the Commission's policies related to spheres of influence and service reviews, the areas discussed below are identified as areas outside an agency's boundary that would benefit from an organized wastewater collection system.

Lake Williams

Lake Williams is a community located in the San Bernardino Mountains approximately 3.5 miles southeast of the Baldwin Lake. Although the community is within the boundary of an agency that is authorized to provide wastewater services, the Big Bear City Community Services District, the service is not currently available to this community. All homes utilize on-site wastewater treatment systems ("OWTS") or septic tanks, with many homeowners also utilizing private wells.

For retail water, the City of Big Bear Lake Department of Water and Power ("BBLDWP") provides water to residents from two municipal supply wells located in the Lake Williams area. Even though the BBLDWP serves the community, it is not within the boundary or sphere of influence of the City.[6] Point being, BBLDWP noted an increase in nitrate levels in one of the municipal supply wells beginning in 1990.

Contaminant Study

The following information was obtained from the County's Local Agency Management Program ("LAMP") regarding how these levels are being mitigated and/or managed.

> After noting the increased nitrate levels in the municipal well water, BBLDWP funded a study in 2006 which was conducted by Geoscience Support Services, Inc. This study was done in an effort to mitigate and/or manage the nitrate levels before they exceeded the 10 milligrams per liter (mg/L) maximum contaminant level (MCL) for Nitrate as Nitrogen. The study determined there had been a steady increase in nitrate levels which was attributed to OWTS.
>
> Based on the study, the wells which show an increase in nitrate levels were found down gradient of the Lake Williams community. In an effort to protect water quality, public health and safety, and mitigate an increase in nitrate concentrations, the following requirements have been established:
>
> - Alternative treatment systems will be required for all new developments in the Lake Williams area.
>
> - Replacement OWTS will be reviewed on a case-by-case basis to determine whether a conventional or alternative OWTS will be required, taking into account:
>
> - Groundwater nitrate levels,
> - Septic system density, and
> - Type of failure.

Opportunity

Due to the sensitivity of the Lake Williams community, LAFCO staff encourages the Big Bear City Community Services District to explore means to connect the area to its wastewater collection system. The identification is not to call for immediate Commission action; rather it is for the agency to fulfill its responsibility of having a sphere of influence assignment and plan for the provision of services, in this case wastewater collection.

[6] For more information see LAFCO 3187, Section IV – Mountain Region.

Additional Areas

In addition to areas within a sphere of influence, the Commission has defined the study area of this service review as the County. Therefore, LAFCO staff is identifying the infrastructure needs or deficiencies of areas that are not within a wastewater agency sphere of influence that could benefit from an organized system. LAFCO staff is not recommending any action or future study. Rather, staff encourages the areas to begin discussing its wastewater future.

- Waterman Canyon – The reason for identifying Waterman Canyon is that the community is adjacent to the southern sphere of influence of the Crestline Sanitation District ("Crestline SD"). One of mandatory service review factors requires LAFCO to identify infrastructure needs or deficiencies related to sewers within or contiguous to the sphere of influence.

  Waterman Canyon, which has an average elevation from 2,900 and 3,700 feet, is located north of the City of San Bernardino, just south of the community of Crest Forest. The community, which has approximately 100 full time residents, is generally south of Panorama Point, east of Marshall Peak, and west of Arrowhead Peak (approximately 7 miles north of the Interstate 210 Freeway along SR 18).

  This area is served water by the Camp Waterman Mutual Water Company. The estimated number of connections is 30, and there are additional improved parcels that have their own wells. Due to the low number of parcels, it is not feasible for the community to form its own treatment system.

  One option would be to expand the Crestline Sanitation District sphere of influence to include this area. This would allow for an agency, Crestline SD, to plan for the possibility of future service provision. However, what looks to be not a far distance on paper would require the downhill Camp Waterman area to send its collected product uphill to Crestline. Alternatively, a more feasible option would be for the area to form a district or zone to CSA 70 to collect wastewater and then enter into a contract with the City of San Bernardino and send the collected product downhill via gravity flow for treatment and disposal at the City's facilities.

- Angeles Oaks - The reason for identifying Angeles Oaks is that the community borders an impaired water body, Mountain Home Creek (which connects to another impaired water body, Mill Creek).[7]

  Angelus Oaks is a community located along SR 38, approximately four miles north of Mountain Home Village and Forest Falls. The area, which has an average elevation between 5,500 and 5,700 feet, is generally located west of

[7] For more information on impaired water bodies, see the Onsite Wastewater Treatment System portion of Section VI.

Constance Peak and north of Glen Martin Creek. The community has a population of approximately 290 full time residents. This area is served water by the Glen Martin Mutual Water Company. The estimated number of water connections is 339. Therefore, a localized system, possibly a zone to County Service Area 70, would benefit the area.

- Forest Falls - The reason for identifying Forest Falls is that the community borders an impaired water body, Mill Creek.

  Forest Falls is another community along Mill Creek Canyon located three miles easterly of Mountain Home Village. The area, with an average elevation between 5,000 and 6,000 feet, is located north of Cedar Mountain and Little San Gorgonio Peak, and south of the San Gorgonio Wilderness. The community has a population of approximately 950 full time residents and is best known for its waterfalls on Vivian and Falls Creeks. This area is served water by the Forest Falls Mutual Water Company, Big Pine Mutual Water Company, and Fallvale Services Company. The total estimated number of water connections is 775. The area also has the largest septic tank in the Mountain Region, at the Forest Home Christian Center, with a permitted design flow of 0.075 million gallons per day (75,000 gallons) and disposal though an underground leaching system. Therefore, a localized system, possibly a zone to County Service Area 70, would benefit the area.

D. STAFF RECOMMENDATIONS

As previously stated, the primary objective of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, (2) initiate sphere of influence updates where appropriate, and (3) monitor specific agencies where appropriate.

(1) Agencies under LAFCO Purview: Service Review Determinations

The following are the Mountain Region agencies that are under LAFCO purview for a service review:

- Arrowbear Park County Water District
- Big Bear Area Regional Wastewater Agency
- Big Bear City Community Services District
- City of Big Bear Lake
- County Service Area 53 Zone B
- County Service Area 79
- Crestline Sanitation District
- Lake Arrowhead Community Services District
- Running Springs Water District

Based upon new information received since the previous service review, staff recommends that the Commission update the previous service review determinations for the agencies listed above to include:

a. *Population, disadvantaged unincorporated communities, and regional information from Section VI.*
b. *Agency information from Appendix C.*

(2) Initiation of Sphere of Influence Updates and (3) Continued Monitoring

As reviewed previously in this Section, following the completion of this service review, LAFCO will conduct a countywide service review for fire protection/ambulance services. A final recommendation regarding potential agency reorganizations will be included in that service review. At this time, staff is not recommending the initiation of any sphere of influence updates in the Mountain Region.

In the Mountain Region, there are no wastewater collection or treatment agencies identified as hot spots. Therefore, there are no recommendations for Commission direction to monitor an agency.

SECTION VI
Mountain Service Review Update
Regional Update

OVERVIEW

As stated in the Introduction to this report, the focus and primary goal of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, and (2) initiate sphere of influence updates where appropriate, and (3) continued monitoring where appropriate. In order to fulfill the service review requirements of Govt. Code §56430, a review of the items, listed below, are included in this Section as they pertain to the Mountain Region.

A. Population, Location and Physical Setting
B. Disadvantaged Communities
    (1) Primer
    (2) Disadvantaged Unincorporated Communities
    (3) Disadvantaged Communities
C. Overview of Wastewater Treatment Systems
    (1) Treatment Agencies
    (2) Age of Pipelines
    (3) Discharge above 3,200 feet
    (4) Imported Water from Mountain into North Desert
    (5) Agricultural Land and Use
D. Onsite Wastewater Treatment Systems
    (1) Regional Board Overview
    (2) Prohibitions and Exceptions
    (3) County of San Bernardino LAMP

A service review update specific to each agency and its service area is included in Appendix C, which includes an agency profile, service area map (not necessarily boundary), and narrative of the agency wastewater system.

A detailed listing of treatment systems and municipal collection agencies is included as a part of Appendix F.

A. POPULATION, LOCATION AND PHYSICAL SETTING

The Mountain Region generally encompasses two distinct geographic areas. The western area contains the Rim Communities (Crest Forest, Lake Arrowhead, Hilltop). The eastern area, Bear Valley, includes the City of Big Bear Lake, Big Bear City, Baldwin Lake, and Fawnskin. The western and eastern portions of the Mountain Region are separated geographically by the Santa Ana Canyon which forms the broad valley of the Santa Ana River. Table 6-1 includes population projections for the Mountain Region through 2040. Overall, permanent population for the Mountain Region is expected to grow 18 percent by 2040. This does not include the part-time population that have second homes or are visitors. By 2040, the additional part-time population is expected to include at least an additional 20,000 people. Further, future land use designations are not anticipated to significantly increase density. This indicates that the Mountain communities are transitioning from part-time to full-time residency.

Table 6-1: Current and Projected Population Estimates – Mountain Region

PERMANENT POPULATION						
Agency	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**
Rim Communities						
Lake Arrowhead	12,579	12,829	13,085	13,347	13,614	13,886
Crest Forest	10,900	11,118	11,231	11,345	11,461	11,578
Hilltop	5,761	5,866	5,970	6,077	6,187	6,298
Bear Valley						
Unincorporated	14,113	15,038	16,030	17,088	18,216	19,418
City of Big Bear Lake	11,382	11,786	12,204	12,637	13,086	13,550
Mountain Region - Total	54,735	56,637	58,520	60,494	62,564	64,730
ADDITIONAL PART TIME POPULATION (as identified by the agency)						
Agency	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**
Lake Arrowhead CSD	2,404	2,331	2,404	2,433	2,433	2,433
City of Big Bear Lake	14,219	14,724	15,247	15,788	16,348	16,928
Additional Part time	**16,623**	**17,055**	**17,651**	**18,221**	**18,781**	**19,361**

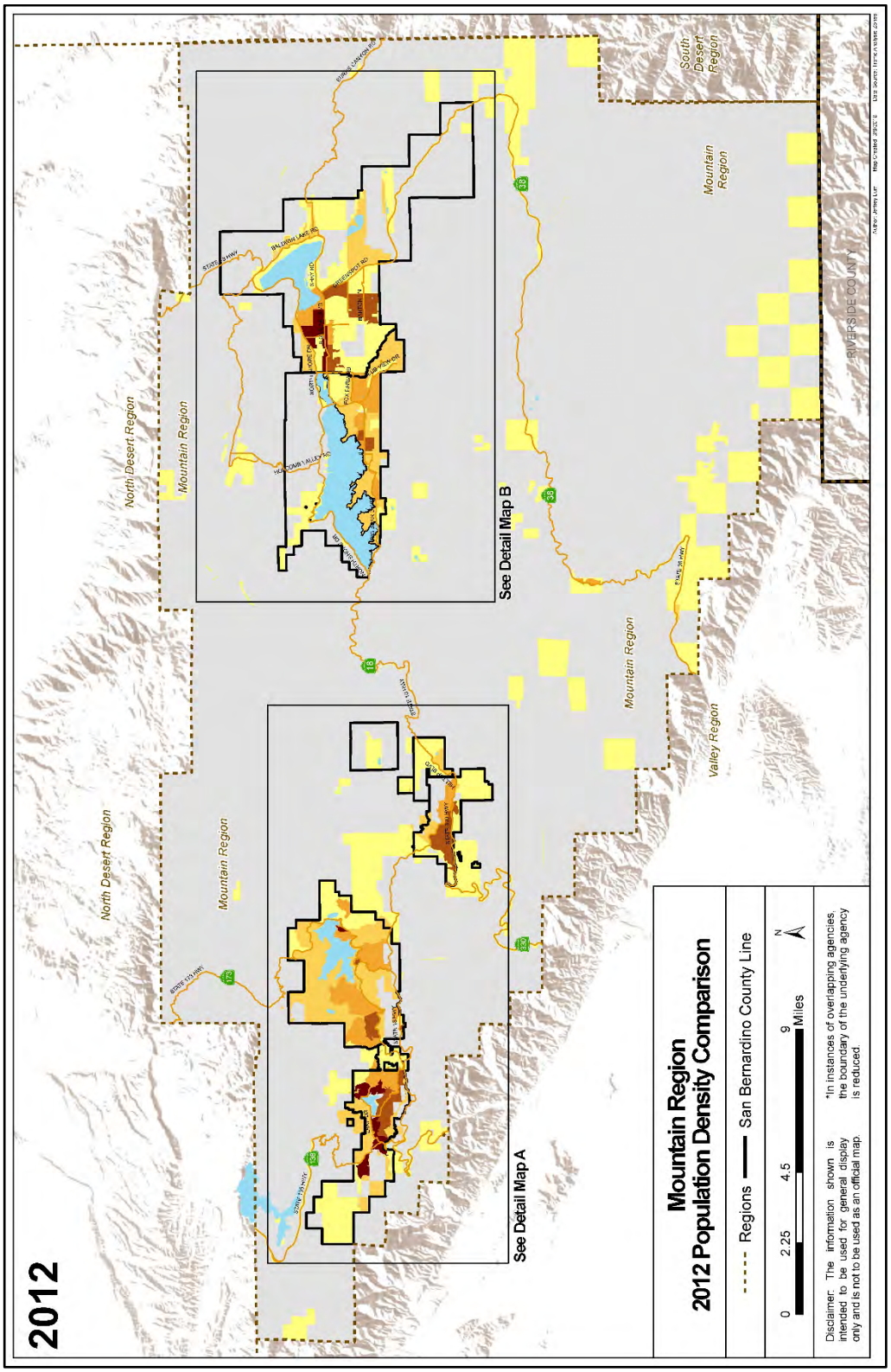
sources: Permanent Population (City of Big Bear Lake, San Bernardino County Draft Community Plans, LAFCO), Part-time Population (Agency UWMP)

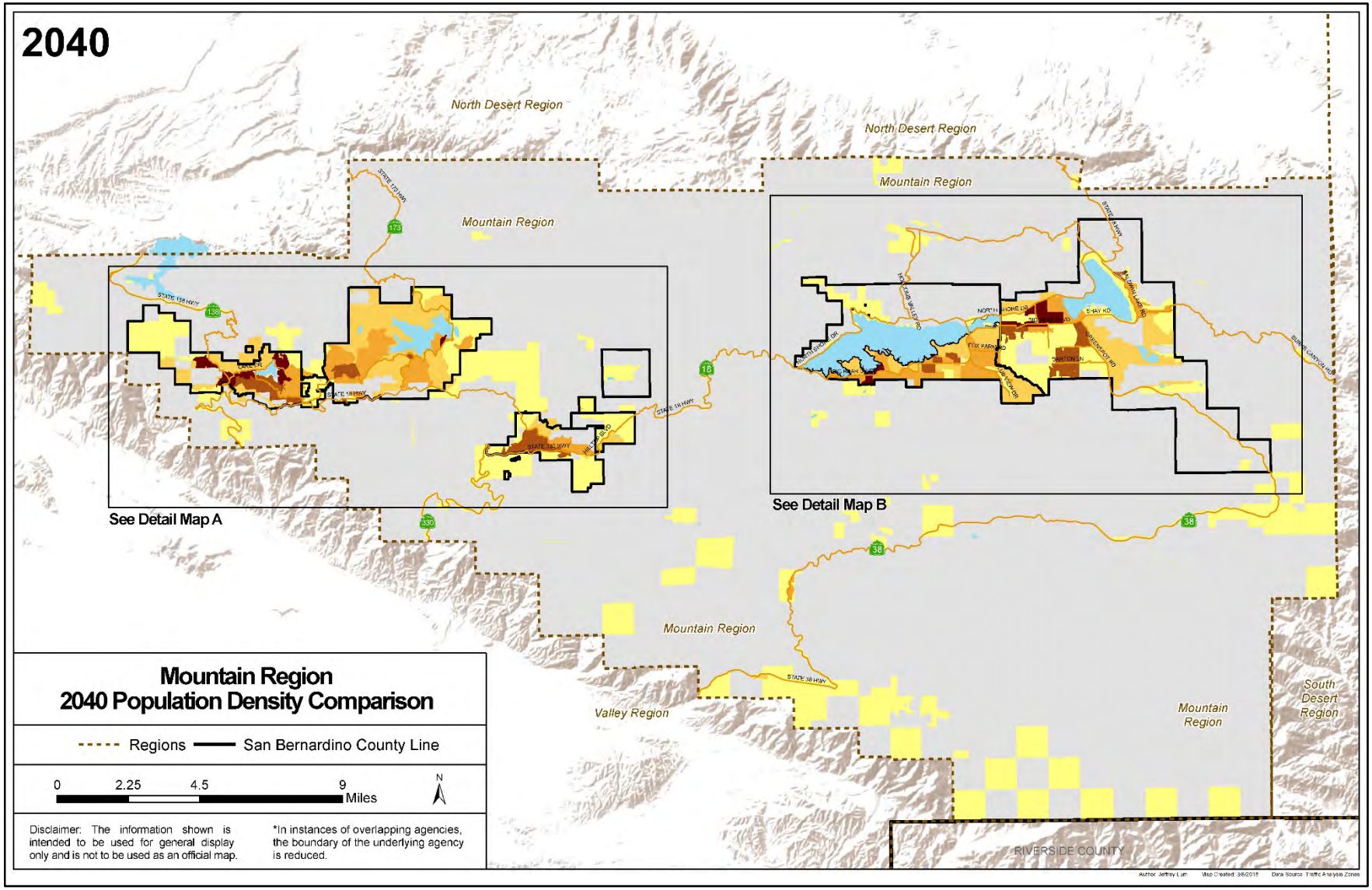
Figure 6-1, below, compares population density between 2012 and 2040[1]. As the figure illustrates, over the 25 years, the Mountain Region is not projected to significantly increase in density. In fact, many portions are not projected to increase at all due to the land use restrictions in place.

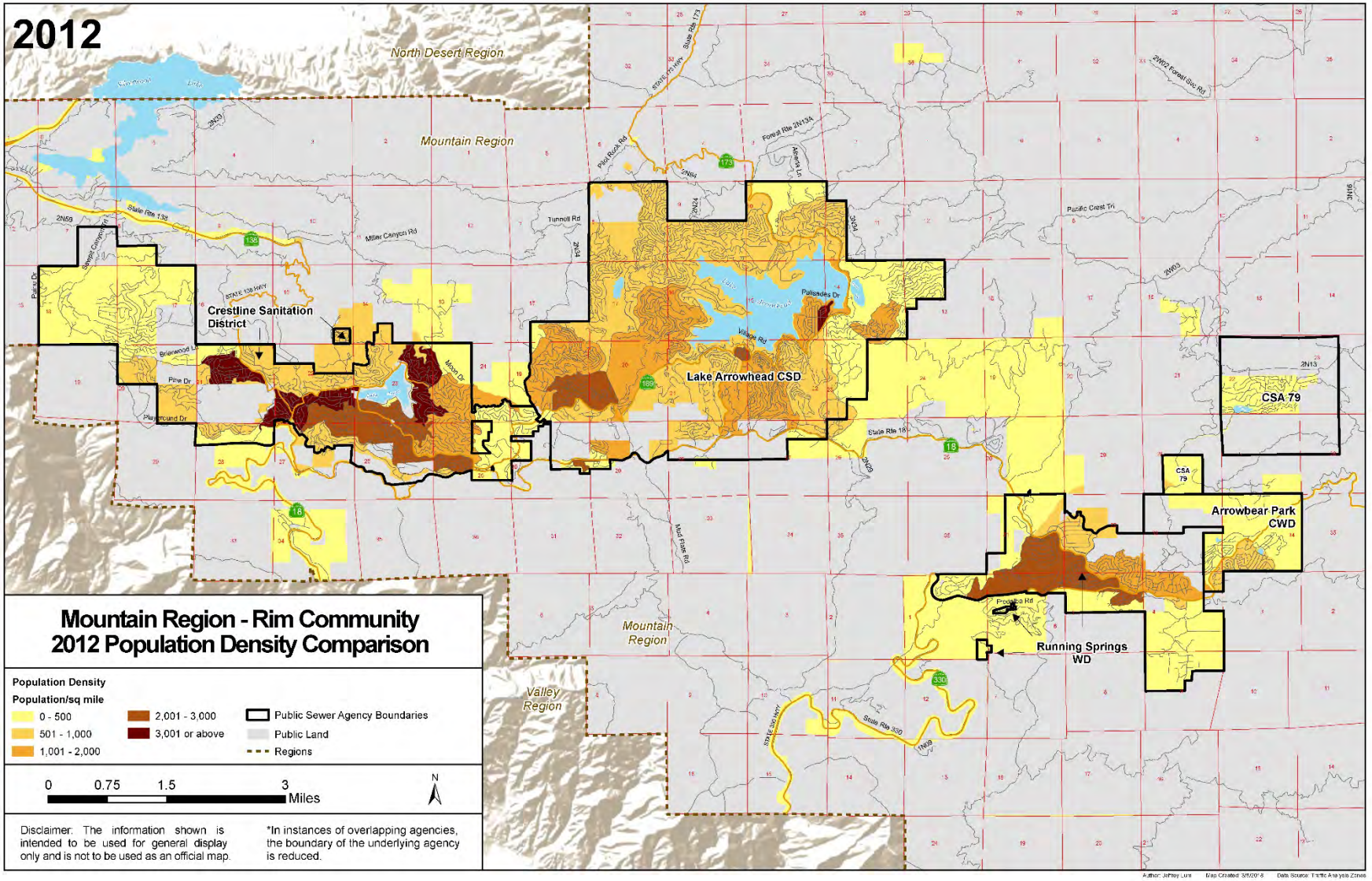
There is one outlier on the map that warrants discussion. The mapping shows the Baldwin Lake area by 2040 as having high density. The representation, although correct, may be misleading. The Baldwin Lake area is under a building moratorium (can only build if lots are consolidated) coupled with a discharging restriction of wastewater. These factors do not support an increase in density. The area is part of a larger census track that was at the high end of a lower density category in 2012 and is projected to move up to the lower end of a higher density category by 2040.

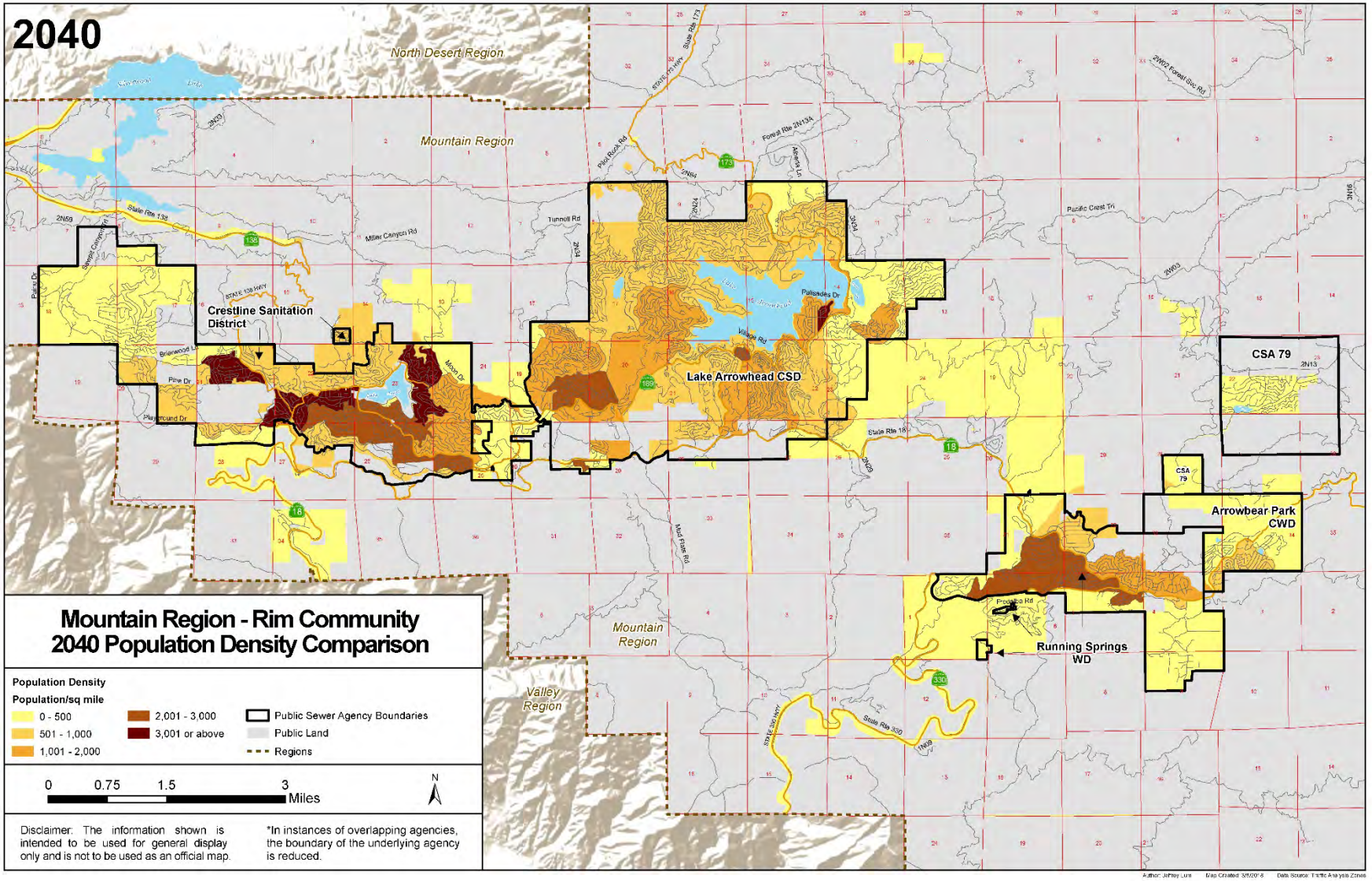
[1] The data sources are 2010 Census and transportation analysis zones from SCAG's 2040 Regional Transportation Plan. For this map, public lands are in the name of: United States of America, Government Land, State of California, and County of San Bernardino, as identified by the County Assessor.

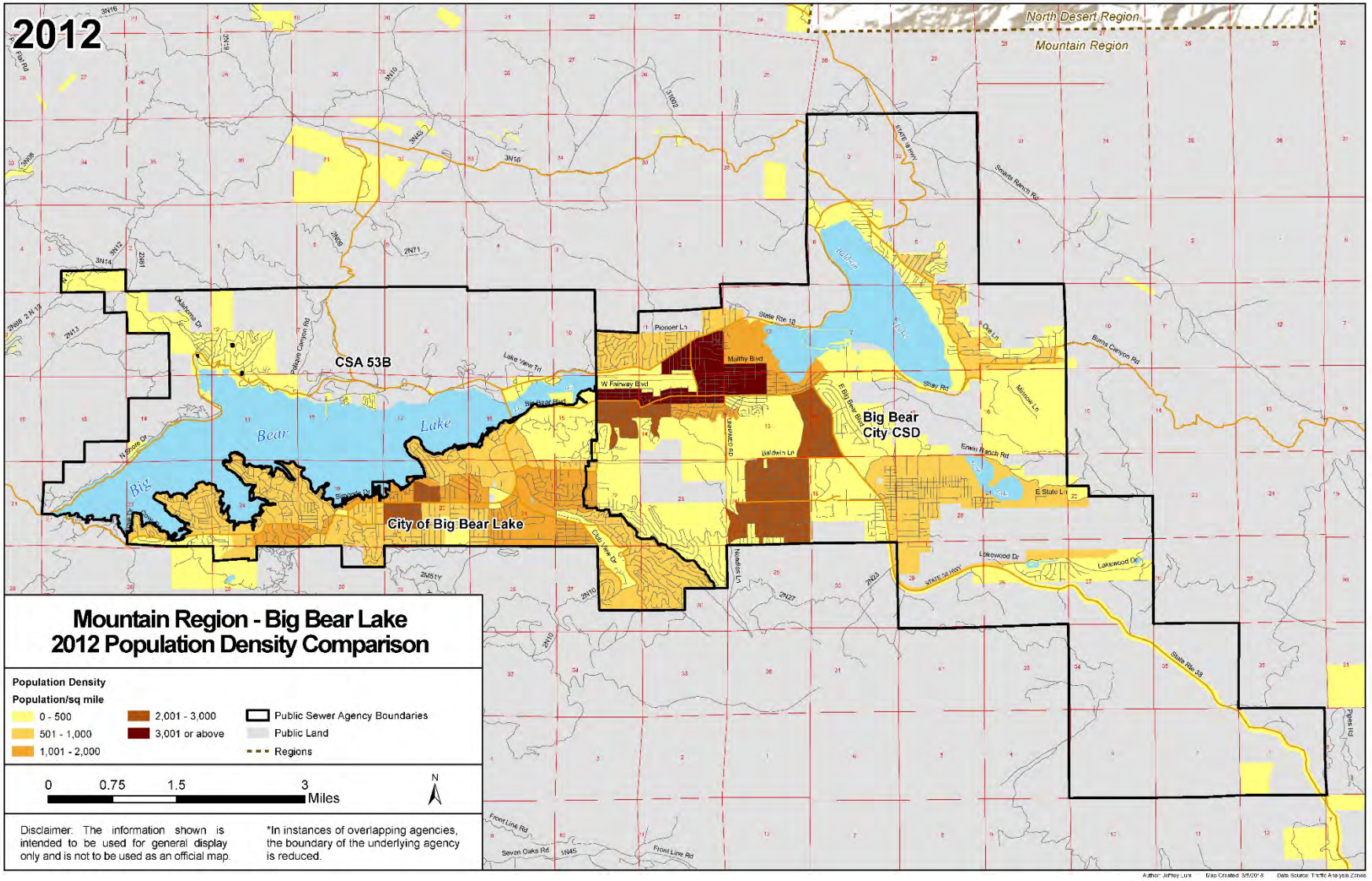
Figure 6-1:
2012 and 2040 Density Comparison – Mountain Region

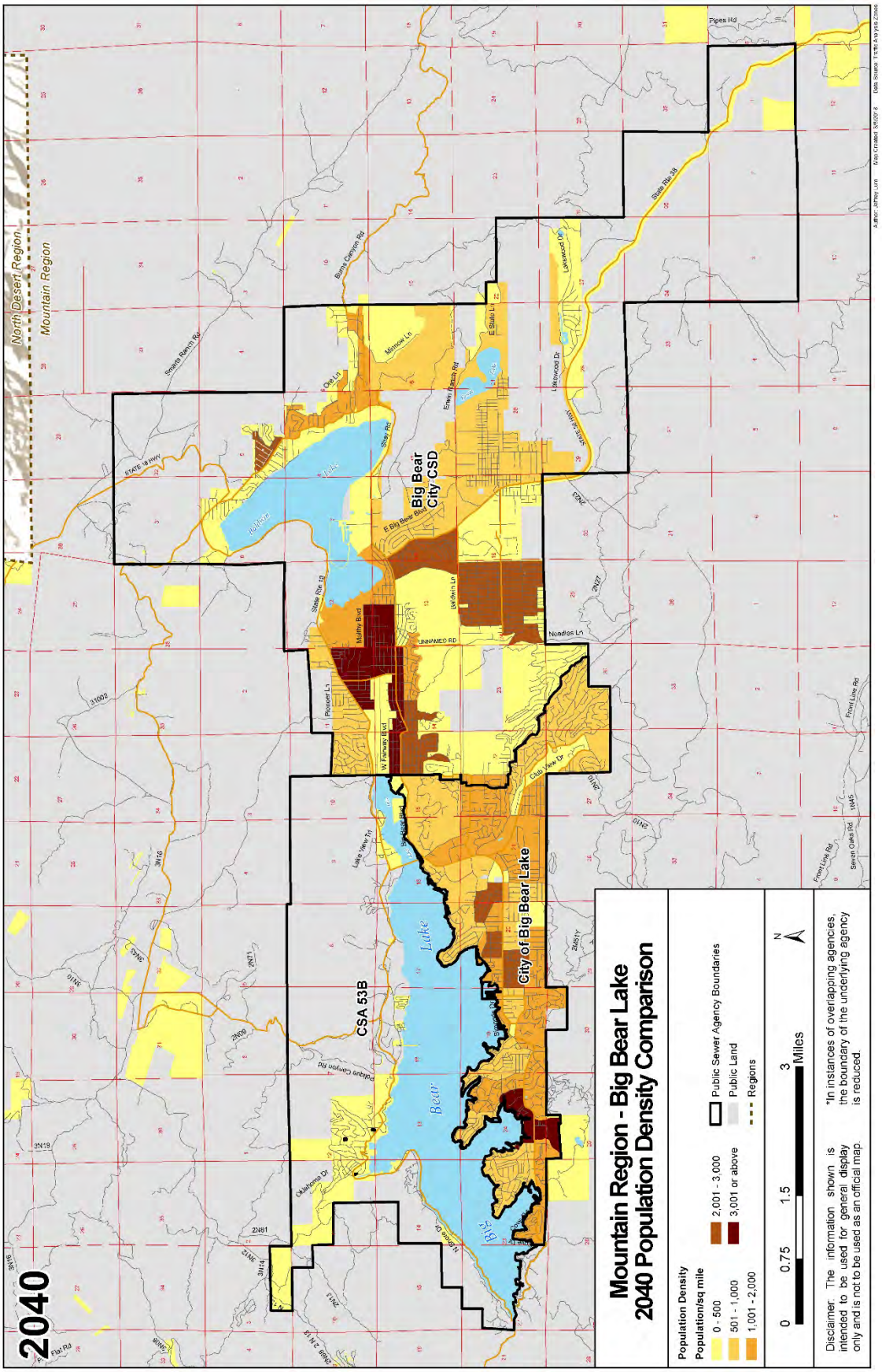



2040
North Desert Region
North Desert Region
Mountain Region
Mountain Region
See Detail Map A
See Detail Map B
Mountain Region
Valley Region
Mountain Region
South Desert Region
RIVERSIDE COUNTY
Mountain Region
2040 Population Density Comparison
Regions
San Bernardino County Line
0
2.25
4.5
9
Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.


2012
North Desert Region
Mountain Region
Valley Region
Crestline Sanitation District
Lake Arrowhead CSD
CSA 79
Arrowbear Park CWD
Running Springs WD
Mountain Region - Rim Community
2012 Population Density Comparison
Population Density
Population/sq mile
0 - 500
501 - 1,000
1,001 - 2,000
2,001 - 3,000
3,001 or above
Public Sewer Agency Boundaries
Public Land
Regions
0 0.75 1.5 3 Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.


2040
North Desert Region
Mountain Region
Valley Region
Crestline Sanitation District
Lake Arrowhead CSD
CSA 79
Arrowbear Park CWD
Running Springs WD
Mountain Region - Rim Community
2040 Population Density Comparison
Population Density
Population/sq mile
0 - 500
501 - 1,000
1,001 - 2,000
2,001 - 3,000
3,001 or above
Public Sewer Agency Boundaries
Public Land
Regions
0 0.75 1.5 3 Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.


2012
North Desert Region
Mountain Region
CSA 53B
Big Bear City CSD
City of Big Bear Lake
Bear Lake
Big
Mountain Region - Big Bear Lake
2012 Population Density Comparison
Population Density
Population/sq mile
0 - 500
501 - 1,000
1,001 - 2,000
2,001 - 3,000
3,001 or above
Public Sewer Agency Boundaries
Public Land
Regions
0 0.75 1.5 3 Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.


2040
Mountain Region - Big Bear Lake
2040 Population Density Comparison
Population Density
Population/sq mile
0 - 500
501 - 1,000
1,001 - 2,000
2,001 - 3,000
3,001 or above
Public Sewer Agency Boundaries
Public Land
Regions
0
0.75
1.5
3
Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
Big Bear City CSD
City of Big Bear Lake
CSA 53B
North Desert Region
Mountain Region
Big Bear Lake
Pipes Rd
Stanfield Cutoff
Baldwin Ln
Nesbitt Ln
Club View Dr
Lake View Trl
Oklahoma Dr
Front Line Rd
Seven Oaks Rd
Meadow Ln
Shay Rd
Erwin Ranch Rd
Lakewood Dr
State Rte 38
Bonita Canyon Rd
Snows Ranch Rd
Flat Rd
E Big Bear Blvd
Stanfield Cutoff
Polaris Ln
W Fairway Blvd
Maltby Blvd
UNNAMED RD
Nesbitt Ln
Club View Dr
Lake View Trl
Oklahoma Dr
Front Line Rd
Seven Oaks Rd
Meadow Ln
Shay Rd
Erwin Ranch Rd
Lakewood Dr
State Rte 38
Bonita Canyon Rd
Snows Ranch Rd
Flat Rd
Pipes Rd

B. DISADVANTAGED COMMUNITIES

Primer on Disadvantaged Communities – DUCs, DACs & More

Disadvantaged Communities
The State of California adopted a definition of disadvantaged community (or "DAC") through passage of Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002. This measure added §79505.5(a) to the California Water Code and defines a disadvantaged community as a *"community with an annual median household income that is less than 80 percent of the statewide annual median household income."* For 2016, 80% of the statewide median household income is $50,043.[2] State law requires various entities (i.e. LAFCO, cities and counties, and water agencies) to, in some manner, identify disadvantaged communities which can be located in both incorporated and unincorporated areas.

Disadvantaged Unincorporated Communities
Particular to LAFCOs, the state mandate is to identify the location and characteristics of disadvantaged unincorporated communities (or "DUCs"). Gov. Code §56375 specifically prohibits an annexation to a city of any territory greater than 10 acres where there exists a disadvantaged unincorporated community that is contiguous to the area of proposed annexation unless an application to annex the entire disadvantaged unincorporated community has also been filed.

Gov. Code §56033.5 defines DUCs as "...*inhabited territory [12 or more registered voters]...or as determined by Commission policy, that constitutes all or a portion of a "disadvantaged community"...* with less than 80% of the median household income.

Need for Consistency
The DAC definition, as defined in Water Code §79505.5(a), differs from the definition of a DUC in two important ways: (1) a DUC must be inhabited, and (2) DUCs comprise unincorporated territory only, not territory within cities. For purposes of further defining a DUC, San Bernardino LAFCO policy defines a community as an *inhabited area comprising no less than 10 dwelling units adjacent or in close proximity to one another.*

Alternatively, Gov. Code §65302.10 (General Plans) identifies a DUC as being 80% or less than the median household income. This is in contrast to Water Code §79505.5 and Gov. Code §56033.5 which reads less than 80%.

Other State agencies, such as the California EPA, use alternative criteria to identify disadvantaged communities for grant funding purposes. The different criteria used to identify disadvantaged communities at the local and state government levels is confusing and complicates implementation of a consistent approach to addressing our disadvantaged residents. While staff recognizes the difficulty in developing a one-size-fits-all definition, LAFCO staff's position is that additional work needs to be done State-wide to develop a method for identifying disadvantaged communities that is more consistent yet recognizes the diversity of communities and geographies in California.

[2] Environmental Systems Research Institute (ESRI)

Disadvantaged Unincorporated Communities (DUCs)

For LAFCOs, the state requires that service reviews identify and describe the characteristics of disadvantaged communities of *unincorporated* areas only (commonly referred to as "DUCs"). For the purposes of defining a DUC, San Bernardino LAFCO policy defines a community as an inhabited area comprising no less than 10 dwellings adjacent or in close proximity to one another. Uninhabited areas include vacant or government lands. Based upon the criteria identified, Figure 6-2 identifies those areas that meet the criteria of a DUC.[3]

The DUCs identified in the mapping show that the major unincorporated areas in the Mountain region meet the criteria of a DUC: Rim Communities (portions of Crestline, East Lake Arrowhead, Green Valley Lake, Arrowbear Park) and Bear Valley (Fawnskin and central portion of Big Bear City). Characteristics of these areas are as follows:

Table 6-2: DUC Characteristics – Mountain Region

Community	West Crestline	East Crestline	East Lake Arrowhead	Green Valley Lake	Arrowbear Park	Fawnskin	Big Bear City
Area, sq. miles	0.38	0.85	2.14	0.52	1.72	1.27	2.59
Pop., 2016	1,028	427	755	310	735	332	3,359
Households, 2016	397	161	306	136	310	172	1,447
Median Household Income	$49,425	$39,858	$45,778	$46,056	$49,629	$35,757	$37,370

source: ESRI Community Analyst

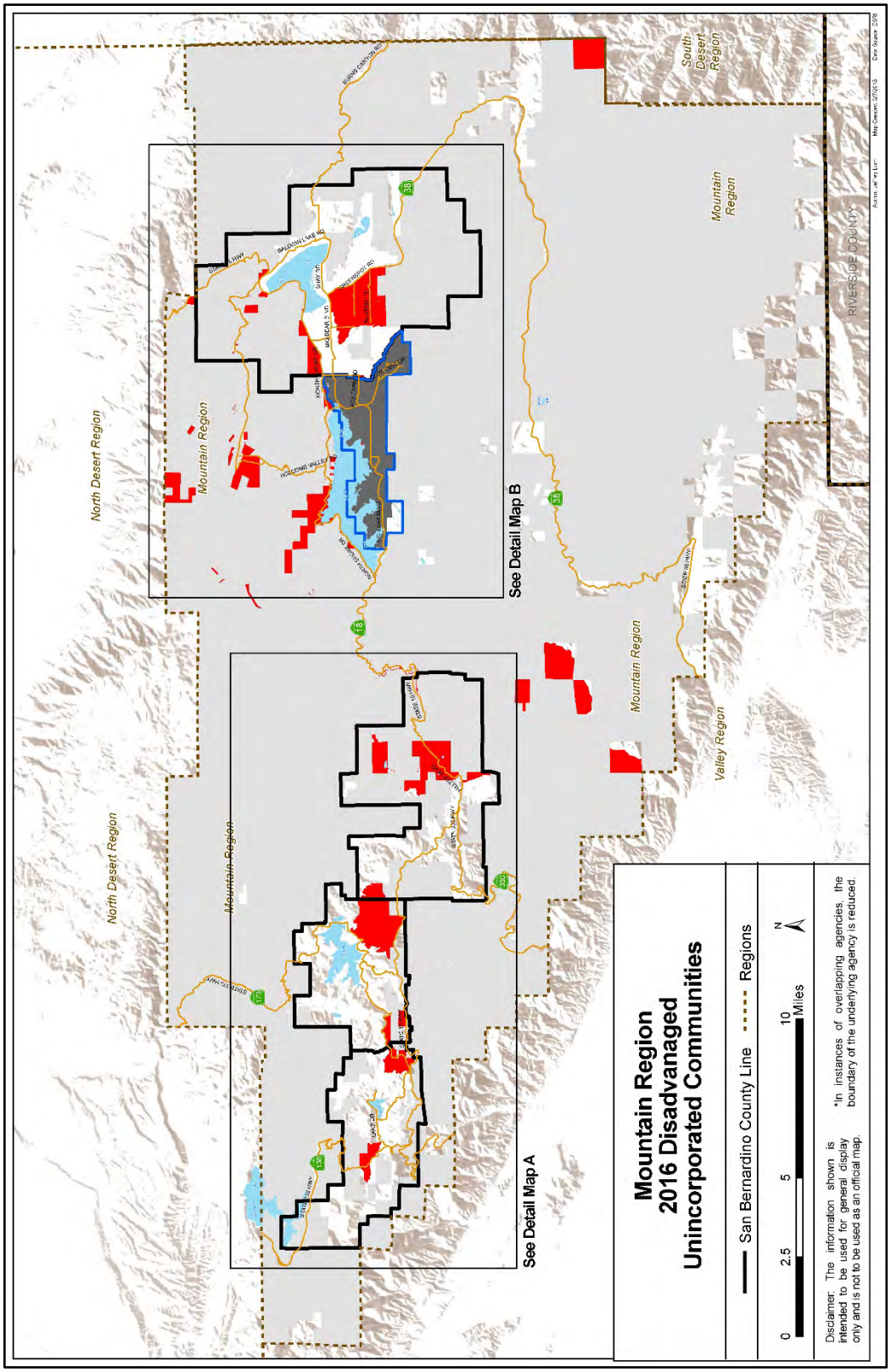
It is important to note that the identification of disadvantaged communities is based on census block groups, which tabulate data based upon permanent residents. The Mountain Region, especially the areas surrounding the lakes, includes significant second and vacation homes which are not reflected by this identification.

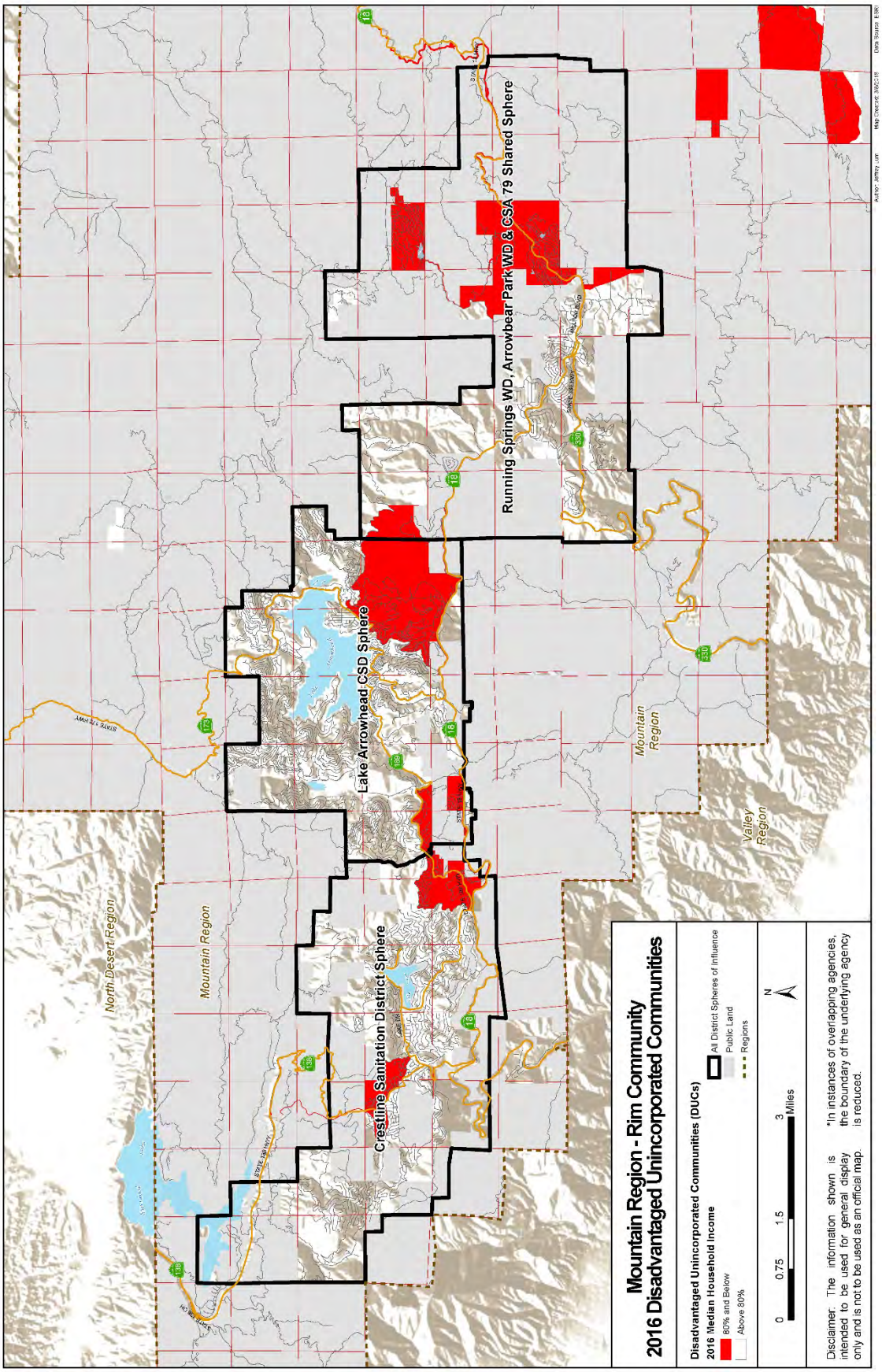
Disadvantaged Communities (DACs)

Although the state requires that LAFCOs focus their service review analyses on disadvantaged communities within unincorporated areas (commonly referred to as "DUCs"), the reality is that disadvantaged communities do not necessarily follow jurisdictional boundaries and occur in incorporated areas (cities) as well. It is LAFCO's responsibility to at least recognize disadvantaged communities countywide regardless of jurisdiction. Figure 6-3 identifies Disadvantaged Communities, or "DACs", which include both unincorporated and incorporated areas within the sole Mountain Region city – City of Big Bear Lake - and its surrounding area.

[3] For this map, non-developable areas include lands in the name of: United States of America, Government Land, State of California, and County of San Bernardino, as identified by the County Assessor.

Figure 6-2:
Disadvantaged Unincorporated Communities – Mountain Region




Mountain Region - Rim Community
2016 Disadvantaged Unincorporated Communities
Disadvantaged Unincorporated Communities (DUCs)
2016 Median Household Income
60% and Below
Above 60%
All District Spheres of Influence
Public Land
Regions
0
0.75
1.5
3
Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
Running Springs WD, Arrowbear Park WD & CSA 79 Shared Sphere
Lake Arrowhead CSD Sphere
Crestline Sanitation District Sphere
North Desert Region
Mountain Region
Mountain Region
Valley Region

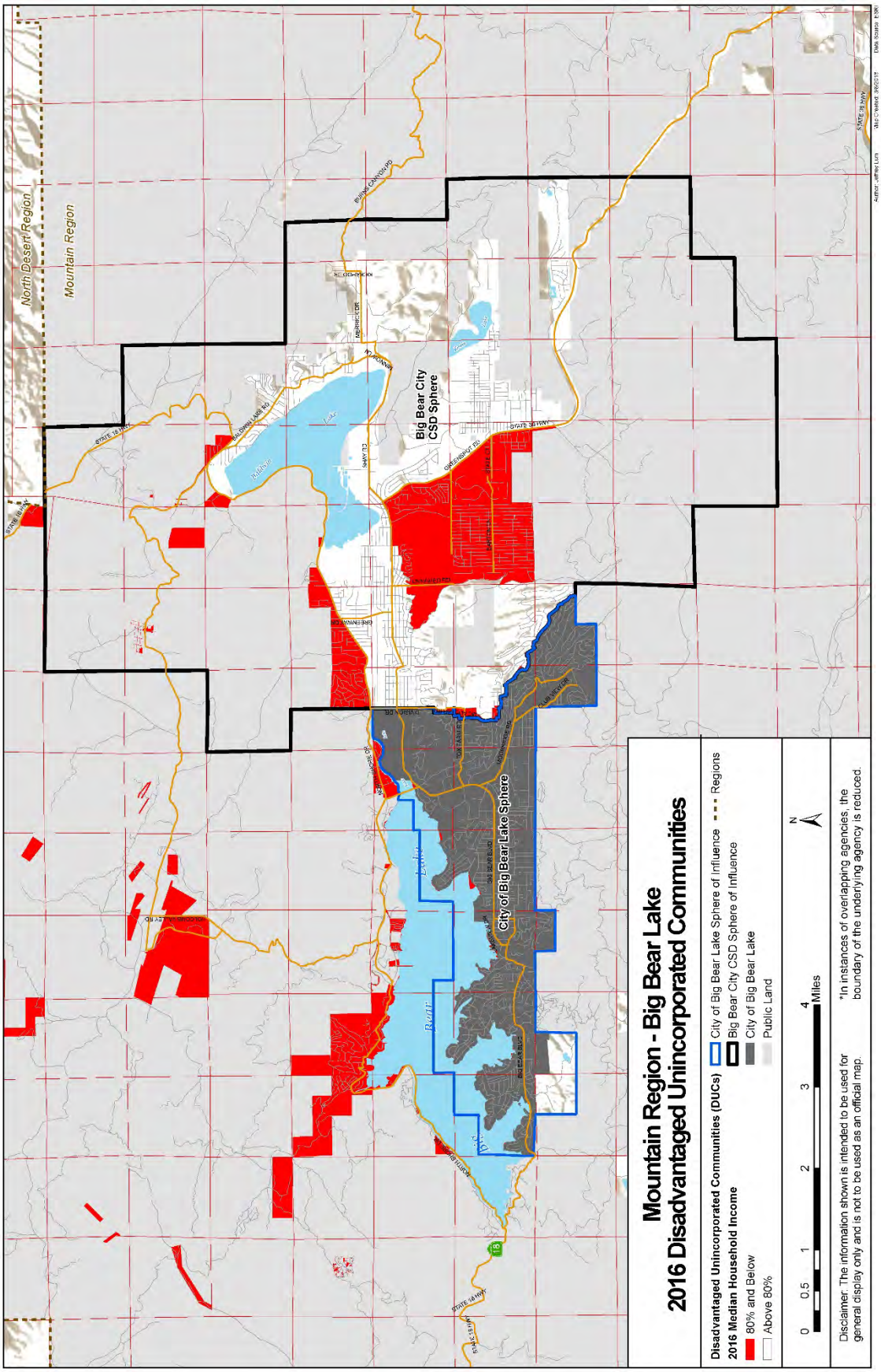
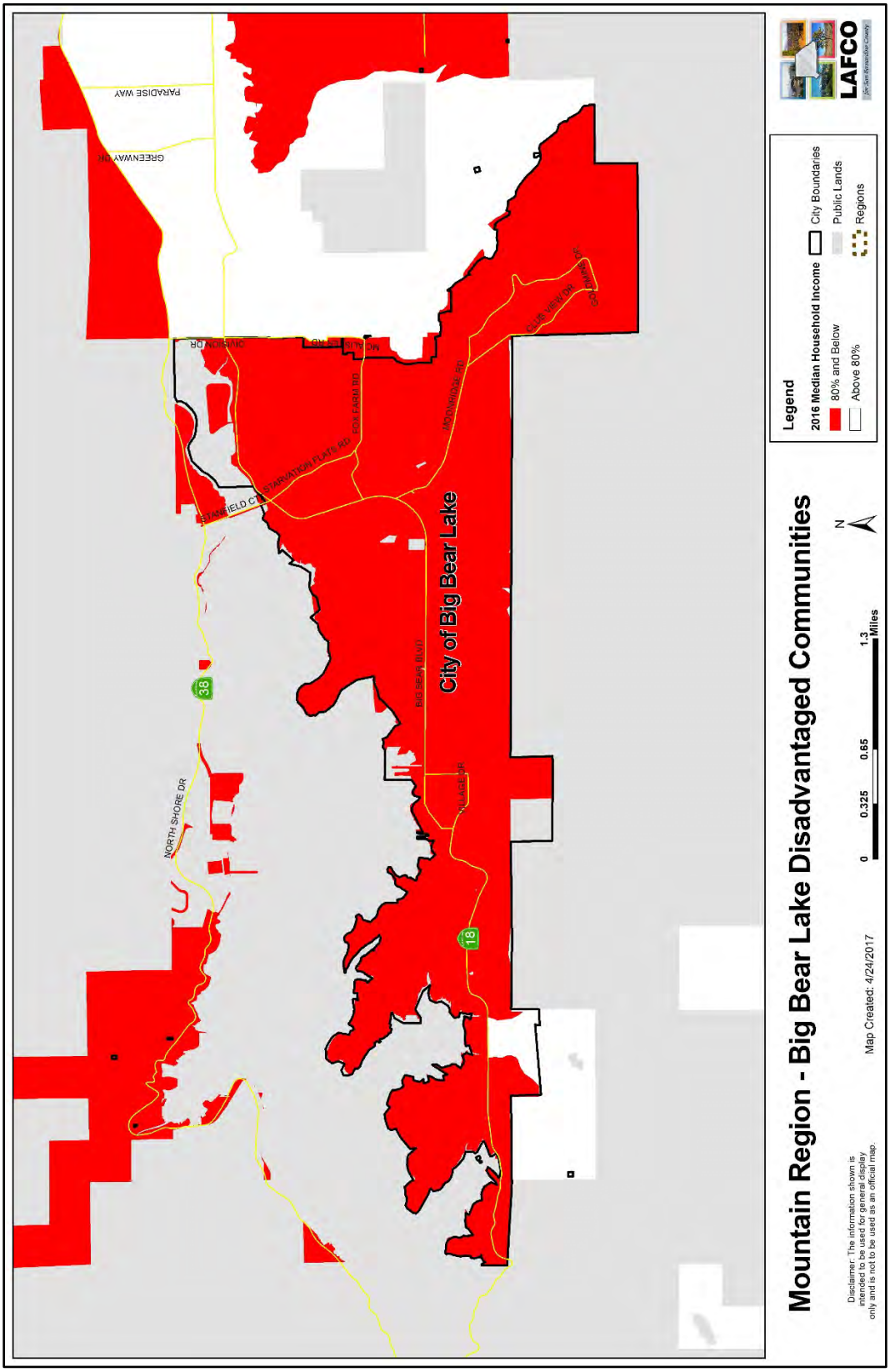

North Desert Region
Mountain Region
Big Bear City CSD Sphere
City of Big Bear Lake Sphere
Mountain Region - Big Bear Lake
2016 Disadvantaged Unincorporated Communities
Disadvantaged Unincorporated Communities (DUCs)
2016 Median Household Income
80% and Below
Above 80%
City of Big Bear Lake Sphere of Influence
Big Bear City CSD Sphere of Influence
City of Big Bear Lake
Public Land
Regions
0 0.5 1 2 3 4 Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Figure 6-3: Disadvantaged Communities – Mountain Region



C. OVERVIEW OF WASTEWATER TREATMENT SYSTEMS

Of the Mountain Region's four major communities, two - Bear Valley and Hilltop - are provided sewer services through a regional treatment system. The Lake Arrowhead and Crest Forest communities are each served by a single wastewater collection and treatment agency.

Treatment Agencies

Within Crest Forest, the Crestline Sanitation District provides the community's primary sewer collection and treatment services. The District's service territory totals approximately 8.4 square miles in size with a population of approximately 9,000 residents. Sewage is discharged through separate collection systems to one of three treatment plants.

The Lake Arrowhead Community Services District serves an area of approximately 15 square miles and provides both collection and treatment service to Lake Arrowhead and its surrounding areas. The estimated full-time population is 12,579 and part-time population is 2,404. The District operates two wastewater treatment plants, the Grass Valley Wastewater Treatment Plant and the Willow Creek Wastewater Treatment Plant/Laboratory. The Grass Valley Plant is the principal wastewater treatment facility for the District and treats approximately 1 MGD of municipal sewage.

The Running Springs Water District's treatment facility provides wastewater treatment and disposal for the entire Hilltop community, roughly 5,800 population in 2015. The adjacent wastewater collection agencies, CSA 79 and Arrowbear Park County Water District, have chosen to contract with Running Springs Water District for their respective wastewater treatment and disposal. In 2011, LAFCO determined that a single sphere of influence would be assigned for the Hilltop Community signaling the desire for a single service provider to serve the entire community.

Within Bear Valley, the Big Bear Area Regional Wastewater Agency ("BBARWA") is a joint powers authority which treats wastewater from its member agencies: the Big Bear Community Services District, the City of Big Bear Lake, and the County of San Bernardino on behalf of CSA 53 Zone B. The service area for BBARWA includes the entire Big Bear Valley (125 square miles), as represented by the exterior limits of CSA 53, and serves a population of approximately 25,500 in 2015. BBARWA's regional treatment plant operates at about 2.5 million gallons per day. Each underlying agency maintains and operates its own wastewater collection system and delivers wastewater to the BBARWA interceptor system for transport to the regional plant.

The table below provides a listing of each wastewater treatment system that has a design flow over 100,000 gallons per day. The table includes design flow, treatment type, disposal method, system summary, and if the entity disposes a recycled product. While some of the wastewater agencies are planning to expand their treatment capacity in the near future to be able to produce recycled water, others will continue to use their existing treatment facilities. For a table of wastewater treatment systems that have a design flow under 100,000 gallons per day (all are either septic or package plants) see *Table 6-5: Large OWTS - Mountain*.

Table 6-3:
Mountain Region Treatment Agencies

Treatment Agency	Design Flow (MGD)	Treatment Type Disposal Method System Summary	Recycled
Big Bear Area Regional Wastewater Agency	3.2	Secondary and tertiary effluent with and without disinfection Storage ponds in Lucerne Valley via outfall, Storage pond in Baldwin Lake Big Bear Valley Groundwater Management Zone Recycled water used for irrigation in Lucerne Valley and used for irrigation, dust control, construction water, and wildlife habitat restoration at Baldwin Lake	Y
Crestline Sanitation District	1.4	Secondary Recycled – Agriculture Outfall to Tapestry Project in Hesperia Trickling filter and activated sludge system	Y
Lake Arrowhead Community Services District	3.75	Tertiary, only when there is demand Within the Lake Arrowhead CSD boundary Lake Arrowhead Country Club Secondary Disposal of un-disinfected effluent via outfall to Hesperia disposal site for groundwater recharge Trickling filter pond system	Y
Running Springs Water District	1.0	Tertiary, Microfiltration Membrane Bioreactor ("MBR") system Discharged to ponds in the US Forest Service lands and used for spray irrigation of a greenbelt adjacent to the treatment plant	Y

source: Colorado, Lahontan, and Santa Ana Regional Boards

Age of Pipelines

The figure below identifies the miles of internal sewer transmission pipeline of each collection agency and tabulates the percentage by 20-year range.[4] As shown, only 26% of the sewer pipelines in the Mountain Region have been built or replaced since 1980. While there are some outliers in age, in general, the overall age of pipelines is fair.

[4] The pipeline age information was obtained from the State Water Resources Control Board's (Water Board) California Integrated Water Quality System (CIWQS) for each agency. This information is also a part of each agency's profile information in the appendices to this service review.

Table 6-4:
Age of Pipelines (in miles by 20-year range) – Mountain Region

Agency	2000 +	1980-1999	1960-1979	1940-1959	1920-1939	1900-1919	Before 1900	Miles of Sewer
Arrowbear Park CWD	-	-	14	-	-	-	-	**14**
Big Bear City CSD	8	24	128	-	-	-	-	**160**
City of Big Bear Lake	27	109	109	27	-	-	-	**273**
Crestline Sanitation Dist.	-	-	72	18	-	-	-	**90**
CSA 53B	-	-	20	-	-	-	-	**20**
CSA 79	-	-	36	-	-	-	-	**36**
Lake Arrowhead CSD	10	41	102	41	10	-	-	**204**
Running Springs WD	1	-	60	-	-	-	-	**61**
Total Miles of Sewer	**46**	**174**	**541**	**86**	**10**	**-**	**-**	**857**
Percent of Total Age	5.4%	20.3%	63.1%	10.0%	1.2%	0.0%	0.0%	**100%**

source: Regional Board CIWQS, as modified by LAFCO staff from percent to raw number

Discharge above 3,200 feet

The Lake Arrowhead Community Services District's Master Water Recycling Requirements Permit from the Lahontan Regional Board was approved in June 2007 (Board Order No. R6V-2007-0022). In the past, Federal and state laws administered by the Lahontan Regional Board prohibited the use of recycled water because the rules governing discharge of waters of a waste origin were not permitted to be used in locations above 3,200 ft in elevation. This was specifically stated in the Waste Discharge Prohibitions contained in Section 4.1 of the Basin Plan. In January 2003, the Lake Arrowhead CSD made a request for a Basin Plan amendment that would allow the discharge of waters that are of waste origin above the 3,200-ft elevation. In September 2003, the Lahontan Regional Board recommended approval of the Basin Plan Amendment. The amendment was reviewed and approved by the State Water Resources Control Board and by the US EPA in 2004. These changes have allowed the Lake Arrowhead CSD to proceed with the implementation of a recycled water program to initially supply approximately 1-mgd of recycled water for outdoor irrigation in the Grass Valley Basin.

<u>The Result - the Basin Plan, as amended</u>

The Basin Plan states the following: "The Discharge of waste to land or water within the following areas is prohibited (Figure 4.1-23): (a) the Silverwood Lake watershed; (b) Deep Creek watershed above elevation 3,200 feet; and (c) The Grass Valley Creek watershed above elevation 3,200 ft."

Effective March 24, 2004 the prohibition for the Mojave Hydrologic Unit was amended in the Basin Plan as follows: "An exemption to this prohibition may be granted by the Regional Board whenever the Board finds that the discharge of waste will not, individually or collectively, directly or indirectly, result in exceeding the water quality objectives or unreasonably affect the water for its beneficial uses."

Imported Wastewater from the Mountain into the North Desert

Treated wastewater effluent is imported to the Mojave Water Agency jurisdiction from three wastewater entities serving communities in the San Bernardino Mountains outside the North Desert. The Mojave Basin Alto Subarea receives treated wastewater effluent from the Lake Arrowhead Community Services District, discharged into retention ponds along the Mojave River about two miles downstream of the Forks, in southeast Hesperia. The Crestline Sanitation District discharges treated wastewater effluent to the Alto Subarea upstream of the West Fork gauge on a portion of the Tapestry Project (Los Flores Ranch), south of Hesperia. Finally, the Este Subarea receives treated wastewater effluent from the Big Bear Area Regional Wastewater Agency discharged near Camp Rock Road and Highway 247 in the Lucerne Valley.

The figure below summarizes the wastewater flows imported into the Mojave Basin from water years 2010-2011 to 2014-15. This data was compiled from the Mojave Watermaster's annual reports and are provided by water year, which starts in October and ends in September of the following year.

Figure 6-4:
Exported Wastewater Historical Flow

Wastewater Agency	Flow (MGD)					
	2010-11	2011-12	2012-13	2013-14	2014-15	Average Flow
Lake Arrowhead CSD	1.1	0.9	0.7	0.7	0.7	0.8
Crestline SD	0.9	0.5	0.5	0.5	0.5	0.6
Big Bear Area Regional Wastewater Agency	3.2	2.3	1.7	1.7	1.8	2.1
Total	**5.2**	**3.7**	**3.0**	**2.9**	**3.0**	**3.6**

Source: MWA Watermaster Reports.
Data in water years starting in October.

The figure below provides the projected imported wastewater flow for the Mojave Basin from the three Mountain agencies. The projections have been estimated using the Mojave Water Agency demand forecast model and assuming approximately a one percent increase through 2035.

Figure 6-5:
Projected Exported Wastewater Flow

Wastewater Agency	Flow (MGD)					
	2015	2020	2025	2030	2035	2040
Lake Arrowhead CSD	0.7	0.7	0.7	0.7	0.7	0.7
Crestline SD	0.9	0.9	0.9	0.9	0.9	0.9
Big Bear Area Regional Wastewater Agency	1.8	1.8	1.8	1.8	1.8	1.8
Total	**3.4**	**3.4**	**3.4**	**3.4**	**3.4**	**3.4**

Source: MWA water use projection model

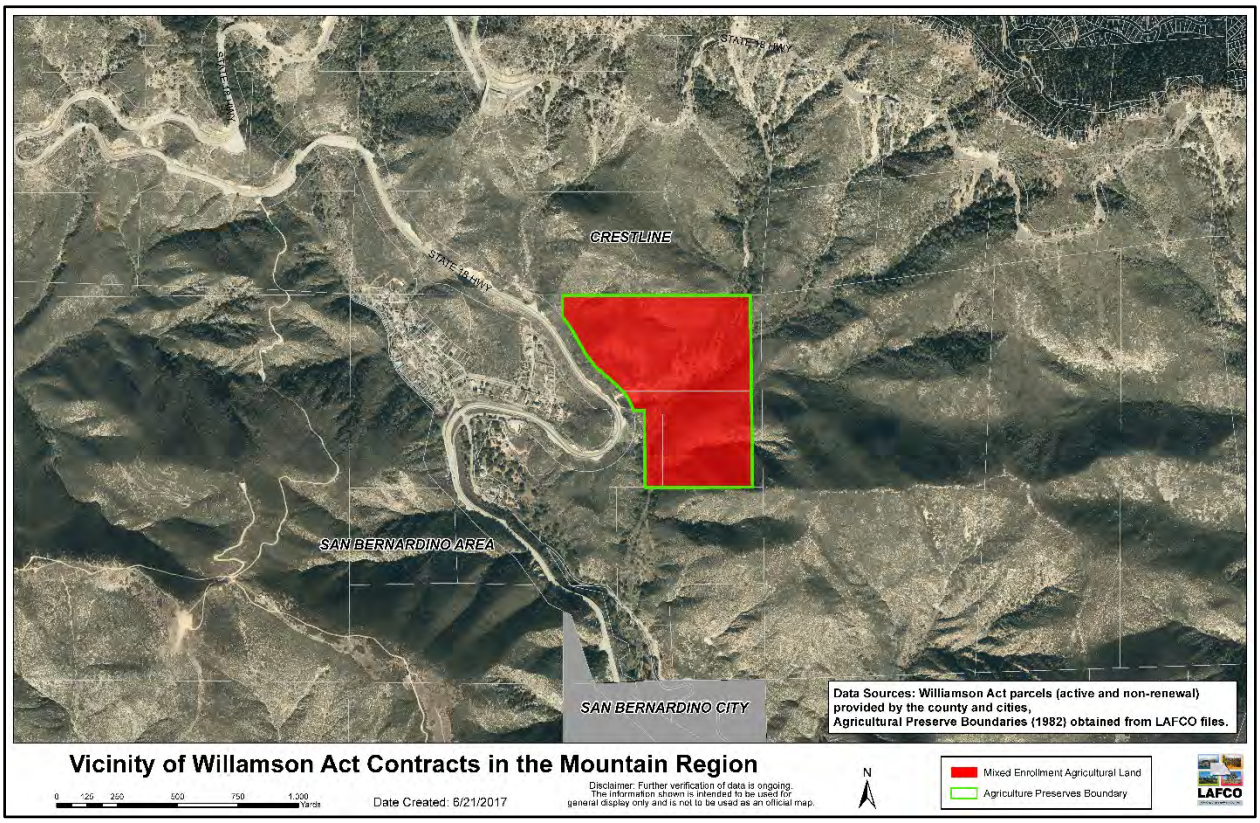
Agricultural Land and Use

A primary tenet of LAFCO is to encourage the preservation of agricultural land and open spaces, and this service review touches upon the impact of agricultural uses. The figure below identifies Williamson Act contracts as of 2015/16, the sole contract being in the Waterman Canyon area just south of Crest Forest along Highway 18. The California Land Conservation Act of 1965--commonly referred to as the Williamson Act--enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Government Code Section 51243 states that when annexing properties into a city, "...the city shall succeed to all rights, duties, and powers of the county under the contract."

The Government Code specifically states that the Commission shall not approve a sphere of influence change (§56426.6) or annexation (§56856.5) that is subject to a contract entered into pursuant to the Williamson Act if that local government agency provides, or would provide, facilities or services related to sewers, nonagricultural water, or streets and roads to the territory, unless these facilities or services benefit land uses that are allowed under the contract. Additionally, for sphere changes, the landowner consent is required.

The area identified in red is "Williamson Act-Active". There are no areas identified as "Williamson Act-Non Renewal" which is defined as enrolled lands for which non-renewal has been filed pursuant to Government Code Section 51245. Upon the filing of non-renewal, the existing contract remains in effect for the balance of the period remaining on the contract. During the non-renewal process, the annual tax assessment gradually increases. At the end of the nine year non-renewal period, the contract expires and the land is no longer restricted.

Figure 6-6:
Williamson Act Contracts – Mountain Region



Agency Service Review Updates and Remainder of Section VI

A service review update specific to each agency and its service area is included in Appendix C, which includes an agency profile, service area map (not necessarily boundary), and narrative of the agency wastewater system. A detailed listing of municipal wastewater systems and joint powers authorities is included as a part of Appendix F.

The remainder of this section focuses on areas that lack an organized wastewater collection system, specifically the use of septic tanks.

D. ONSITE WASTEWATER TREATMENT SYSTEMS

Overview

For areas that lack an organized wastewater collection system, Onsite Wastewater Treatment Systems ("OWTS") are the method of collection and disposal. OWTS are wastewater treatment systems that use subsurface disposal, including: individual; community collection and disposal; and alternative collection and disposal systems. The most common OWTS are septic systems. OWTS do not include "graywater" systems pursuant to Chapter 15 of the California Plumbing Code. The table below identifies the large OWTS systems (not to exceed 100,000 gpd design flow).

Table 6-5:
Large OWTS – Mountain Region

Place Name	Design Flow (MGD)	Treatment Type Disposal Method System Summary
Forest Home Christian Center, Forest Falls	0.075	Septic tank, Underground leaching system
Pilot Rock Conservation Camp, Crestline	0.010	Secondary Discharges into Crestline Sanitation District outfall for disposal at Los Flores Ranch

source: Lahontan Regional Board, Domestic Sewage Strategic Plan; Santa Ana Regional Board

OWTS policies are created to meet the requirements of Assembly Bill 885 (2000) to promulgate consistent, statewide standards for the regulation of OWTS. The State Water Board adopted its OWTS policy in June 2012, and became effective May 13, 2013 (Resolution No. 2012-0032). The policy categorized OWTS into the following tiers:

Figure 6-7:
Onsite Wastewater Treatment Systems – Tiers

Tier	Description
0	Applies to all existing systems which function properly, do not meet the conditions of a failing system, and are not contributing to pollution of any waterways.
1	Applies to all new and/or replacement OWTS which meet low risk siting and design requirements in areas which do not have an approved LAMP as specified in Tier 2.
2	Applies to any new and/or replacement OWTS which do not fall into the Tier 3 adjacent to impaired waterways, or in prohibition areas category. This tier is referred to as the LAMP and allows the County to apply standards that differ from the State.
3	Describes all systems currently located within areas denoted as impaired waterways. These systems have been identified as potential sources of pollution, and need to abide by the Advanced Protection Management Program prescribed in Tier 3 of the OWTS Policy.
4	A temporary classification for all systems that have been found to be failing, and/or needing repair. Once the system has been repaired, it will be placed in either Tier 0, Tier 2, or Tier 3.

source: State Water Board

PRIMER ON ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS)

According to the State Regional Water Quality Control Board[5], onsite wastewater treatment systems ("OWTS") are defined as "…individual systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal." When properly sited, designed, operated and maintained, OWTS treat domestic wastewater to reduce its polluting impact on the environment and protect public health. In June 2012, it was estimated by the Regional Board that there are more than 1.2 million onsite systems, the majority which are septic tanks, operating in California.

As waste flows into the tank, heavier solids sink to the bottom, forming the "sludge" layer. Solids are decomposed by the anaerobic bacterial action of the sludge. In theory, a relatively harmless effluent will be produced, and under proper soil conditions, further decontamination can occur. Even under ideal conditions, eventually the amount of sludge will interfere with the bacterial digestive action, and it must be pumped for off-site disposal.

The majority of OWTS operate in a satisfactory manner, and in some cases, remain the only viable option for sewage treatment for locations removed from centralized wastewater treatment systems. However, there are instances in California where OWTS fail to protect water quality and public health. Some common reasons for OWTS failure include:

- Poor design and improper site conditions
- Improper and/or deferred system maintenance
- High geographic concentration of OWTS resulting in a combined effluent flow that cannot be assimilated into the environment

When a community sewer is not available, and a property improvement will generate wastewater, the property owner must demonstrate the following to San Bernardino County Department of Environmental Health to verify the lot will support onsite wastewater disposal:

- Soils are conducive to onsite wastewater disposal.
- Sewer is not available within 200 feet (plus 100 feet per dwelling unit thereafter).
- Enough area is available to install a septic system that meets proper setbacks (for new construction, 100% expansion area must be available).
- OWTS will not impact ground or surface water.
- OWTS is sized appropriately to serve the intended land use.

As California's population continues to grow, the development of higher density housing in rural areas and in more varied terrain increases the risk of OWTS creating public environmental and health issues. Improperly maintained or failing OWTS can result in the discharge of pathogens, nitrates, salts, household chemicals, oils and grease into the environment. As conditions and circumstances change around particular locations, increased scrutiny is necessary to properly site, operate and professionally maintain OWTS.

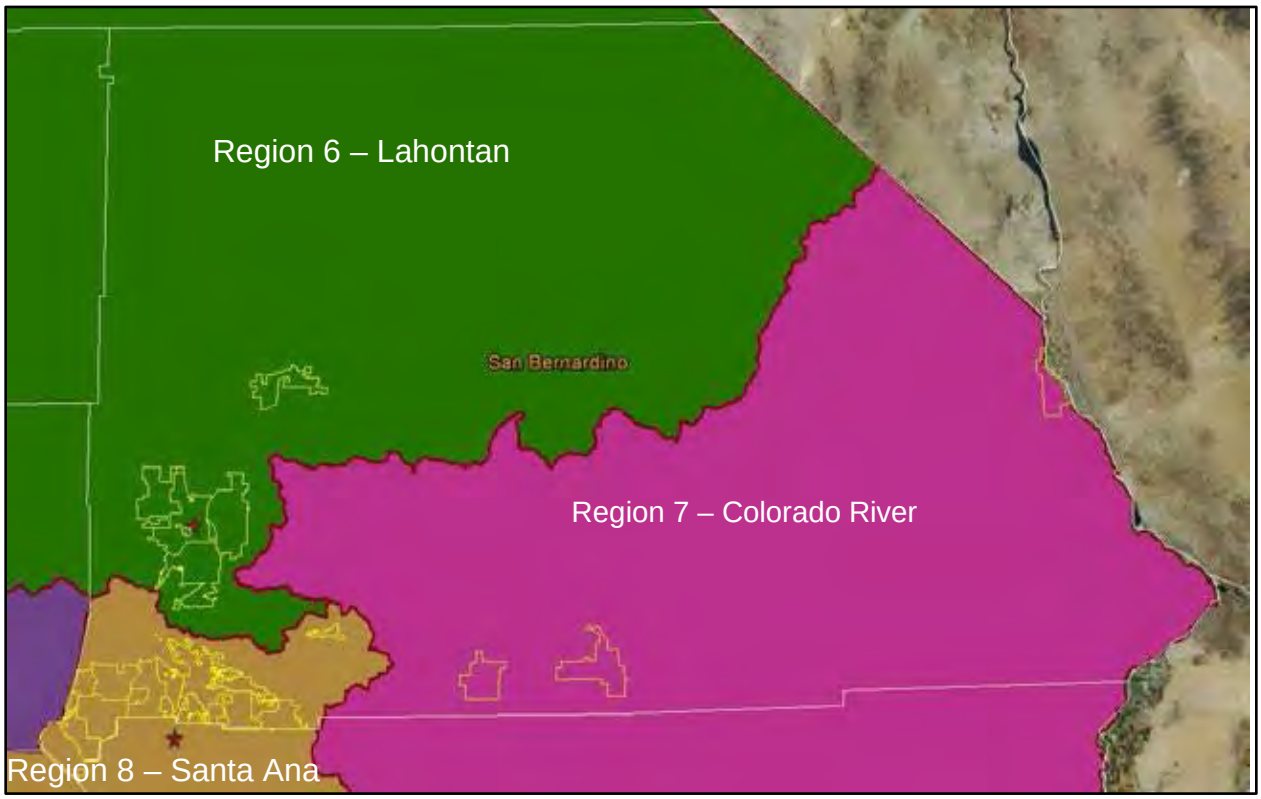
[5] Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (CA Water Boards 2012)

OWTS located within San Bernardino County are governed by the following Regional Water Quality Control Boards, listed below and shown on the following figure:

- Region 6 – Lahontan
- Region 7 – Colorado River
- Region 8 – Santa Ana

Each region has environmental differences that create unique construction and design concerns. To address these concerns, the three regional boards have developed individualized basin plans. These basin plans provide criteria for the installation of OWTS, affected waterways and prohibition areas within their region. For example, any new development of one-half acre lots within the Lahontan Regional Board jurisdiction may be subject to conducting a cumulative impact assessment, including a hydrogeological study, to predict future groundwater quality impacts from proposed developments.

Figure 6-8:
Regional Water Quality Control Boards Map



source: San Bernardino County LAMP

Prohibitions and Exemptions

Due to the geology and hydrology of certain areas within the county, prohibitions on discharge of waste from OWTS have been set to protect water quality, public health and safety. Within the Mountain Region, these areas include:

Santa Ana Region

The Santa Ana Regional Board identifies the "Mill Creek - above 2,600 feet in elevation" and "Bear Valley - including Baldwin Lake drainage area" as subject to a waste discharge prohibition for new OWTS systems.

Lahontan Region

The prohibitions in the unincorporated areas of the Lahontan Region are presented in the Water Quality Control Plan for the Lahontan Region.[6] The Mojave Hydrologic Unit Prohibition No. 3 states the following: The discharge of waste from "new" leaching or percolation systems is prohibited in the following areas:

- The Silverwood Lake watershed (the headwaters for the Mojave River are in the Mountain Region).

- Deep Creek and Grass Valley Creek watersheds above elevation 3,200 feet. For this prohibition, "new" systems are any installed after May 15, 1975. An exemption to this prohibition may be granted whenever the Water Board's Executive Officer makes certain findings. (The headwaters for the Mojave River are in the Mountain Region).

- "Mojave Hydrologic Unit Prohibition Area 3." Under Lahontan Water Board Order No. 6-81-3 for Crestline and Lahontan Water Board Order No. 6-84-93 for Lake Arrowhead, the County is authorized to issue OWTS building permits in these exemption areas, usually without Lahontan Water Board's approval. (The headwaters for the Mojave River are in the Mountain Region).

- Exemptions to prohibitions may be granted by the Regional Board when it determines that an OWTS (on a particular parcel) will not individually or collectively, directly or indirectly, affect water quality from continued system operation, and/or maintenance.

Local Agency Management Program ("LAMP")

A Local Agency Management Program ("LAMP") is a program for the siting, design, operation and maintenance of an OWTS, developed by a local agency[7], and approved by the Regional Board as an alternate method to achieve the same policy purpose as

[6] Page 4.1-21
[7] Any subdivision of state government responsible for permitting, installation, and regulation of OWTS within its jurisdictional boundaries; typically a county, city, or special district.

that of OWTS policy. To date, no local agency in the South Desert Region has submitted a draft LAMP to a Regional Board. Therefore, for unincorporated areas OWTS siting, design, operations, and maintenance fall under the County's LAMP; and for cities that are not a part of the County LAMP the Regional Board maintains authority.

County of San Bernardino LAMP

The County's LAMP covers the unincorporated portions of the County. With development in rural areas of San Bernardino County continuing to grow, and with nearly 25% of housing units using OWTS, the County LAMP states that the requirements defined by Tier 1 of the OWTS Policy do not meet the future development needs of San Bernardino County. The limitations on dispersal depth, the 2.5 acre minimum parcel size for new lots on which OWTS can be installed, and the prohibition of the use of seepage pits is too restrictive. The County's LAMP Program (May 2017) specifically addresses wastewater issues, County requirements, and scope of coverage for OWTS installation and maintenance. It also allows for the continued use and installation of OWTS.

County EHS maintains a map of all of the sewer lines in the county to prevent the approval of a septic system when a sewer is available. For new developments in the unincorporated county, the County requires connection to a public sewer system: (1) when the property is within the boundary of an established sewer collection area, or (2) when the property is outside the boundary of a collection agency and the nearest property line is within 200 feet of an available sewer line. The latter may require a LAFCO-approved out-of-agency service agreement. This requirement will be increased by 100 feet for each additional equivalent dwelling unit within the development/project. In unincorporated San Bernardino County area, proposed subdivisions with more than 40 lots with lot sizes of less than 2.5 acres, shall require review and approval by County EHS and may require Water Board Permitting or a waiver of waste discharge.

Cesspools are not permitted in the County of San Bernardino. When County staff discovers a cesspool is still in use, the property owner will be required to replace the cesspool with an OWTS, which meets current standards. The timeframe for complying with this requirement will vary based on the condition of the cesspool and the potential threat it represents to water quality, public health and safety. While the County does not have a point of sale requirement for existing septic systems certification, voluntary certifications are performed routinely and system upgrades are permitted and replacements are constructed under Building permit.

<u>Impaired Water Bodies</u>

An Advanced Protection Management Program ("APMP") is the minimum required management program for all OWTS located near a water body that has been listed as impaired due to nitrogen or pathogen indicators, pursuant to the Clean Water Act, Section 303(d). Local agencies are authorized to implement APMPs in conjunction with an approved LAMP or when there is no approved LAMP, Tier 1. Per the State Board's OWTS Policy, OWTS which are located near impaired water bodies may be addressed

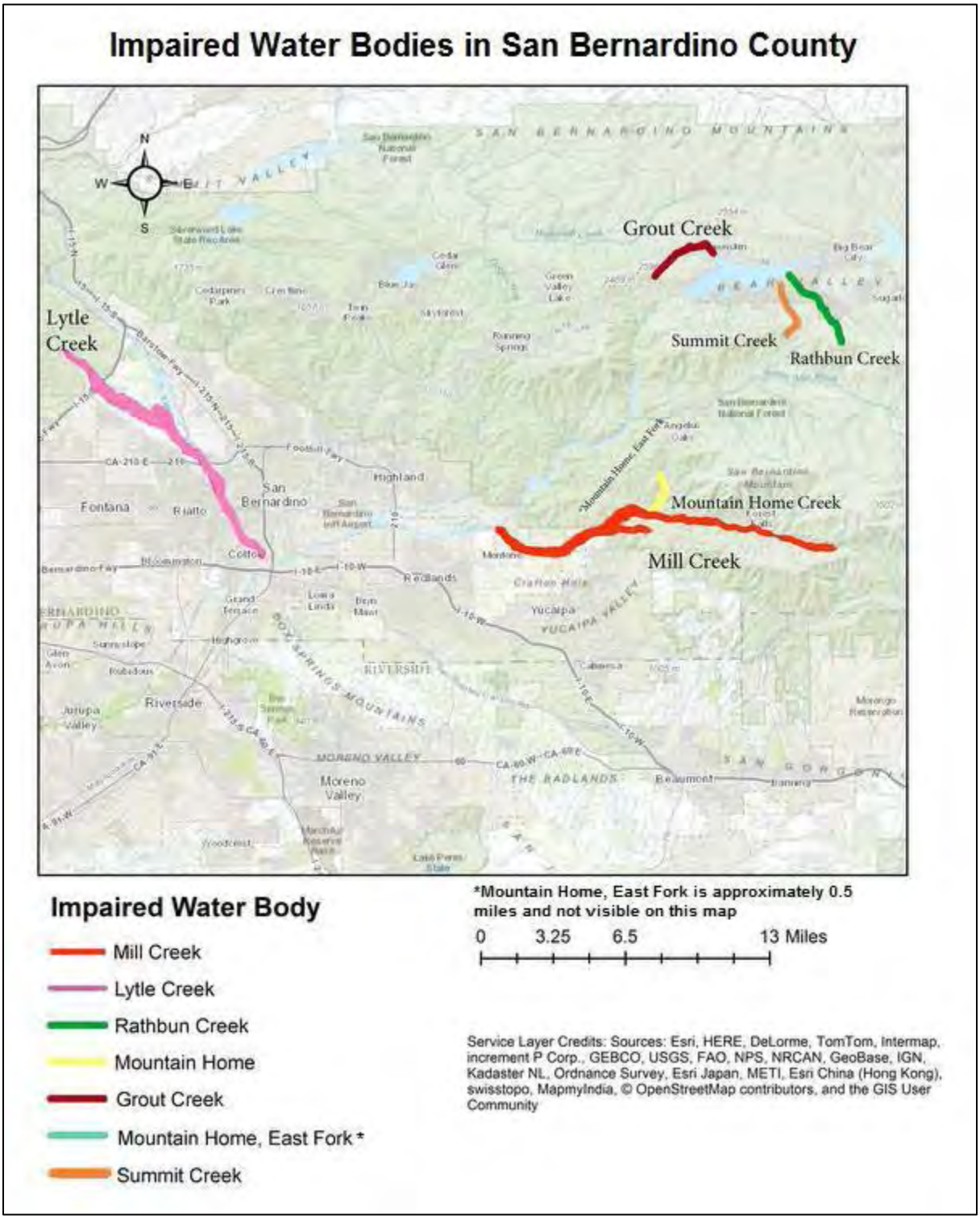
by a Total Maximum Daily Load ("TMDL") and its implementation program, or special provisions contained in a LAMP. The County of San Bernardino has chosen to develop an APMP closely derived from Tier 3 requirements provided in the OWTS Policy.

Within San Bernardino County, the State Board has identified various surface waterways as impaired, per Attachment 2 of the OWTS Policy. The water bodies listed have been specifically identified per the 303(d) list, where it is likely:

- OWTS will subsequently be determined to be a contribution source of pathogens or nitrogen, and therefore anticipated that OWTS would receive a loading reduction, and
- New OWTS installations discharging within 600 feet of the water body would contribute to the impairment.

The following figure illustrates the impaired water bodies located within San Bernardino County. In the Mountain Region, the impaired water bodies are: Mountain Home Creek (which has a connection with Mill Creek), Grout Creek, Summit Creek, and Rathburn Creek.

Figure 6-9:
Map of Impaired Water Bodies in San Bernardino County



source: San Bernardino County LAMP

SECTION VII
North Desert Region

Organization

As detailed in the Introduction, the Countywide Wastewater Service Review is organized by San Bernardino County's four regions (Valley, Mountain, North Desert, and South Desert), with each region and its respective retail agencies reviewed as a distinct geographic area.

This section of the service review provides a review of the North Desert Region, including:

A. North Desert Region Overview
B. Identification of Hot Spots
    (1) Hot Spot Objective and Criteria
    (2) Wastewater Agencies: Boundary and Sphere of Influence
C. Identification of Opportunities
    (1) Objective and Criteria for Opportunities
    (2) Government Structure Options
    (3) Areas with Onsite Wastewater Treatment Systems
D. Staff Recommendations
    (1) Agencies under LAFCO Purview: Service Review Determinations
    (2) Initiation of Sphere of Influence Updates
    (3) Hot Spots – Continued Monitoring

Service Review Updates

In order to fulfill the requirements of Government Code §56430, service review updates are provided on a regional context (Section VIII) and for each wastewater agency and its service area (Appendix D) to include an agency profile, service area map, and narrative of the agency wastewater system. A detailed listing of treatment systems and municipal collection agencies is included as a part of Appendix F.

A. NORTH DESERT REGION OVERVIEW

The North Desert Region, with approximately 10,778 square miles, is the largest region geographically in the County and the second largest in terms of population, as shown in Table 7-1 below.

Table 7-1:
County Population by Region

Region	Area (sq. miles)	Population 2016
Valley	665	1,538,716
North Desert	**10,778**	**451,575**
South Desert	8,093	77,078
Mountain	571	50,854
TOTAL	20,107	2,118,223

Wastewater treatment in the North Desert is composed of one regional treatment system and due to distance between communities, a variety of localized treatment systems. The Victor Valley Wastewater Reclamation Authority ("VVWRA") provides treatment and disposal for the following general communities: Apple Valley, Hesperia, Victorville, Spring Valley Lake, and Oro Grande. These communities have governmental agencies that are the mechanisms that allow for wastewater collection within their boundaries.

Additionally, the communities of Adelanto, Baker, Barstow, Helendale, and Searles Valley provide collection and treatment services through their localized government agencies. Also, the U.S. Marine Corps Marine Corps Logistics Base ("MCLB") at Barstow has two treatment facilities for the base population, the U.S. Army Fort Irwin has a treatment facility for base population, and the City of Victorville has its own local plant that is independent of the VVWRA system. The remainder of the wastewater generated within the North Desert is handled by individual septic or package systems.

History

The history of the North Desert is tied to the railways, Mojave River, and the State Water Project. With the onset of the automobile, the Victor Valley area (primarily consisting of the present day cities of Adelanto, Apple Valley, Hesperia, and Victorville) experienced significant growth in the early 20th Century. Investors began purchasing land for development, and an abundant agricultural industry soon followed which included a variety of farm crops and cattle grazing. Underlying early development in the Victor Valley was a belief that the Mojave River provided an inexhaustible water supply.

Victor Valley was covered with a large number of fruit trees, primarily apple, planted by early farmers. Throughout the Valley, farms were also producing large yields. With such aggressive agricultural use, by the beginning of the 1950s, the Mojave River began to experience a serious overdraft – when water is taken from the ground faster than it is replenished. Growing population, industry and agriculture competed for available water – not only in the Victor Valley but throughout Southern California.

The Mojave Water Agency ("MWA") formed in 1960 in response to declining groundwater levels and alongside plans for development of the State Water Project. MWA is a regional wholesale provider responsible for managing groundwater resources and for ensuring a reliable water supply within its service area for present and future needs. MWA is one of 29 State Water Project contractors permitted to deliver water from the California Aqueduct, and MWA imports water from this source as needed. MWA is also responsible for implementing the Mojave Basin Area Judgment which, by court action, adjudicated the rights to produce water from the available natural water supply to better manage groundwater supplies.

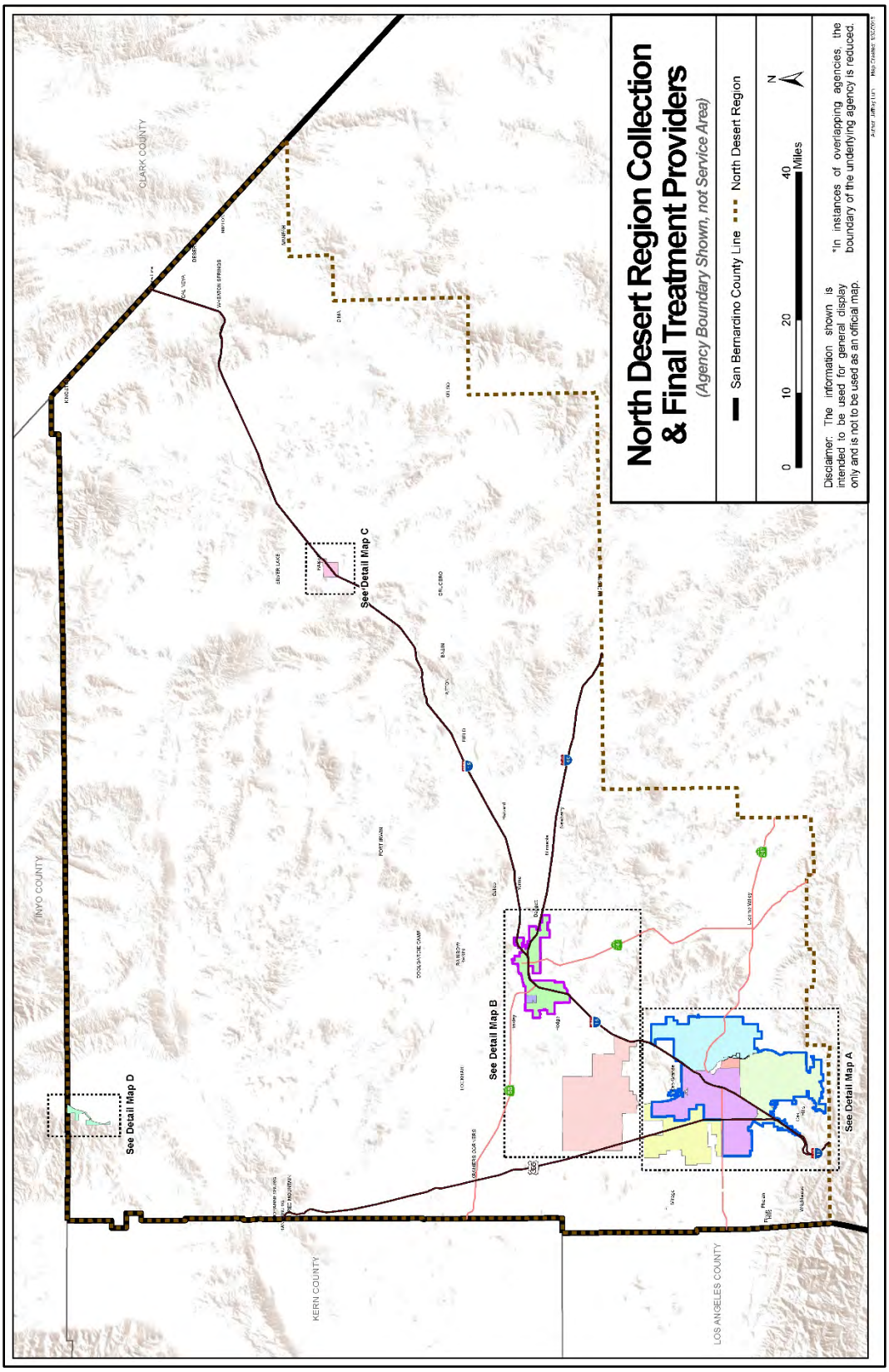
Location and Physical Setting

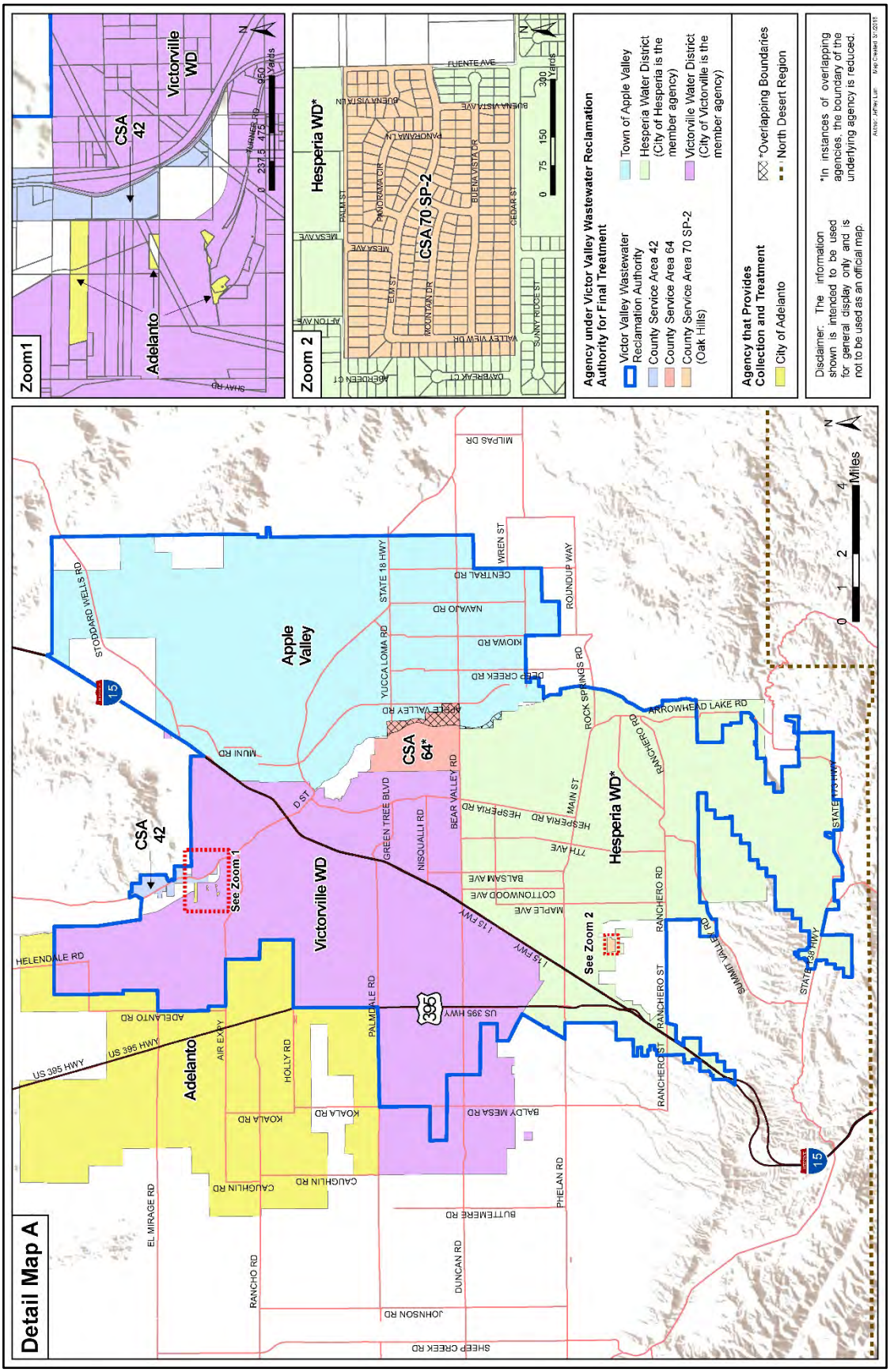
The Mojave Basin lies in the High Desert and is located on the northeastern flanks of the San Bernardino and San Gabriel Mountains which separate the High Desert from the coastal basins and inland valleys of the greater Los Angeles and Orange County areas and is characterized as an alluvial plain. The plain consists of valleys and closed basins composed of water-bearing unconsolidated sediments. Overall, land surface elevations within the Mojave Region range from 5,500 feet above sea level in the San Bernardino Mountains on the south to 1,500 feet near Afton Canyon on the east.

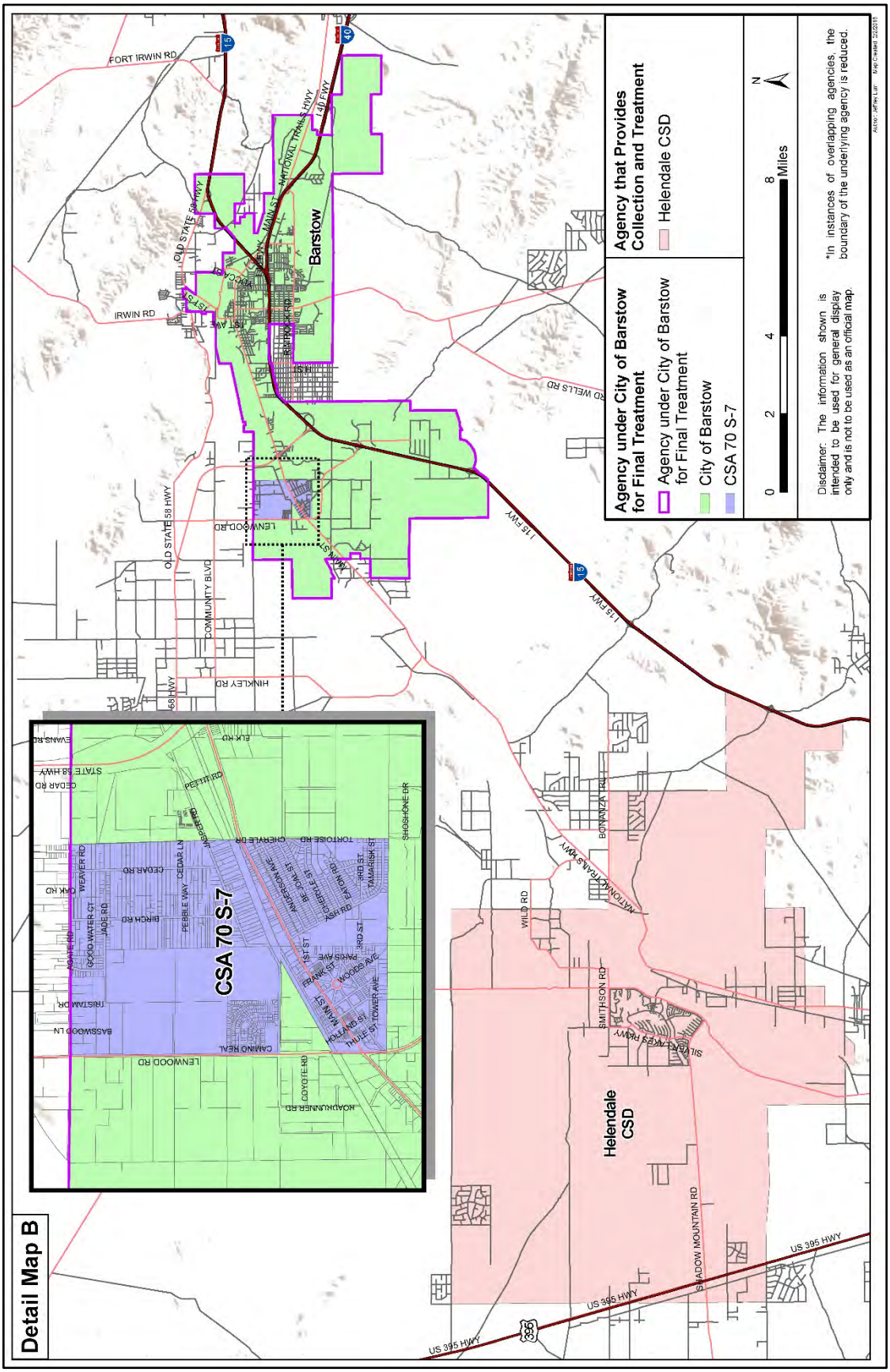
North Desert Wastewater Agencies

In the North Desert Region, there are 13 agencies that provide wastewater services. Of the 13, 12 provide collection and seven provide treatment. Figure 7-1 below shows the boundaries (not service area) of the 13 North Desert agencies and their role (collection, treatment, or both). Figure 7-2 shows the same agencies and their spheres of influence, if applicable.

Figure 7-1: North Desert Region – Agency Boundary Map




Detail Map A
Zoom1
Zoom 2
Agency under Victor Valley Wastewater Reclamation Authority for Final Treatment
Victor Valley Wastewater Reclamation Authority
Agency that Provides Collection and Treatment
City of Adelanto
Town of Apple Valley
Hesperia Water District (City of Hesperia is the member agency)
Victorville Water District (City of Victorville is the member agency)
County Service Area 42
County Service Area 64
County Service Area 70 SP-2 (Oak Hills)
*Overlapping Boundaries
North Desert Region
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
Author: Jeffrey Lum
Map Created: 3/2011
Apple Valley
Victorville WD
Hesperia WD*
Adelanto
CSA 42
CSA 64*
CSA 70 SP-2
See Zoom 1
See Zoom 2
Miles
0 1 2 4
N
15
395
US 395 HWY
STATE 18 HWY
STATE 138 HWY
I-15 FWY
HELENDALE RD
ADELANTO RD
PALMDALE RD
AIR EXPY
HOLLY RD
KOALA RD
CAUGHLIN RD
BALDY MESA RD
BUTTEMERE RD
PHELAN RD
DUNCAN RD
JOHNSON RD
SHEEP CREEK RD
RANCHO RD
EL MIRAGE RD
STODDARD WELLS RD
MUNI RD
D ST
GREEN TREE BLVD
NISQUALLI RD
BEAR VALLEY RD
APPLE VALLEY RD
YUCCA LOMA RD
DEEP CREEK RD
KIOWA RD
NAVAJO RD
CENTRAL RD
WREN ST
ROUNDUP WAY
ROCK SPRINGS RD
ARROWHEAD LAKE RD
RANCHERO RD
HESPERIA RD
MAIN ST
7TH AVE
BALSAM AVE
COTTONWOOD AVE
MAPLE AVE
MILPAS DR
SUMMIT VALLEY RD
RANCHERO ST
FUENTE AVE
BUENA VISTA AVE
PANORAMA DR
MESA AVE
PALM ST
ELM ST
CEDAR ST
MOUNTAIN DR
VALLEY VIEW DR
SUNNY RIDGE ST
ALTON AVE
APACHE CT
OAKBREAK CT
SHAW RD
TURNER RD
Yards


Agency that Provides Collection and Treatment
Helendale CSD
Agency under City of Barstow for Final Treatment
Agency under City of Barstow for Final Treatment
City of Barstow
CSA 70 S-7
0 2 4 8 Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
Barstow
Helendale CSD
CSA 70 S-7
Detail Map B
FORT IRWIN RD
IRWIN RD
OLD STATE 58 HWY
COMMUNITY BLVD
HINKLEY RD
LENWOOD RD
I-15 FWY
I-40 FWY
NATIONAL TRAILS HWY
MAIN ST
1ST AVE
ROCKVIEW RD
WELLS RD
BONANZA TRL
MATOMKY TRAILS WAY
WILD RD
SMITHSON RD
SILVER SPURS PKWY
SHADOW MOUNTAIN RD
US 395 HWY
395
CAMINO REAL
COYOTE RD
NORTHRUNNER RD
TORTOISE RD
SHOSHONE DR
CHERYLE DR
PEPPER RD
ELK RD
STATE 58 HWY
EVANS RD
CEDAR RD
WEAVER RD
CEDAR LN
OAK RD
BIRCH RD
PEBBLE WAY
JADE RD
AGATE RD
GOOD WATER CT
BASSWOOD LN
CHRISTIAN DR
ANDERSON AVE
BE-TOM ST
FENTON RD
3RD ST
TAMARISK ST
PARIS AVE
FRANK ST
2ND ST
1ST ST
MAIN ST
HOLLAND ST
THULE ST
TOWER AVE

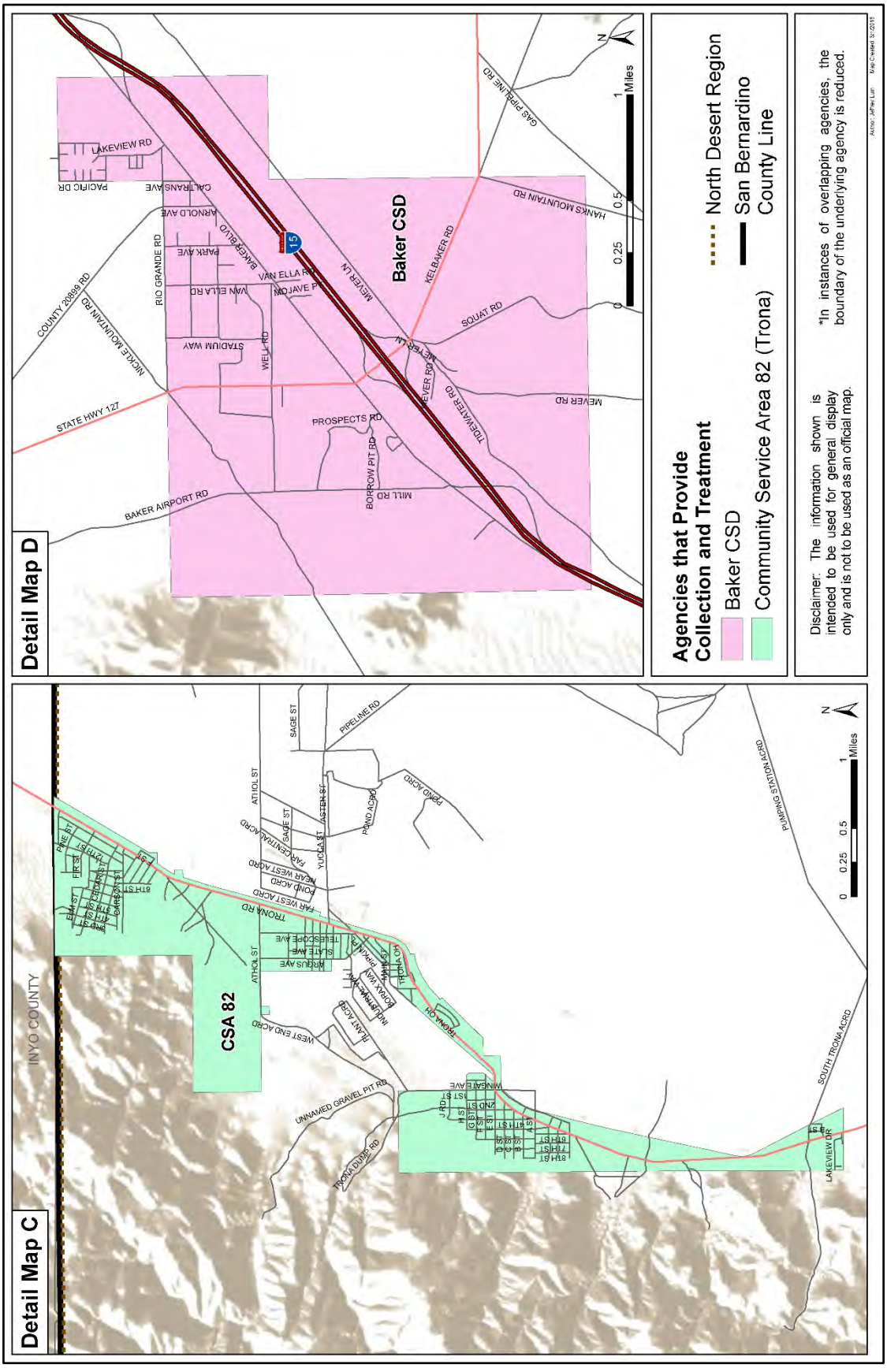
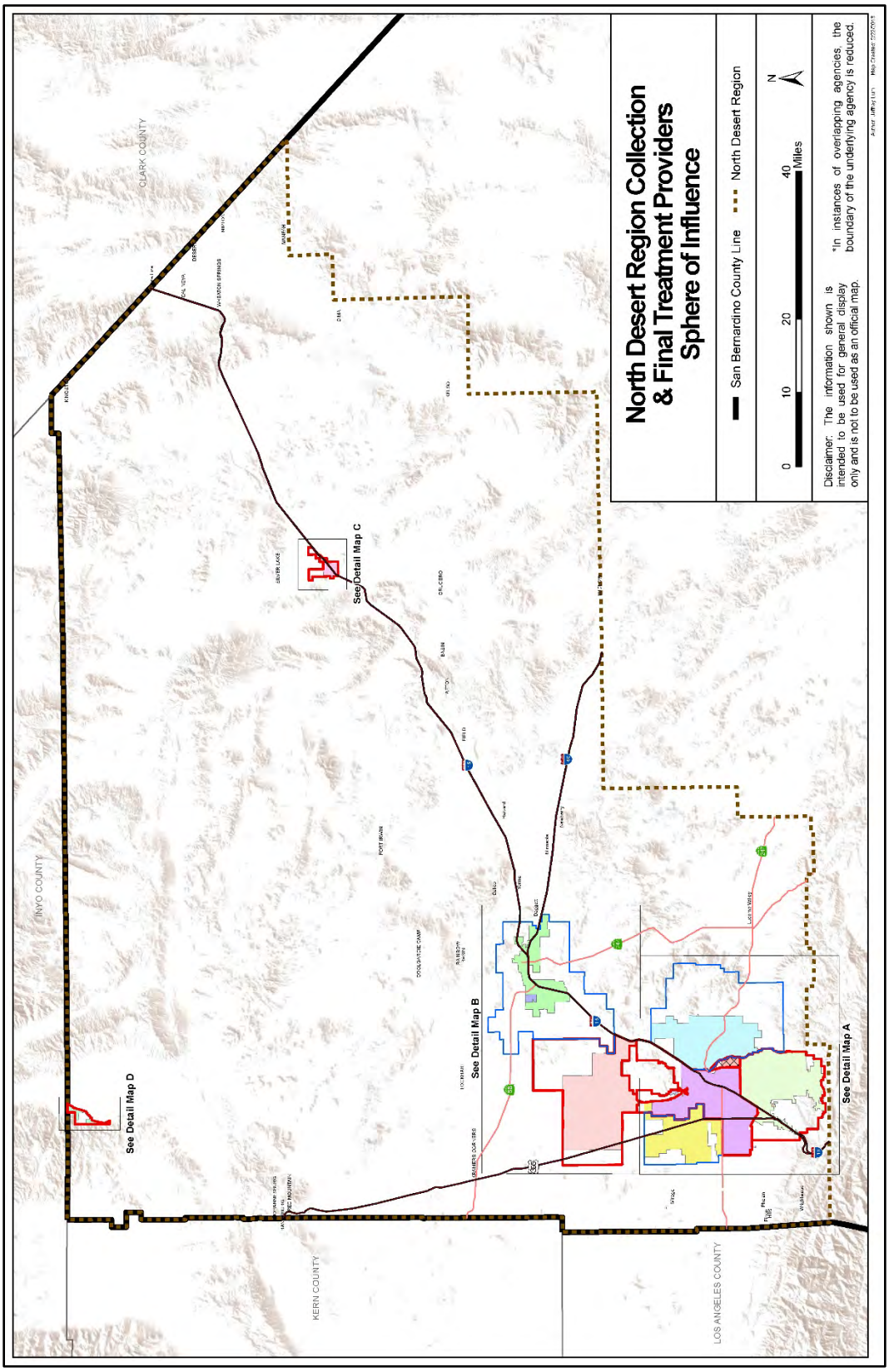
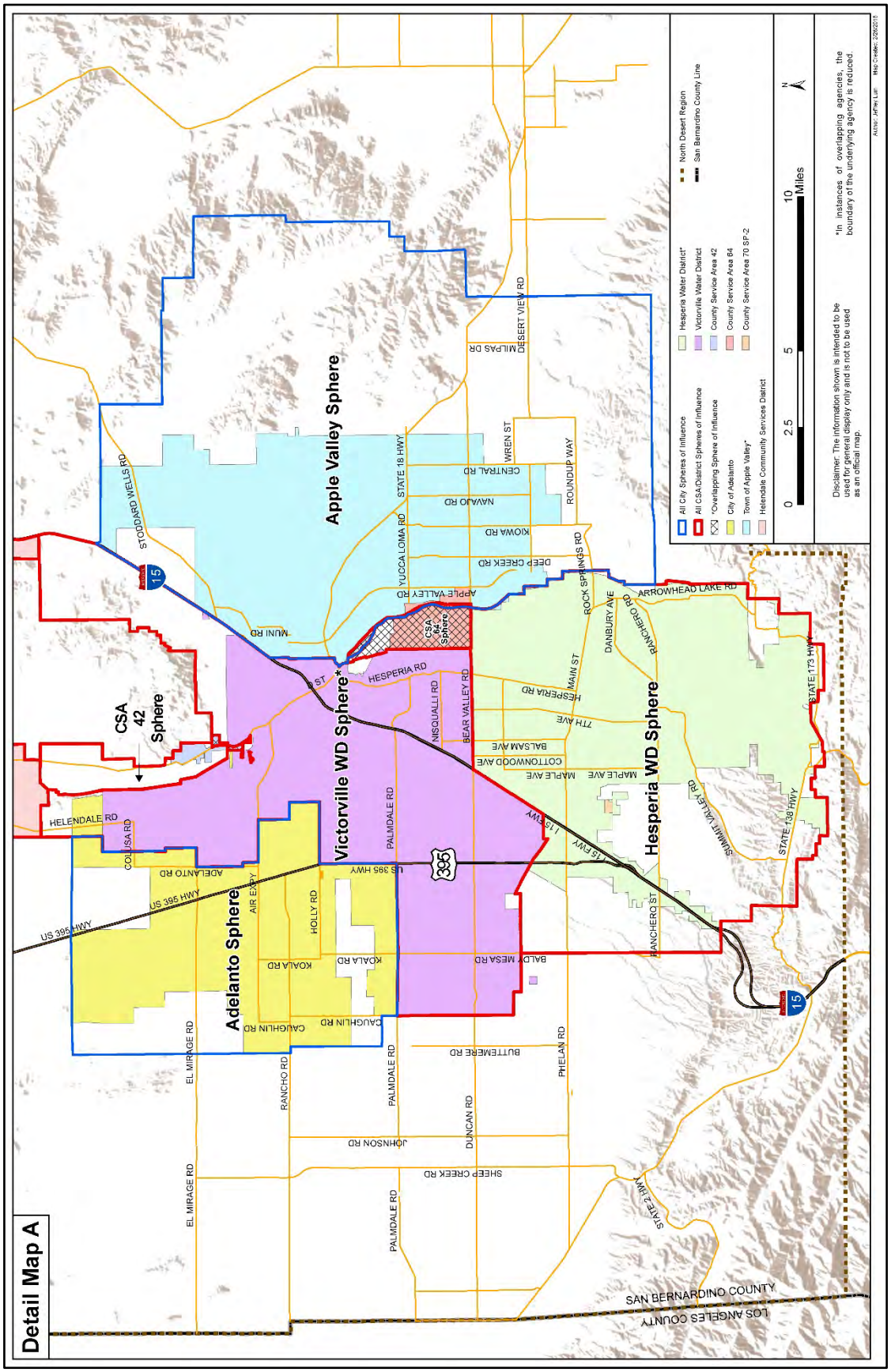
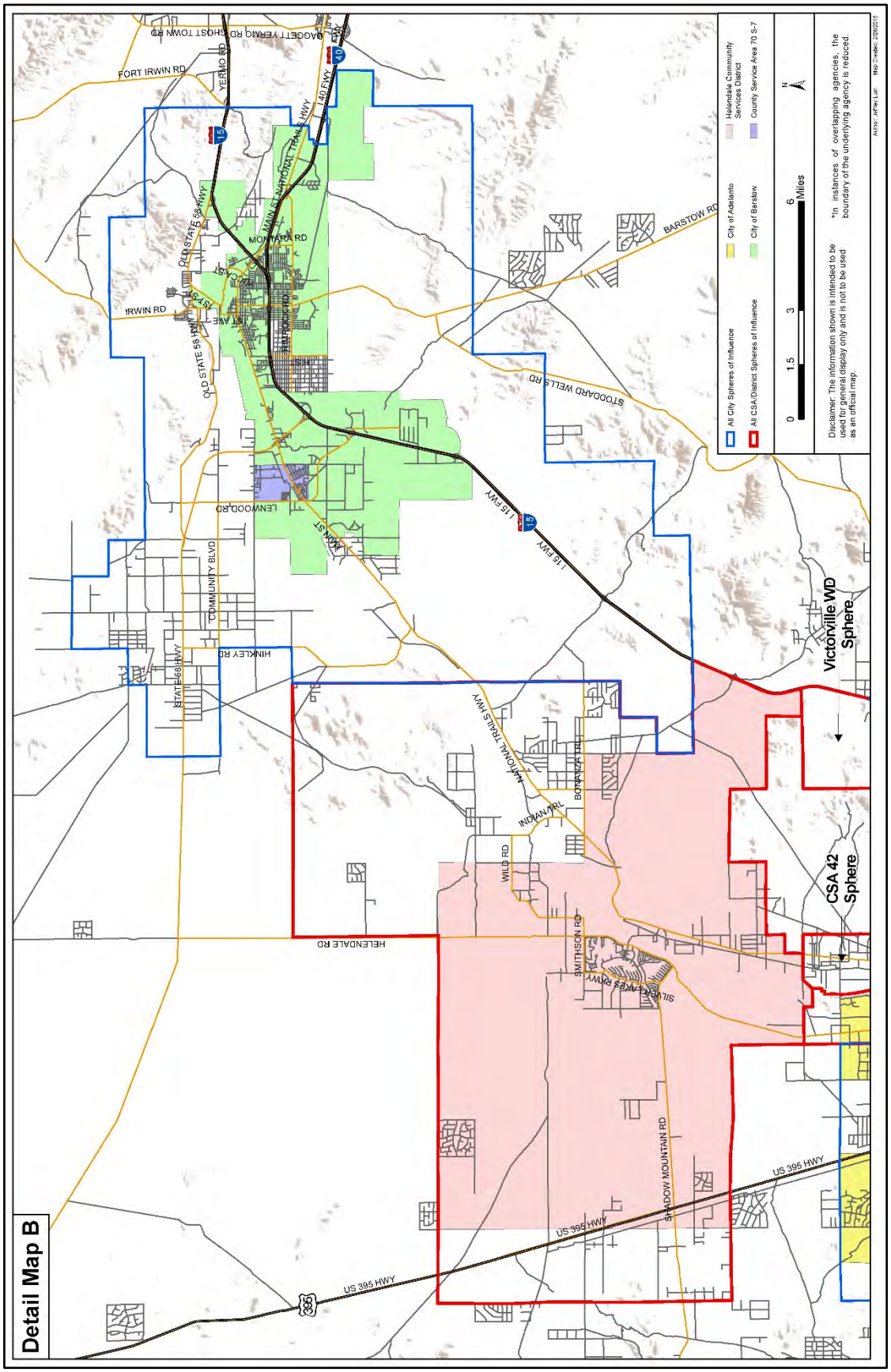
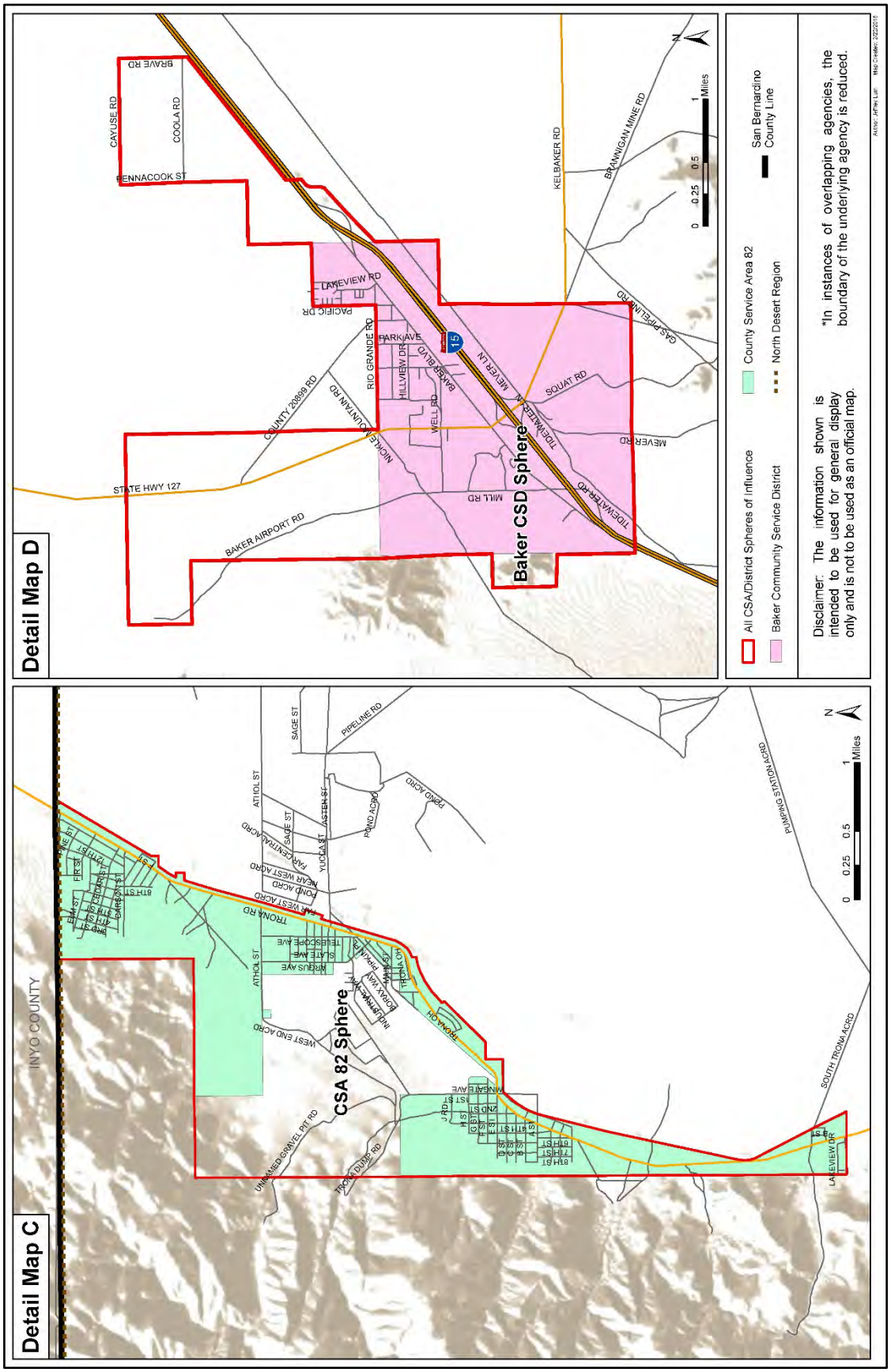

Detail Map D
Baker CSD
LAKEVIEW RD
PACIFIC DR
CALTRANS AVE
ARNOLD AVE
PARK AVE
BAKER BLVD
RIO GRANDE RD
VAN ELLA RD
MOJAVE PL
STADIUM WAY
WELL RD
COUNTY 20899 RD
NICKEL MOUNTAIN RD
STATE HWY 127
BAKER AIRPORT RD
PROSPECTS RD
BORROW PIT RD
MILL RD
TIDEWATER RD
MEYER RD
MEYER LN
KELBAKER RD
SQUAT RD
HANKS MOUNTAIN RD
GAS PIPELINE RD
15
N
0
0.25
0.5
1 Miles
Agencies that Provide Collection and Treatment
Baker CSD
Community Service Area 82 (Trona)
North Desert Region
San Bernardino County Line
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
Detail Map C
CSA 82
INYO COUNTY
SAGE ST
PIPELINE RD
ATHOL ST
YUCCA ST
ASTEN ST
POND ACRD
FAR CENTRAL ACRD
NEAR WEST ACRD
FAR WEST ACRD
TRONA RD
TELESCOPE AVE
SLATE AVE
MESQUITE AVE
BORAX WAY
MOJAVE WAY
PLANT ACRD
WEST END ACRD
TRONA DR
PUMPKIN STATION ACRD
SOUTH TRONA ACRD
UNNAMED GRAVEL PIT RD
TRONA DUMP RD
LAKEVIEW DR
MANGANESE AVE
1ST ST
2ND ST
3RD ST
4TH ST
5TH ST
6TH ST
7TH ST
8TH ST
PINE ST
EIM ST
OAK ST
N
0
0.25
0.5
1 Miles

Figure 7-2: North Desert Region – Agency Sphere of Influence Map




Detail Map A
Apple Valley Sphere
Victorville WD Sphere
Hesperia WD Sphere
Adelanto Sphere
CSA 42 Sphere
CSA 64 Sphere
North Desert Region
San Bernardino County Line
Hesperia Water District*
Victorville Water District
County Service Area 42
County Service Area 64
County Service Area 70 SP-2
All City Spheres of Influence
All CSA-District Spheres of Influence
*Overlapping Sphere of Influence
City of Adelanto
Town of Apple Valley*
Helendale Community Services District
0 2.5 5 10 Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
Author: Jeffrey Lum Map Created: 2/04/2015
SAN BERNARDINO COUNTY
LOS ANGELES COUNTY
HESPERIA RD
PALMDALE RD
APPLE VALLEY RD
YUCCA LOMA RD
DESERT VIEW RD
STATE 18 HWY
ROUNDUP WAY
DEEP CREEK RD
ROCK SPRINGS RD
ARROWHEAD LAKE RD
DANBURY AVE
RANCHERO RD
MAIN ST
BEAR VALLEY RD
NISQUALLI RD
STATE 173 HWY
STATE 138 HWY
SUMMIT VALLEY RD
RANCHERO ST
BALDY MESA RD
PHELAN RD
BUTTEMERE RD
DUNCAN RD
SHEEP CREEK RD
JOHNSON RD
CALIFORNIA RD
KOALA RD
HOLLY RD
AIR EXPY
ADELANTO RD
US 395 HWY
HELENDALE RD
COLUSA RD
EL MIRAGE RD
RANCHO RD
STODDARD WELLS RD
MUNI RD
NAVAJO RD
KIOWA RD
CENTRAL RD
WREN ST
MILPAS DR
TH AVE
MAPLE AVE
COTTONWOOD AVE
BALSAM AVE
STATE 2 HWY
15 FWY
395
15


Detail Map B
Victorville WD Sphere
CSA 42 Sphere
All City Spheres of Influence
All CSA/District Spheres of Influence
Helendale Community Services District
City of Adelanto
County Service Area 70 S-7
City of Barstow
0 1.5 3 6 Miles
N
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
Author: Jeffrey Lum
Map Created: 2/24/2015
FORT IRWIN RD
YERMO RD
DAGGETT YERMO RD
GHOST TOWN RD
I-40 FWY
MAIN ST/NATIONAL TRAILS HWY
OLD STATE 58 HWY
MONTARA RD
1ST AVE
IRWIN RD
BARSTOW RD
STODDARD WELLS RD
I-15 FWY
LENWOOD RD
MAIN ST
COMMUNITY BLVD
HINKLEY RD
STATE 58 HWY
NATIONAL TRAILS HWY
BONANZA TRL
INDIAN TRL
WILD RD
HELENDALE RD
SMITHSON RD
SILVER LAKES PKWY
SHADOW MOUNTAIN RD
US 395 HWY
395


Detail Map D
Baker CSD Sphere
BRAVE RD
CAYUSE RD
COOLA RD
PENNACOOK ST
LAKEVIEW RD
PACIFIC DR
PARK AVE
RIO GRANDE RD
HILLVIEW DR
BAKER BLVD
I-15
WELL RD
MEVER LN
TIDEWATER
SQUAT RD
MEVER RD
TIDEWATER RD
MILL RD
NICKEL MOUNTAIN RD
COUNTY 20899 RD
STATE HWY 127
BAKER AIRPORT RD
KELBAKER RD
BRANNIGAN MINE RD
GAS PIPELINE RD
All CSA/District Spheres of influence
Baker Community Service District
County Service Area 82
North Desert Region
San Bernardino County Line
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
Author: Jeffrey Luft
Map Created: 2/22/2013
0 0.25 0.5 1 Miles
N
Detail Map C
INYO COUNTY
CSA 82 Sphere
SAGE ST
PIPELINE RD
ATHOL ST
POND ACRD
YUCCA ST
JASTEN ST
PARK CENTRAL ACRD
POND ACRD NEAR WEST ACRD
TRONA RD
PARK WEST ACRD
POND ACRD
TELESCOPE AVE
SLATE AVE
RIGELUS AVE
MOUNTAIN VIEW ST
BORAX WAY
TRONA OH
WEST END ACRD
UNNAMED GRAVEL PIT RD
TRONA DUNE RD
MINGALE AVE
PUMPING STATION ACRD
SOUTH TRONA ACRD
LAKEVIEW DR
0 0.25 0.5 1 Miles
N

PRIMER ON SPHERES OF INFLUENCE

Government Code Section 56076 defines a "sphere of influence" as a plan for the probable physical boundaries and service area of a local agency, as determined by the commission.

The purpose of a sphere of influence is to encourage the logical and orderly development and coordination of local government agencies so as to advantageously provide for the present and future needs of the county and its communities. The statement of purpose adopted by San Bernardino LAFCO for spheres of influence include seven points. Those pertinent to this analysis are:

- To promote orderly growth of communities, whether or not services are provided by a city or district (board governed or independently governed);
- To encourage economical use and extension of facilities by assisting governmental agencies in planning the logical and economical extension of governmental facilities and services, thereby avoiding duplication of services;
- To provide assistance to property owners in relating to the proper agency to comprehensively plan for the use of their property;
- To encourage the establishment of urban-type services only within an adopted sphere of influence.

San Bernardino LAFCO has adopted ten polices related to a sphere of influence. Those pertinent to this analysis are:

- RESPONSIBILITY/OBLIGATION FOR A SPHERE OF INFLUENCE AREA

When a sphere of influence is assigned, a city or district is required to commence long range land use and service planning activities, thereby enabling it to respond to any annexation requests it might receive from landowners or residents within the sphere. By accepting a sphere of influence, a city or district agrees to plan for the provision of services.

- URBAN DEVELOPMENT WITHIN A CITY SPHERE

LAFCO takes the position that any new urban development which occurs within a city sphere of influence should take place as close to the city's urban area as possible. This position is emphasized for two reasons: first, so that contiguous areas may easily be annexed to the city; and secondly, so that the new urban area can be served by reasonable extension of the city's already developed municipal services.

PRIMER ON OUT-OF-AGENCY SERVICE

Beginning January 1, 1994 Local Agency Formation Commissions were charged with the responsibility for reviewing and taking action on a city or district contract to extend service outside its jurisdiction under the provisions of Government Code Section 56133. These are unique actions not directly related to the processing of other types of proposals as defined in the Local Government Reorganization Act and these policies and procedures will provide guidance on their processing.

Unlike the normal initiation process for proposals for jurisdictional change, Section 56133 provides that only a city or district may request LAFCO review of an out-of-agency service agreement/contract.

Exemptions

Section 56133(e) provides for six exemptions from written Commission approval to provide new or extended services outside its jurisdictional boundary. Those applicable for this service review are:

- Two or more public agencies where the public service to be provided is an alternative to, or substitute for, public services already being provided by an existing public service provider and where the level of service to be provided is consistent with the level of service contemplated by the existing service provider.

- An extended service that a city/district was providing on or before January 1, 2001.

For a request for exemption pursuant to Section 56133(e), the Commission shall make the determination that the service(s) to be provided is/are exempt from LAFCO review. (Policy and Procedure Manual Section IV, Chapter 2, Policy 5).

Pilot Program

Section 56133.5 (Assembly Bill 402 effective 2016) establishes a pilot program, through 2020, for Napa and San Bernardino LAFCOs to authorize a city or district to extend services outside of a sphere for additional purposes beyond responding to threat to public health or safety, based upon specific criteria. This process requires that the Commission make the following determinations regarding the area to be served outside the agency's sphere of influence, at a noticed public hearing:

- That the proposed service extension was identified and evaluated in a service review;

- That the proposed service extension will not have an adverse impact on open space/agricultural lands and/or is not growth inducing; and,

- That inclusion of the area to be served into the agency's sphere of influence is not feasible or desirable based on adopted commission policies.

B. IDENTIFICATION OF HOT SPOTS

(1) Hotspot Objective and Criteria

The primary objective of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, (2) initiate sphere of influence updates where appropriate, and (3) monitor specific agencies where appropriate. The identification of "hot spots"[1] is used to arrive at these recommendations - those agencies within the county which have significant wastewater issues including, but not limited to:

Wastewater Agencies – identification may include one or more of the following:

- Governance (inadequate oversight and monitoring, financial challenges)
- Collection System (deficiencies, challenges)
- Treatment System (deficiencies, challenges)
- Disposal System (deficiencies, challenges)

Agency Sphere of Influence, outside boundary – factors may include:

- Septic prohibition by State Water Board
- Clusters of onsite wastewater treatment systems
- Septic proximity to groundwater wells or impaired water body
- Located within a disadvantaged community
- DWR groundwater basin priority and basin population growth

To identify the county's wastewater "hot spots", staff utilized a multi-pronged approach. Sources include:

- Local agencies: Agency information reviewed in Appendix D to include audits and budgets, wastewater master plans, water master plans, urban water management plans, integrated regional water management plans, sewer system management plans, and local agency management plans.

- Regional Context: Regional information reviewed in Section VIII to include local agency management plans, and septic system locations.

- State Water Board: Violations, orders, resolutions, inspections, and overflow.

- LAFCO: Previous service reviews and findings, LAFCO's geographic information system ("GIS") was also used to identify future population growth areas, disadvantaged unincorporated communities, and septic tank use.

(2) Hot Spots – Wastewater Agencies: Boundary and Sphere of Influence

Table 7-2, below, summarizes the hot spot criteria with identification. In the North Desert Region there are three agencies that warrant a hot spot designation.

[1] In wastewater parlance, "hot spot" is a term to identify distressed areas of a wastewater pipe. For its second round of service reviews, San Bernardino LAFCO uses "hot spot" as an agency that has significant challenges.

Table 7-2:
Hot Spot Summary – North Desert Region

Key Code	● Yes or High ◑ Portion or Moderate	? Unknown ○ No or Low	CSA = County Service Area WD = Water District

Agency Boundary and/or Sphere	**Wastewater Agencies**				**Agency Sphere of Influence, beyond boundary**							**Other Matters Identified by LAFCO**	**Hot Spot, within Boundary**	**Hot Spot, within Sphere**
	Governance	**Collection System**	**Treatment System**	**Disposal System**	**Septic Prohibition by Water Board**	**Clusters of Septic Systems**	**Septic Proximity to Water Wells**	**Septic Proximity to Impaired Water Body**	**Within Disadvantaged Community**	**DWR Groundwater Basin Priority**	**Basin Population Growth**			
Baker CSD	○	○	○	◑	○	○	○	○	●	Very Low	○	○		
City of Adelanto	●	○	○	○	○	●	●	○	◑	High	●	●	●	
City of Barstow	○	○	◑	◑	○	●	●	○	◑	Med	○	○		
CSA 42	○	○	--	--	○	○	○	○	●	High	●	○		
CSA 64	○	○	--	--	○	○	○	●	○	High	●	○		
CSA 70 Zone SP-2	○	○	--	--	○	--	--	--	○	High	●	○		
CSA 70 Zone S-7	○	○	--	--	○	--	--	--	○	Med	○	○		
CSA 82	○	○	○	○	○	○	○	○	◑	Low	○	○		
Helendale CSD	○	○	○	○	○	○	○	○	◑	Med	●	○		
Hesperia WD	◑	○	--	--	○	●	●	●	○	High	●	◔		
Town of Apple Valley	○	○	--	--	○	●	●	●	○	High	●	○		
Victor Valley Wastewater Reclamation Authority	◑	--	○	○	--	--	--	--	--	--	●	◑	●	
Victorville Water District	●	◑	○	●	○	●	●	●	◔	High	●	◑	●	

City of Adelanto

Substantiation

The water operations of the Adelanto Public Utilities Authority ("APUA"), a component unit of the City, are tied to the APUA's sewer service and the City. The water service ("Water Authority") is in debt to the City, and the APUA is in debt to the Water Authority. Due to the consolidation of redevelopment oversight boards, effective July 2018, all long-term obligations of the APUA (a joint powers authority) will become long-term obligations of the City.

The FY 2015-16 independent auditor's report indicates that the APUA's flawed reporting could lead to financial misinformation, abuse, or fraud if not changed. The audit identified four material weaknesses and four significant deficiencies. Further, a review of the APUA audits identifies that operating revenues substantially cover operating expenses - this is due to the large rate increases. However, revenue gain from operations has not been adequate to support its capital and related financing activities. Not until 2014 was principal paid on capital debt.

The auditors in the 2014 audit stated that the APUA may not be able to continue as a going concern[2] due to the inability to secure financing to address the payment of an outstanding settlement. The APUA was able to satisfy this settlement obligation, but had to incur bond debt secured by water and wastewater rates to do so.

As of March 27, 2018, the most recent audit for the APUA is for FY 2015-16 (dated November 17, 2017) and FY 2013-14 for the City (dated May 13, 2016). In February 2018, the City informed LAFCO that it is finishing up the APUA 2016-17 audit and will start the City 2014-15 audit soon after. Therefore, the financial picture of the City and APUA remains unclear due to the lack of current financial statements.

Analysis

The 2009 service review determined that there were serious financial, operational, and managerial challenges for the City and APUA. The materials reviewed for this service review related to water and water operations do not reveal significant improvement in these deficiencies.

In 2009 as a part of its service review/sphere update, the Commission reduced the City's sphere to remove territory within the Phelan-Piñon Hills Community Services District at the southwestern edge of the then sphere, and excluded non-contiguous city-owned property from the sphere east of the city boundary.[3] In looking anew at the City's sphere, the

[2] A going concern is an entity that functions without the threat of liquidation for the foreseeable future, usually regarded as at least within 12 months. It implies for the e the basic declaration of intention to keep running its activities at least for the next year. Hence, the declaration of going concern means that the entity has neither the intention nor the need to liquidate or curtail materially the scale of its operations.

[3] LAFCO Resolution 3069 for LAFCO 3080. 22 October 2009.
http://www.sbcounty.gov/uploads/lafco/proposals/servicereviews/adelanto/Reso3069forLAFCO3080.pdf

dilemma is its long-term sustainability and the size of its boundary and sphere outside of its boundary. LAFCO staff has analyzed the aerial images of the sphere areas outside of the boundary which do not show activities warranting municipal services (or social services) from the City. These area are:

- Northern sphere area (peninsula) and
- Western sphere area (a portion of the El Mirage community) which is in:
    - County Service Area 70 Zone P-6 for park and recreation service, and
    - San Bernardino County Fire Protection District Service Zone FP-3 for fire and paramedic service.

In the southern sphere area there are activities which could benefit from the City's services, as there are existing out-of-agency services agreements for water and sewer.

As a part of its Countywide Service Review for Water (LAFCO 3187), the Commission at its July 19, 2017 hearing indicated its intent to reduce the City of Adelanto's sphere of influence following the completion of the upcoming countywide wastewater service review.

Recommendation

Based upon the information provided in Section VII, Section VIII, and the City's profile a part of Appendix D, staff recommends that the Commission initiate a sphere of influence update for the City of Adelanto to review the appropriate sphere of influence for the City, and direct that this process include a meeting between City and County representatives to discuss the current sphere area and LAFCO staff's proposed sphere amendment. This recommendation is reiterated at the end of this Section.

Victorville Water District and City of Victorville

Substantiation

Collection System

The overall pipeline system is aging. An estimated one percent of the system's pipelines were installed from 1920 – 1939, three percent from 1940 – 1959, 18 percent from 1960 – 1979, 41 percent from 1980 – 1999, and the remaining 37 percent in year 2000 and later. However, the City has CCTV inspected the entire collection system in 2017 and has developed a five-year capital improvement plan to rehabilitate the collection system to correct structural deficiencies. The capital plan is incorporated into the sewer rate study and will be funded by sewer rates.

Matters with Lahontan Regional Board

In July 2016, the Lahontan Regional Water Quality Control Board issued an Administrative Civil Liability Complaint (No. R6V-216-0042) to the City of Victorville. The Complaint alleges violations by the City as a result of six separate unauthorized discharges of raw sewage into the surface waters of the Mojave River and/or its tributaries between March 2014 and May 2016. The violations also allege the City's failure to clean up raw sewage debris in a timely manner from the September 2015 discharge and the City's failure to properly manage, operate, and maintain all portions of its sanitary sewer system between March 2014 and December 2015. The Complaint assessed an administrative civil liability against the City in the amount of $6,300,250 pursuant to California Water Code Section 13385. According to the Lahontan Executive Officer's Report from November 2017, settlement negotiations are underway.

According to the Lahontan Executive Officer's Report from November 2017, the City's system experienced an unauthorized waste discharge in September 2017 of 22,500 gallons. The raw sewage release was caused by a 10-inch stainless steel bracket that created a debris blockage in the sewer main. The release flowed into a nearby storm water catch basin, and subsequently beneath Hesperia Road and into a wash on the north side of Hesperia Road. City personnel were notified and stopped the flow through the wash by constructing a soil berm approximately 100 yards from the spill entry point into the wash. City personnel were able to recover 200 gallons of raw sewage from the wash and 22,300 gallons percolated into the wash soils. Signs were posted outside of Coad Road as a precautionary measure to alert the public, and the area was disinfected.

Review of Rates, Financial Statements, and Current Budget

LAFCO staff has reviewed the District's budgets, financial statements, and 2018 rate study and has identified the following areas of financial concern. The items below were identified prior to the approved rate increase of June 19, 2018 – the rate increase is anticipated to cover future capital expenses and eliminate reliance of reserve spending (more discussion on the rate increase is below).

- Since July 2012, the Water District has increased rates by 13.5% while VVWRA rates increased by 38.5%. LAFCO staff reviewed the City's wastewater rates since 2002. From 2002 to 2012, the City increased wastewater rates accordingly with the VVWRA rate increases, with one exception of an increase in 2008.

- The current VVWRA single-family-residential ("SFR") residential rate of $26.10 consumes practically all of the Water District's current rate of $26.89. The remainder of $0.79 per EDU pays for the operations, maintenance, and capital costs of the Water District system. It is clear that the current rate structure is not sustainable.

- As stated in the FY 2016-17 audit, …"circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern." These circumstances are described below.

- The routine practice of deficit spending has drawn down sewer fund reserves that currently total $17 million. However, sewer rates are proposed to be increased through the Proposition 218 process and have been calculated to resolve the fund reserve drawdown and fund planned capital replacement needs.

- The City has $22 million in capital improvement projects planned over the next five years that would be delayed without adequate funding. However, sewer rates are proposed to be increased to fund these capital projects.

City as a Whole

For the City as a whole, the FY 2016-17 audit identifies "emphasis of matters" in the Independent Auditor's Report. First, the Southern California Logistics Airport Authority has suffered recurring losses in recent years and has defaulted on a number of its recent debt payments. Second, the dissolution of redevelopment agencies creates additional uncertainty with respect to the SCLAA due to its dependence upon tax increment funding from the Victor Valley Economic Development Authority. Third, pension costs are expected to continue to rise annually. As stated in the audit, "These circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern."

Approved Rate Increase

On June 19, 2018, the City/Water District imposed increases to the wastewater rates. According to the City/District documentation regarding the rate increases, due to the lack of rate increases to match VVWRA rate increases, deferral of capital upgrades, inflation, and scheduled capital upgrades and improvements, the City and Water District adopted annual rate increases as follows:

Year	2018-19	2019-20	2020-21	2021-22	2022-23
Percent Increase	22.8%	15.0%	7.5%	7.5%	7.5%
Rate	$33.03	$37.98	$40.83	$43.89	$47.18

Analysis

Cash flows and net position have had annual increases through 2016. The annual surplus was at the expense of reserve transfers, deferring capital upgrades, and lack of matching rate increase with VVWRA rates. Operations and maintenance and payments to VVWRA are increasing. If the June 2018 rate increases were not approved, then in due time, debt service and scheduled capital expenses would have been affected.

The routine practice of deficit spending has drawn down sewer fund reserves that currently total at $17 million. In addition, the City has $22 million in capital improvement projects planned over the next five years that would have been delayed without substantial rate increase of June 2018. Even with the rate increase, reserves would continue to decline through 2020 (to $1.8 million) and would not meet the target reserve balance until 2023. In response to the Draft Service Review, the City/District states that the approved Sewer Rate Study and five-year incremental rate increases will provide sufficient revenues to fund the five-year capital improvement plan, operation and maintenance costs, treatment costs, debt service, and maintain adequate reserves. A copy of the City/Districts comments is included as a part of Attachment A.

There is no organizational change that would assist the City or Water District. Further, the District's sphere of influence is not excessive beyond its boundary; therefore, this service review does not recommend for a sphere of influence update for the District. Rather, the solutions to the challenges that face the City and District are to come from within.

Victorville Valley Wastewater Reclamation Authority

Substantiation

According to the VVWRA 2016-17 audit, certain conditions and events (not all directly a result of VVWRA actions) have given rise to doubts about VVWRA's ability to continue as a going concern[4] for a reasonable period of time thereafter. VVWRA faces several issues that could, if unmitigated, negatively impact its revenue and necessary cash flows to fund ongoing operations and to service the debt obligations authorized by the governing Members of VVWRA. Among the issues are:

1) Current diversion of roughly a million gallons of wastewater flow per day by the City of Victorville to its own plant. The flow diversion has resulted in a reduction of operating and capital income.

   VVWRA states that the diversion, alone, has cost the agency at roughly $8 million. In 2016, VVWRA cut 28% of its workforce and in 2017 eliminated two executive positions, citing financial troubles. VVWRA currently receives sufficient funds to operate and maintain, but struggles to pay off debts.[5]

2) City of Hesperia's refusal to remit payment for wastewater flows that VVWRA processed.

   During the fiscal year ended June 30, 2017, VVWRA has amounts due and receivable for user charges and connection fees amounting to $1,258,026 which were past-due since January 2016 from the City of Hesperia (City).

   On August 8, 2017, VVWRA was notified by the City that it has retained the payment over specific concerns pertaining to: 1) increasing rates which the City believes are due to financial problems related to member actions, 2) concerns over the timing of completion and operation of the Hesperia subregional water reclamation plant, in which revenues from the plant will be required to service the related State Revolving Loan, and 3) disagreement with VVWRA's Board of Commissioners in resolving a diversion of flow matter from the City of Victorville, which the City of Hesperia believes has deprived VVWRA of amounts totaling more than $10 million.

   VVWRA management believes that continued withholding of amounts due to the Authority will have a negative impact on operations and cash flows.

[4] A going concern is an entity that functions without the threat of liquidation for the foreseeable future, usually regarded as at least within 12 months. It implies for the e the basic declaration of intention to keep running its activities at least for the next year. Hence, the declaration of going concern means that the entity has neither the intention nor the need to liquidate or curtail materially the scale of its operations.

[5] "VVWRA eliminates two executive positions, citing financial troubles". *Daily Press*. Johnson, Shea. 28 October 2018.

3) Pending determination by the Federal Emergency Management Agency ("FEMA") to disallow $32 million in grant awards as recommended in a draft report issued by the Department of Homeland Security's Office of the Inspector General ("OIG").

   The OIG found that VVWRA did not comply with federal regulations in the bidding and procurement of three contracts totaling $31.7 million. FEMA awarded the funds to VVWRA after its pipeline ruptured due to severe flooding, mud, and debris flows in December and January 2010, sending 42 million gallons of wastewater into the Mojave River.[6]

The VVWRA Board of Commissioners and management believe that each of these matters individually and in the aggregate would negatively affect operations and effectively cause VVWRA to default on servicing debt obligations in accordance with contractual agreements during fiscal year 2019. VVWRA's plan to mitigate these issues are as follows:

1) Member Entities are in mediation to resolve the wastewater flow dispute, and all parties are seeking resolution.

2) Outstanding balance owed to VVWRA by the City of Hesperia is expected to be collected in full based on the terms of the Joint Powers Agreement. VVWRA is vigorously attempting collection of the balance.

3) VVWRA anticipates a positive determination by FEMA with regard to grant awards to the Authority.

Additionally, in April of 2016 the City of Victorville informed VVWRA of its intent to withdraw from the Service Agreement per the 30-year notice requirement (in essence withdrawing the City from VVWRA). VVWRA management has determined that the flow diversion will have a negative impact on VVWRA's operations and cash flows.

Analysis

As a joint powers authority, VVWRA is not under direct LAFCO purview and does not have a sphere of influence. However, its member agencies are under direct LAFCO purview and have spheres of influence. Events and conditions not entirely under VVWRA control could, if unmitigated, negatively impact its revenue and necessary cash flows to fund ongoing operations and to service the debt obligations authorized by the governing members of VVWRA.

[66] "Victorville temp agency alleges shoddy record-keeping, improper pay practices, at VVWRA". *San Bernardino County Sun*. Nelson, Joe. 14 July 2017.

C. IDENTIFICATION OF OPPORTUNITIES

(1) Objective and Criteria for Opportunities

LAFCO Service Reviews

A service review factor requires LAFCO to review governmental structure and operational efficiencies. The State has published advisory guidelines for LAFCOs to address all of the substantive issues required by law for conducting a service review[7]. The Guidelines address 49 factors in identifying an agency's government structure options. Themes among the factors include but are not limited to: more logical service boundaries, elimination of overlapping boundaries that cause service inefficiencies, economies of scale, opportunities to enhance capital improvement plans, and recommendations by a service provider.

In some cases, functional consolidation or integration can reduce costs so that services can be maintained and improved with fewer dollars. A service review should address possible options for the community to consider for the future. Movement towards these scenarios would include, but not be limited to, the requirement to prepare a plan for service, fiscal impact analysis, and any other required studies.

The preamble to the Local Government Reorganization Act states that while the Legislature recognizes the critical role of many limited purpose agencies, especially in rural areas, it finds and declares that a single multipurpose governmental agency accountable for community service needs and financial resources may be the best mechanism for establishing community service priorities.

Little Hoover Commission

The State's Little Hoover Commission[8], like LAFCOs, is a strong proponent of eliminating overlapping, inefficient government agencies. The Commission's website reads that, "While the strengths of special districts include their ability to provide specific, customized services and be responsive to local customers, their challenges include low civic visibility and limited oversight." Historically, the Commission has expressed sentiments such as:

[7] State of California. Governor's Office of Planning and Research. "Local Agency Formation Commission Municipal Service Review Guidelines", August 2003.

[8] The Little Hoover Commission, formally known as the Milton Marks "Little Hoover" Commission on California State Government Organization and Economy, is an independent state oversight agency that was created in 1962. The Commission's mission is to investigate state government operations and – through reports, recommendations and legislative proposals – promote efficiency, economy and improved service. The Commission works to implement its recommendations either through legislation or administrative changes. New hearings are held and progress reports are issued in the years following the initial report until the Commission's recommendations have been enacted or its concerns have been addressed.

- There are far too many special districts in California
- LAFCOs should act proactively to initiate and/or facilitate district consolidations.
- LAFCOs should follow up on previous service review recommendations and take action when and where it is appropriate.

The Little Hoover Commission recently reviewed California's vast network of local governing agencies known as special districts. A final report, "Special Districts: Improving Oversight & Transparency", was issued in August 2017 and addressed four key topics: (1) opportunities to bolster the effectiveness of Local Agency Formation Commissions; (2) the continued need for districts to improve transparency and public engagement; (3) the evolution of healthcare districts; and, (4) the urgency of climate change adaptation and the role of special districts.

(2) Government Structure Options

LAFCO staff's analysis did not identify any areas in North Desert where a reorganization of wastewater agencies would increase effectiveness or efficiency.

(3) Opportunities - Areas with Onsite Wastewater Treatment Systems

The focus of this analysis is not to simply show the areas that lack access to a municipal wastewater collection. The goal is to identify infrastructure needs or deficiencies related to sewers within or contiguous to the sphere of influence, especially those in a disadvantaged unincorporated community (see Gov. Code §56430).

LAFCO staff mapped the developed areas of the North Desert Region against the boundary and service areas of the municipal wastewater agencies. The methodology presumes a parcel outside an agency boundary uses a septic system unless it has been identified by LAFCO or the agency as being served. The analysis includes the following criteria: septic prohibition by Water Resources Board, clusters of septics, septic proximity to groundwater wells, and septic proximity to an impaired water body. Additional criteria include if the area is within a disadvantaged community, a groundwater basin designated as a high priority by the State, and the groundwater basin's population growth.

Given the direction of Gov. Code §56430 and the Commission's policies related to spheres of influence and service reviews, the areas discussed below are identified as areas outside an agency's boundary that would benefit from an organized wastewater collection system.

Within the North Desert Region, the Lahontan Regional Board has identified opportunities in which the implementation of an organized sewer system is needed to address both short and long-term sewer and water quality related issues. The communities include:

- Wrightwood
- Phelan-Piñon Hills
- City of Hesperia
- Town of Apple Valley
- City of Victorville
- Yermo

LAFCO staff concurs with the findings of the Lahontan Board and has provided additional analysis for many of the areas, including the identification of specific locations (and developments) which warrant connection to a conventional sewer system.

Opportunities - Wrightwood

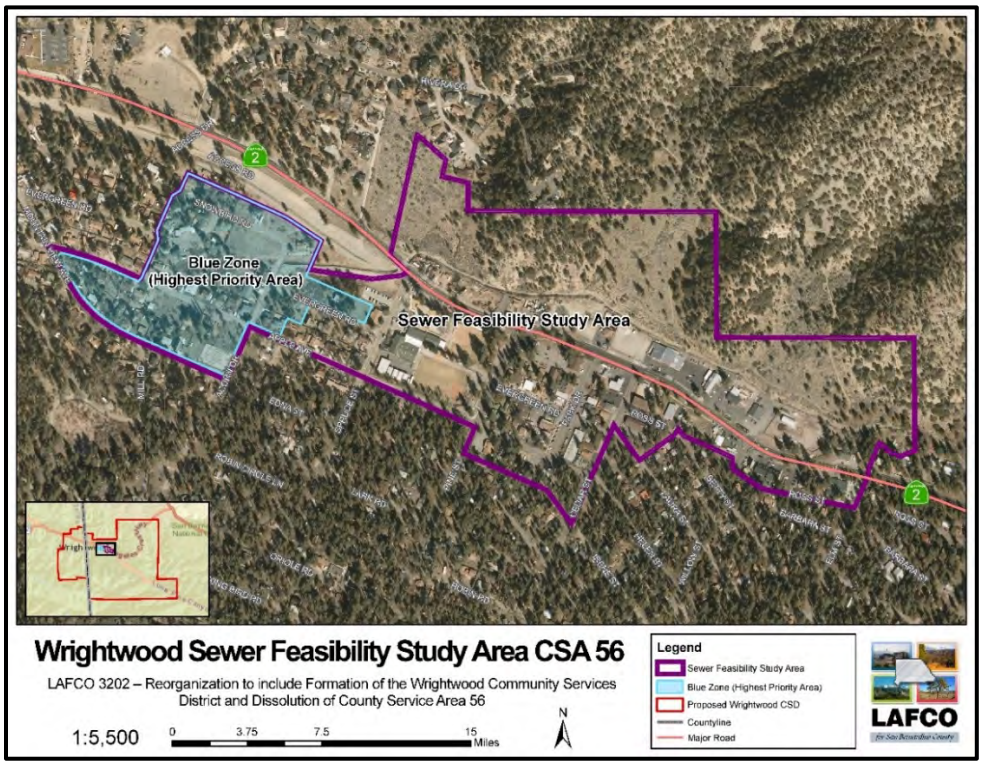
Wrightwood is located at the east end of the San Gabriel Mountains in the Angeles National Forest. This community is located at an elevation of approximately 6,000 feet above sea level and has no municipal sewer services. As a result, all development in this area requires OWTS. By 2020, the developed area is anticipated to increase to 68% of the total service area, with 3,024 dwelling units. By 2050, the proportion of area developed is anticipated to grow to 88%, with 3,581 dwelling units.

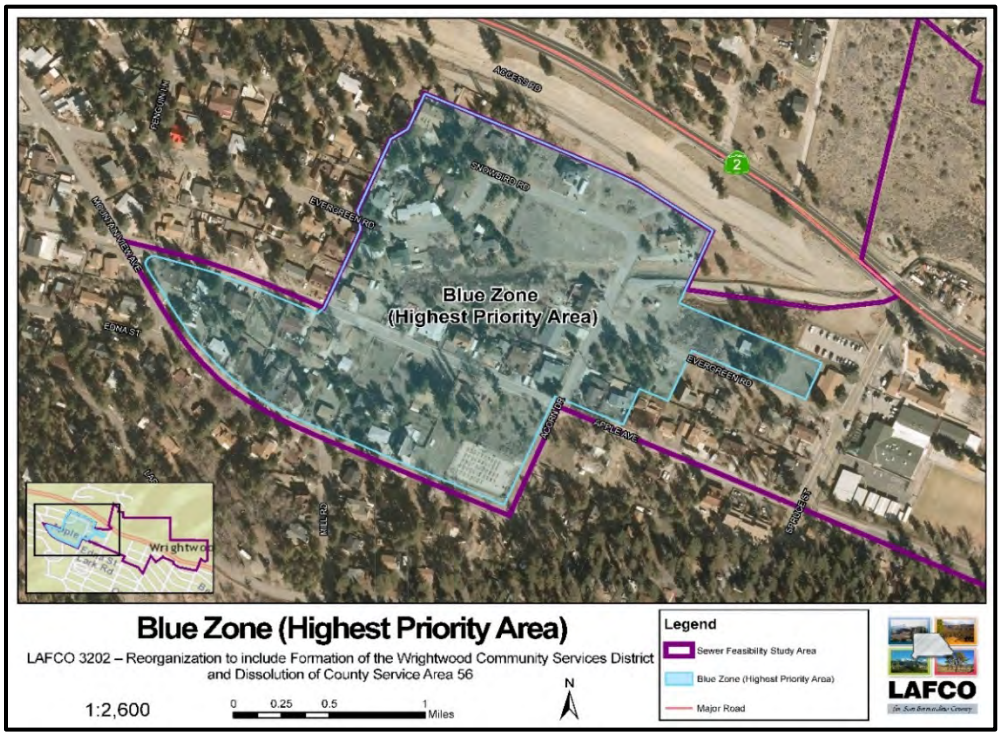
Staff's review of materials available online from the Lahontan Regional Board shows that for many years the question of OWTS for the densely developed downtown portion of the Wrightwood community (located in San Bernardino County) has been discussed.

- Since 1976 the Lahontan Board, through its Board Order No. 6-76-38 adopted on April 22, 1976, established the standards for discharge of waste through OWTS. The former County Service Area 56 (precursor agency) was recognized as the entity responsible for these discharge requirements.

- In 2000, a sewering feasibility study was done by Wilson So and Associates through the San Bernardino County Special Districts Department for CSA 56 which identified the areas of highest concern for small lots and shallow groundwater table. This was identified as the "Blue Zone" as identified in the figures below. As a result of these historic ground water levels, the County's Environmental Health Services requires percolation tests be completed for all new and replacement systems for any parcel in this area. When the Program requirements cannot be met, an alternative treatment system will be required.

Figure 7-3:
Wrightwood Blue Zone Map





The following table provides information regarding the lots located within the Blue Zone and includes the depth to groundwater in each lot.

Table 7-3:
Wrightwood Blue Zone Depth to Groundwater

Tract/Tentative Parcel Map (TPM) Number	Lot Number	Depth to Groundwater (ft.)
TPM 4044	1 and 2	3
Tract 2999	141 through 147	3
	148	0
	149	1
	150	2
	151	3
	152	4
	153	5
	154	6
	161 through 165	3
	180 through 187	3
	188 through 203	5
Tract 6039	17 through 18	3
	33 through 34	3
Tract 6217	1 through 4	3
	5	5
	6 through 11	0
	12 through 19	3

In 2013, Lahontan rescinded its Board Order No. 6-76-38 as it relates to CSA 56 because no public wastewater treatment facility was developed nor was there waste produced by CSA 56. This decision does not alleviate the Board's ongoing concerns about the community and the quality of the groundwater due to the on-site waste disposal systems. As identified in Lahontan's Executive Officer's report for September 16 – October 15, 2013, the local sewering committee was to request that the Special District's Department take the lead on completing the sewering option study. The Special District's Department response identifies that the mapping of the area has been done (as shown above) and that a consultant has been working on this issue.

In response to the formation of the Wrightwood Community Services District in 2016 (LAFCO 3202), the Lahontan Water Board provided information on the community's wastewater circumstance[9]:

These are septic tanks for solids removal followed by sub-surface disposal, typically a seepage pit[10]. The Lahontan Water Board has long desired that some form of common sewerage be implemented in Wrightwood to deal with problems that

[9] Lahontan Water Board. Jehiel Cass for Mike Plaziak. Letter dated 30 June 2016.
[10] A drilled or dug excavation three to six feet in diameter. It is also gravel filled but has a hollow core with a minimum depth below the inlet of feet and receives effluent discharge for dispersal from a septic tank or other OWTS treatment unit.

periodically arise. Options include centralized or de-centralized sewer collection, treatment, and disposal, and OWTS maintenance.

OWTS failures have occurred in the older sections of Wrightwood with a high density of small lots. Failures have also occurred in years with elevated precipitation when shallow groundwater rises to the surface. Many underdeveloped lots do not meet the Water Board's minimum lot size for installing an OWTS.

Additionally, LAFCO staff encourages the County to begin monitoring the well that it installed for that purpose. Such data could then be provided to the Lahontan Board in order for the Board to make informed recommendations.

The requirement for sewering is not locally made - it is a requirement which may be imposed by a regional regulatory agency. The approval of LAFCO 3202 in 2016 replaced the County Board of Supervisors-governed CSA 56 with an independent board (Wrightwood CSD) and authorized the CSD the function of wastewater (limited to planning of a regional sewer entity).

LAFCO staff concurs with the issues raised by the Lahontan Regional Board regarding the Wrightwood community. The Regional Board can issue an order prohibiting wastewater discharge in the area. Without an existing local sewer agency in the area, the newly formed Wrightwood CSD would appear to be the logical agency to take over this service in the future.

Just formed in July 2017, the Wrightwood CSD is in its infancy and continues to work through the administrative, budgetary and service challenges common of any newly formed agency. From LAFCO staff's perspective, for the CSD to take on an additional service at this time, especially one as complex and labor intensive as sewer, would be extremely challenging in the near term. However, the lack of a sanitary sewer system in Wrightwood is a core infrastructure deficiency and should remain a high level community concern.

The CSD is positioned to play a key role in coordinating with the Lahontan Board and representing the Wrightwood community on this issue. LAFCO staff encourages both parties to have ongoing communication and continue to inform the Wrightwood community on important sewer and water quality related issues. Should the CSD, at some point in the future, desire to actively provide wastewater collection and treatment service, it would be required to return to San Bernardino LAFCO for approval under the provisions outlined in Government Code Section 56824.10 et seq.

Additionally, roughly two and half miles to the west of the Wrightwood CSD in Los Angeles County is the Mountain High Ski Area, which has two wastewater treatment plants. The Lahontan Regional Board identified that an additional opportunity may be for a single system to encompass the Wrightwood and Mountain High communities. From LAFCO's staff view, a single sewer collection and treatment system for the entire Wrightwood/Mountain High area has the potential to provide a long-term solution to the larger community's sewer needs. The viability of this option should be explored in any sewer planning efforts for this area.

Opportunities – Phelan-Piñon Hills

The Lahontan Regional Board identifies an opportunity for the development of a sewer collection and treatment facility in the center area of the Phelan. This core area centers on the intersection of Sheep Creek Road and Phelan Road.

The Phelan-Piñon Hills CSD (LAFCO 3070) was formed in 2008, consolidating CSA 9 with the other Board-governed agencies within the Phelan-Piñon Hills community. The reorganization resulted in the formation of a single, independent community services district to provide local control and a single administrative agency for the following services: water, park and recreation, street lighting and solid waste/recycling.

LAFCO staff has identified a cluster of three OWTS systems which currently serve two shopping centers and one restaurant in downtown Phelan-Piñon Hills. Because the density of the overall community remains relatively low, the push for some form of organized sewage treatment and collection system within the community has not reached the level of interest that currently exists in Wrightwood.

However, given that there are currently no other sewer providers which can feasibly serve this area, looking to the future, the CSD is the logical long-term sewer provider for this community. LAFCO staff encourages ongoing communication between the CSD, the Phelan-Piñon Hills community, and the Lahontan Regional Board on these important sewer and water quality related issues. In the future, should the community desire, or be required by the State, to construct a collection, treatment, and disposal system, the CSD would be required to return to San Bernardino LAFCO for approval under the provisions outlined in Government Code Section 56824.10 et seq.

One option would be for the community to construct its own treatment plant. However, it may be more cost effective to construct pipelines that would send the effluent to processing at the VVWRA main plant or one of its sub-regional plants.

Moreover, if a collection system is constructed, inclusion of the populated area to the south of the CSD boundary, along Sheep Creek Road, would be appropriate. This area includes four schools (Serrano High School, Chaparral High School, Phelan-Mesa Middle School, and Eagle Summit Day School) which are currently served by OWTS systems.

Opportunities – Hesperia

Not all populated areas of Hesperia are connected to the municipal sewer system. The Lahontan Regional Board has identified opportunities where the population or commercial activity warrants connection to the municipal system. Should these areas connect to the system, the wastewater flows would be treated at the new Hesperia Sub-Regional WWTP. These areas are:

- Northwest Hesperia, generally the area of Bear Valley Road east of I-15

- Central Hesperia, generally the area of Santa Fe Avenue East and Willow Street

Additionally, LAFCO staff has identified the following two areas that are served via on-site wastewater treatment systems ("OWTS") that are in proximity to a municipal system.

- Oak Hills High School, 7625 Cataba Road, Oak Hills, is currently provided sewer service though an out of agency agreement with the City of Hesperia. The Grand View Plaza Shopping Center, 1330 Ranchero Road, Hesperia, is served by OWTS and is located only ½ mile from the high school. Future connection of the shopping center to municipal sewer, which would be treated at the Hesperia Sub-Regional Wastewater Reclamation Plant, should be considered.

- The Bear Valley Firestone Shopping Center, 14737 Bear Valley Road, Hesperia, and the adjacent Melina Square Shopping Center, are located within two miles of the Hesperia Sub-Regional Plant. Both centers are served by OWTS systems with a subsurface leach line. Bypassing these facilities with connection to the Town's sewer mains would allow for processing at the new Hesperia Sub-Regional WWTP.

Opportunities – Apple Valley

Not all populated areas of Apple Valley are connected to the municipal sewer system. The Lahontan Regional Board has identified opportunities where the population or commercial activity warrants connection to the municipal system. Should these areas connect to the system, the wastewater flows would be treated at the new Apple Valley Sub-Regional WWTP. These areas are:

- Central-west Apple Valley, generally the area known as Desert Knolls, between the Mojave Narrows Regional Park and Apple Valley Road.
- South-central Apple Valley, generally the area south of Yucca Loma Road and west of Navajo Road, near the James A. Woody Community Center.
- The Sandia and Bear Valley mobile home parks each have their own treatment plants. Bypassing these facilities with connection to the Town's sewer mains would allow for processing at the new Apple Valley Sub-Regional WWTP.

Additionally, LAFCO staff has identified the following area that is served via OWTS that are in proximity to a municipal system.

- Mountain View Villas, at Navajo Road and Bear Valley Road in Apple Valley, is a 179-unit residential complex sewered through an on-site package treatment plant. The development is immediately adjacent to a Town of Apple Valley sewer line. Connection would allow for wastewater processing at the Apple Valley Sub-Regional WWTP. This area is identified in the Town's Wastewater Management Plan.

Opportunities – Victorville

Not all populated areas of Victorville are connected to the municipal sewer system. The Lahontan Regional Board has identified an opportunity where the population or commercial activity warrants connection to the municipal system. This area is:

- Southeast Victorville, generally the area of Bear Valley Road, east of I-15

Opportunities - Yermo

The Yermo Community Services District, which covers 117 square miles, is authorized to provide street lighting, fire protection, park and recreation, and water (not currently active) services. The Yermo community lacks an organized wastewater system.

Although the Yermo community's population is small – currently 1,709 residents and expected to grow to just 1,955 in 2040[11] - the Lahontan Regional Board has identified an area where population and commercial activity warrants formation of a centralized sewer system. In Yermo, the intersection of Daggett Yermo Road and Yermo Road, presents such an opportunity.

LAFCO staff further analyzed this intersection and substantiated that there are significant activities that are clustered – two gas stations, restaurants, a motel, and the Silver Valley High School. There are two subsurface seepage pits at the intersection, each with design capacities of 0.005 MGD, secondary treatment, and disposal via subsurface seepage pits. The Yermo CSD would be the logical sewer service provider to this area. LAFCO staff encourages ongoing communication between the CSD staff, the Lahontan Regional Board, and the Yermo community to explore long-term options for addressing sewer and water quality issues in this key intersection and in the larger Yermo community.

Alternatively, the nearby Marine Base treatment plant is designed to operate with high effluent flow. LAFCO staff identifies an opportunity to send Yermo effluent to the Marine Base for treatment. Such an opportunity would entail a Yermo collection system with a contract with the Marine Base for treatment. This would benefit both parties – Yermo with an organized system that would foster growth, and the Marine Base with additional revenue.

[11] 2018 population (ESRI), 2040 population (LAFCO)

D. STAFF RECOMMENDATIONS

As previously stated, the primary objective of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, (2) initiate sphere of influence updates where appropriate, and (3) monitor specific agencies where appropriate.

(1) Agencies under LAFCO Purview: Service Review Determinations

The following are the Valley Region agencies that are under LAFCO purview for a service review:

Baker Community Services District
City of Adelanto
City of Barstow
County Service Area 42
County Service Area 64
County Service Area 70 Zone SP-2
County Service Area 70 Zone S-7
County Service Area 82
Helendale Community Services District
Hesperia Water District
Town of Apple Valley
Victor Valley Wastewater Reclamation Authority
Victorville Water District

Based upon new information received since the previous service review, staff recommends that the Commission update the previous service review determinations for the agencies listed above to include:

a. *Population, disadvantaged unincorporated communities, and regional information from Section VIII.*
b. *Agency information from Appendix D.*

(2) Initiation of Sphere of Influence Updates

Based upon the information provided in Section VII, Section VIII, and the City's profile a part of Appendix D, staff recommends that the Commission initiate a sphere of influence update for the City of Adelanto to determine the appropriate sphere of influence for the City, and direct that this process include a meeting between City and County representatives to discuss the current sphere area and LAFCO staff's proposed sphere amendment.

(3) Continued Monitoring

Staff recommends that the Commission continue to monitor the Victorville Water District and Victor Valley Wastewater Reclamation Authority, and direct staff to return to the Commission six months following completion of this service review.

SECTION VIII
North Desert Service Review Update
Regional Update

OVERVIEW

As stated in the Introduction to this report, the focus and primary goal of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, and (2) initiate sphere of influence updates where appropriate, and (3) continue monitoring where appropriate. In order to fulfill the service review requirements of Govt. Code §56430, a review of the items, listed below, are included in this Appendix as they pertain to the North Desert Region.

A. Population, Location and Physical Setting
B. Disadvantaged Communities
   (1) Primer
   (2) Disadvantaged Unincorporated Communities
   (3) Disadvantaged Communities
C. Overview of Wastewater Treatment Systems
   (1) Contracting for Operations and Maintenance
   (2) Treatment Agencies
   (3) Age of Pipelines
   (4) Imported Water from Mountain into North Desert
   (5) Agricultural Land and Use
D. Onsite Wastewater Treatment Systems
   (1) Regional Board Overview
   (2) Prohibitions and Exceptions
   (3) County of San Bernardino LAMP
   (4) City of Hesperia LAMP
   (5) Town of Apple Valley LAMP

A service review update specific to each agency and its service area is included in Appendix D, which includes an agency profile, service area map (not necessarily boundary), and narrative of the agency wastewater system.

A detailed listing of treatment systems and municipal collection agencies is included as a part of Appendix F.

A. POPULATION, LOCATION AND PHYSICAL SETTING

The North Desert Region's population is mainly concentrated in the Victor Valley and Barstow. Other communities include Helendale, Oak Hills, and Phelan Piñon Hills. Outside of these areas, the population is sparse. In general, the North Desert is made up of relatively small urban centers with fairly low population densities.

According to the Mojave Water Agency ("MWA") 2015 Urban Water Management Plan, San Bernardino County and the broader Inland Empire region are anticipated to see more population growth in the near term than the coastal regions of Southern California, and in the longer run, it is anticipated that the MWA service area will see even stronger population growth. The high cost of housing in the coastal counties of Los Angeles, Orange and San Diego has made the Inland Empire a destination of choice for many residents willing to commute to those areas. Population projections for the wastewater collectors, as well as two large communities that lack a collection system, are provided in Table 8-1. Overall population for these areas is expected to grow by 33 percent by 2040, which equates to an annual growth rate of 1.6 percent.

Table 8-1:
Current and Projected Population Estimates – North Desert Region

Agency	2015	2020	2025	2030	2035	2040
City of Adelanto	33,080	35,476	38,453	42,221	46,311	50,182
City of Barstow	31,261	31,951	32,684	33,412	34,096	34,732
County Service Area 42	353	376	409	448	489	527
County Service Area 64	9,541	10,267	11,205	12,236	13,246	14,156
County Service Area 82	1,506	1,536	1,567	1,598	1,630	1,663
Helendale CSD	6,535	7,090	7,812	8,613	9,407	10,127
Hesperia Water District	91,864	99,242	108,143	118,411	129,123	139,185
Town of Apple Valley	59,779	63,357	68,240	73,427	78,526	82,983
Victorville Water District	124,937	139,151	155,167	172,144	188,896	204,986
Oak Hills community	10,227	11,433	13,049	14,906	16,811	18,597
Phelan Pinon Hills community	20,814	23,009	25,919	29,219	32,561	35,655
Remaining Areas	40,363	36,257	37,834	42,179	48,225	53,762
TOTAL	**430,260**	**459,145**	**500,482**	**548,814**	**599,321**	**646,555**

Source: Beacon Economics, MWA Population Forecast, December 2015, as cited in 2015 UWMP

The population estimates for Hesperia Water District take into account the Tapestry Master-Planned Community[1]. SCAG projections for the Tapestry community indicate that by 2040 the Hesperia community will be home to approximately 136,500 residents, of which roughly 34,000 would be related to Tapestry. According to MWA staff, while the population projections are not project specific, the economic and other indicators

[1] The Tapestry master-planned community includes 9,365 acres in southeast Hesperia, nearly 4,000 acres of which will be dedicated to natural open space, conservation easements, public parks, and the Serrano Heritage Preserve. Construction will begin in 2019, and the project will be completed in phases over a period of 25 to 30 years. (http://tapestryliving.com/). Accessed 23 November 2016.

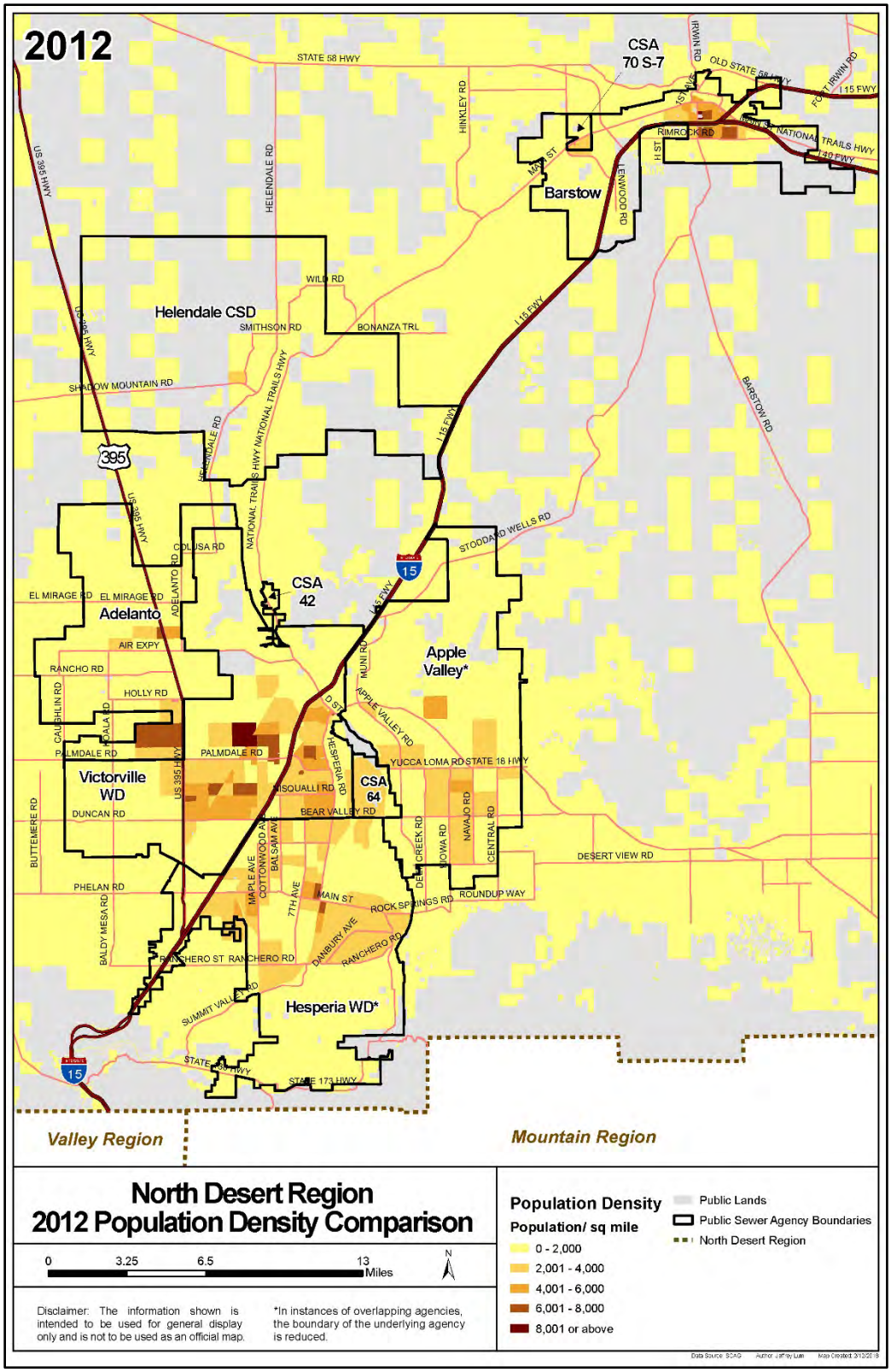
take into account the factors that relate to projects. The Water Supply Assessment[2] for the project identifies, "…that with development of the resources identified[3] there will be sufficient water supplies over a 25-year planning horizon to meet the projected demand of the proposed Project and the existing and other planned development projects within the [Hesperia Water] District."

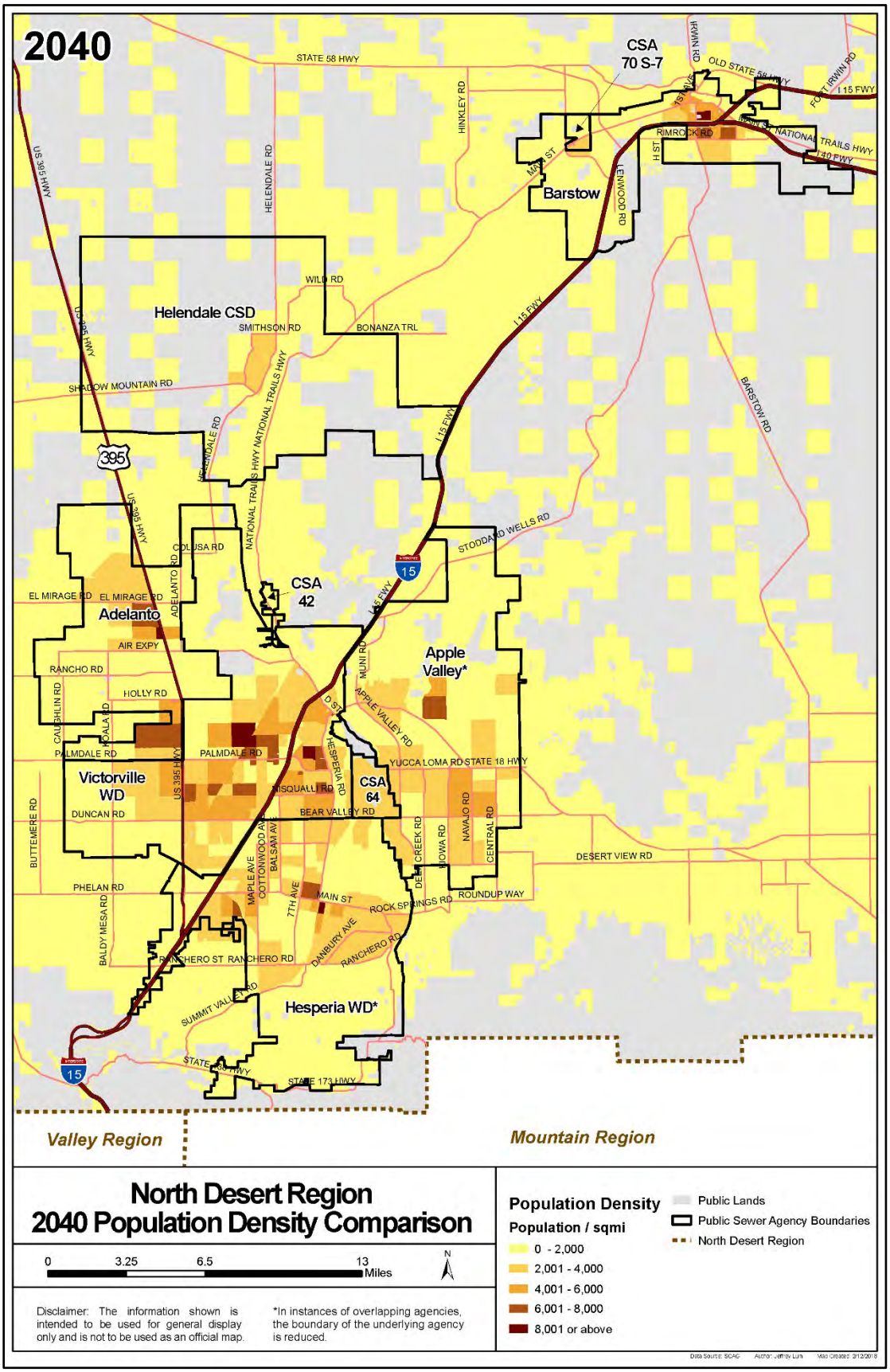
Figure 8-1 compares population density between 2012 and 2040[4]. The mapping only shows the populated core area of the North Desert – the general Victor Valley area north to Barstow. An analysis of the other North Desert areas does not identify any significant changes in density, therefore, mapping for these areas is not shown.

As the MWA 2015 UWMP states, the MWA service area, in terms of housing prices, is even more affordable than other parts of San Bernardino County, and it is expected that this will help drive population growth. However, as the figure below illustrates, the relative density of the populated areas is not projected to increase significantly by year 2040 given the availability of developable land. These dynamics can, however, contribute to urban sprawl as growth continues to expand at the periphery of the current urban cores.

[2] Hesperia Water District. Prepared by Kennedy/Jenks Consultants. *Final Hesperia Water District, Water Supply Assessment – June 2014, Tapestry – Hesperia Venture I, LLC.* (http://www.cityofhesperia.us/documentcenter/view/3724). Accessed 23 November 2016.
[3] See Sections 6 and 7 of the Water Supply Assessment.
[4] The data source is transportation analysis zones from SCAG's 2040 Regional Transportation Plan. For this map, non-developable areas include lands in the name of: United States of America, Government Land, State of California, and County of San Bernardino, as identified by the County Assessor.

Figure 8-1:
2012 and 2040 Density Comparison - North Desert Region




2040
CSA 70 S-7
Barstow
Helendale CSD
CSA 42
Adelanto
Apple Valley*
CSA 64
Victorville WD
Hesperia WD*
Valley Region
Mountain Region
North Desert Region
2040 Population Density Comparison
0 3.25 6.5 13 Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
Population Density
Population / sqmi
0 - 2,000
2,001 - 4,000
4,001 - 6,000
6,001 - 8,000
8,001 or above
Public Lands
Public Sewer Agency Boundaries
North Desert Region

B. DISADVANTAGED COMMUNITIES

Primer on Disadvantaged Communities – DUCs, DACs & More

Disadvantaged Communities
The State of California adopted a definition of disadvantaged community (or "DAC") through passage of Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002. This measure added §79505.5(a) to the California Water Code and defines a disadvantaged community as a *"community with an annual median household income that is less than 80 percent of the statewide annual median household income."* For 2016, 80% of the statewide median household income is $50,043.[5] State law requires various entities (i.e. LAFCO, cities and counties, and water agencies) to, in some manner, identify disadvantaged communities which can be located in both incorporated and unincorporated areas.

Disadvantaged Unincorporated Communities
Particular to LAFCOs, the state mandate is to identify the location and characteristics of disadvantaged unincorporated communities (or "DUCs"). Gov. Code §56375 specifically prohibits an annexation to a city of any territory greater than 10 acres where there exists a disadvantaged unincorporated community that is contiguous to the area of proposed annexation unless an application to annex the entire disadvantaged unincorporated community has also been filed.

Gov. Code §56033.5 defines DUCs as "...*inhabited territory [12 or more registered voters]...or as determined by Commission policy, that constitutes all or a portion of a "disadvantaged community"...* with less than 80% of the median household income.

Need for Consistency
The DAC definition, as defined in Water Code §79505.5(a), differs from the definition of a DUC in two important ways: (1) a DUC must be inhabited, and (2) DUCs comprise unincorporated territory only, not territory within cities. For purposes of further defining a DUC, San Bernardino LAFCO policy defines a community as an *inhabited area comprising no less than 10 dwelling units adjacent or in close proximity to one another.*

Alternatively, Gov. Code §65302.10 (General Plans) identifies a DUC as being 80% or less than the median household income. This is in contrast to Water Code §79505.5 and Gov. Code §56033.5 which reads less than 80%.

Other State agencies, such as the California EPA, use alternative criteria to identify disadvantaged communities for grant funding purposes. The different criteria used to identify disadvantaged communities at the local and state government levels is confusing and complicates implementation of a consistent approach to addressing our disadvantaged residents. While staff recognizes the difficulty in developing a one-size-fits-all definition, LAFCO staff's position is that additional work needs to be done State-wide to develop a method for identifying disadvantaged communities that is more consistent yet recognizes the diversity of communities and geographies in California.

[5] Environmental Systems Research Institute (ESRI)

Disadvantaged Unincorporated Communities (DUCs)

For LAFCOs, the state requires that service reviews identify and describe the characteristics of disadvantaged communities of *unincorporated* areas only (commonly referred to as "DUCs"). For the purposes of defining a DUC, San Bernardino LAFCO policy defines a community as an inhabited area comprising no less than 10 dwellings adjacent or in close proximity to one another. Uninhabited areas include vacant or government lands. Based upon the criteria identified, Figure 8-2 identifies those areas that meet the criteria of a DUC.[6]

The North Desert Region is the largest region in the County. Therefore, for presentation purposes, the map for disadvantaged unincorporated communities is broken down as follows:

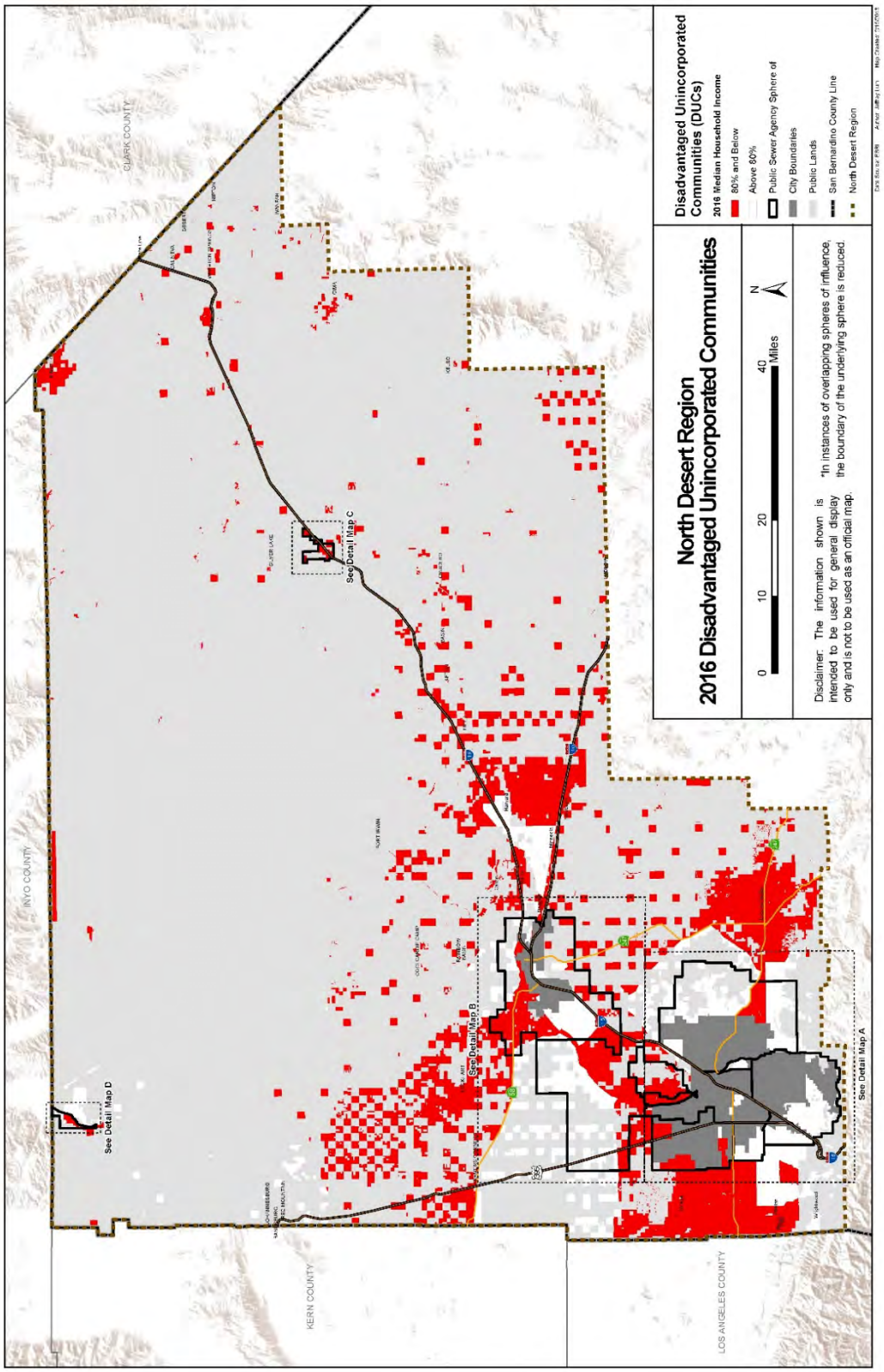
- Detail Map A - Victor Valley
- Detail Map B – Helendale and Barstow
- Detail Map C - Searles Valley
- Detail Map D - Baker

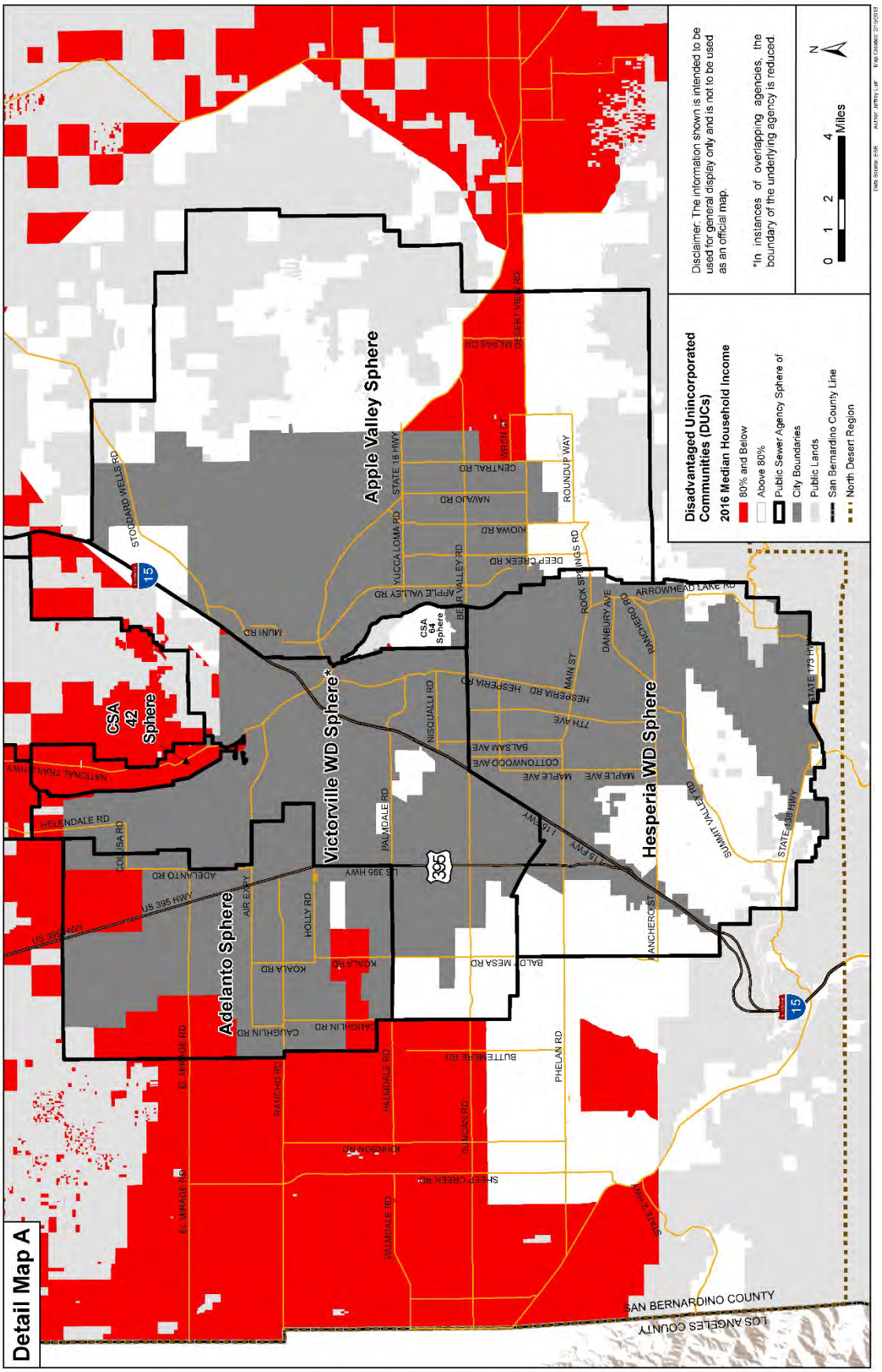
The DUCs identified in the mapping show that the major unincorporated areas in the North Desert region do not meet the criteria of a DUC: Spring Valley Lake, Oak Hills, and Wrightwood. Conversely, portions of the Helendale and the entire Oro Grande communities are classified as a DUC. Characteristics of the Oro Grande community are as follows:

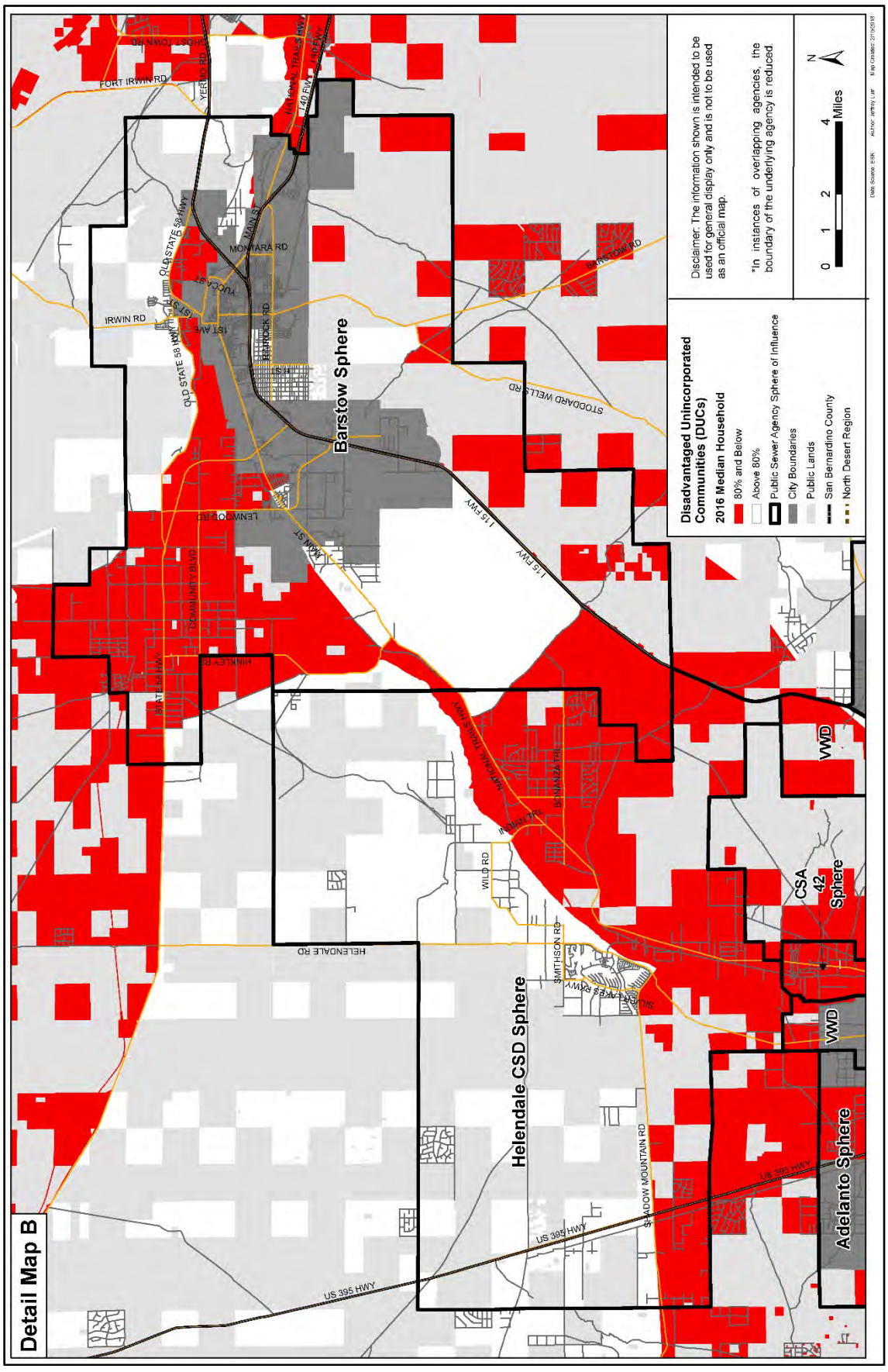
- At present, the land uses include vacant, mining, and residential land. The majority of the area has current General Plan land use designations assigned by the County of Regional Industrial and Rural Living. Other land uses include Neighborhood Commercial and Residential Single (minimum lot size 10,000 sq ft). Therefore, an urban intensity of land use is not supported.
- The community has a large Hispanic population.
- Economic interests include the TXI/Riverside Cement Company, which has been in the area since 1923.
- Population is estimated as roughly 353 in 2015, and is not anticipated to significantly increase.

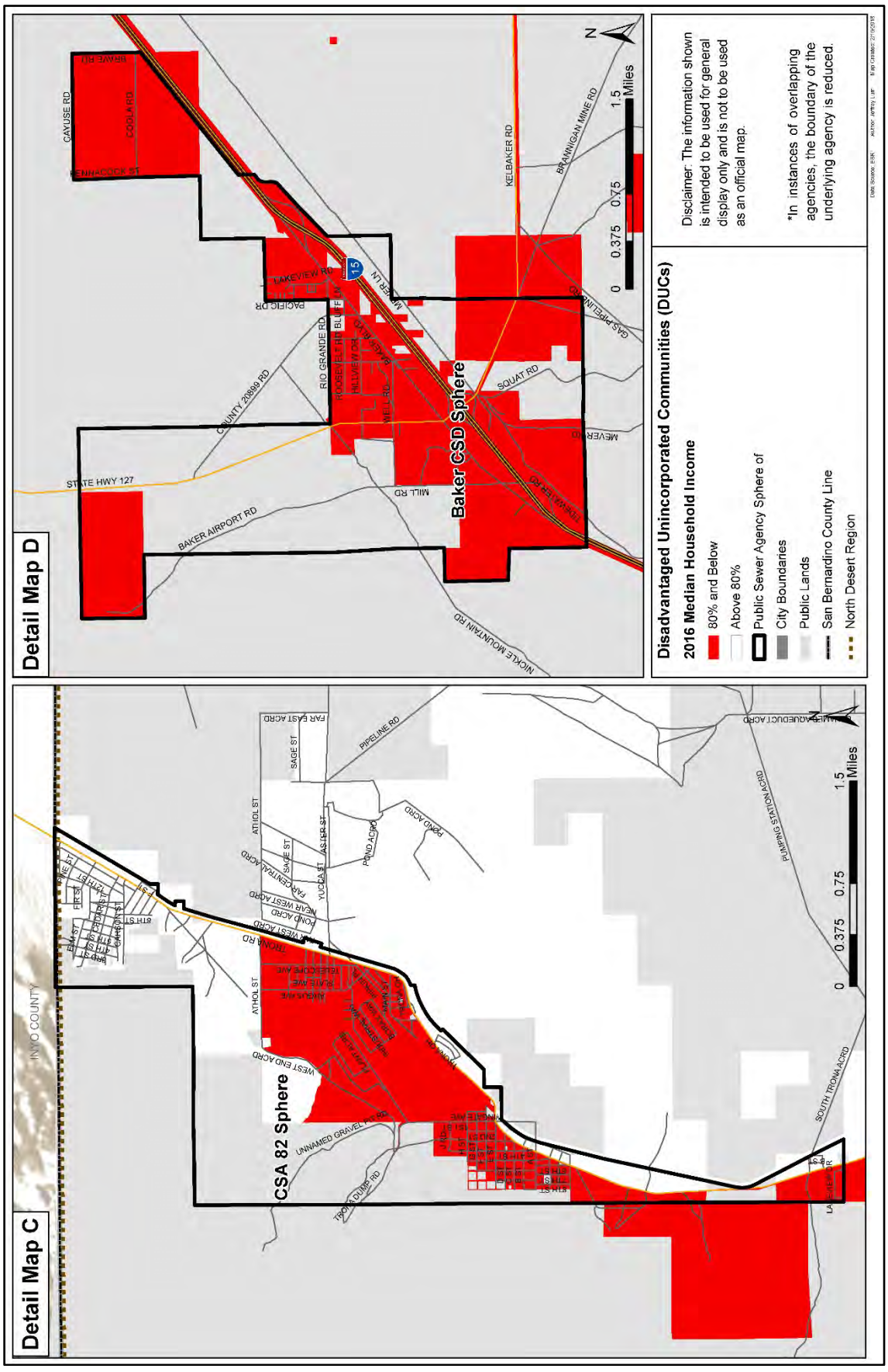
[6] For this map, non-developable areas include lands in the name of: United States of America, Government Land, State of California, and County of San Bernardino, as identified by the County Assessor.

Figure 8-2:
Disadvantaged Unincorporated Communities - North Desert Region




Detail Map A
Apple Valley Sphere
Victorville WD Sphere*
Hesperia WD Sphere
Adelanto Sphere
CSA 42 Sphere
CSA 64 Sphere
Disadvantaged Unincorporated Communities (DUCs)
2016 Median Household Income
80% and Below
Above 80%
Public Sewer Agency Sphere of
City Boundaries
Public Lands
San Bernardino County Line
North Desert Region
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
0 1 2 4 Miles
N
SAN BERNARDINO COUNTY
LOS ANGELES COUNTY


Detail Map B
Barstow Sphere
Helendale CSD Sphere
Adelanto Sphere
CSA 42 Sphere
VWD
VWD
VWD
Disadvantaged Unincorporated Communities (DUCs)
2016 Median Household
80% and Below
Above 80%
Public Sewer Agency Sphere of Influence
City Boundaries
Public Lands
San Bernardino County
North Desert Region
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.
0 1 2 4 Miles
N
FORT IRWIN RD
VERDE RD
NATIONAL TRAILS HWY
I-40 FWY
OLD STATE 58 HWY
MONIARA RD
MAIN ST
YUCCA ST
IRWIN RD
1ST AVE
BARSTOW RD
STODDARD WELLS RD
I-15 FWY
LENWOOD RD
COMMUNITY BLVD
HINKLEY RD
WILD RD
BONANZA TRL
INDIAN TRL
SMITHSON RD
HELENDALE RD
SHADOW MOUNTAIN RD
US 395 HWY


Detail Map D
Baker CSD Sphere
STATE HWY 127
BAKER AIRPORT RD
MILL RD
SQUAT RD
KELBAKER RD
BRANNIGAN MINE RD
NICKLE MOUNTAIN RD
COUNTY 208/80 RD
RIO GRANDE RD
ROOSEVELT HD
BLUFF LN
FALTVIEW CR
BLACK RIDGE RD
WELL RD
LAKEVIEW RD
PACIFIC DR
MINER LN
GAS PIPELINE RD
MEVER RD
TEMPLE HILL RD
CAYUSE RD
COOLA RD
BRAVE RD
PENNACOCK ST
I-15
Detail Map C
CSA 82 Sphere
INYO COUNTY
PIPELINE RD
SAGE ST
ATHOL ST
YUCCA ST
POND ACRD
FAR EAST ACRD
FAR CENTRAL ACRD
NEAR WEST ACRD
TROMA RD
WEST END ACRD
UNNAMED GRAVEL RD
TROMA DUMP RD
PUMPING STATION ACRD
SOUTH TROMA ACRD
AQUEDUCT ACRD
MAPLE AVE
ELECTRIC AVE
PALM AVE
1ST ST
2ND ST
3RD ST
4TH ST
5TH ST
6TH ST
FIRST
SECOND
THIRD
FOURTH
FIFTH
SIXTH
N
0
0.375
0.75
1.5
Miles
Disadvantaged Unincorporated Communities (DUCs)
2016 Median Household Income
80% and Below
Above 80%
Public Sewer Agency Sphere of
City Boundaries
Public Lands
San Bernardino County Line
North Desert Region
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disadvantaged Communities (DACs)

Although the state requires that LAFCOs focus their service review analyses on disadvantaged communities within unincorporated areas (commonly referred to as "DUCs"), the reality is that disadvantaged communities do not necessarily follow jurisdictional boundaries and occur in incorporated areas (cities) as well. It is LAFCO's responsibility to at least recognize disadvantaged communities countywide regardless of jurisdiction. Figure 8-3 identifies Disadvantaged Communities, or "DACs", which include both unincorporated and incorporated areas within the North Desert cities and their surrounding areas.

During the development of the MWA 2014 Integrated Regional Water Management Plan, a collaborative effort to identify and implement water management solutions on a regional scale, there was overwhelming agreement among the stakeholders to help and support Disadvantaged Communities ("DACs") [7]. MWA developed a Small Systems Program to support and assist DACs through the Integrated Water Management Plan process. This objective was ranked as a high importance and a high urgency project. The program was developed with input from stakeholders and the California Rural Water Association. The scope of the program is to provide guidance/assistance with grant applications, performing needs assessments and providing specific training to DACs applying for state and/or federal funding related to improving water management practices. The following identifies the key issues, needs, challenges, and priorities for the Mojave Region with respect to DACs:

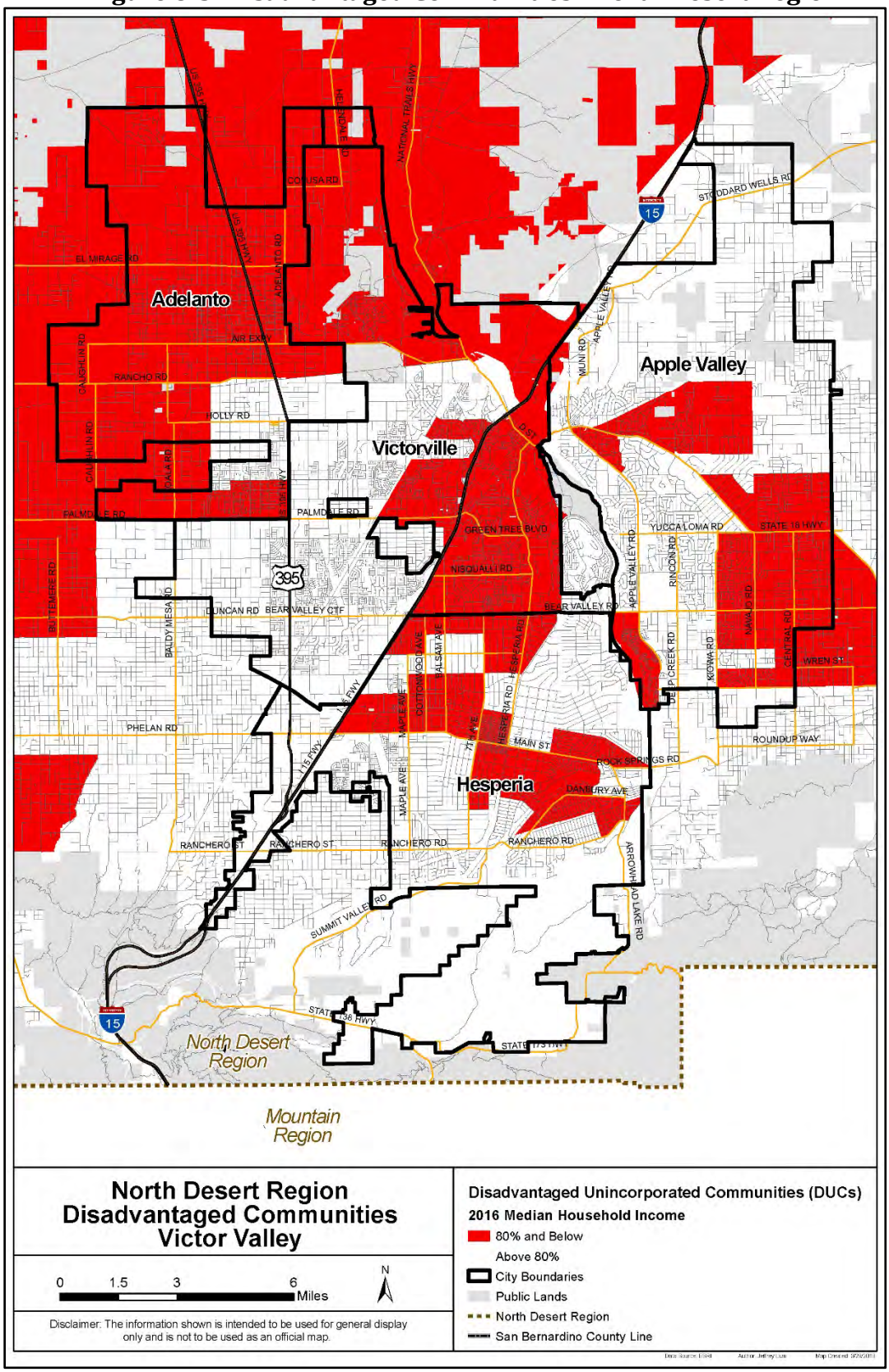
- Understand the needs of different DAC communities in the region;
- Help educate communities about requirements and opportunities;
- Provide support to DACs in applying for assistance; and
- Help improve water management systems, including water quality, that serve DACs.

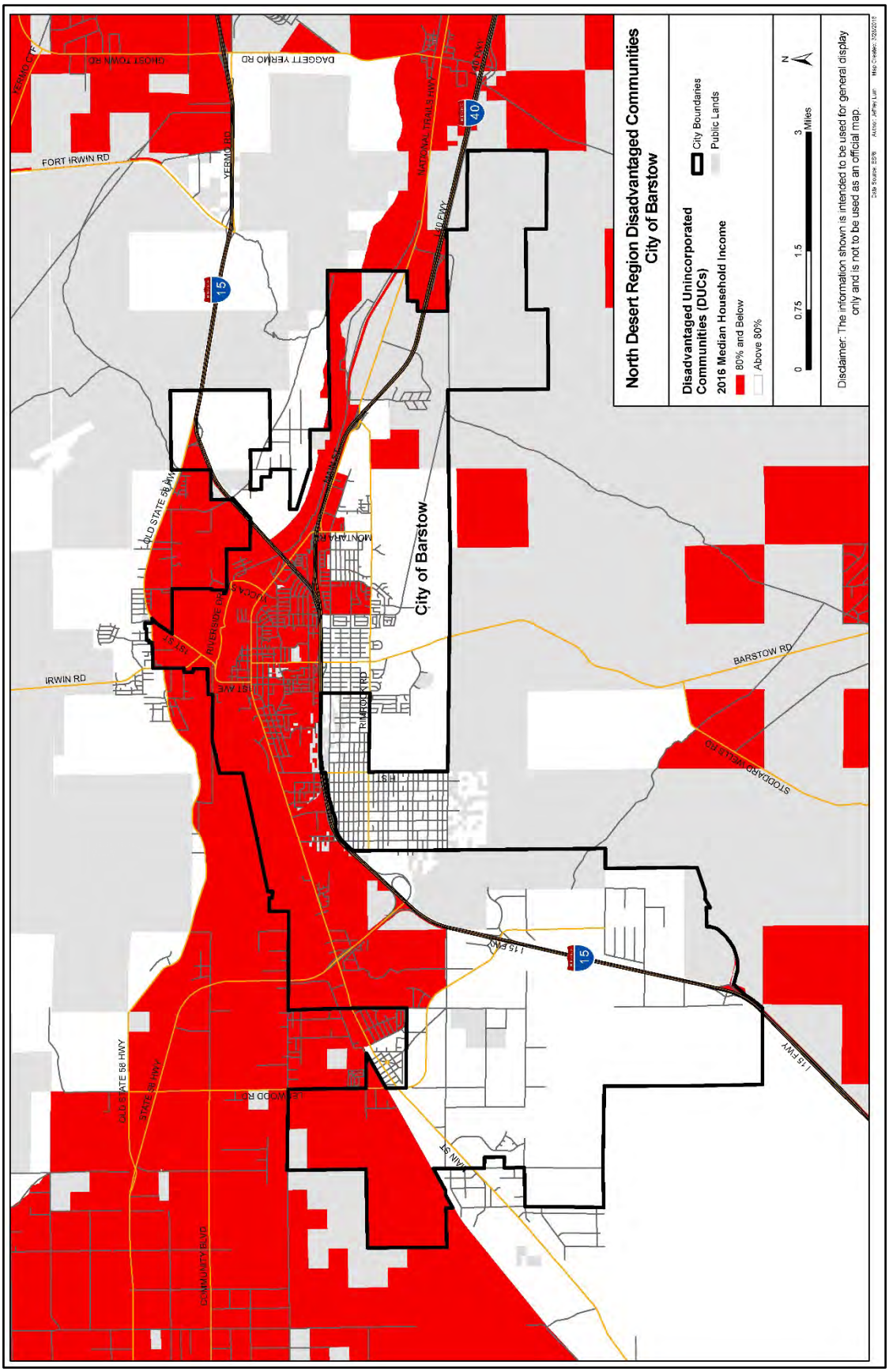
Even though this Small Systems Program is water centric, there is commonality with water and wastewater, namely groundwater quality. The water supply for the North Desert is accessed via the ground, even imported water is injected into the groundwater basins. Onsite Wastewater Treatment Systems such as septic tanks, as well as organized collection systems, can leak contaminants into the groundwater. Any assistance in lessening risk to the groundwater is beneficial to the overall groundwater system.

Figure 8-3 identifies the disadvantaged communities of the North Desert cities and their surrounding areas. As shown, each city has disadvantaged areas, with the majority of Adelanto being classified as disadvantaged. Generally, most of Victorville east of I-15 and extending south into Hesperia, north Barstow, and southeast Apple Valley also are classified as disadvantaged.

[7] DACs include disadvantaged territories that are both unincorporated and incorporated.

Figure 8-3: Disadvantaged Communities - North Desert Region




North Desert Region Disadvantaged Communities
City of Barstow
Disadvantaged Unincorporated Communities (DUCs)
2016 Median Household Income
80% and Below
Above 80%
City Boundaries
Public Lands
0
0.75
1.5
3
Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
City of Barstow
FORT IRWIN RD
YERMO RD
GHOST TOWN RD
DAGGETT YERMO RD
NATIONAL TRAILS HWY
I-40
I-15
IRWIN RD
BARSTOW RD
MONTARA RD
MAIN ST
1ST AVE
RIMROCK RD
STODDARD WELLS RD
I-15 FWY
OLD STATE 58 HWY
STATE 58 HWY
LENWOOD RD
COMMUNITY BLVD

C. OVERVIEW OF WASTEWATER TREATMENT SYSTEMS

Wastewater treatment in the North Desert is composed of one regional treatment system and due to distance between communities, a variety of localized treatment systems. The Victor Valley Wastewater Reclamation Authority ("VVWRA") provides treatment and disposal for the following general communities: Apple Valley, Hesperia, Victorville, Spring Valley Lake, and Oro Grande. These communities have governmental agencies that are the mechanisms that allow for wastewater collection within their boundaries.

Additionally, the communities of Baker, Adelanto, Barstow, Helendale, and Searles Valley provide collection and treatment services through their localized government agencies. Also, the U.S. Marine Corps Marine Corps Logistics Base ("MCLB") at Barstow has two on-site wastewater treatment facilities for the base population, the U.S. Army Fort Irwin has a treatment facility for base population, and the City of Victorville has its own local plant that is independent of the VVWRA system. The remainder of the wastewater generated within the North Desert is handled by individual septic systems.

Contracting for Operations and Maintenance

Irrespective of contracting or joint powers agreements for wastewater treatment, in the North Desert Region there is one instance of a municipal agency contracting for its operations and maintenance. In 2012, the City of Adelanto/APUA awarded PERC Water Corporation, a private company, a contract to manage the City's water and wastewater systems. In addition to operations, PERC performs routine collection system cleaning, sewage spill response and cleanup, and industrial sewage pretreatment program. Under the agreement, the City/APUA retains full ownership of water and wastewater system assets, water rights and supply, and authority over rate-setting.

Treatment Agencies

The table below provides a listing of each wastewater treatment system that has a design flow over 100,000 gallons per day. The table includes design flow, treatment type, disposal method, system summary, and if the entity disposes a recycled product. While some of the wastewater agencies are planning to expand their treatment capacity in the near future to be able to produce recycled water, others will continue to use their existing treatment facilities. For a table of wastewater treatment systems that have a design flow under 100,000 gallons per day (all are either septic or package plants) see *Table 8-5: Large OWTS - North Desert*.

Table 8-2:
North Desert Treatment Agencies

Treatment Agency	Design Flow (MGD)	Treatment Type Disposal Method System Summary	Recycled
Baker CSD	0.4	None Percolation Raw sewage	N
Barstow/Daggett Airport	0.2	Secondary Percolation Aerated lagoon system	N
Calico Ghost Town	0.2	Septic Percolation Septic pond system	N
City of Adelanto	4.0	Secondary Nitrogen Control Percolation Activated sludge pond	N
City of Barstow	4.5	Secondary Nitrogen Control Percolation Activated sludge pond	N
City of Victorville/ Southern CA Logistics Airport	2.5	Tertiary Percolation, Recycled: Industrial & Landscape Membrane bioreactor	Y
County Service Area 82	0.2	Septic Percolation Septic pond system	N
Fort Irwin	2.0	Secondary & Tertiary Percolation, Recycled: Landscape Oxidation ditch pond system, with tertiary	Y
Helendale CSD	1.8	Secondary Percolation, Recycled: Agriculture Trickling filer pond system	Y
U.S. Marine Corp Logistics Base Nebo	0.6	Secondary Percolation Activated sludge system	Y
U.S. Marine Corp Logistics Base Yermo	0.2	Secondary Percolation Aerated lagoon system	N
Victor Valley Wastewater Reclamation Authority	18.0	Tertiary Nitrogen Control Surface Percolation, Recycled: Landscape & Indust. Activated sludge system	Y
VVWRA Sub-regional Apple Valley	1.0	Package Tertiary Nitrogen Control Percolation, Recycled: Landscape Membrane bioreactor system	Y
VVWRA Sub-regional Hesperia	1.0	Package Tertiary Nitrogen Control Percolation, Recycled: Landscape Membrane bioreactor system	Y

source: Lahontan Regional Board, Domestic Sewage Strategic Plan

Age of Pipelines

The table below identifies the miles of internal sewer transmission pipeline of each collection agency and tabulates the percentage by 20-year range.[8] As shown, 65% of the sewer pipelines in the North Desert Region have been built or replaced since 1980. While there are some outliers in age, in general, the overall age of pipelines is good.

Table 8-3:
Age of Pipelines (in miles by 20-year range) – North Desert Region

Agency	2000 +	1980-1999	1960-1979	1940-1959	1920-1939	1900-1919	Before 1900	Miles of Sewer
Baker CSD	-	0	2	-	-	-	-	**2**
City of Adelanto	38	33	24	-	-	-	-	**94**
City of Barstow	17	28	11	57	-	-	-	**113**
CSA 42	-	-	1	-	-	-	-	**1**
CSA 64	4	-	32	-	-	-	-	**36**
CSA 70 Zone S-7	10	-	-	-	-	-	-	**10**
CSA 70 Zone SP-2	-	2	-	-	-	-	-	**2**
CSA 82	-	-	10	-	-	-	-	**10**
Helendale CSD	2	-	34	-	-	-	-	**36**
Hesperia WD	64	97	-	-	-	-	-	**161**
Town of Apple Valley	69	78	-	-	-	-	-	**147**
Victorville WD[1]	168	151	112	112	11	6	-	**559**
Total Miles of Sewer	**371**	**388**	**226**	**168**	**11**	**6**	**-**	**1,171**
Percent of Total Age	31.7%	33.2%	19.3%	14.4%	1.0%	0.5%	0.0%	**100%**

[1] Prior to 2008, Victorville Water District was Victorville Sanitary District.
source: Regional Board CIWQS, as modified by LAFCO staff from percent to raw number

Imported Wastewater from the Mountain into the North Desert

Treated wastewater effluent is imported to the Mojave Water Agency jurisdiction from three wastewater entities serving communities in the San Bernardino Mountains outside the North Desert. The Mojave Basin Alto Subarea receives treated wastewater effluent from the Lake Arrowhead Community Services District, discharged into retention ponds along the Mojave River about two miles downstream of the Forks, in southeast Hesperia. The Crestline Sanitation District discharges treated wastewater effluent to the Alto Subarea upstream of the West Fork gauge on a portion of the Tapestry Project (Los Flores Ranch), south of Hesperia. Finally, the Este Subarea receives treated wastewater effluent from the Big Bear Area Regional Wastewater Agency discharged near Camp Rock Road and Highway 247 in the Lucerne Valley.

[8] The pipeline age information was obtained from the State Water Resources Control Board's (Water Board) California Integrated Water Quality System (CIWQS) for each agency. This information is also a part of each agency's profile information in the appendices to this service review.

The figure below summarizes the wastewater flows imported into the Mojave Basin from water years 2010-2011 to 2014-15. This data was compiled from the Mojave Watermaster's annual reports and are provided by water year, which starts in October and ends in September of the following year.

Figure 8-4:
Exported Wastewater Historical Flow

Wastewater Agency	Flow (MGD)					
	2010-11	2011-12	2012-13	2013-14	2014-15	Average Flow
Lake Arrowhead CSD	1.1	0.9	0.7	0.7	0.7	0.8
Crestline SD	0.9	0.5	0.5	0.5	0.5	0.6
Big Bear Area Regional Wastewater Agency	3.2	2.3	1.7	1.7	1.8	2.1
Total	**5.2**	**3.7**	**3.0**	**2.9**	**3.0**	**3.6**

Source: MWA Watermaster Reports.
Data in water years starting in October.

The figure below provides the projected imported wastewater flow for the Mojave Basin from the three Mountain agencies. The projections have been estimated using the Mojave Water Agency demand forecast model and assuming approximately a one percent increase through 2035.

Figure 8-5:
Projected Exported Wastewater Flow

Wastewater Agency	Flow (MGD)					
	2015	2020	2025	2030	2035	2040
Lake Arrowhead CSD	0.7	0.7	0.7	0.7	0.7	0.7
Crestline SD	0.9	0.9	0.9	0.9	0.9	0.9
Big Bear Area Regional Wastewater Agency	1.8	1.8	1.8	1.8	1.8	1.8
Total	**3.4**	**3.4**	**3.4**	**3.4**	**3.4**	**3.4**

Source: MWA water use projection model

Agricultural Land and Use

A primary tenet of LAFCO is to encourage the preservation of agricultural land and open spaces, and this service review touches upon the impact of agricultural uses. Due to significant strain on the supply from all uses, two of the five subareas of the adjudicated Mojave Basin (Alto and Oeste) have separate rampdown requirements for agricultural in comparison to municipal and industrial uses. The table below compares the 1996-97 agricultural use in each subarea to 2016-17. As shown, agricultural use has decreased overall and in four of five subareas.

Table 8-4: Subarea Hydrological Inventory (AFY)

	Este	Oeste	Alto	Centro	Baja
1996-97					
Agriculture	3,900	2,300	7,900	13,000	20,800
All other	3,025	1,650	88,400	26,700	18,100
Ag. Percent	56%	58%	8%	33%	53%
2016-17					
Agriculture	3,000	700	500	5,400	12,100
All other	1,800	1,900	86,500	26,887	12,411
Ag. Percent	63%	27%	1%	17%	49%

source: Mojave Watermaster 24th Annual Report, data reconfigured by LAFCO staff

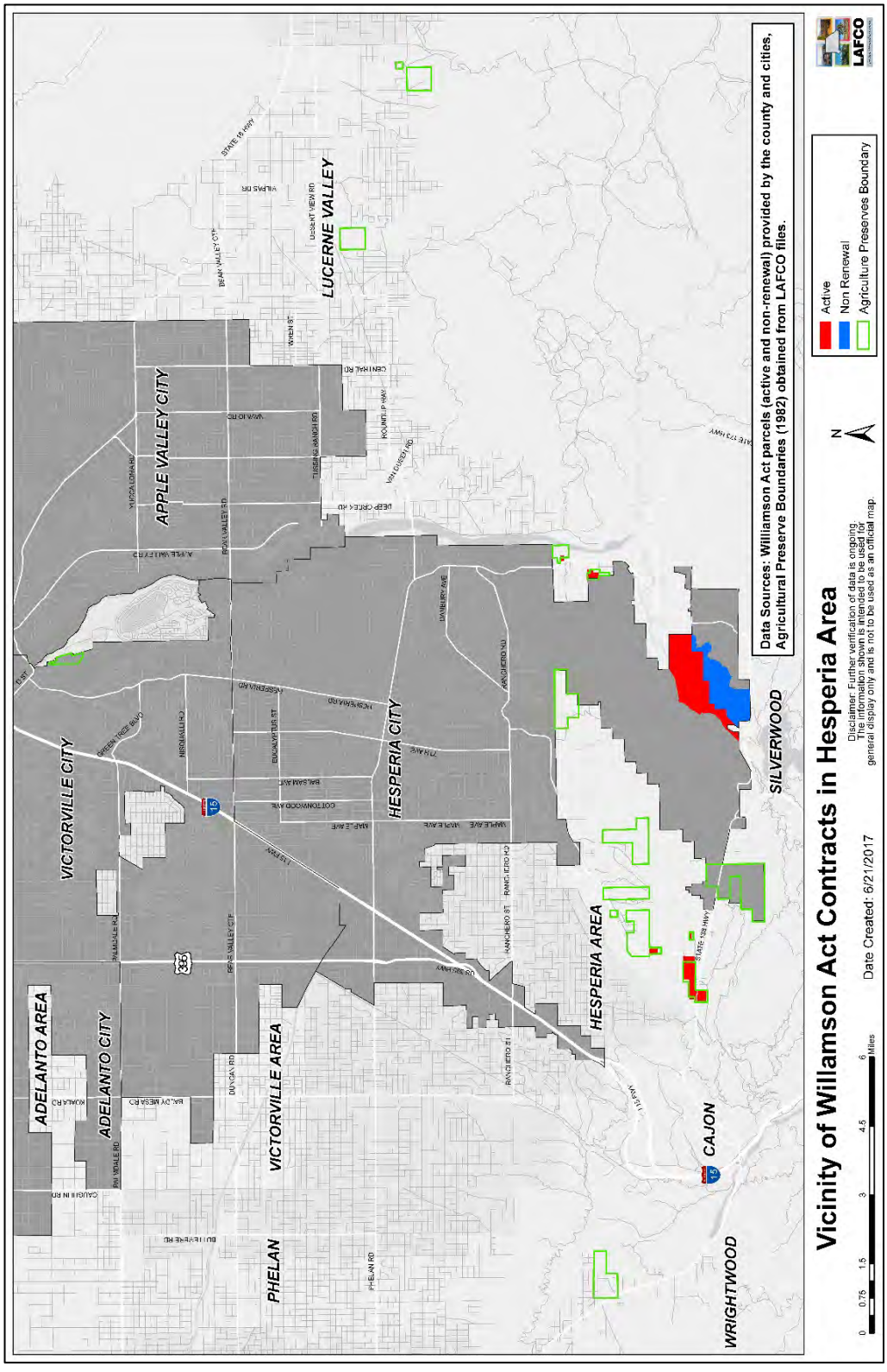
According to the 2015 UWMP, agricultural water demand within the service area, which is largely concentrated in the Baja area, is conservatively assumed to remain static in the future. It is difficult to predict water use patterns for agricultural users since their water use is largely impacted by market conditions that impact the type and timing of crops that are grown. However, it is likely that overall agricultural water use in the service area will decrease in the future due to the impact of the requirements of the Mojave River Basin Area Adjudication. If agricultural demand reduction is realized in the future, the sustainability of MWA's future water supplies will be extended even further.

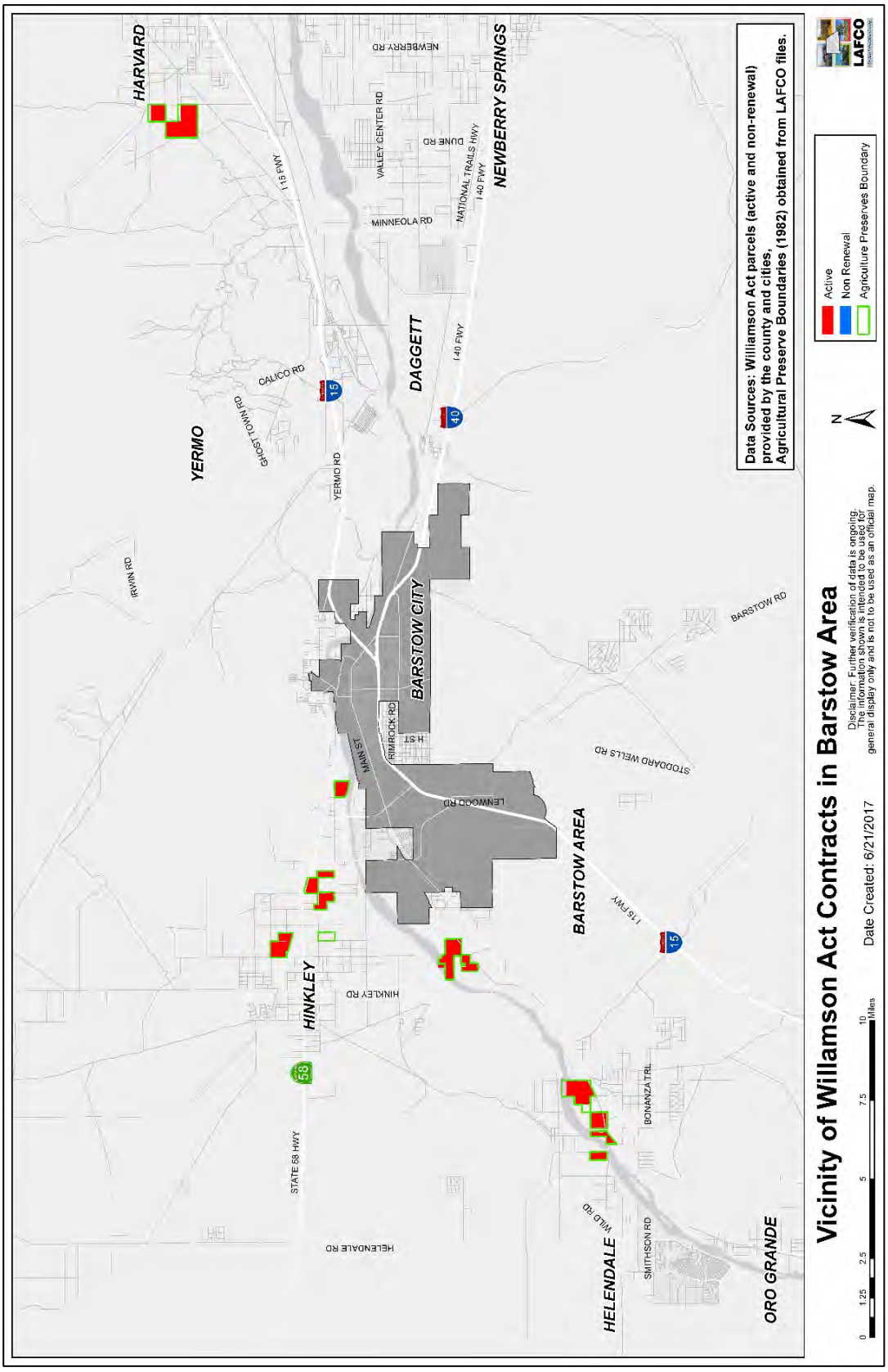
The figure below identifies Williamson Act contracts as of 2015-16, which are concentrated (1) west of Barstow and in Harvard and (2) south of Hesperia and Apple Valley. The California Land Conservation Act of 1965--commonly referred to as the Williamson Act--enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Government Code Section 51243 states that when annexing properties into a city, "...the city shall succeed to all rights, duties, and powers of the county under the contract."

The Code specifically states that the Commission shall not approve a sphere of influence change (§56426.6) or annexation (§56856.5) that is subject to a contract entered into pursuant to the Williamson Act if that local government agency provides, or would provide, facilities or services related to sewers, nonagricultural water, or streets and roads to the territory, unless these facilities or services benefit land uses that are allowed under the contract. Also, for sphere changes, landowner consent is required.

The areas identified in red are "Active". The areas identified in blue are "Non Renewal" which is defined as enrolled lands for which non-renewal has been filed pursuant to §51245. Upon the filing of non-renewal, the existing contract remains in effect for the balance of the period remaining on the contract. During the non-renewal process, the annual tax assessment gradually increases. At the end of the nine year non-renewal period, the contract expires and the land is no longer enforceably restricted.

Figure 8-6:
Williamson Act Contracts – North Desert




Vicinity of Willamson Act Contracts in Barstow Area
Data Sources: Williamson Act parcels (active and non-renewal) provided by the county and cities, Agricultural Preserve Boundaries (1982) obtained from LAFCO files.
Active
Non Renewal
Agriculture Preserves Boundary
Disclaimer: Further verification of data is ongoing. The information shown is intended to be used for general display only and is not to be used as an official map.
Date Created: 6/21/2017
0 1.25 2.5 5 7.5 10 Miles
N
LAFCO
HARVARD
YERMO
NEWBERRY SPRINGS
DAGGETT
BARSTOW CITY
BARSTOW AREA
HINKLEY
HELENDALE
ORO GRANDE
I-15 FWY
I-40 FWY
NATIONAL TRAILS HWY
NEWBERRY RD
VALLEY CENTER RD
DUNE RD
MINNEOLA RD
CALICO RD
GHOST TOWN RD
YERMO RD
IRWIN RD
BARSTOW RD
RIMROCK RD
H ST
MAIN ST
LENWOOD RD
STODDARD WELLS RD
HINKLEY RD
STATE 58 HWY
HELENDALE RD
WILD RD
SMITHSON RD
BONANZA TRL

Agency Service Review Updates and Remainder of Section VIII

A service review update specific to each agency and its service area is included in Appendix D, which includes an agency profile, service area map (not necessarily boundary), and narrative of the agency wastewater system. A detailed listing of municipal wastewater systems and joint powers authorities is included as a part of Appendix F.

The remainder of this section focuses on areas that lack an organized wastewater collection system, specifically the use of septic tanks.

D. ONSITE WASTEWATER TREATMENT SYSTEMS

Overview

For areas that lack an organized wastewater collection system, Onsite Wastewater Treatment Systems ("OWTS") are the method of collection and disposal. OWTS are wastewater treatment systems that use subsurface disposal, including: individual; community collection and disposal; and alternative collection and disposal systems. The most common OWTS are septic systems. OWTS do not include "graywater" systems pursuant to Chapter 15 of the California Plumbing Code. The table below identifies the large OWTS systems (not to exceed 100,000 gpd design flow).

Table 8-5: Large OWTS - North Desert Region

Place Name	Design Flow (MGD)	Treatment Type Disposal Method System Summary
APPLE VALLEY		
Los Ranchos MHP	0.096	Secondary, Percolation, Package secondary system
Mountain View Villas	0.045	Secondary, Subsurface leachline, Package plant subsurface
Bear Valley MHP	0.025	Secondary, Subsurface leachline, Package plant subsurface
HESPERIA/OAK HILLS		
Melina Square	0.005	Septic, Subsurface leachline, subsurface system
Bear Valley Firestone	0.001	Septic, Subsurface seepage pit, Septic plant subsurface
Grand View Plaza, Oak Hills	0.020	Secondary, Subsurface leachline, Package plant subsurface
PHELAN		
Phelan Shopping Center	0.015	Secondary, Subsurface leachline, Package plant subsurface
Phelan Town Square	0.010	Secondary, Subsurface leachline, Package plant subsurface
Burger Basket	0.001	Secondary, Subsurface seepage pit, Package plant subsurface
NEWBERRY SPRINGS/YERMO		
Desert Oasis Safety Roadside Rest Area, Newberry Springs	0.048	Secondary, Percolation, Septic pond system
Jack in the Box, Yermo	0.005	Secondary, Subsurface seepage pit, Package plant subsurface
Oak Tree Inn, Yermo	0.005	Secondary, Subsurface seepage pit, Package plant subsurface
OTHER AREAS		
C.V Kane Roadside Rest Area, Barstow	0.056	Secondary, Percolation, Aerated lagoon system
MolyCorp, Mountain Pass	0.018	Septic, Percolation, Septic pond system
Echo Mars Ponds, Ft. Irwin	0.004	Septic, Percolation, Septic lined pond system
Roadhouse Restaurant, Kramer Junction	0.003	Septic, Percolation, Septic lined pond system
Jensen's Market, Wrightwood	0.002	Septic, Percolation, Septic lined pond system
Wagon Train Road, Cajon Pass	0.010	Secondary, package plant subsurface

source: Lahontan Regional Board, Domestic Sewage Strategic Plan; Santa Ana Regional Board

OWTS policies are created to meet the requirements of Assembly Bill (AB) 885 (2000) to promulgate consistent, statewide standards for the regulation of OWTS. The OWTS Policy was adopted by the State Water Board in June 2012, and became effective May 13, 2013 (Resolution No. 2012-0032). The policy categorized OWTS into the following tiers:

Figure 8-7:
Onsite Wastewater Treatment Systems - Tiers

Tier	Description
0	Applies to all existing systems which function properly, do not meet the conditions of a failing system, and are not contributing to pollution of any waterways.
1	Applies to all new and/or replacement OWTS which meet low risk siting and design requirements in areas which do not have an approved LAMP as specified in Tier 2.
2	Applies to any new and/or replacement OWTS which do not fall into the Tier 3 adjacent to impaired waterways, or in prohibition areas category. This tier is referred to as the LAMP and allows the County to apply standards that differ from the State.
3	Describes all systems currently located within areas denoted as impaired waterways. These systems have been identified as potential sources of pollution, and need to abide by the Advanced Protection Management Program prescribed in Tier 3 of the OWTS Policy.
4	A temporary classification for all systems that have been found to be failing, and/or needing repair. Once the system has been repaired, it will be placed in either Tier 0, Tier 2, or Tier 3.

source: State Water Board

OWTS located within San Bernardino County are governed by the following Regional Water Quality Control Boards, listed below and shown on the following figure:

- Region 6 – Lahontan
- Region 7 – Colorado River
- Region 8 – Santa Ana

Each region has environmental differences that create unique construction design concerns. To address these concerns, the three regional boards have developed individualized basin plans. These basin plans provide criteria for the installation of OWTS, affected waterways and prohibition areas within their region. For example, any new development of one-half acre lots within the Lahontan Regional Board jurisdiction may be subject to conducting a cumulative impact assessment, including a hydrogeological study, to predict future groundwater quality impacts from proposed developments.

PRIMER ON ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS)

According to the State Regional Water Quality Control Board[9], onsite wastewater treatment systems ("OWTS") are defined as "…individual systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal." When properly sited, designed, operated and maintained, OWTS treat domestic wastewater to reduce its polluting impact on the environment and protect public health. In June 2012, it was estimated by the Regional Board that there are more than 1.2 million onsite systems, the majority which are septic tanks, operating in California.

As waste flows into the tank, heavier solids sink to the bottom, forming the "sludge" layer. Solids are decomposed by the anaerobic bacterial action of the sludge. In theory, a relatively harmless effluent will be produced, and under proper soil conditions, further decontamination can occur. Even under ideal conditions, eventually the amount of sludge will interfere with the bacterial digestive action, and it must be pumped for off-site disposal.

The majority of OWTS operate in a satisfactory manner, and in some cases, remain the only viable option for sewage treatment for locations removed from centralized wastewater treatment systems. However, there are instances in California where OWTS fail to protect water quality and public health. Some common reasons for OWTS failure include:

- Poor design and improper site conditions
- Improper and/or deferred system maintenance
- High geographic concentration of OWTS resulting in a combined effluent flow that cannot be assimilated into the environment

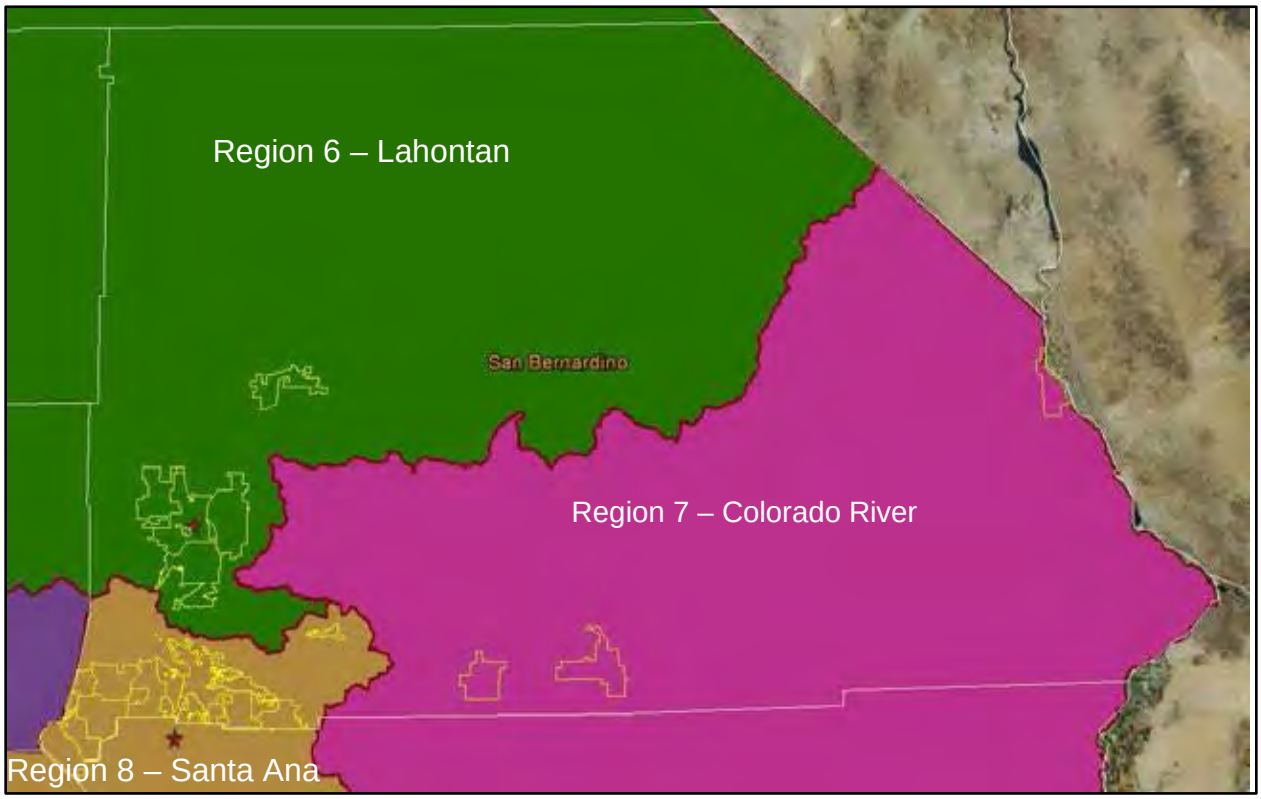
When a community sewer is not available, and a property improvement will generate wastewater, the property owner must demonstrate the following to San Bernardino County Department of Environmental Health to verify the lot will support onsite wastewater disposal:

- Soils are conducive to onsite wastewater disposal.
- Sewer is not available within 200 feet (plus 100 feet per dwelling unit thereafter).
- Enough area is available to install a septic system that meets proper setbacks (for new construction, 100% expansion area must be available).
- OWTS will not impact ground or surface water.
- OWTS is sized appropriately to serve the intended land use.

As California's population continues to grow, the development of higher density housing in rural areas and in more varied terrain increases the risk of OWTS creating public environmental and health issues. Improperly maintained or failing OWTS can result in the discharge of pathogens, nitrates, salts, household chemicals, oils and grease into the environment. As conditions and circumstances change around particular locations, increased scrutiny is necessary to properly site, operate and professionally maintain OWTS.

[9] Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (CA Water Boards 2012)

Figure 8-8:
Regional Water Quality Control Boards Map



Prohibitions and Exemptions

There are areas within the North Desert in which the discharge of waste from OWTS is prohibited. The prohibitions in the unincorporated areas of the Lahontan region are presented in the Water Quality Control Plan for the Lahontan Region.[10] The Mojave Hydrologic Unit Prohibition No. 3, states the following: The discharge of waste from "new" leaching or percolation systems is prohibited in the following areas:

- The Silverwood Lake watershed (the headwaters for the Mojave River are in the Mountain Region).

- Deep Creek and Grass Valley Creek watersheds above elevation 3,200 feet. For this prohibition, "new" systems are any installed after May 15, 1975. An exemption to this prohibition may be granted whenever the Water Board's Executive Officer makes certain findings. (The headwaters for the Mojave River are in the Mountain Region).

- "Mojave Hydrologic Unit Prohibition Area 3." Under Lahontan Water Board Order No. 6-81-3 for Crestline and Lahontan Water Board Order No. 6-84-93 for Lake

[10] Page 4.1-21

Arrowhead, the County is authorized to issue OWTS building permits in these exemption areas, usually without Lahontan Water Board's approval. (The headwaters for the Mojave River are in the Mountain Region)

- Exemptions to prohibitions may be granted by the Regional Board when it determines that an OWTS (on a particular parcel) will not individually or collectively, directly or indirectly, affect water quality from continued system operation, and/or maintenance.

Local Agency Management Program ("LAMP")

A Local Agency Management Program ("LAMP") is a program for the siting, design, operation and maintenance of an OWTS, developed by a local agency[11], and approved by the Regional Board as an alternate method to achieve the same policy purpose as that of OWTS policy. Therefore, for unincorporated areas OWTS siting, design, operations, and maintenance fall under the County's LAMP; and for cities that are not a part of the County LAMP the Regional Board maintains authority. In North Desert Region, the Lahontan Regional Board has approved LAMPs for the County, City of Hesperia, and the Town of Apple Valley. The Lahontan Board is currently processing draft LAMP applications for the Cities of Adelanto and Barstow.

County of San Bernardino LAMP

The County's LAMP covers the unincorporated County. With development in rural areas of the county continuing to grow, and with nearly 25% of housing units using OWTS, the County LAMP states that the requirements defined by Tier 1 of the OWTS Policy do not meet the future development needs of San Bernardino County. The Tier 1 limitations on dispersal depth, the 2.5 acre minimum parcel size for new lots on which OWTS can be installed, and the prohibition of the use of seepage pits is too restrictive. In turn, the County's LAMP (May 2017) specifically addresses wastewater issues, County requirements, and scope of coverage for OWTS installation and maintenance. It also allows for the continued use and installation of OWTS.

County EHS maintains a map of all of the sewer lines in the county to prevent the approval of a septic system when a sewer is available. For new developments in the unincorporated county, the County requires connection to a public sewer system: (1) when the property is within the boundary of an established sewer collection area, or (2) when the property is outside the boundary of a collection agency and the nearest property line is within 200 feet of an available sewer line. The latter may require a LAFCO-approved out-of-agency service agreement. This requirement increase by 100 feet for each additional equivalent dwelling unit within the development/project. In the unincorporated area, proposed subdivisions with more than 40 lots where the lot sizes are less than 2.5 acres per lot shall require review and approval by County EHS and may require Water Board Permitting or a waiver of waste discharge.

Cesspools are not permitted in the County of San Bernardino. When County staff discovers a cesspool is still in use, the property owner will be required to replace the cesspool with an OWTS, which meets current standards. The timeframe for complying with this requirement will vary based on the condition of the cesspool and the potential threat it represents to water quality, public health and safety. While the County does not have a point of sale requirement for existing septic systems certification, voluntary certifications are performed routinely and system upgrades are permitted and replacements are constructed under Building permit.

[11] Any subdivision of state government responsible for permitting, installation, and regulation of OWTS within its jurisdictional boundaries; typically a county, city, or special district.

City of Hesperia LAMP

The City of Hesperia LAMP was approved by the Lahontan Regional Water Quality Control Board in January 2018. The City of Hesperia, at an average elevation of 3,250 feet, covers approximately 75 square miles and has an unincorporated sphere of influence encompassing approximately 45 square miles. The 2017 population is estimated to be 94,133.

Approximately 11 percent of development in the City is connected to sewer facilities. Wastewater is conveyed and treated at the Victor Valley Wastewater Reclamation Authority's ("VVWRA") Regional Facility located in the neighboring City of Victorville. VVWRA is currently constructing a Sub-Regional Water Reclamation Facility within the City that will capture and treat approximately 1.5 million GPD for reuse on parks, green belts, a golf course, and other uses.

According to the City's LAMP, the remaining 89% of developed properties are served by OWTS. Based on the City's General Plan and Wastewater Master Plan growth projections, it is estimated that the City will increase from its current 2017 population of 94,133 to a 2040 population of 137,391. It is expected that approximately 33% of the City will be served by the City's sewer system, and the remaining 67% served by OWTS. Development on OWTS is anticipated to occur throughout the City, subject to the requirements of the LAMP.

The City's LAMP includes standards for evaluating, permitting, and designing OWTS. Based on the Hesperia LAMP criteria, OWTS can be utilized for both existing and new developments where the discharge is composed of domestic wastewater only (industrial waste discharges are prohibited), and the wastewater flow does not exceed the equivalent of 500 gallons per acre per day or exceed a total of 10,000 GPD. Lot sizes for single family residential homes on individual lots are required to meet the following minimum requirements:

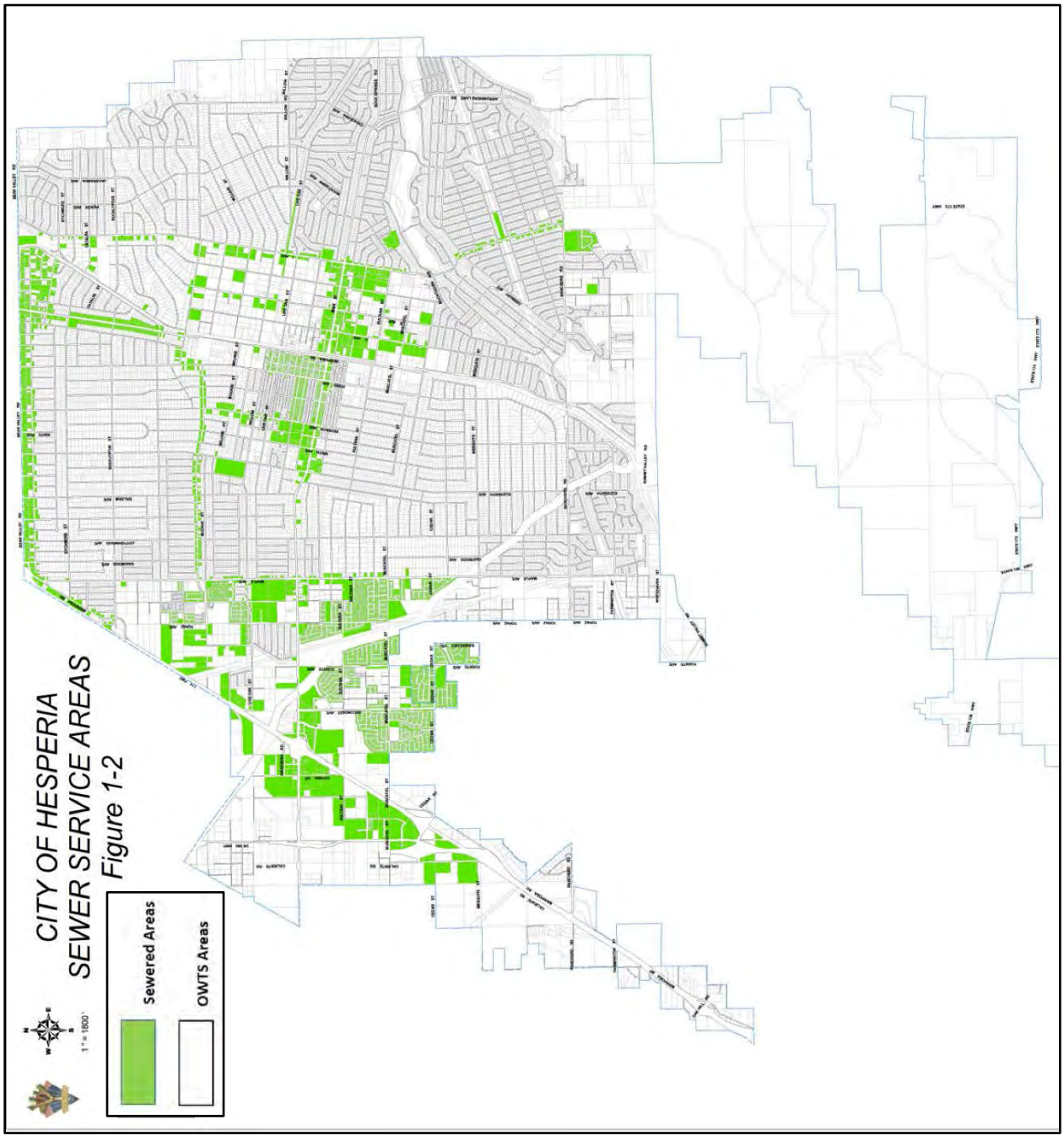
- Individual lots created by subdivision prior to June 16, 1988 shall have a minimum net area of 15,000 square feet (for existing OWTS only);
- Individual lots created by subdivision after June 16, 1988, and prior to the effective date of the LAMP, shall have a minimum net lot area of 18,000 square feet; and
- Individual lots created by subdivision after the effective date of the LAMP shall have a minimum net lot area of 18,000 square feet.

There are no impaired water bodies within the incorporated limits of the City of Hesperia and therefore, Tier 3, an Advance Protection Management Program (APMP), is not included as a part of the City's LAMP.

The three figures below show the following:

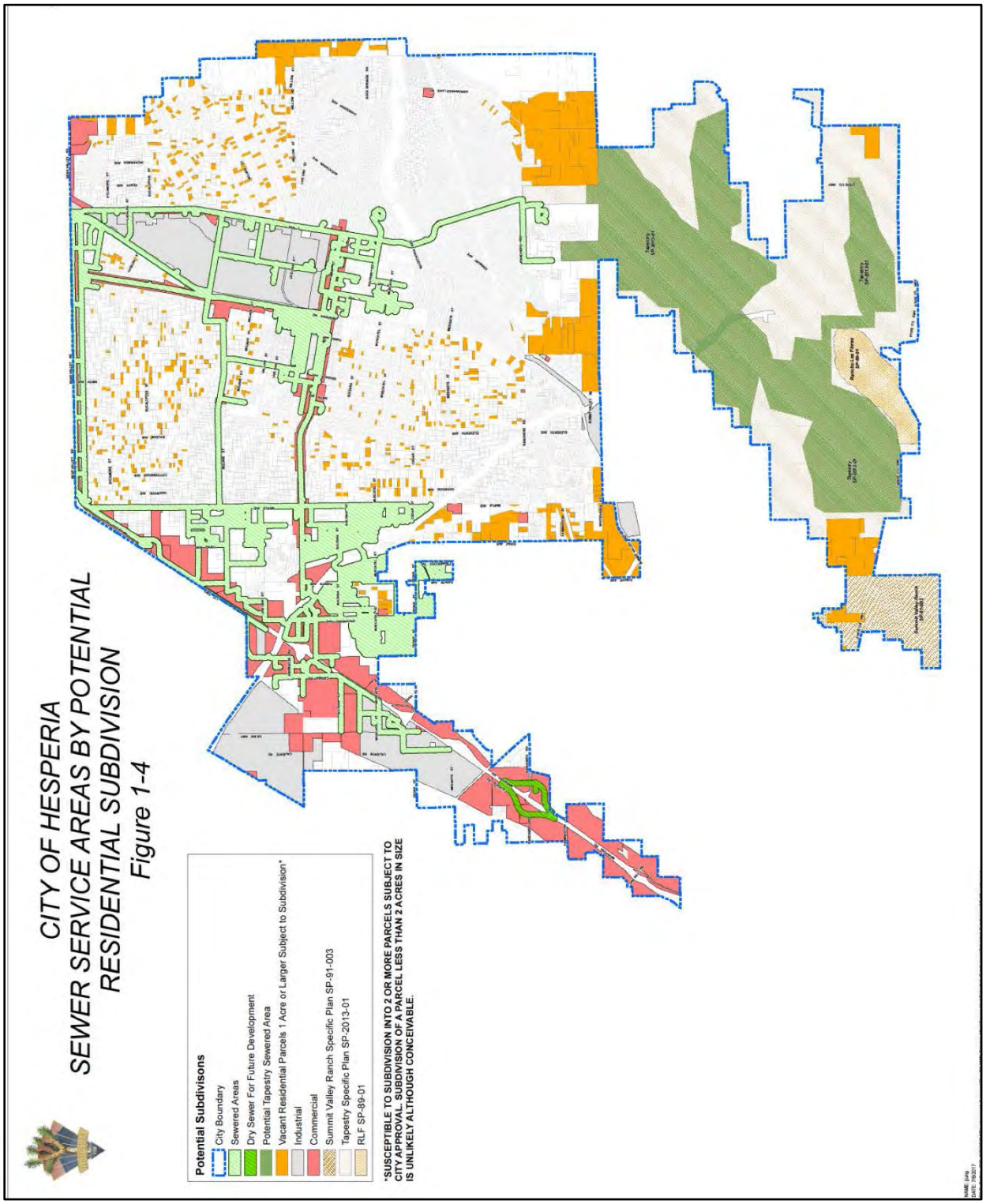
- Map of Sewer Areas
- Map of Potential Subdivision Growth
- Map of High Risk Areas

Figure 8-9:
City of Hesperia Sewer Service Area



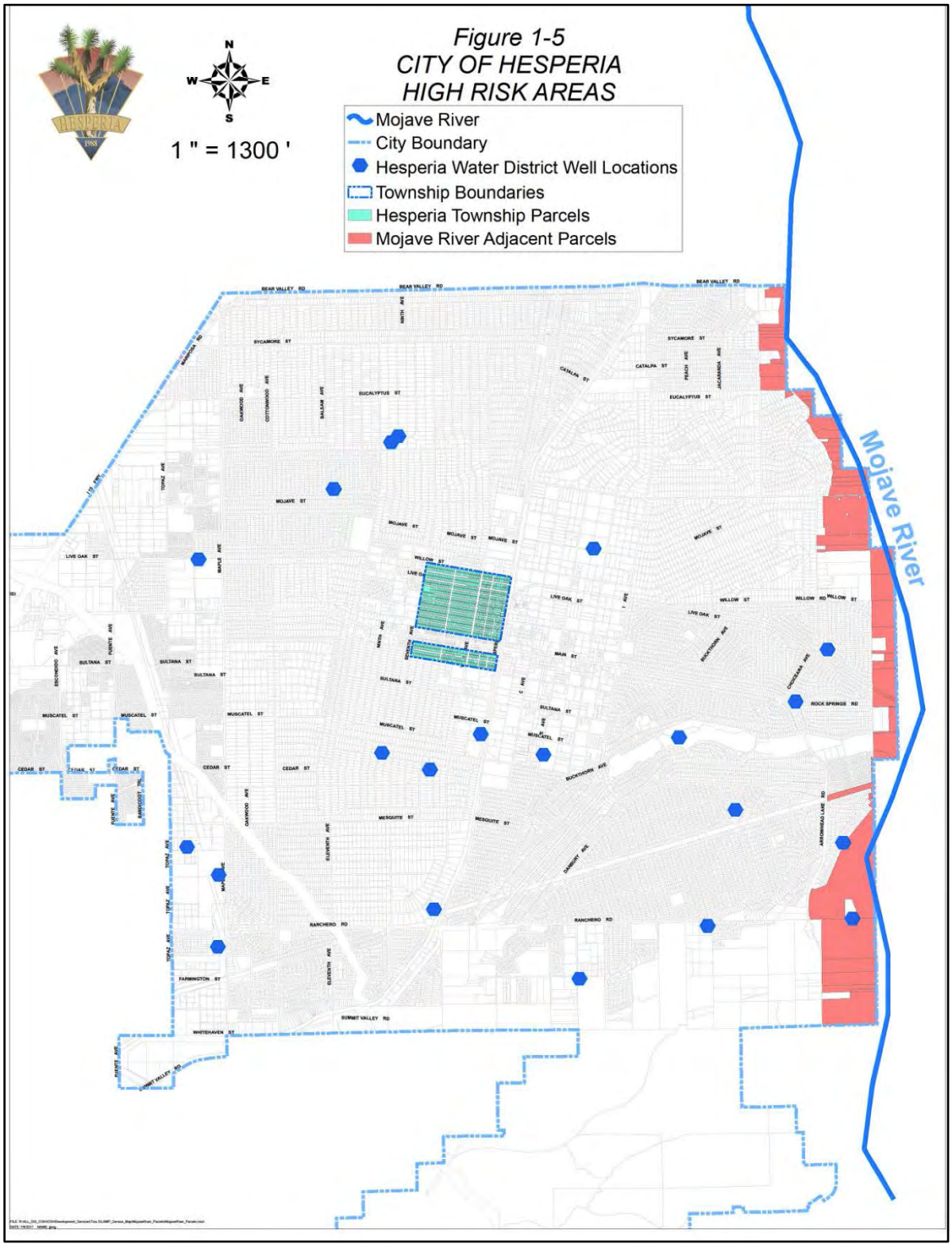
source: City of Hesperia LAMP

Figure 8-10:
City of Hesperia Sewer Service Area by Potential Subdivision



source: City of Hesperia LAMP

Figure 8-11:
City of Hesperia High Risk Areas



source: City of Hesperia LAMP

Town of Apple Valley LAMP

The Town of Apple Valley LAMP was approved by the Lahontan Regional Water Quality Control Board in January 2018. The purpose of the LAMP is to allow the continued use of onsite wastewater treatment systems ("OWTS") within the jurisdiction of Apple Valley as well as expand the local program to permit and regulate alternative OWTS while protecting water quality and public health.

Approximately 30% of development in the Town is connected to sewer facilities. Wastewater is conveyed and treated at the Victor Valley Wastewater Reclamation Authority's ("VVWRA") Regional Facility, which is located in the neighboring City of Victorville. VVWRA is currently constructing a Sub-Regional Water Reclamation Facility that will initially capture and treat approximately 1.0 MGD for reuse on parks, green belts, golf course, and other uses.

The remaining 70% of developed properties are served by OWTS. VVWRA owns and maintains a receiving facility that accepts all effluent generated by OWTS within the Town boundaries. According to the LAMP, the receiving facilities have adequate capacity to receive deliveries from new OWTS.

Based on the Town's General Plan and Sewer Master Plan growth projections, it is estimated that the Town's population will increase from its current 2017 population of 74,650 to a 2037 population of 91,900. It is also estimated that approximately 75 percent of this growth will be served by the existing sewer system and 25 percent served by OTWS.

The Town's LAMP addresses site evaluation, permitting, design and maximum flows of OWTS. It also identifies the type of proposed waste that will not be allowed which include:

- Any OWTS with a projected wastewater flow of over 10,000 MGD.
- Any OWTS that receives high strength wastewater, unless the waste stream is from a commercial food service facility.
- Any OWTS that receives high strength wastewater from a commercial food service facility with a Biochemical Oxygen Demand ("BOD") higher than 900 mg/l or that does not have a properly sized and functioning oil/grease interceptor.

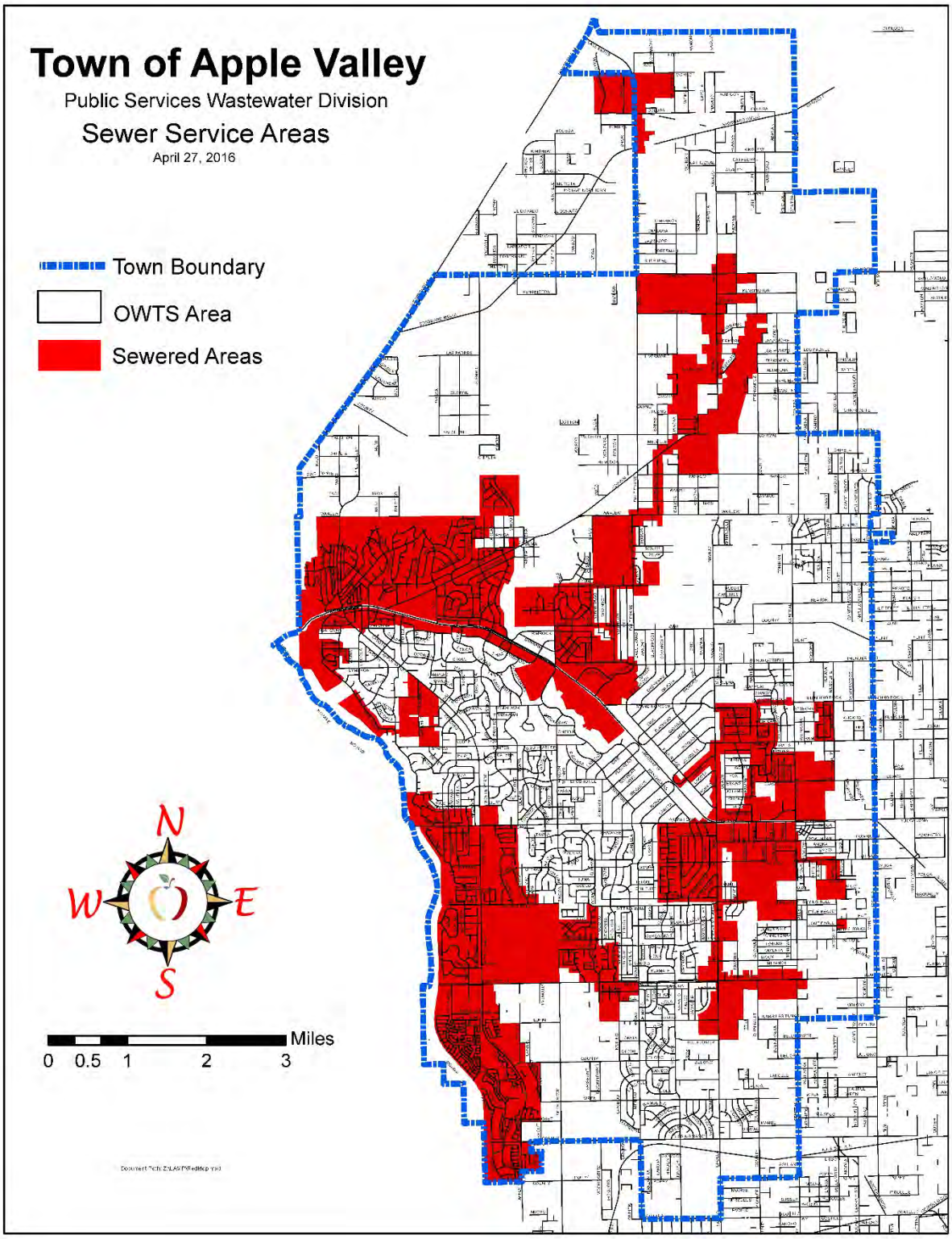
For single family homes on individual lots using OWTS, the LAMP requires minimum lot sizes as follows:

Table 8-6:
Apple Valley Minimum Lot Sizes for Single Family Homes on OWTS

Date of Subdivision	Minimum Lot Size
Prior to June 16, 1988	15,000 square feet
June 17, 1988 to LAMP effective date	18,000 square feet
After LAMP effective date	One Acre

There are no impaired water bodies within the incorporated limits of the Town of Apple Valley and, therefore, Tier 3, an Advance Protection Management Program is not included as part of the Town's LAMP. The figure below shows the sewered and OWTS areas.

Figure 8-12:
Town of Apple Valley Sewer Service Area



source: Town of Apple Valley

SECTION IX
South Desert Region

Organization

As detailed in the Introduction, the Countywide Wastewater Service Review is organized by San Bernardino County's four regions (Valley, Mountain, North Desert, and South Desert), with each region and its respective retail agencies reviewed as a distinct geographic area.

This section of the service review provides a review of the South Desert Region, including:

A. South Desert Region Overview
B. Identification of Hot Spots
    (1) Hot Spot Objective and Criteria
    (2) Wastewater Agencies: Boundary and Sphere of Influence
C. Identification of Opportunities
    (1) Objective and Criteria for Opportunities
    (2) Government Structure Options
D. Staff Recommendations
    (1) Agencies under LAFCO Purview: Service Review Determinations
    (2) Initiation of Sphere of Influence Updates
    (3) Hot Spots – Continued Monitoring
    (4) Recognize the Opportunity in Twentynine Palms

Service Review Updates

In order to fulfill the requirements of Government Code §56430, service review updates are provided on a regional context (Section X) and for each wastewater agency and its service area (Appendix E) to include an agency profile, service area map, and narrative of the agency wastewater system. A detailed listing of treatment systems and municipal collection agencies is included as a part of Appendix F.

A. SOUTH DESERT REGION OVERVIEW

According to the *County of San Bernardino General Plan* (2012), the South Desert covers approximately 40.2 percent of the total County land area but contains only 3.6 percent of the County's population, as shown in Table 9-1, below.

Table 9-1:
County Population by Region

Region	Area (sq. miles)	Population 2016
Valley	665	1,538,716
North Desert	10,778	451,575
South Desert	**8,093**	**77,078**
Mountain	571	50,854
TOTAL	20,107	2,118,223

The South Desert Region is primarily desert area, the majority of which is within the Mojave Desert and a portion within the Sonoran Desert (along the Colorado River area). Large portions of the South Desert are under government ownership, including the Marine Air Ground Task Force Training Command in Twentynine Palms and portions of Joshua Tree National Park. Outside of these areas, the largest landowner is the United States (with the Bureau of Land Management as manager of numerous recreational and wilderness areas). In general, the desert landscape coupled with the lack of private land ownership, does not provide for large scale development opportunities. In 2016 President Obama designated three new national monuments which are within the South Desert Region: Sand to Snow, Castle Mountain, and Mojave Trails.

History

The history of the South Desert is largely tied to the development of nation's highway and rail systems. The Needles area was founded in 1883 as a result of the construction of the Atchison, Topeka and Santa Fe Railway, which crossed the Colorado River. The name is derived from pointed mountain peaks and the wind-blown holes in them (which can only be seen by boat from the Colorado River), the Needles, at the south end of the valley. In 1913 the City of Needles incorporated. The City of Needles was a major stop on the historic U.S. Route 66 highway from the 1920s through 1960s. For immigrants from the mid-west Dust Bowl in the 1930s it was the first town, marking arrival in California. In 1949 the US Bureau of Reclamation began a mass project to dredge a new channel for the Colorado River that would straighten out a river bend that was causing massive silt problems following the completion of Hoover Dam.

US Route 66, originally established on November 11, 1926, began in Chicago, Illinois and terminated in Santa Monica, California – a distance of 2,448 miles. It was one of the original highways in the US highway system and bisected the Region. Many roadside services such as service stations and diners established their business models as a result of this highway. After World War II, Route 66 prospered as tourism and

commerce expanded westward. When the Interstate Highway System was developed in the late 1950s and early 1960s, however, some routes were delegated to secondary status. In the case of Route 66, several Interstate Routes – most notably I-40 in the southwest (solely I-40 in San Bernardino County) – completely bypassed it, significantly impacting the economic vitality of many communities within the South Desert Region. US Route 66 was decommissioned in 1985.

Highway extension west of Twentynine Palms was added to the state highway system in phases – with the portion from White Water to Morongo Valley added in 1935, and from Morongo Valley to Yucca Valley in 1959. Both were designated as Route 187. From Yucca Valley to Twentynine Palms, Route 218 was added in 1961. The portion from Twentynine Palms to Arizona was added to SR 62 in 1970. The South Desert provides the northern entrance to Joshua Tree National Park.

Location and Physical Setting

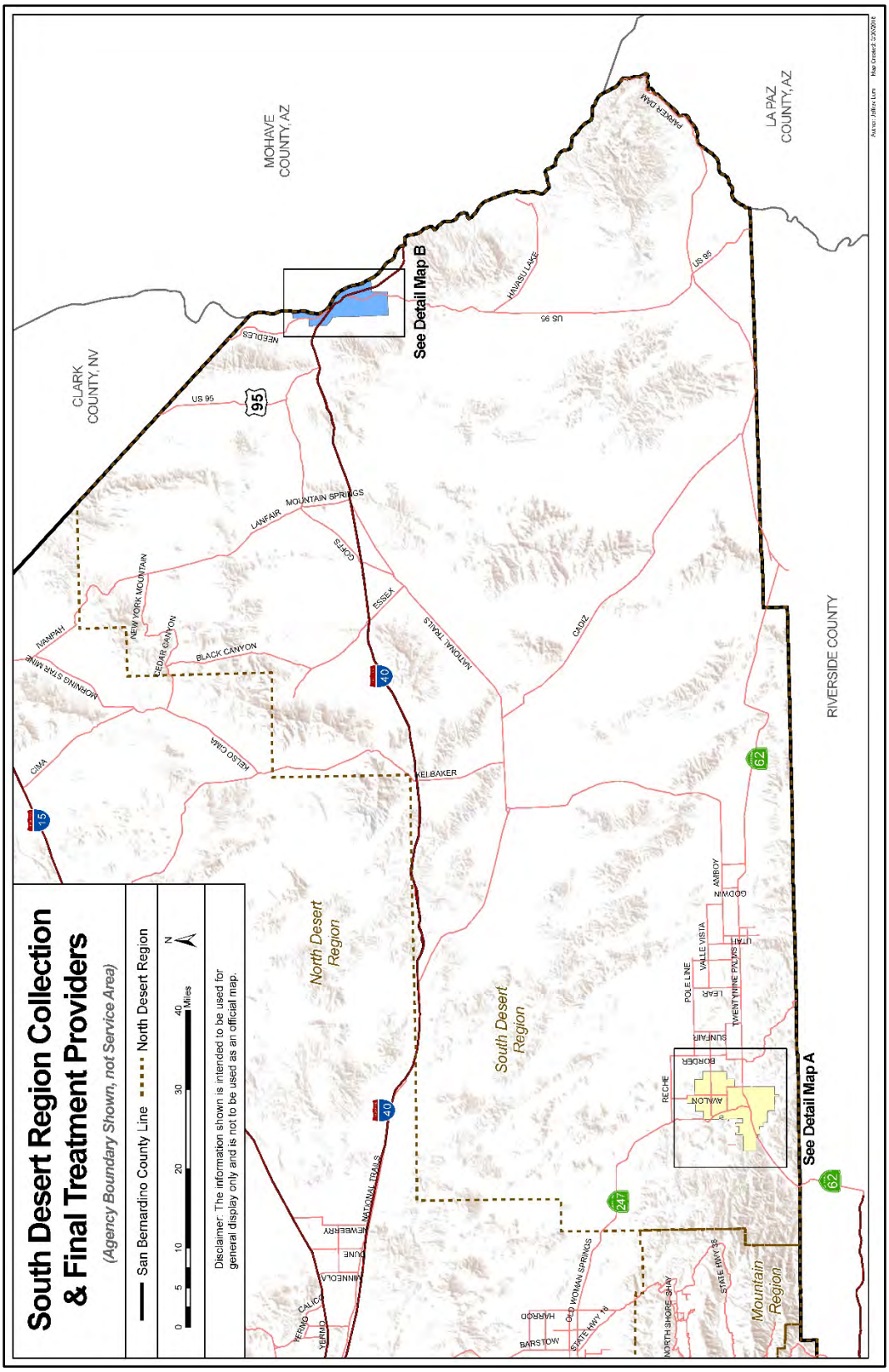
In general, South Desert communities are located along two major travel corridors: Interstate 40 (paralleling or overlaying historic Route 66) and Highway 62 (Twentynine Palms Highway). Communities include Morongo Valley, Yucca Valley, Yucca Mesa, Landers, Flamingo Heights, Pionnertown, Joshua Tree, Twentynine Palms, Needles, and Big River. Figure 9-1 below shows the general South Desert Region overlaid by the wastewater collection and treatment agencies.

Wastewater Agencies

In the South Desert Region, the City of Needles is the only agency that provides collection and treatment services; the Hi-Desert Water District is currently constructing a wastewater collection and treatment system for Yucca Valley community; and the Joshua Basin Water District operates and maintains a package treatment plant at the Hi-Desert Memorial Hospital.

Figure 9-1 below shows the boundaries (not service area) of the City of Needles and Hi-Desert Water District. Figure 9-2 shows the same agencies and their spheres of influence.

Figure 9-1: South Desert Region – Agency Boundary Map



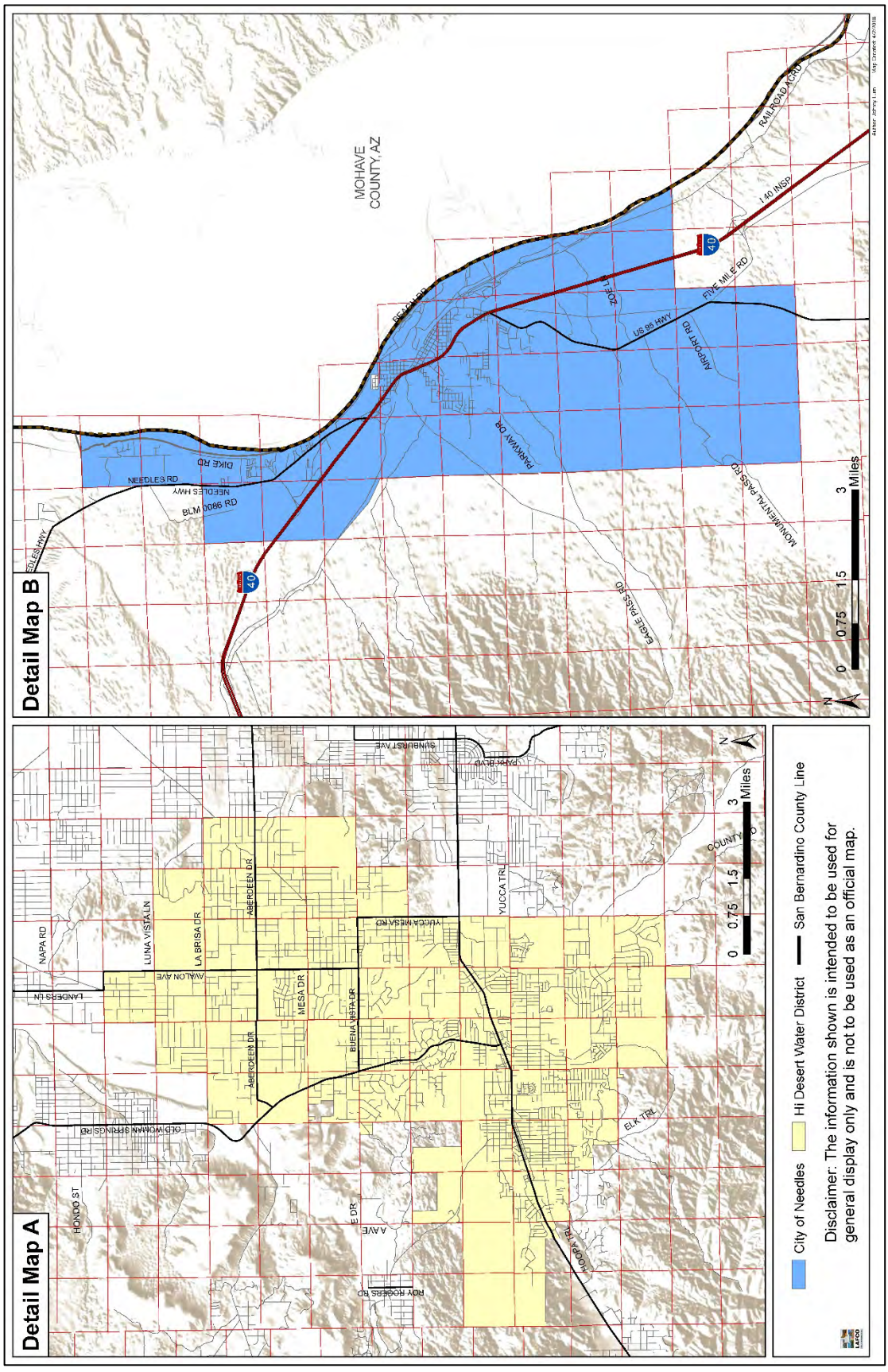
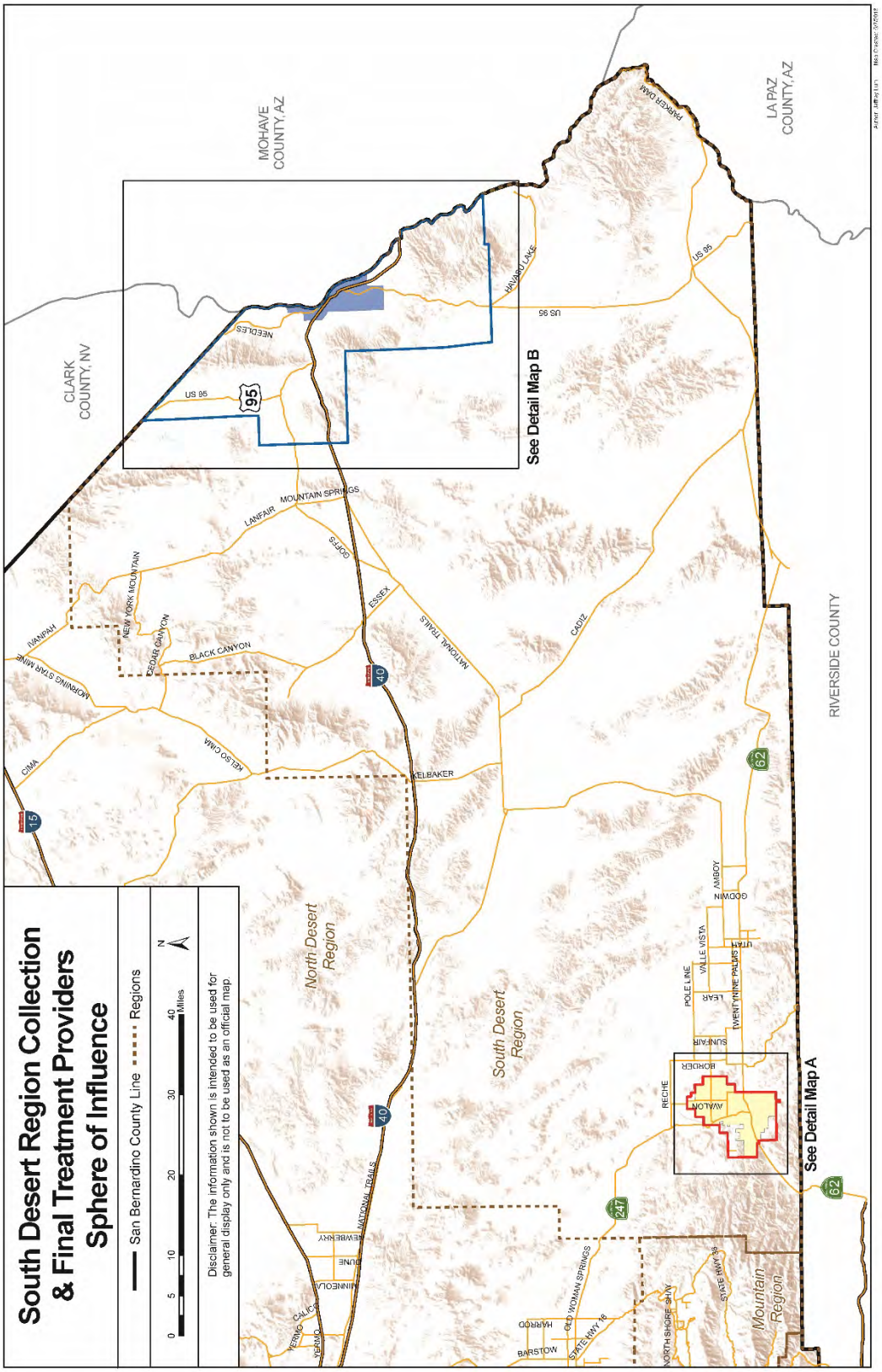
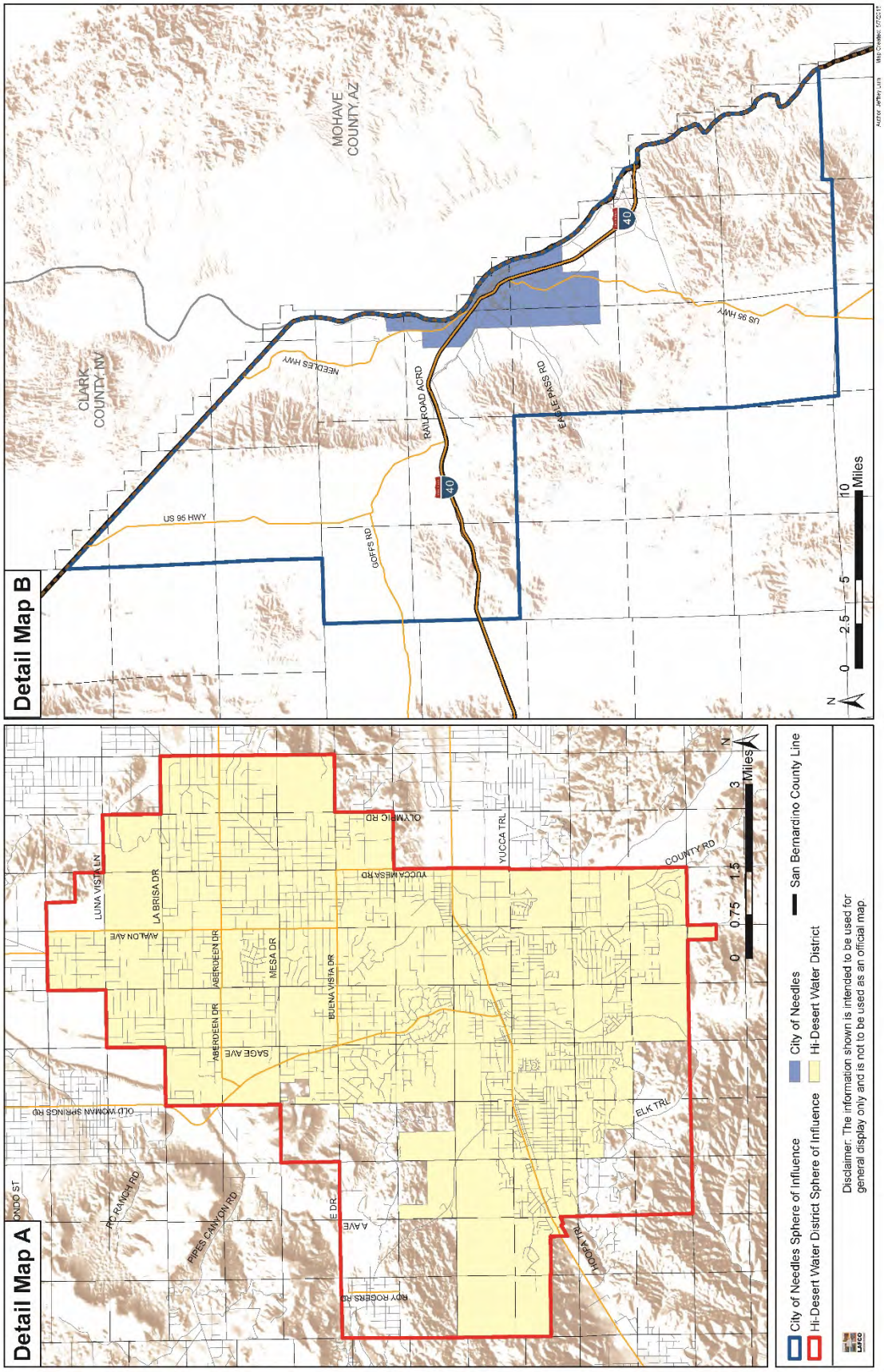

Detail Map B
MOHAVE COUNTY, AZ
RAILROAD ACRD
I-40 INSP
FIVE MILE RD
ZOLI
ANN 56 SPI
AIRPORT RD
PARKWAY DR
BEACH RD
MONUMENTAL PASS RD
EAGLE PASS RD
DIKE RD
NEEDLES RD
NEEDLES HWY
BLM 1086 RD
I-40
0 0.75 1.5 3 Miles
N
Detail Map A
SUNBURST AVE
PARK BLVD
YUCCA TRL
YUCCA MESA RD
COUNTY RD
LUNA VISTA LN
LA BRISA DR
ABERDEEN DR
NAPA RD
AVALON AVE
LANDERS LN
MESA DR
BUENA VISTA DR
ABERDEEN DR
OLD WOMAN SPRINGS RD
HONDO ST
ELK TRL
HOOP TRL
ROY ROGERS RD
City of Needles
HI Desert Water District
San Bernardino County Line
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Figure 9-2: South Desert Region – Agency Sphere of Influence Map




Detail Map B
MOHAVE COUNTY, AZ
CLARK COUNTY, NV
NEEDLES HWY
US 95 HWY
RAILROAD AGRD
EAGLE PASS RD
GOFFS RD
40
0 2.5 5 10 Miles
N
Detail Map A
OLD WOMAN SPRINGS RD
RD RANCH RD
PIPES CANYON RD
LUNA VISTA LN
LA BRISA DR
AVALON AVE
ABERDEEN DR
MESA DR
BUENA VISTA DR
SAGE AVE
OLYMPIC RD
YUCCA MESA RD
YUCCA TRL
COUNTY RD
ELK TRL
HOOPA TRL
ROY ROGERS RD
0 0.75 1.5 3 Miles
City of Needles Sphere of Influence
Hi-Desert Water District Sphere of Influence
City of Needles
Hi-Desert Water District
San Bernardino County Line
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

PRIMER ON SPHERES OF INFLUENCE

Government Code Section 56076 defines a "sphere of influence" as a plan for the probable physical boundaries and service area of a local agency, as determined by the commission.

The purpose of a sphere of influence is to encourage the logical and orderly development and coordination of local government agencies so as to advantageously provide for the present and future needs of the county and its communities. The statement of purpose adopted by San Bernardino LAFCO for spheres of influence include seven points. Those pertinent to this analysis are:

- To promote orderly growth of communities, whether or not services are provided by a city or district (board governed or independently governed);
- To encourage economical use and extension of facilities by assisting governmental agencies in planning the logical and economical extension of governmental facilities and services, thereby avoiding duplication of services;
- To provide assistance to property owners in relating to the proper agency to comprehensively plan for the use of their property;
- To encourage the establishment of urban-type services only within an adopted sphere of influence.

San Bernardino LAFCO has adopted ten polices related to a sphere of influence. Those pertinent to this analysis are:

- RESPONSIBILITY/OBLIGATION FOR A SPHERE OF INFLUENCE AREA

When a sphere of influence is assigned, a city or district is required to commence long range land use and service planning activities, thereby enabling it to respond to any annexation requests it might receive from landowners or residents within the sphere. By accepting a sphere of influence, a city or district agrees to plan for the provision of services.

- URBAN DEVELOPMENT WITHIN A CITY SPHERE

LAFCO takes the position that any new urban development which occurs within a city sphere of influence should take place as close to the city's urban area as possible. This position is emphasized for two reasons: first, so that contiguous areas may easily be annexed to the city; and secondly, so that the new urban area can be served by reasonable extension of the city's already developed municipal services.

PRIMER ON OUT-OF-AGENCY SERVICE

Beginning January 1, 1994 Local Agency Formation Commissions were charged with the responsibility for reviewing and taking action on a city or district contract to extend service outside its jurisdiction under the provisions of Government Code Section 56133. These are unique actions not directly related to the processing of other types of proposals as defined in the Local Government Reorganization Act and these policies and procedures will provide guidance on their processing.

Unlike the normal initiation process for proposals for jurisdictional change, Section 56133 provides that only a city or district may request LAFCO review of an out-of-agency service agreement/contract.

Exemptions

Section 56133(e) provides for six exemptions from written Commission approval to provide new or extended services outside its jurisdictional boundary. Those applicable for this service review are:

- Two or more public agencies where the public service to be provided is an alternative to, or substitute for, public services already being provided by an existing public service provider and where the level of service to be provided is consistent with the level of service contemplated by the existing service provider.

- An extended service that a city/district was providing on or before January 1, 2001.

For a request for exemption pursuant to Section 56133(e), the Commission shall make the determination that the service(s) to be provided is/are exempt from LAFCO review. (Policy and Procedure Manual Section IV, Chapter 2, Policy 5).

Pilot Program

Section 56133.5 (Assembly Bill 402 effective 2016) establishes a pilot program, through 2020, for Napa and San Bernardino LAFCOs to authorize a city or district to extend services outside of a sphere for additional purposes beyond responding to threat to public health or safety, based upon specific criteria. This process requires that the Commission make the following determinations regarding the area to be served outside the agency's sphere of influence, at a noticed public hearing:

- That the proposed service extension was identified and evaluated in a service review;

- That the proposed service extension will not have an adverse impact on open space/agricultural lands and/or is not growth inducing; and,

- That inclusion of the area to be served into the agency's sphere of influence is not feasible or desirable based on adopted commission policies.

B. IDENTIFICATION OF HOT SPOTS

(1) Hotspot Objective and Criteria

The primary objective of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, (2) initiate sphere of influence updates where appropriate, and (3) monitor specific agencies where appropriate. The identification of "hot spots"[1] is used to arrive at these recommendations - those agencies within the county which have significant wastewater issues including, but not limited to:

Wastewater Agencies – identification may include one or more of the following:

- Governance (inadequate oversight and monitoring, financial challenges)
- Collection System (deficiencies, challenges)
- Treatment System (deficiencies, challenges)
- Disposal System (deficiencies, challenges)

Agency Sphere of Influence, outside boundary – factors may include:

- Septic prohibition by State Water Board
- Clusters of onsite wastewater treatment systems
- Septic proximity to groundwater wells or impaired water body
- Located within a disadvantaged community
- DWR groundwater basin priority and basin population growth

To identify the county's wastewater "hot spots", staff utilized a multi-pronged approach. Sources include:

- Local agencies: Agency information reviewed in Appendix E to include audits and budgets, wastewater master plans, water master plans, urban water management plans, integrated regional water management plans, sewer system management plans, and local agency management plans.

- Regional Context: Regional information reviewed in Section X to include local agency management plans, and septic system locations.

- State Water Board: Violations, orders, resolutions, inspections, and overflow.

- LAFCO: Previous service reviews and findings, LAFCO's geographic information system ("GIS") was also used to identify future population growth areas, disadvantaged unincorporated communities, and septic tank use.

[1] In wastewater parlance, "hot spot" is a term to identify distressed areas of a wastewater pipe. For its second round of service reviews, San Bernardino LAFCO uses "hot spot" as an agency that has significant challenges.

(2) Hot Spots – Wastewater Agencies: Boundary and Sphere of Influence

The criteria listed in Table 9-2, below, were used to identify hot spots. In the South Desert Region there are no agencies that warrant a hot spot designation. However, the Twentynine Palms community, which lacks a municipal wastewater system, is identified as a hot spot.

Table 9-2:
Hot Spot Summary – South Desert Region

Key Code	● Yes or High ? Unknown ◑ Portion or Moderate ○ No or Low WD = Water District													
Agency Boundary and/or Sphere	**Wastewater Agencies**				**Agency Sphere of Influence, beyond boundary**									
	Governance	**Collection System**	**Treatment System**	**Disposal System**	**Septic Prohibition by Water Board**	**Clusters of Septic Systems**	**Septic Proximity to Water Wells**	**Septic Proximity to Impaired Water Body**	**Within Disadvantaged Community**	**DWR Groundwater Basin Priority**	**Basin Population Growth**	**Other Matters Identified by LAFCO**	**Hot Spot, within Boundary**	**Hot Spot, within Sphere**
City of Needles	○	○	◑	◑	○	○	○	◑	●	Low	○	○		
Hi-Desert WD	○	--	--	--	○	○	○	●	●	Med	●	○		
Twentynine Palms Community	--	--	--	--	○	●	●	○	●	Low	○	●	●	●

Hot Spot - Twentynine Palms

Given the direction of Gov. Code §56430 and the Commission's policies related to spheres of influence and service reviews, the Twentynine Palms community is identified as an area that has a great need and opportunity for an organized wastewater collection system.

A unique situation and opportunity exists. The Twentynine Palms community currently lacks a system for collecting, treating, and disposing of wastewater. Most wastewater is disposed of via individual septic tanks at residences and businesses. A few large businesses treat their wastewater with small batch plants. Two local agencies have the authority to plan for a future wastewater system: (1) the City of Twentynine Palms as a municipality can provide collection and/or treatment, and (2) the Twentynine Palms Water District is authorized by LAFCO the Sewer function but with services limited to Planning and Engineering. The City and Twentynine Palms Water District are aware that the Colorado River Basin Regional Water Quality Control Board is concerned about potential contamination, and the parties are

concerned that an order from the Regional Board to immediately develop a wastewater system is imminent.

Meanwhile, the neighboring Marine Base has an aging wastewater treatment facility located just north of Mesquite Dry Lake aboard the installation. The Base has requested military construction funding to construct a new facility near the current site. This is the highest priority construction project for the Base, however it is not currently scheduled, and it is unclear when this construction may be funded.

With concurrent wastewater treatment needs for the Marine Corps base and the Twentynine Palms community, the City has presented an opportunity to develop a joint wastewater system with the Marine Corps base. The City seeks to study the feasibility of developing a wastewater system to promote economic growth, protect groundwater resources from contamination, and provide a means for using recycled water to recharge groundwater, thereby enhancing the long term sustainability of the City's resources. The City is interested in pursuing a joint solution with the Marine Corps Base in order to capitalize upon economies of scale, avenues for more favorable financing for the City's share of a joint project, and promoting basin-wide groundwater sustainability. The study is anticipated to evaluate a joint wastewater treatment plant as well as the City constructing its own treatment plant.

LAFCO staff understands that the Twentynine Palms Water District has participated in meetings with the City and Marine Base, but that the City is taking the lead in the feasibility study with the Marine Base. The Water District is authorized by LAFCO the Sewer function but with services limited to Planning and Engineering. Having such authorization would allow the Water District to play an integral role in a potential treatment system and shaping the future of the overall Twentynine Palms Community.

LAFCO staff supports any joint project between the Twentynine Palms community and the Marine Base. This would allow for economies of scale, phased approach to connecting the non-base community to a new treatment plant, promote economic growth, and protect groundwater quality. Additionally, it would promote retention of workers since local citizens are not subject to deployment or reassignment and shared risk, even more so if the Water District becomes a partner.

As of this writing, the Regional Board has not issued a prohibition, and the City of Twentynine Palms will be conducting a feasibility study to evaluate the available wastewater treatment options for the community, to include the Marine Corps Base. Therefore, this service review did not elevate this matter as a hot spot and is not recommending that the Commission continue to formally monitor the community's wastewater challenges and potential solutions. Nonetheless, should the Commission desire to monitor this matter, it may direct staff to do so and return to the Commission in six months with an update.

C. IDENTIFICATION OF OPPORTUNITIES

(1) Objective and Criteria for Opportunities

LAFCO Service Reviews

A service review factor requires LAFCO to review governmental structure and operational efficiencies. The State has published advisory guidelines for LAFCOs to address all of the substantive issues required by law for conducting a service review[2]. The Guidelines address 49 factors in identifying an agency's government structure options. Themes among the factors include but are not limited to: more logical service boundaries, elimination of overlapping boundaries that cause service inefficiencies, economies of scale, opportunities to enhance capital improvement plans, and recommendations by a service provider.

In some cases, functional consolidation or integration can reduce costs so that services can be maintained and improved with fewer dollars. A service review should address possible options for the community to consider for the future. Movement towards these scenarios would include, but not be limited to, the requirement to prepare a plan for service, fiscal impact analysis, and any other required studies.

The preamble to the Local Government Reorganization Act states that while the Legislature recognizes the critical role of many limited purpose agencies, especially in rural areas, it finds and declares that a single multipurpose governmental agency accountable for community service needs and financial resources may be the best mechanism for establishing community service priorities.

Little Hoover Commission

The State's Little Hoover Commission[3], like LAFCOs, is a strong proponent of eliminating overlapping, inefficient government agencies. The Commission's website reads that, "While the strengths of special districts include their ability to provide specific, customized services and be responsive to local customers, their challenges include low civic visibility and limited oversight." Historically, the Commission has expressed sentiments such as:

[2] State of California. Governor's Office of Planning and Research. "Local Agency Formation Commission Municipal Service Review Guidelines", August 2003.

[3] The Little Hoover Commission, formally known as the Milton Marks "Little Hoover" Commission on California State Government Organization and Economy, is an independent state oversight agency that was created in 1962. The Commission's mission is to investigate state government operations and – through reports, recommendations and legislative proposals – promote efficiency, economy and improved service. The Commission works to implement its recommendations either through legislation or administrative changes. New hearings are held and progress reports are issued in the years following the initial report until the Commission's recommendations have been enacted or its concerns have been addressed.

- There are far too many special districts in California.
- LAFCOs should act proactively to initiate and/or facilitate district consolidations.
- LAFCOs should follow up on previous service review recommendations and take action when and where it is appropriate.

The Little Hoover Commission recently reviewed California's vast network of local governing agencies known as special districts. A final report, "Special Districts: Improving Oversight & Transparency", was issued in August 2017 and addressed four key topics: (1) opportunities to bolster the effectiveness of Local Agency Formation Commissions; (2) the continued need for districts to improve transparency and public engagement; (3) the evolution of healthcare districts; and, (4) the urgency of climate change adaptation and the role of special districts.

(2) Government Structure Options

LAFCO staff's analysis did not identify any areas in South Desert Region where a reorganization of wastewater agencies would increase effectiveness or efficiency.

D. STAFF RECOMMENDATIONS

As previously stated, the primary objective of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, (2) initiate sphere of influence updates where appropriate, and (3) monitor specific agencies where appropriate.

(1) Agencies under LAFCO Purview: Service Review Determinations

The following are the South Desert Region agencies that are under LAFCO purview for a service review:

- City of Needles
- Hi-Desert Water District
- Joshua Basin Water District

Based upon new information received since the previous service review, staff recommends that the Commission update the previous service review determinations for the agencies listed above to include:

a. *Population, disadvantaged unincorporated communities, and regional information from Section X.*
b. *Agency information from Appendix E.*

(2) Initiation of Sphere of Influence Updates and (3) Continued Monitoring

In the South Desert Region, there are no wastewater collection or treatment agencies identified as hot spots. Therefore, there are no recommendations for Commission direction to monitor an agency.

(4) Recognize the Opportunity in Twentynine Palms

Staff recommends that the Commission identify the Twentynine Palms community as a "hot spot" and recognize that an opportunity exists for the City of Twentynine Palms to develop a joint wastewater system with the nearby Marine Corps base.

SECTION X
South Desert Service Review Update
Regional Update

OVERVIEW

As stated in the Introduction to this report, the focus and primary goal of this service review is to provide the Commission with recommendations to: (1) update the determinations from previous service reviews, and (2) initiate sphere of influence updates where appropriate, and (3) continue monitoring where appropriate. In order to fulfill the service review requirements of Govt. Code §56430, a review of the items, listed below, are included in this Section as they pertain to the South Desert Region.

A. Population, Location and Physical Setting
B. Disadvantaged Communities
   (1) Primer
   (2) Disadvantaged Unincorporated Communities
   (3) Disadvantaged Communities
C. Overview of Wastewater Treatment Systems
D. Onsite Wastewater Treatment Systems
   (1) Regional Board Overview
   (2) Prohibitions and Exceptions
   (3) County of San Bernardino LAMP

A service review update specific to each agency and its service area is included in Appendix E, which includes an agency profile, service area map (not necessarily boundary), and narrative of the agency wastewater system.

A detailed listing of treatment systems and municipal collection agencies is included as a part of Appendix F.

A. POPULATION, LOCATION AND PHYSICAL SETTING

The South Desert Region, with approximately 8,093 square miles, is the second largest region geographically in San Bernardino County. At this time, the only municipal treatment agency is the City of Needles. The Hi-Desert Water District is currently constructing a wastewater treatment facility for the Yucca Valley community.

Population projections for the South Desert Region, are provided in Table 10-1. Overall population for the region is expected to grow by approximately 37 percent by 2040, which equates to an annual growth rate of approximately 1.3 percent.

Table 10-1:
Current and Projected Population Estimates – South Desert Region

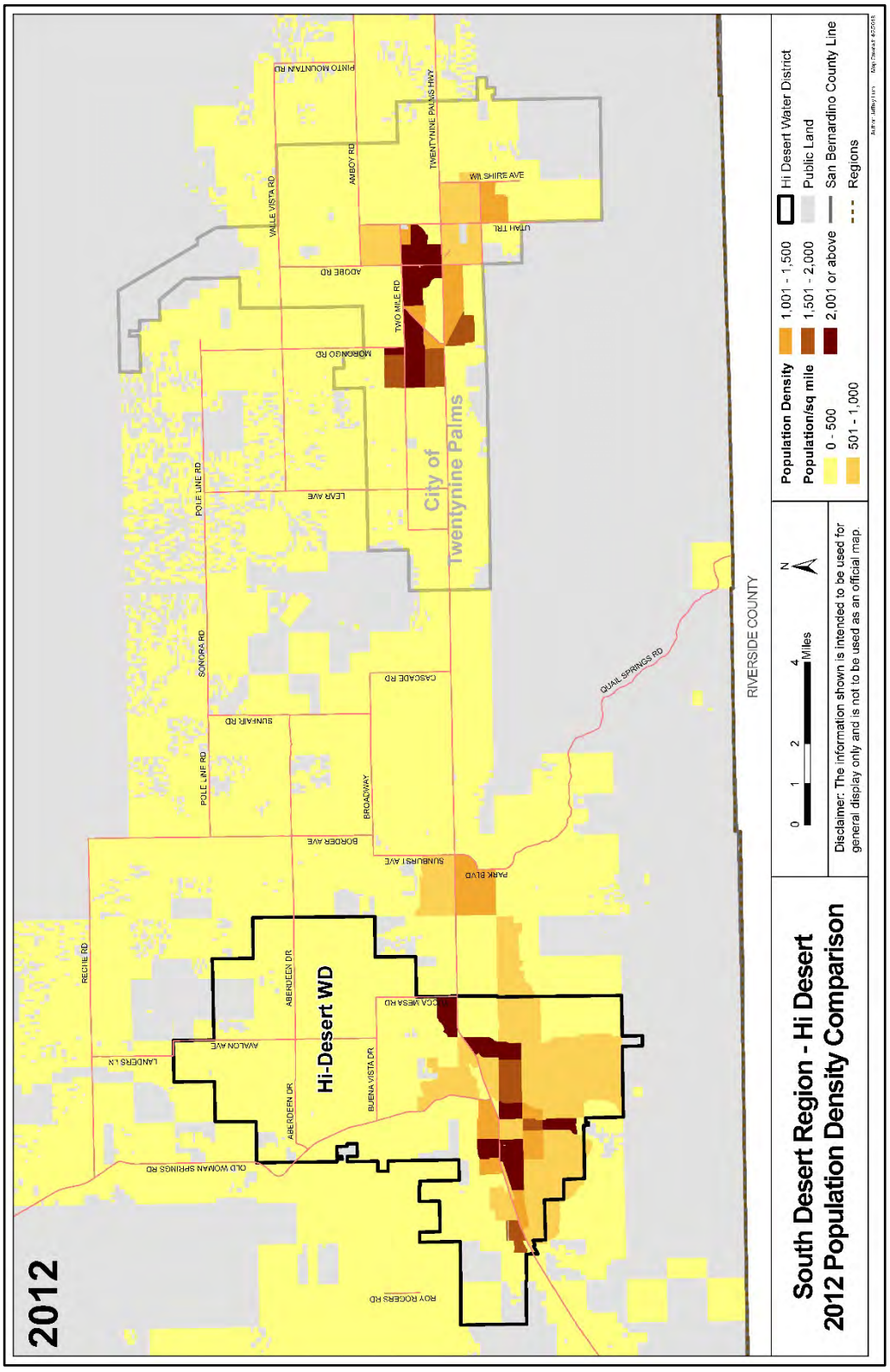
Community	2015	2020	2025	2030	2035	2040
Morongo Valley	3,602	3,662	3,897	4,146	4,412	4,695
Yucca Valley (Hi-Desert WD)	24,520	25,548	26,911	28,435	29,939	31,276
Homestead Valley	4,116	4,554	5,135	5,794	6,463	7,082
Joshua Basin	9,830	10,287	10,860	11,469	12,047	12,551
Twentynine Palms	18,165	18,659	20,528	22,790	25,096	27,400
City of Needles	4,976	5,600	6,000	6,400	6,800	7,000
Remaining Areas	11,869	12,521	13,201	13,910	14,549	15,420
South Desert Region Total	**77,078**	**80,831**	**86,532**	**92,944**	**99,306**	**105,424**

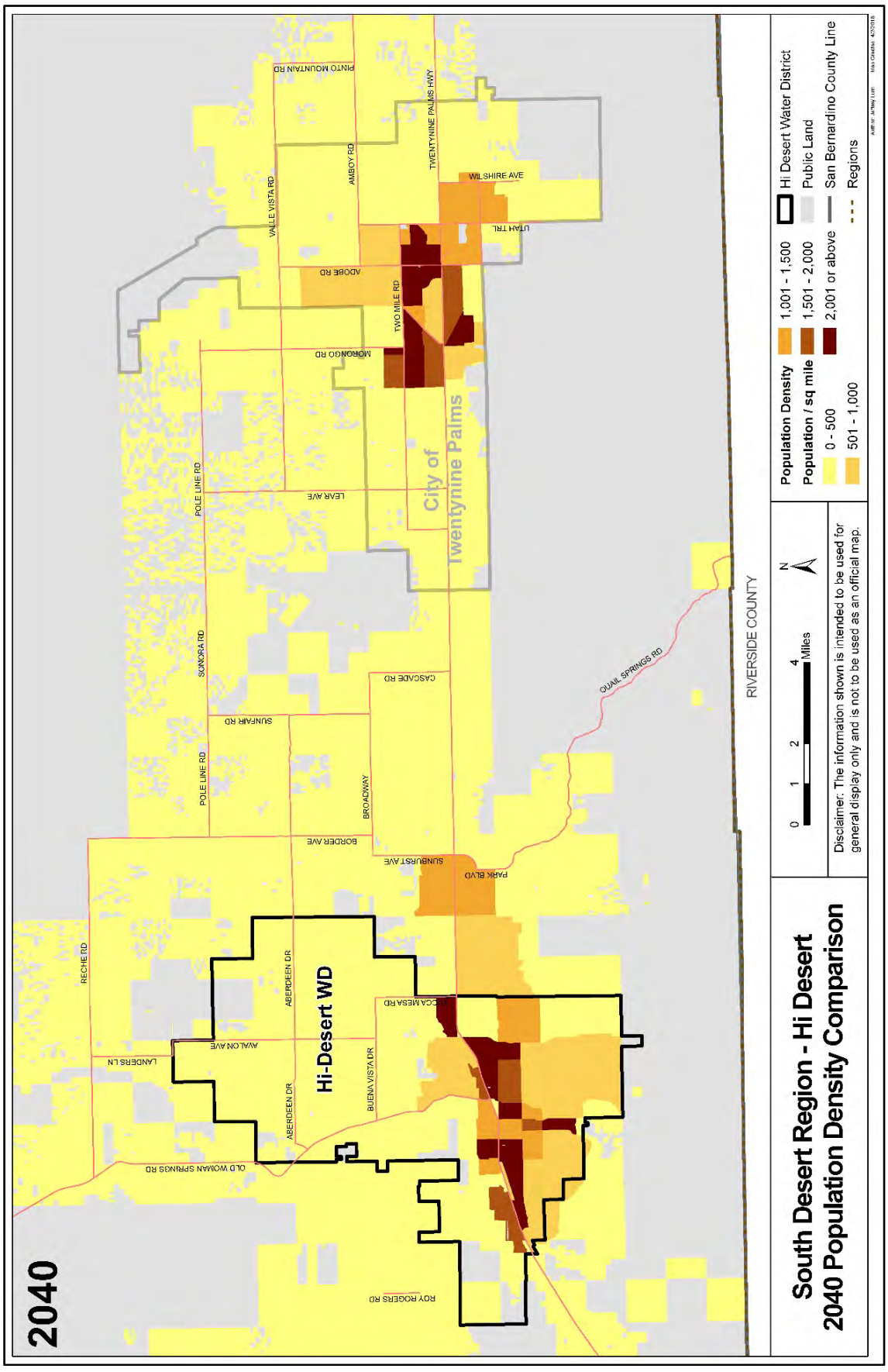
Sources: Morongo Valley Service Review (November 2012); MWA UWMP (2015); Twentynine Palms Water District UWMP (2015) with LAFCO revision; SCAG 2016 RTP (Needles); ESRI estimate for 2015 (South Desert Region)

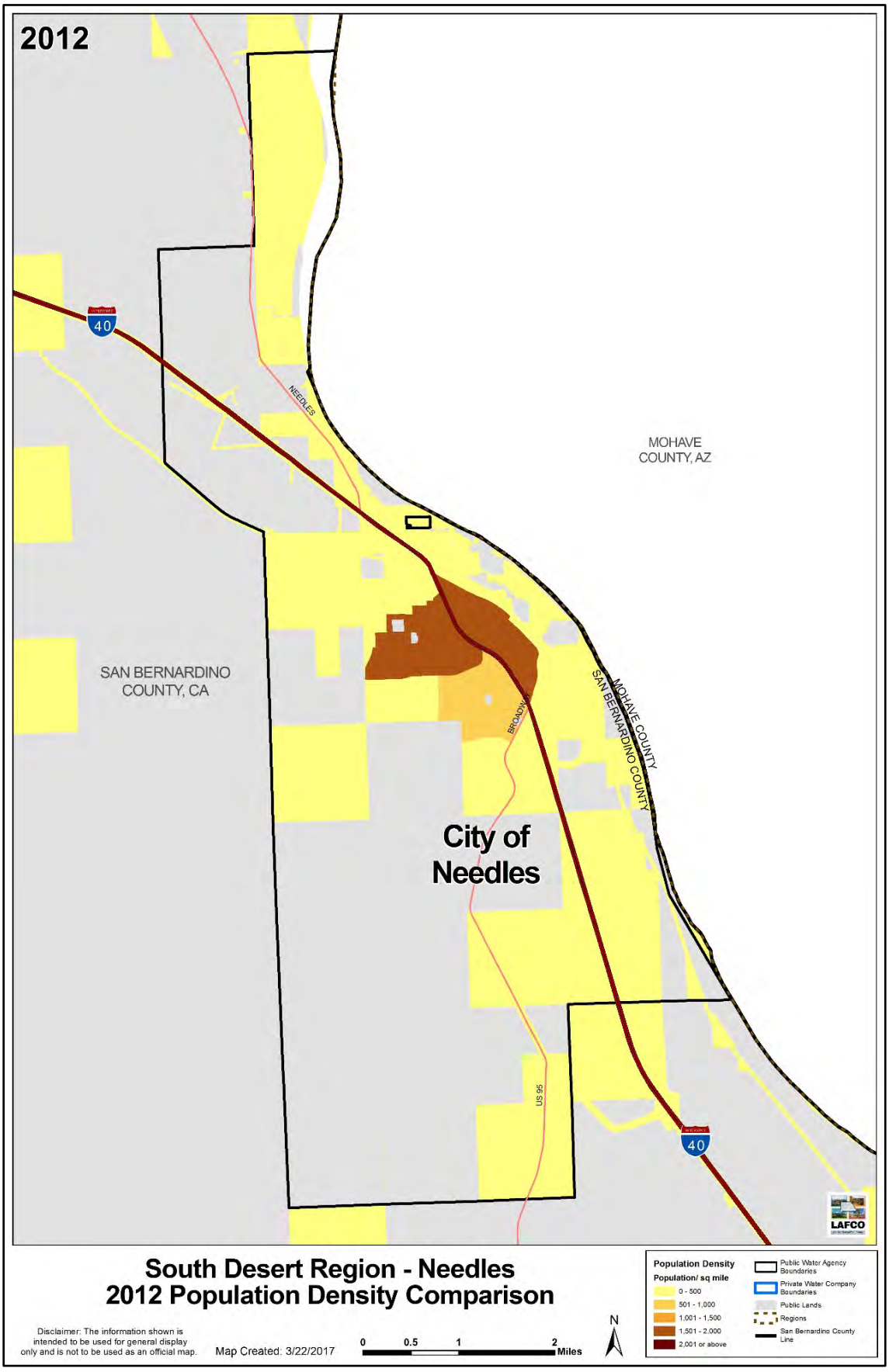
Figure 10-1 compares population density between 2012 and 2040[1]. As the Mojave Water Agency ("MWA") 2015 Urban Water Management Plan ("UWMP") states, the MWA service area, in terms of housing prices, is even more affordable than other parts of San Bernardino County, and it is expected that these dynamics will help drive population growth. However, as the figure below illustrates, the relative density of the populated areas is not projected to increase significantly by year 2040 given the availability of developable land, remote nature of the desert communities removed from pass-through traffic, and the local economic structure. Based on this data, LAFCO staff concludes that the availability of affordable housing will not result in significant increased density; rather, additional population growth will expand to available land at the periphery of the currently developed areas.

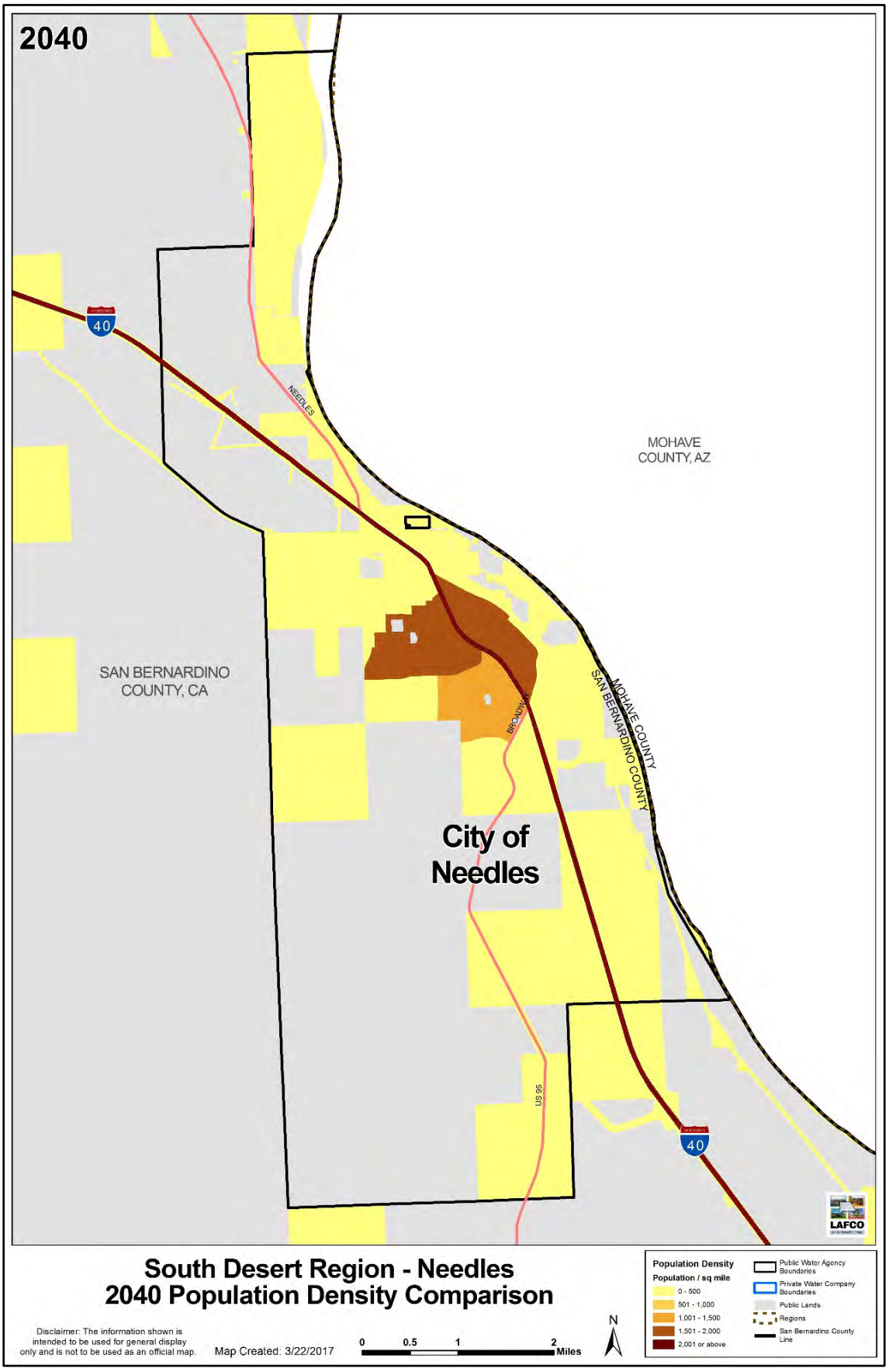
[1] The data source is transportation analysis zones from SCAG's 2040 Regional Transportation Plan. For this map, non-developable areas include lands in the name of: United States of America, Government Land, State of California, and County of San Bernardino, as identified by the County Assessor.

Figure 10-1:
2012 and 2040 Density Comparison - South Desert Region




2040
Hi-Desert WD
City of Twentynine Palms
RIVERSIDE COUNTY
PINTO MOUNTAIN RD
TWENTYNINE PALMS HWY
WILSHIRE AVE
UTAH TRL
VALLE VISTA RD
AMBOY RD
ADOBE RD
TWO MILE RD
MORONGO RD
LEAR AVE
POLE LINE RD
SONORA RD
SUNFAIR RD
CASCADE RD
QUAIL SPRINGS RD
BROADWAY
BORDER AVE
SUNBURST AVE
PARK BLVD
RECHE RD
ABERDEEN DR
AVALON AVE
LANDERS LN
BUENA VISTA DR
OLD WOMAN SPRINGS RD
ROY ROGERS RD
South Desert Region - Hi Desert
2040 Population Density Comparison
0 1 2 4 Miles
N
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
Population Density
Population / sq mile
0 - 500
501 - 1,000
1,001 - 1,500
1,501 - 2,000
2,001 or above
Hi Desert Water District
Public Land
San Bernardino County Line
Regions


2012
40
NEEDLES
MOHAVE
COUNTY, AZ
SAN BERNARDINO
COUNTY, CA
BROADWAY
MOHAVE COUNTY
SAN BERNARDINO COUNTY
City of
Needles
US 95
40
LAFCO
South Desert Region - Needles
2012 Population Density Comparison
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
Map Created: 3/22/2017
0 0.5 1 2
Miles
N
Population Density
Population/ sq mile
0 - 500
501 - 1,000
1,001 - 1,500
1,501 - 2,000
2,001 or above
Public Water Agency Boundaries
Private Water Company Boundaries
Public Lands
Regions
San Bernardino County Line


2040
40
NEEDLES
MOHAVE
COUNTY, AZ
SAN BERNARDINO
COUNTY, CA
BROADWAY
SAN BERNARDINO COUNTY
MOHAVE COUNTY
City of
Needles
US 95
40
LAFCO
South Desert Region - Needles
2040 Population Density Comparison
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
Map Created: 3/22/2017
0 0.5 1 2 Miles
N
Population Density
Population / sq mile
0 - 500
501 - 1,000
1,001 - 1,500
1,501 - 2,000
2,001 or above
Public Water Agency Boundaries
Private Water Company Boundaries
Public Lands
Regions
San Bernardino County Line

B. DISADVANTAGED COMMUNITIES

Primer on Disadvantaged Communities – DUCs, DACs & More

Disadvantaged Communities
The State of California adopted a definition of disadvantaged community (or "DAC") through passage of Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002. This measure added §79505.5(a) to the California Water Code and defines a disadvantaged community as a *"community with an annual median household income that is less than 80 percent of the statewide annual median household income."* For 2016, 80% of the statewide median household income is $50,043.[2] State law requires various entities (i.e. LAFCO, cities and counties, and water agencies) to, in some manner, identify disadvantaged communities which can be located in both incorporated and unincorporated areas.

Disadvantaged Unincorporated Communities
Particular to LAFCOs, the state mandate is to identify the location and characteristics of disadvantaged unincorporated communities (or "DUCs"). Gov. Code §56375 specifically prohibits an annexation to a city of any territory greater than 10 acres where there exists a disadvantaged unincorporated community that is contiguous to the area of proposed annexation unless an application to annex the entire disadvantaged unincorporated community has also been filed.

Gov. Code §56033.5 defines DUCs as "...*inhabited territory [12 or more registered voters]...or as determined by Commission policy, that constitutes all or a portion of a "disadvantaged community"...* with less than 80% of the median household income.

Need for Consistency
The DAC definition, as defined in Water Code §79505.5(a), differs from the definition of a DUC in two important ways: (1) a DUC must be inhabited, and (2) DUCs comprise unincorporated territory only, not territory within cities. For purposes of further defining a DUC, San Bernardino LAFCO policy defines a community as an *inhabited area comprising no less than 10 dwelling units adjacent or in close proximity to one another.*

Alternatively, Gov. Code §65302.10 (General Plans) identifies a DUC as being 80% or less than the median household income. This is in contrast to Water Code §79505.5 and Gov. Code §56033.5 which reads less than 80%.

Other State agencies, such as the California EPA, use alternative criteria to identify disadvantaged communities for grant funding purposes. The different criteria used to identify disadvantaged communities at the local and state government levels is confusing and complicates implementation of a consistent approach to addressing our disadvantaged residents. While staff recognizes the difficulty in developing a one-size-fits-all definition, LAFCO staff's position is that additional work needs to be done State-wide to develop a method for identifying disadvantaged communities that is more consistent yet recognizes the diversity of communities and geographies in California.

[2] Environmental Systems Research Institute (ESRI)

Disadvantaged Unincorporated Communities (DUCs)

For LAFCOs, the state requires that service reviews identify and describe the characteristics of disadvantaged communities of *unincorporated* areas only (commonly referred to as "DUCs"). For the purposes of defining a DUC, San Bernardino LAFCO policy defines a *community* as an inhabited area comprising no less than 10 dwellings adjacent or in close proximity to one another. Uninhabited areas include vacant or government lands. Based upon the criteria identified, Figure 10-2 identifies those areas that meet the criteria of a DUC.[3]

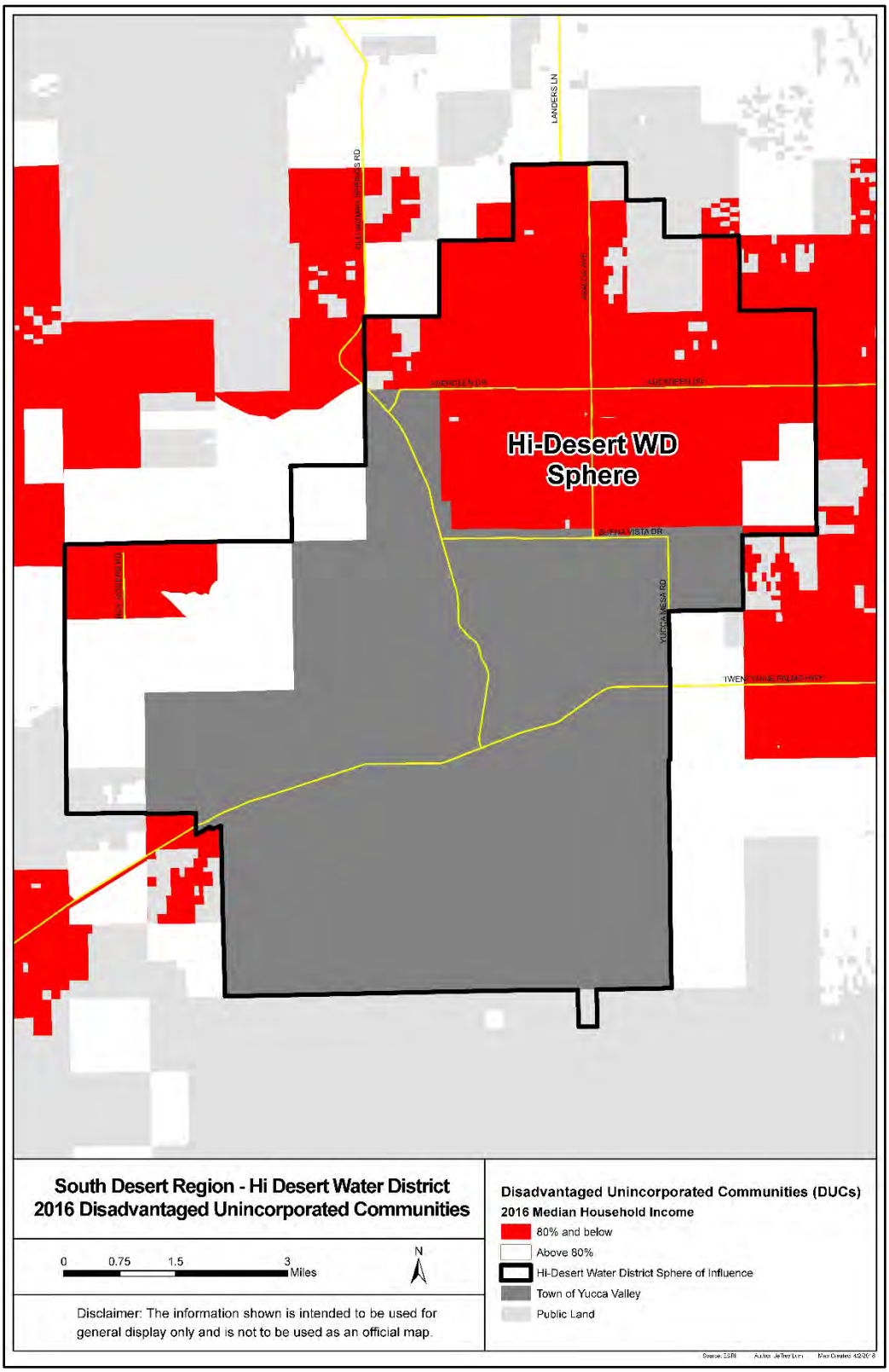
The areas identified in the table are the major DUCs in the South Desert. The mapping on the following page is limited to the Gov Code requirement – within and adjacent to the sphere of influence (that of Hi-Desert Water District and City of Needles). [4]

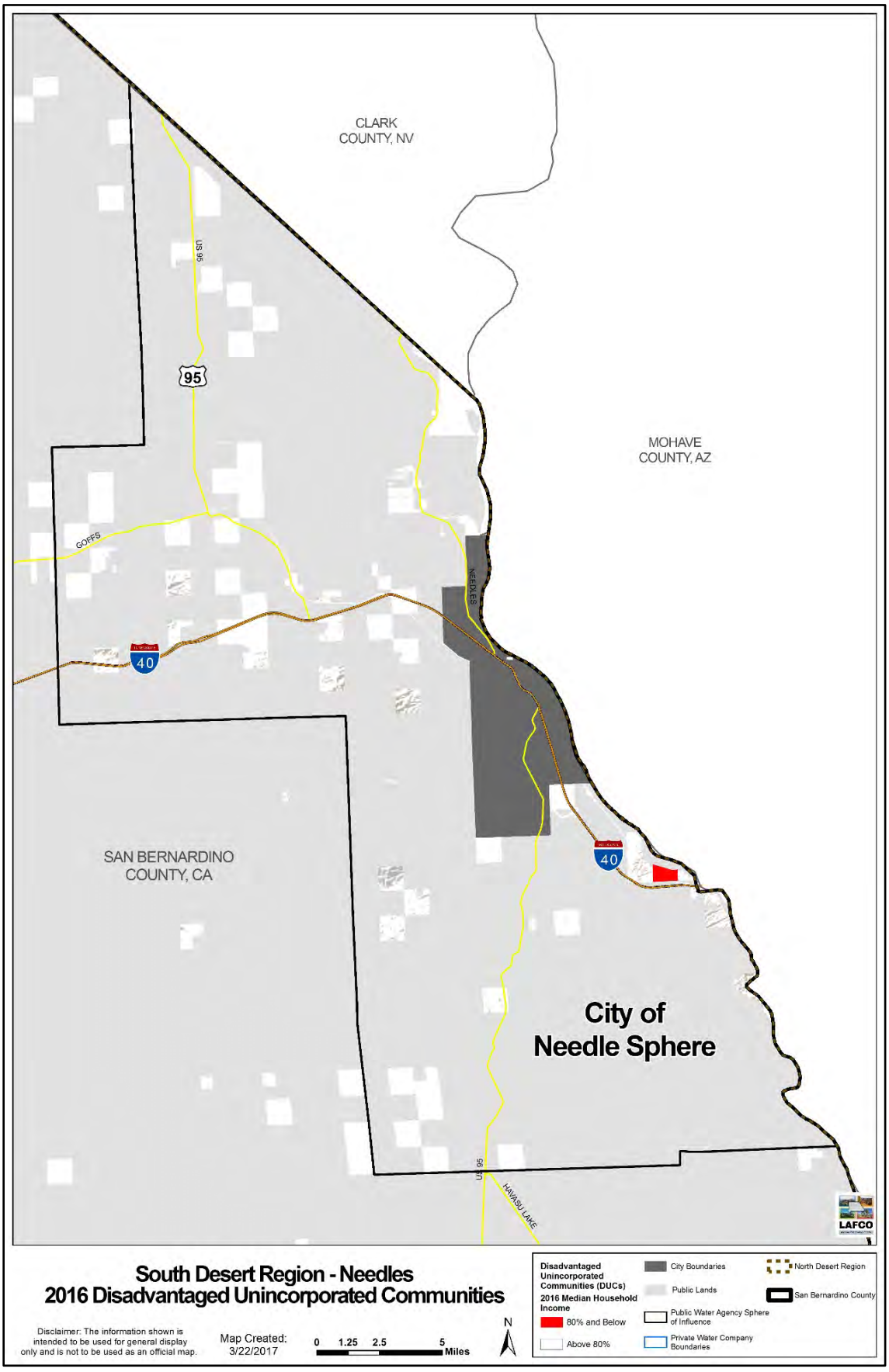
Table 10-2:
Major DUC Areas - South Desert Region

Characteristics	Morongo Valley	Homestead Valley	Yucca Valley unincorporated	Joshua Tree	29 Palms unincorporated
Area, sq. miles	8	46	24	65	32
Pop., 2016	1,527	3,101	3,225	6,689	1,116
Households, 2016	717	1,403	1,238	2,750	497
Median Household Income	$42,466	$31,828	$38,823	$32,954	$31,858
Characteristics	Natural desert setting, rural lifestyle, equestrian oriented community, predominance of large residential lots, lack of traffic congestion, tranquility (Morongo Community Plan)	Wide open spaces and natural features including, rock formations, desert vegetation and wildlife. The predominant land use is rural residential with large lots. There is very little commercial or industrial development (Homestead Valley Community Plan)	Natural desert setting, rural lifestyle, wide open spaces and natural features. Predominant land use is rural residential with large lots. There is very little commercial or industrial development	Residential land uses, ranging from singlX-family houses on large lots to mobile homes and multi-family apartment buildings. The small commercial and industrial district of the Joshua Tree Community is located along Twentynine Palms Highway (Joshua Tree Community Plan)	Natural desert setting, rural lifestyle, wide open spaces and natural features. Predominant land use is rural residential with large lots. There is very little commercial or industrial development

[3] For this map, non-developable areas include lands in the name of: United States of America, Government Land, State of California, and County of San Bernardino, as identified by the County Assessor.
[4] ESRI

Figure 10-2:
DUC Areas, Wastewater Agencies - South Desert Region




CLARK
COUNTY, NV
MOHAVE
COUNTY, AZ
SAN BERNARDINO
COUNTY, CA
US 95
95
GOFFS
NEEDLES
40
40
City of
Needle Sphere
95
HAVASU LAKE
LAFCO
South Desert Region - Needles
2016 Disadvantaged Unincorporated Communities
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
Map Created:
3/22/2017
0 1.25 2.5 5
Miles
N
Disadvantaged Unincorporated Communities (DUCs)
2016 Median Household Income
80% and Below
Above 80%
City Boundaries
Public Lands
Public Water Agency Sphere of Influence
Private Water Company Boundaries
North Desert Region
San Bernardino County

Disadvantaged Communities (DACs)

Although the state requires that LAFCOs focus their service review analyses on disadvantaged communities within unincorporated areas (commonly referred to as "DUCs"), the reality is that disadvantaged communities do not necessarily follow jurisdictional boundaries and occur in incorporated areas (cities) as well. It is LAFCO's responsibility to at least recognize disadvantaged communities countywide regardless of jurisdiction. Figure 10-3 identifies Disadvantaged Communities, or "DACs", which include both unincorporated and incorporated areas within the North Desert cities and their surrounding areas.

On the whole, the South Desert classifies as a disadvantaged region. The vast majority of the unincorporated area is disadvantaged, although there are portions of incorporated Yucca Valley and Twentynine Palms which are not classified as disadvantaged.

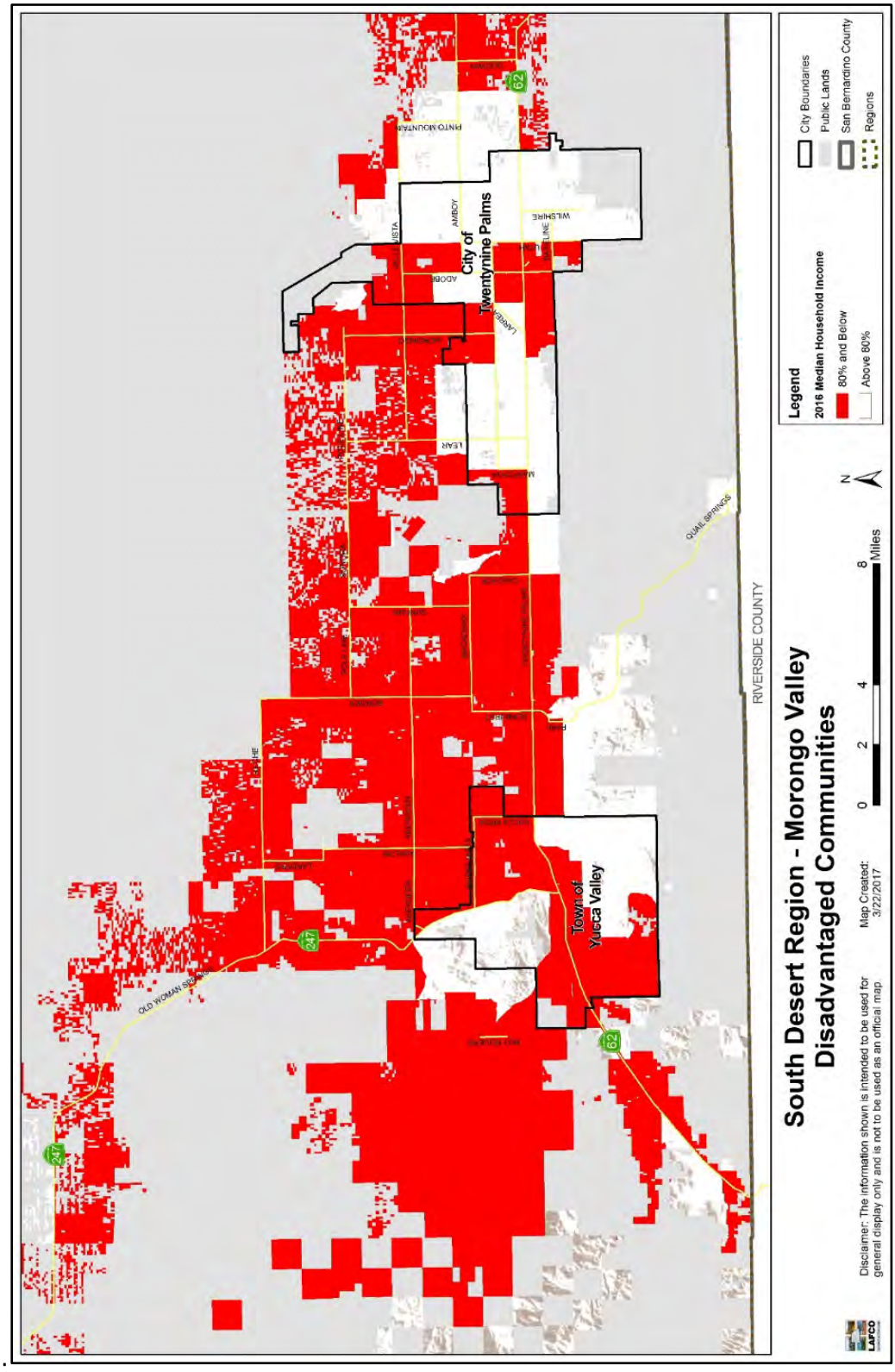
During the development of the Mojave Water Agency 2014 Integrated Regional Water Management Plan, a collaborative effort to identify and implement water management solutions on a regional scale, there was overwhelming agreement among the stakeholders to help and support Disadvantaged Communities ("DACs") [5]. MWA developed a Small Systems Program to support and assist DACs through the Integrated Water Management Plan process. This objective was ranked as a high importance and a high urgency project.

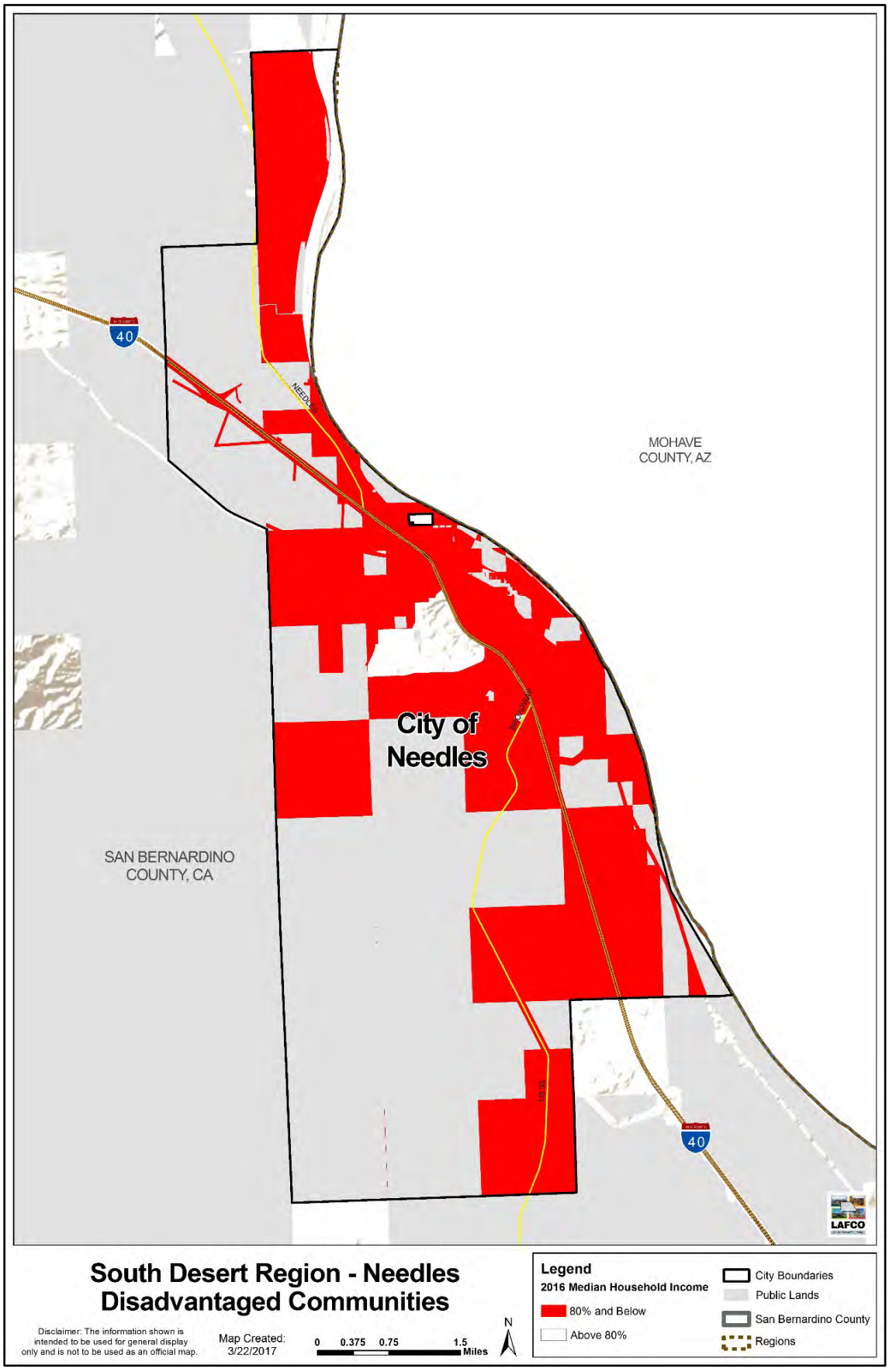
The program was developed with input from stakeholders and the California Rural Water Association. The scope of the program is to provide guidance/assistance with grant applications, performing needs assessments and providing specific training to DACs applying for state and/or federal funding related to improving water management practices. The following identifies the key issues, needs, challenges, and priorities for the Mojave Region with respect to disadvantaged communities:

- Understand the needs of different DAC communities in the region;
- Help educate communities about requirements and opportunities;
- Provide support to DACs in applying for assistance; and
- Help improve water management systems, including water quality, that serve DACs

[5] DACs include disadvantaged territories that are both unincorporated and incorporated.

Figure 10-3:
Disadvantaged Communities - South Desert Region




40
MOHAVE
COUNTY, AZ
City of
Needles
SAN BERNARDINO
COUNTY, CA
40
LAFCO
South Desert Region - Needles
Disadvantaged Communities
Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.
Map Created:
3/22/2017
0 0.375 0.75 1.5
Miles
N
Legend
2016 Median Household Income
80% and Below
Above 80%
City Boundaries
Public Lands
San Bernardino County
Regions

C. OVERVIEW OF WASTEWATER TREATMENT SYSTEMS

Of the South Desert Region's major communities, currently only the City of Needles has an organized collection and treatment system. In December 2012, the City contracted with EUSI, LLC to operate the wastewater collection system and treatment facilities.

The Hi-Desert Water District is currently constructing, in phases, a collection and treatment system for the Yucca Valley community. The Joshua Basin Water District has a program where it collects development fees marked for a future collection and treatment system. The Joshua Basin Water District also operates and manages a package treatment plant located at the Hi-Desert Medical Center.

Treatment Agencies

The table below provides a listing of each wastewater treatment system that has a design flow over 100,000 gallons per day. The table includes design flow, treatment type, disposal method, system summary, and if the entity disposes a recycled product.

Table 10-3:
South Desert Treatment Agencies

Treatment Agency	Design Flow (MGD)	Treatment Type Disposal Method System Summary	Recycled
City of Needles	1.2	mechanical bar screen, an aerated grit removal chamber, two sequencing batch reactors, an equalization basin, 24 sludge drying beds evaporation/percolation ponds	N
Hi-Desert Water District (in construction phase)	1.2	membrane and ultra violet natural filtration via recharge ponds	Y
U.S. Marine Corps Air Ground Combat Center, Twentynine Palms	1.2	recycled for irrigation at golf course	Y

source: Colorado River Basin Water Board

Age of Pipelines

The figure below identifies the miles of internal sewer transmission pipeline of the sole collection agency and tabulates the percentage by 20-year range.[6] As shown, 70% of the sewer pipelines in the Needles system have been built 1940 and 1959. In general, the overall age of pipelines is dated.

[6] The pipeline age information was obtained from the State Resources Control Board's (Water Board) California Integrated Water Quality System (CIWQS) for each agency. This information is also a part of each agency's profile information in the appendices to this service review.

Table 10-4:
Age of Pipelines (in miles by 20-year range) – South Desert Region

Agency	2000 +	1980-1999	1960-1979	1940-1959	1920-1939	1900-1919	Before 1900	Miles of Sewer
City of Needles	2	2	2	16	-	-	-	**23**
Total Miles of Sewer	**2**	**2**	**2**	**16**	**-**	**-**	**-**	**23**
Percent of Total Age	10.0%	10.0%	10.0%	70.0%	0.0%	0.0%	0.0%	**100%**

source: Regional Board CIWQS, as modified by LAFCO staff from percent to raw number

Agency Service Review Updates and Remainder of Section X

A service review update specific to each agency and its service area is included in Appendix E, which includes an agency profile, service area map (not necessarily boundary), and narrative of the agency wastewater system. A detailed listing of municipal wastewater systems and joint powers authorities is included as a part of Appendix F.

The remainder of this section focuses on areas that lack an organized wastewater collection system, specifically the use of septic tanks.

E. ONSITE WASTEWATER TREATMENT SYSTEMS

Overview

For areas that lack an organized wastewater collection system, Onsite Wastewater Treatment Systems ("OWTS") are the method of collection and disposal. OWTS are wastewater treatment systems that use subsurface disposal, including: individual; community collection and disposal; and alternative collection and disposal systems. The most common OWTS are septic systems. OWTS do not include "graywater" systems pursuant to Chapter 15 of the California Plumbing Code.

OWTS policies are created to meet the requirements of Assembly Bill 885 (2000) to promulgate consistent, statewide standards for the regulation of OWTS. The State Water Board adopted its OWTS policy in June 2012, and became effective May 13, 2013 (Resolution No. 2012-0032). The policy categorized OWTS into the following tiers:

Figure 10-4:
Onsite Wastewater Treatment Systems – Tiers

Tier	Description
0	Applies to all existing systems which function properly, do not meet the conditions of a failing system, and are not contributing to pollution of any waterways.
1	Applies to all new and/or replacement OWTS which meet low risk siting and design requirements in areas which do not have an approved LAMP as specified in Tier 2.
2	Applies to any new and/or replacement OWTS which do not fall into the Tier 3 adjacent to impaired waterways, or in prohibition areas category. This tier is referred to as the LAMP and allows the County to apply standards that differ from the State.
3	Describes all systems currently located within areas denoted as impaired waterways. These systems have been identified as potential sources of pollution, and need to abide by the Advanced Protection Management Program prescribed in Tier 3 of the OWTS Policy.
4	A temporary classification for all systems that have been found to be failing, and/or needing repair. Once the system has been repaired, it will be placed in either Tier 0, Tier 2, or Tier 3.

source: State Water Board

PRIMER ON ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS)

According to the State Regional Water Quality Control Board[7], onsite wastewater treatment systems ("OWTS") are defined as "…individual systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal." When properly sited, designed, operated and maintained, OWTS treat domestic wastewater to reduce its polluting impact on the environment and protect public health. In June 2012, it was estimated by the Regional Board that there are more than 1.2 million onsite systems, the majority which are septic tanks, operating in California.

As waste flows into the tank, heavier solids sink to the bottom, forming the "sludge" layer. Solids are decomposed by the anaerobic bacterial action of the sludge. In theory, a relatively harmless effluent will be produced, and under proper soil conditions, further decontamination can occur. Even under ideal conditions, eventually the amount of sludge will interfere with the bacterial digestive action, and it must be pumped for off-site disposal.

The majority of OWTS operate in a satisfactory manner, and in some cases, remain the only viable option for sewage treatment for locations removed from centralized wastewater treatment systems. However, there are instances in California where OWTS fail to protect water quality and public health. Some common reasons for OWTS failure include:

- Poor design and improper site conditions
- Improper and/or deferred system maintenance
- High geographic concentration of OWTS resulting in a combined effluent flow that cannot be assimilated into the environment

When a community sewer is not available, and a property improvement will generate wastewater, the property owner must demonstrate the following to San Bernardino County Department of Environmental Health to verify the lot will support onsite wastewater disposal:

- Soils are conducive to onsite wastewater disposal.
- Sewer is not available within 200 feet (plus 100 feet per dwelling unit thereafter).
- Enough area is available to install a septic system that meets proper setbacks (for new construction, 100% expansion area must be available).
- OWTS will not impact ground or surface water.
- OWTS is sized appropriately to serve the intended land use.

As California's population continues to grow, the development of higher density housing in rural areas and in more varied terrain increases the risk of OWTS creating public environmental and health issues. Improperly maintained or failing OWTS can result in the discharge of pathogens, nitrates, salts, household chemicals, oils and grease into the environment. As conditions and circumstances change around particular locations, increased scrutiny is necessary to properly site, operate and professionally maintain OWTS.

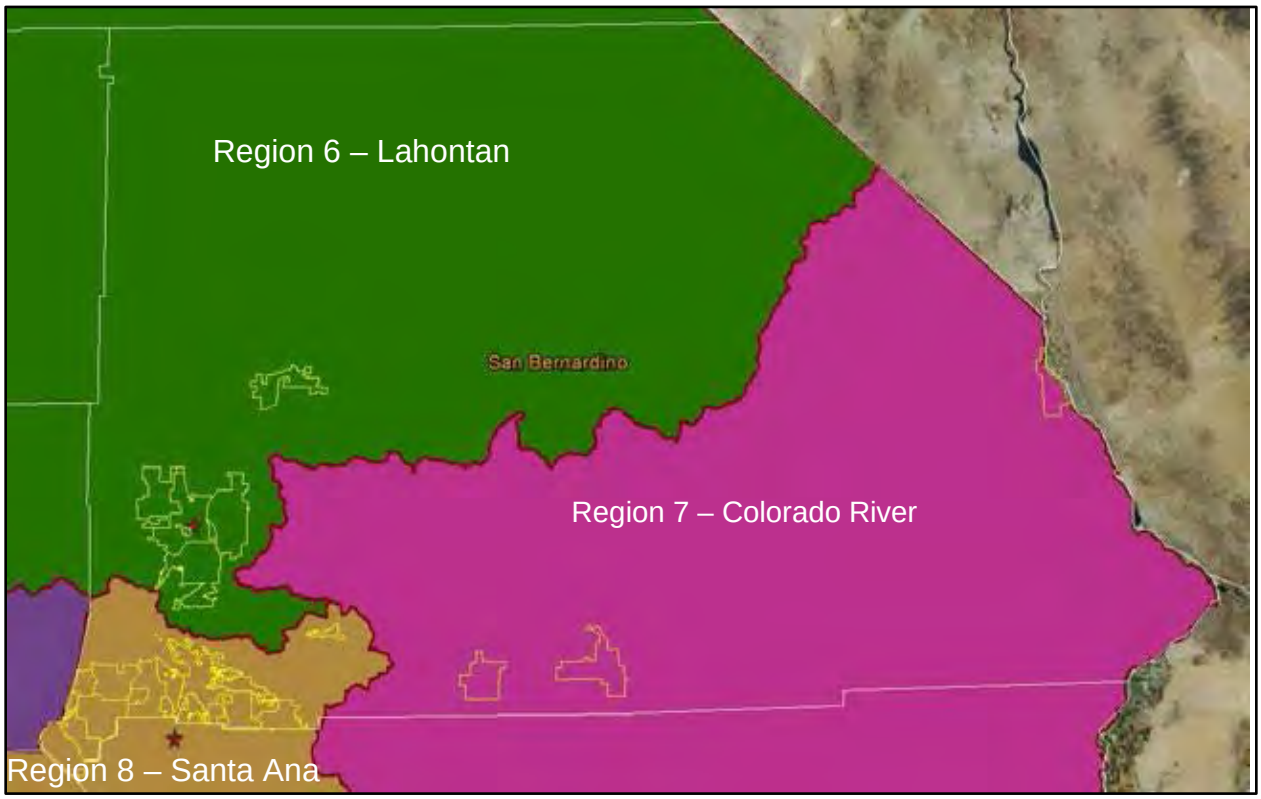
[7] Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (CA Water Boards 2012)

OWTS located within San Bernardino County are governed by the following Regional Water Quality Control Boards, listed below and shown on the following figure:

- Region 6 – Lahontan
- Region 7 – Colorado River
- Region 8 – Santa Ana

Each region has environmental differences that create unique construction and design concerns. To address these concerns, the three regional boards have developed individualized basin plans. These basin plans provide criteria for the installation of OWTS, affected waterways and prohibition areas within their region. For example, any new development of one-half acre lots within the Lahontan Regional Board jurisdiction may be subject to conducting a cumulative impact assessment, including a hydrogeological study, to predict future groundwater quality impacts from proposed developments.

Figure 10-5:
Regional Water Quality Control Boards Map



source: San Bernardino County LAMP

Prohibitions and Exemptions

Due to the geology and hydrology of certain areas within the county, prohibitions on discharge of waste from OWTS have been set to protect water quality, public health and safety. Within the South Desert Region, this sole area includes:

- Town of Yucca Valley

  In 2011, the California Regional Water Quality Control Board passed a resolution that will prohibit discharge from septic tanks in parts of Yucca Valley starting with Phase One on June 30, 2021, with Phases Two and Three to follow on May 19, 2019 and December 31, 2025. If residents continue to discharge, they may be fined up to $5,000 daily by the State Board.

  Hi-Desert Water District assumed lead in a comprehensive solution that will ensure compliance and protect groundwater quality at the lowest possible cost, while giving customers access to a reliable and affordable sewer system. This project would replace septic systems and their negative environmental impacts on water quality with a sewer system that collects wastewater and delivers it to a treatment plant, where it will be processed and treated until it is clean enough to be recharged into the aquifer without compromising water quality.

  More information on this project is in the Hi-Desert Water District portion of Appendix E, to this report

There are a number of unsewered communities in this South Desert Region which have the potential to have a negative impact on the groundwater. The Colorado River Basin Regional Board has identified some communities with high densities of septic systems. According to the Basin Plan for the Colorado River Basin, as staffing and finances permit, the Regional Board will conduct investigations to determine the relative priority for sewering the following communities in San Bernardino County:

- Yucca Valley
- Twentynine Palms
- Morongo Valley
- Landers
- Joshua Tree

Local Agency Management Program ("LAMP")

A Local Agency Management Program ("LAMP") is a program for the siting, design, operation and maintenance of an OWTS, developed by a local agency[8], and approved by the Regional Board as an alternate method to achieve the same policy purpose as that of OWTS policy. To date, no local agency in the South Desert Region has submitted a draft LAMP to a Regional Board. Therefore, for unincorporated areas

[8] Any subdivision of state government responsible for permitting, installation, and regulation of OWTS within its jurisdictional boundaries; typically a county, city, or special district.

OWTS siting, design, operations, and maintenance fall under the County's LAMP; and for cities that are not a part of the County LAMP the Regional Board maintains authority.

County of San Bernardino LAMP

The County's LAMP covers the unincorporated portions of the County. With development in rural areas of San Bernardino County continuing to grow, and with nearly 25% of housing units using OWTS, the County LAMP states that the requirements defined by Tier 1 of the OWTS Policy do not meet the future development needs of San Bernardino County. The limitations on dispersal depth, the 2.5 acre minimum parcel size for new lots on which OWTS can be installed, and the prohibition of the use of seepage pits is too restrictive. The County's LAMP Program (May 2017) specifically addresses wastewater issues, County requirements, and scope of coverage for OWTS installation and maintenance. It also allows for the continued use and installation of OWTS.

County Environmental Health Services ("County EHS") maintains a map of all of the sewer lines in the county to prevent the approval of a septic system when a sewer is available. For new developments in the unincorporated county, the County requires connection to a public sewer system: (1) when the property is within the boundary of an established sewer collection area, or (2) when the property is outside the boundary of a collection agency and the nearest property line is within 200 feet of an available sewer line. The latter may require a LAFCO-approved out-of-agency service agreement. This requirement will be increased by 100 feet for each additional equivalent dwelling unit within the development/project. In unincorporated San Bernardino County area, proposed subdivisions with more than 40 lots with lot sizes of less than 2.5 acres, shall require review and approval by County EHS and may require Water Board Permitting or a waiver of waste discharge.

Cesspools are not permitted in the County of San Bernardino. When County staff discovers a cesspool is still in use, the property owner will be required to replace the cesspool with an OWTS, which meets current standards. The timeframe for complying with this requirement will vary based on the condition of the cesspool and the potential threat it represents to water quality, public health and safety. While the County does not have a point of sale requirement for existing septic systems certification, voluntary certifications are performed routinely and system upgrades are permitted and replacements are constructed under Building permit.

APPENDIX A

Comments from Wastewater Agencies with LAFCO Staff Responses

- City of Chino
- City of Chino Hills
- City of Montclair
- City of Rialto
- City of San Bernardino
- City of Upland
- County Special Districts Department
- Crestline Sanitation District
- Cucamonga Valley Water District
- Joshua Basin Water District
- Lahontan Regional Water Quality Control Board
- Lake Arrowhead Community Services District
- Victorville Water District
- West Valley Water District

City of Chino

LAFCO

Local Agency Formation Commission
for San Bernardino County

1170 West 3rd Street, Unit 150
San Bernardino, CA 92415-0490
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www.sbclafco.org

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SAMUEL MARTINEZ
Assistant Executive Officer

MICHAEL TUERPE
Project Manager

LA TRICI JONES
Clerk to the Commission

LEGAL COUNSEL

CLARK H. ALSOP

June 12, 2018

Nicholas Liguori, Director
Development Services
City of Chino
P.O. Box 667
Chino, CA 91708-0667

RE: Response to Comments regarding LAFCO Draft Countywide Service Review for Wastewater

Dear Mr. Liguori:

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. LAFCO has received your comments dated June 5, 2018.

Your letter and its attachments provide suggested corrections to better describe the City's position and policy as it related to providing wastewater collection to properties outside the City boundary but within its sphere of influence. LAFCO staff has reviewed your suggestions and have incorporated them into the service review in Section III and Appendix B. Please note that the service review, for consistency throughout the report, will continue the short form for "sphere of influence" as "sphere" and not "SOI".

Your comment letter and this response letter will be included in Appendix A of the service review. Should you have any questions on this letter or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Sincerely,

MICHAEL TUERPE
Project Manager

MT/

EUNICE M. ULLOA
Mayor

TOM HAUGHEY
Mayor Pro Tem

CITY of CHINO

EARL C. ELROD
GARY GEORGE
PAUL A. RODRIGUEZ, Ed.D.
Council Members

MATTHEW C. BALLANTYNE
City Manager

RECEIVED
2018 JUN -8 AM 11:52
LOCAL AGENCY
FORMATION COMMISSION

June 5, 2018

Kathleen Rollings-McDonald
Executive Officer
Local Agency Formation Commission
1170 West Third Street, Unit 150
San Bernardino, CA 92415-0490

Subject: Countywide Service Review for Wastewater Staff Report

Dear Ms. Rollings-McDonald:

Thank you for providing the City of Chino an opportunity to review and comment on the County Wide Service Review for Wastewater staff report. We have reviewed the report and have some proposed edits that we believe better describes the City's position and policy as it relates to providing sewer services to properties within the City's Sphere of Influence (SOI). We respectfully request that LAFCO incorporate the proposed edits to both Section III Valley Region Opportunities-Chino Sphere of Influence and the City of Chino profile pages in appendix B.

We have also sent these edits in track changes via email to Michael Tuerpe for easy review. If you have any questions or need additional information, please contact Principal Planner, Mike Hitz, at (909) 334-3448, or at mhitz@cityofcchino.org.

Sincerely,

Nicholas S. Liguori, AICP
Director of Development Services

13220 Central Avenue, Chino, California 91710
Mailing Address: P.O. Box 667, Chino, California 91708-0667
(909) 334-3250 • (909) 334-3720 Fax
Web Site: www.cityofchino.org

Opportunities – Chino Sphere of Influence

LAFCO has authorized the City of Chino 27 out-of-agency service contracts (for a total of 92 connections) for wastewater service outside its boundary but within its sphere of influence (SOI). In response to this service review, the City has identified that it currently serves 73 parcels ~~outside its boundaries~~within its SOI. Whereas not every parcel that has been authorized for connection is currently connected, the out-of-agency service is tied to the parcel in perpetuity, or until annexed. Therefore, the City is obligated to provide sewer service ~~these~~ to the remaining 19 parcels should the property landowner request so and meet all requisites.

In 2006, the City adopted Resolution No. 2006-028 which stated that properties within the City's ~~sphere~~ SOI may connect to the City's sewer system ~~under the following conditions:~~by either annexing into the City or, under certain circumstances, obtaining approval of an irrevocable offer to annex. Since adoption of the resolution, several irrevocable offer agreements have been received by the City, but only one annexation has occurred relating to those agreements.

1. ~~If the sphere property is not adjacent to the City boundary, the owner of the property must execute and file an irrevocable agreement to annex to the City at such time as sufficient parcels can be assembled and qualify for annexation in accordance with LAFCO policy pertaining to such annexations.~~

2. ~~If the sphere property is contiguous to the City boundary, the owner will be required to annex the parcel to the City, or, if this is determined to be infeasible, to execute an irrevocable agreement to annex.~~

3. ~~Finally, all sphere properties requesting sewer service must be developed in accordance with the City's general plan and in conformance with all of City codes and standards.~~

In 2016, recognizing ~~that~~ property owners were not pursuing annexation following the City's provision of sewer service to the ~~sphere~~ SOI properties, the City began to ~~deny requests for~~no longer approve irrevocable agreements to annex and only approved sewer services to property owners that were willing to go through the annexation process sewer services.[1] However, ~~LAFCO staff reiterates that~~ the City is still obligated to provide sanitary sewer service to ~~any~~ of the 19 parcels in the SOI already authorized by LAFCO, should the property landowner request so and meet any requisites. In February 2018, the City adopted Resolution No. 2018-009 to further clarify its position pertaining to the City's sanitary sewer connection policy. The revised policy ~~now~~ states that ~~sphere~~SOI properties may only connect to the City's sanitary sewer system if (a) the parcel is first annexed into the City, and (b) the

[1] City of Chino Agenda Item 8, page 2, from 6 February 2018.

parcel is developed in accordance with the City's General Plan provisions applicable to the affected area.

~~At its February 20, 2018 hearing, T~~the City of Chino ~~authorized a request for proposals for an economic feasibility study on annexing its sphere of influence. According to the staff report for this item,~~ ~~B~~because adequate access to sewer facilities is a pre-condition for most types of development, this change in policy has ~~triggered~~ resulted in several proposed annexations and land use changes within the ~~sphere~~ SOI over ~~in the~~ last two years. The City Council ~~has requested~~is in the process of obtaining a comprehensive economic analysis of the ~~sphere~~ SOI to assess the potential for future, larger-scale annexations. The ~~study~~ analysis will look at several aspects, including costs for services, public improvements, existing land use, and tax revenues. A liability analysis will also be included. This information will help the Chino City Council with both discussions and decisions regarding future annexations of the ~~sphere~~ SOI area. The projected completion of the analysis is January 2019.

If a regional goal is to get properties off septic tanks and onto a municipal collection system, then LAFCO's position is that connection to a municipal collection system is not only preferred, but should be pursued. Therefore, LAFCO supports additional out-of-agency service agreements as this would reduce human created nitrates from entering the groundwater. LAFCO also supports development of a City outreach program to inform those land owners with properties along a connection line that connection to a municipal collection system is a possibility. Consideration should be given to LAFCO supporting the City's efforts to ~~study~~ analyze the feasibility of annexing all or part of its ~~sphere of influence~~SOI (including island annexations) or the City's continuance of out-of-agency service agreements in order to connect properties to a municipal collection system.

Additionally, located within the City's boundary is the California Institute for Men (CIM), a state-run men's prison. The western portion of the facility is connected to a sewer system, but the eastern portion of the facility has a wastewater discharge permit to treat and dispose of wastewater at its storage ponds and irrigation fields. Consideration should be given to connecting the eastern facility of ~~the Men's Prison~~CIM to the City's collection system, for eventual treatment by IEUA. ~~The Men's Prison~~CIM is roughly one-third of a mile east of the IEUA Carbon Canyon Water Recycling Facility and roughly one-half mile northwest of the IEUA Regional Plant No. 5.

At its Special Meeting of May 8, 2018, the County of San Bernardino ~~provided~~ gave a presentation on its proposed FY 2018-19 budget programs and issues. As a part of the presentation and materials provided was ~~is~~ a line item for a Chino Sewer Survey – to gauge landowner sentiment on forming a county service area or zone to County Service Area 70 as a mechanism to provide wastewater collection.

City of Chino

Chino

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1910
Governance	Separately elected mayor and 4 city council members elected by district	Square Miles	30.9
Website	http://www.cityofchino.org/	2017 Population	80,676
Services	Police, water, sewer, solid waste, community development, parks and community services, and general administrative services		

LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/Chino.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0.49		223			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	19,973		73			20,046 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	15%	25%	39%	12%	9%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$31.94

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($895,517)	$4,530,159	$2,286,738	$1,980,014	$2,452,638
Cash & Equivalents, End of Year	$4,988,785	$9,518,944	$11,805,682	$13,785,696	$16,238,334

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Chino website
City of Chino letter dated February 14, 2018

CITY OF CHINO

The City of Chino sewerage system collects wastewater through an extensive system of gravity flow sewers and pressurized sewers (force mains) comprising 223 miles of lines. The system consists of trunk sewer systems ranging in size from 6 to 21 inches in diameter. The collection system conveys the entire City collected wastewater to Inland Empire Utilities Agency (IEUA) for treatment and reuse, or disposal. The City of Chino's wastewater is currently treated at the IEUA Carbon Canyon Reclamation Plant and RP-5, with a small portion treated at Reclamation Plant RP-1.

The figure below shows the City's current and projected wastewater flows from 2010 to 2035.

Figure B-1:
City of Chino Current and Projected Wastewater Flows

	2010	2015	2020	2025	2030	2035
Population[1]	84,742	90,750	96,759	102,890	109,041	115,181
Wastewater Flow (mgd)[2]	6.8	7.3	7.7	8.2	8.7	9.2

[1] Total City population data obtained from California Department of Finance and Southern California Association of Governments (Local Input/General Plan Growth Forecast 2012).

[2] Based on total City population data and preliminary findings in the City's Sewer Master Plan for per-capita wastewater production.

source: City Sewer Master Plan

The City's 2017-18 Fiscal Year (FY) Capital Improvement Budget identifies four major wastewater projects within the next five years. All four are sewer rehabilitation projects with to-be-determined funding from the City's Sewer Fund and/or development impact fees (DIF). The project summaries are as follows:

- Alley- 5th to 6th (B to C), Alley- 13th to 14th (D to Chino), 12th St- Edison to Schaefer (generally between Central and Benson). FY 2018-19. $1,000,004.
- National Place- Oaks through Easement, Portsmouth St from Benson Ave to the east, Holly Ave-Walnut to the North, Walnut Ave- Benson to Oaks. FY 2019-20. $850,000.
- Oaks Ave-Walnut to Riverside, Walnut Ave-Oaks to Magnolia. FY 2020-21. $1,038,125.
- Grand Ave-Pipeline to Roswell, Roswell Ave-Grand Ave to Schaefer. FY 2021-22. $1,543,125.

Change in Policy on Out-of-Agency Service Delivery

LAFCO has authorized the City of Chino 27 out-of-agency service contracts (for a total of 92 connections) for wastewater service outside its boundary but within its sphere of influence (SOI). In response to this service review, the City has identified that it currently serves 73 parcels within its SOI outside its boundaries. Whereas not every parcel that has been

authorized for connection is currently connected, the out-of-agency service is tied to the parcel in perpetuity, or until annexed. Therefore, the City is obligated to provide sewer service ~~these~~ to the remaining 19 parcels in the SOI should the property ~~land~~owner request so and meet all requisites.

In 2006, the City adopted Resolution No. 2006-028 which stated that properties within the City's ~~sphere~~SOI may connect to the City's sanitary sewer system ~~under the following conditions:~~by either annexing into the City or, under certain circumstances, obtaining approval of an irrevocable agreement to annex. Since adoption of the resolution, ~~approximately~~ XXXseveral irrevocable offer agreements have been received by the City, but only one annexation has occurred relating to those agreements.
~~but no annexations have occurred.~~

~~1. If the sphere property is not adjacent to the City boundary, the owner of the property must execute and file an irrevocable agreement to annex to the City at such time as sufficient parcels can be assembled and qualify for annexation in accordance with LAFCO policy pertaining to such annexations.~~

~~2. If the sphere property is contiguous to the City boundary, the owner will be required to annex the parcel to the City, or, if this is determined to be infeasible, to execute an irrevocable agreement to annex.~~

~~3.~~1. ~~Finally, all sphere properties requesting sewer service must be developed in accordance with the City's general plan and in conformance with all of City codes and standards.~~

In 2016, recognizing ~~that~~ property owners were not pursuing annexation following the City's provision of sewer service to the ~~sphere~~ SOI properties, the City began to ~~deny requests~~no longer approve irrevocable agreements to annex and only approved ~~for~~ sewer services to property owners that were willing to go through the annexation process.[1] However, ~~LAFCO staff reiterates that~~ the City is still obligated to provide sanitary sewer service to any of the 19 parcel in the SOI already authorized by LAFCO, should the property landowner request so and meet any requisites.

In February 2018, the City adopted Resolution No. 2018-009 to further clarify its position pertaining to the City's sanitary sewer connection policy. The revised policy ~~now~~ states that SOI ~~sphere~~ properties may only connect to the City's sanitary sewer system if (a) the parcel is first annexed into the City, and (b) the parcel is developed in accordance with the City's General Plan provisions applicable to the affected area.

~~At its February 20, 2018 hearing, T~~the City of Chino authorized a request for proposals for an economic feasibility study on annexing its sphere of influence. According to the staff report for this item, ~~, b~~Because adequate access to sewer facilities is a pre-condition for

[1] City of Chino Agenda Item 8, page 2, from 6 February 2018.

most types of development, this change in policy has ~~triggered~~ resulted in several proposed annexations and land use changes within the ~~sphere~~SOI ~~in~~ over the last two years. The City ~~Council~~ is in the process of obtaining ~~has requested~~ a comprehensive economic analysis of the ~~sphere~~ SOI to assess in understanding different possible scenarios ~~the potential~~ for future~~, larger-scale~~ annexations. The analysis~~study~~ will look at several aspects, including costs for services, public improvements, existing land use, and tax revenues. A liability analysis will also be included. This information will help the Chino City Council with both discussions and decisions regarding future annexations of the ~~sphere~~SOI area. The projected completion of the analysis is January 2019.

Sources: City FY annual financial statements, FY 2017-18 budget, Sewer Master Plan
City agenda items from February 6, 2018 and February 20, 2018
LAFCO Files

City of Chino Hills

From: Tuerpe, Michael
To: "Mark Wiley"
Cc: Nadeem Majaj
Subject: RE: Chino Hills Update (LAFCO)
Date: Wednesday, June 13, 2018 3:42:00 PM

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. This email serves as response to your comments from your email below.

Your suggested corrections and additions have been made.

Your comment email and this response email will be included in Appendix A of the service review. Should you have any questions on this email or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Michael Tuerpe
Project Manager
Local Agency Formation Commission for San Bernardino County
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From: Mark Wiley [mailto:mwiley@chinohills.org]
Sent: Tuesday, June 5, 2018 8:30 AM
To: Tuerpe, Michael <mtuerpe@lafco.sbcounty.gov>
Cc: Nadeem Majaj <nmajaj@chinohills.org>
Subject: Chino Hills Update (LAFCO)

Hi Michael,
Thank you for hosting yesterday's LAFCO meeting, it was very informative. I wanted to give you an update to the draft regarding Chino Hills infrastructure as some of the information is slightly outdated. In Appendix B, Agency Updates on page B-7, City of Chino Hills, we currently have 203 miles of sewer lines, 8 lift stations and 4,812 manholes; all other data is accurate. Let me know if you have any questions or concerns.

Mark Wiley | Water and Sewer Manager
Public Works Department

14000 City Center Drive
Chino Hills, CA 91709

City of Montclair

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Project Manager

LA TRICI JONES
Clerk to the Commission

LEGAL COUNSEL

CLARK H. ALSOP

June 14, 2018

Nicole deMoet, Environmental Manager
City of Montclair
5111 Benito St.
Montclair, CA 91763

RE: Response to Comments regarding LAFCO Draft Countywide Service Review for Wastewater

Dear Ms. deMoet:

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. LAFCO and City staffs have worked together to identify the properties that the City provides service outside its boundary, but within its sphere of influence.

Additionally, at the June 4 meeting where the draft service review was discussed, it was agreed that on draft page III-9 the "Governance" factor has been reduced from a "Portion or Moderate" designation to "No or Low".

This letter will be included in Appendix A of the service review. Should you have any questions on this letter or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Sincerely,

MICHAEL TUERPE
Project Manager

MT/

MONTCLAIR

BUILD THE *GOLD LINE* TO MONTCLAIR

March 1, 2018

Mr. Michael Tuerpe
San Bernardino County LAFCO
Project Manager
1170 W. Third Street, Unit 150
San Bernardino, CA 92415-0490

Dear Mr. Tuerpe,

The City of Montclair has performed an initial review of the Countywide Service Review for Wastewater Service provided by the City of Montclair Sanitary Sewer System. The City compared an excel listing of information provided by LAFCO with existing sewer billing account information. The attached excel spreadsheet shows address information of properties that were not confirmed in comparing LAFCOs provided information with City of Montclair wastewater billing records.

The City's findings (per the Finance Division) indicate the following on our updated spreadsheet:

- Yellow – Valid, we are billing for sewer
- Red – Not Valid, sewer line not available
- Blue – Need further review
- Green – Street address updated if no address was initially provided

Due to the discrepancies noted between LAFCO and City of Montclair data, the Map showing LAFCO out-of-agency parcels provided wastewater service could not be confirmed. However, the City's Profile Sheet with CIWQIS Infrastructure data was confirmed to be accurate as well as the cash-flow summary data taken from the City of Montclair financial statements (per the Finance Division).

The City agrees that this service review is indeed an appropriate mechanism to verify out-of-agency wastewater service, however the City's review conflicted with LAFCO's information. The City will continue to work on verifying if there is in fact wastewater service provided at the parcels in question, and respectfully requests documentation and information that LAFCO has for those parcels to aid in our continued investigation. Upon receipt of the information from LAFCO and further investigation, the City will notify LAFCO of any new findings.

Should you have any questions on this information, please contact me at (909) 625-9446, or ndemoet@cityofmontclair.org. I look forward to working with you and the opportunity to resolve all outstanding information.

Sincerely,

Nicole deMoet
Environmental Manger

NdM/ndM

City of Rialto

LAFCO

June 13, 2018

Thomas Crowley, Utilities Manager
City of Rialto
150 South Palm Avenue
Rialto, CA 92376

RE: Response to Comments regarding LAFCO Draft Countywide Service Review for Wastewater

Dear Mr. Crowley:

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. LAFCO has received your comment letter dated June 5, 2018.

Your letter requests that the City of Rialto be included in the service review as a potential wastewater collection service provider for the Bloomington community. LAFCO staff has reviewed your suggestion and fully agrees. The Bloomington Opportunity discussion in Section III has been revised to include the City of Rialto as a wastewater collection and treatment option.

At the June 4 meeting where the draft service review was discussed, LAFCO and City staffs discussed the three properties that the City of Rialto provided service to outside its boundary prior to 2001. Additionally, the draft service review identifies in Appendix B the 1991 Rialto/Fontana Extraterritorial Wastewater Service Agreement. The final service review is being revised and will request that the Commission recognize that the three properties (to be identified in the report narrative) and the 1991 Agreement are exempt from LAFCO review. The revision to Section III is included as an attachment to this letter.

By letter dated May 8, 2017 from LAFCO to the City, eight other extraterritorial agreements were identified as being approved by the City without LAFCO approval. This service review cannot be the mechanism to bring these out-of-agency services into compliance since they do not qualify for an exemption. A copy of this letter was provided to the City on two occasions during this service review, and is attached to this letter. For these agreements, the service review recommends that the City initiate an Out-of-Agency Service application to LAFCO to encompass all of the City's other extraterritorial service agreements that have not been authorized by LAFCO.

Local Agency Formation Commission
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LEGAL COUNSEL

CLARK H. ALSOP

Your comment letter and this response letter will be included in Appendix A of the service review. Should you have any questions on this letter or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Sincerely,

MICHAEL TUERPE
Project Manager

MT/

Attachments

(8) City of Rialto – Recognition of Service outside Boundary

Prior to this service review, in correspondence with the City of Rialto, three properties have been identified as being served by the City of Rialto outside its boundary. These properties are identified as: 18777 Bloomington Avenue (existing storage facility), 18790 Valley Boulevard (existing multi-unit facility), and 18772 Valley Boulevard (existing Taco Bell).

Since 1991, through the Rialto/Fontana Extraterritorial Wastewater Service Agreement, the City of Rialto provides sewer treatment services to businesses and residents in the southeastern area of Fontana's jurisdiction. The sewer service area is within Fontana's city limits and the wastewater is conveyed to Rialto's treatment plant located within Rialto. The sewer collection system located in the southeast area of Fontana is owned and operated by the City of Fontana, up to the point of connection at the city boundaries between Fontana and Rialto. Fontana is responsible for billing residents and businesses and collecting monthly sewer service fees, which is roughly twice that of the City of Fontana rate. Fontana pays Rialto monthly sewer service fees per the agreement.

Additionally, by letter dated May 8, 2017 from LAFCO to the City, eight other extraterritorial agreements were identified as being approved by the City without LAFCO approval. This service review cannot be the mechanism to bring these out-of-agency services into compliance since they do not qualify for an exemption. A copy of this letter was provided to the City on three occasions during this service review.

Recommendation

LAFCO staff recommends that the Commission:

- *Determine that the three parcels identified above provided service by the City of Rialto are exempt from LAFCO review as they are an extended service that was provided on or before January 1, 2001. (Gov. Code §56133(e)(4).*

- *Determine that the 1991 Rialto/Fontana Extraterritorial Wastewater Service Agreement is exempt from LAFCO review as it is:*

  - *Service between two public agencies where the public service provided is an alternative to, or substitute for, public services already being provided by an existing public service provider (the City of Rialto) and where the service provided is consistent with the level of service of the existing service provider (the City of Rialto). (Gov. Code §56133(e)(1).*

  - *An extended service that was provided on or before January 1, 2001. (Gov. Code §56133(e)(4).*

SAMPLE

- *Request the City of Rialto to initiate an Out-of-Agency Service application to LAFCO to encompass all of the City's other extraterritorial service agreements that have not been authorized by LAFCO. Further, since these parcels are not related to current development, such a review would be delegated to the Executive Officer for approval, per LAFCO policy.*

SAMPLE

LAFCO

Local Agency Formation Commission
for San Bernardino County

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LEGAL COUNSEL

CLARK H. ALSOP

May 8, 2017

VIA EMAIL AND REGULAR MAIL

Robert G. Eisenbeisz, P.E., Director of Public Works/City Engineer
City of Rialto
150 S. Palm Avenue
Rialto, CA 92376

RE: Out of Agency Service Agreements

Dear Mr. Eisenbeisz:

In October 2016, we met to discuss the need for the City of Rialto (City) to bring into compliance its previously approved water or wastewater service agreements that are located outside its boundaries. As outlined in our meeting, State law requires that a city must first request and receive approval from LAFCO prior to providing new or extended service by contract or agreement outside its boundaries pursuant to Government Code Section 56133.

In reviewing the City's actions from the last few years, the following are the extraterritorial service agreements that the City has approved since 2013:

	Extraterritorial Service	Date of Approval
1.	Extraterritorial Sewer Service Agreement with Jeffrey & Debby Blackmon – 18311 Bohnert Avenue (existing single family residence)	3/12/2013
2.	Extraterritorial Sewer Service Agreement with San Bernardino County (CSA 70 Zone BL) Unincorporated area in Bloomington	12/10/2013
3.	Extraterritorial Sewer Service Agreement with Cedar Santa Ana Avenue 26, LLC – 10930 Cedar Avenue (development of Family Dollar retail store)	5/27/2014
4.	Extraterritorial Sewer Service Agreement with Carlos Rubio – 10533 South Larch Avenue (existing single-family residence)	8/26/2014
5.	Extraterritorial Sewer Service Agreement with Colton Joint Unified School District for Bloomington High School – 10750 Laurel Avenue (existing high school); and,	10/28/2014

6.	Extraterritorial Sewer Service Agreement with Colton Joint Unified School District for Slover Mountain High School – 18829 Orange Street (existing high school)	10/28/2014
7.	Extraterritorial Sewer Service Agreement with Extra Space Storage – 18777 Bloomington Avenue (existing storage facility)	8/25/2015
8.	Extraterritorial Sewer Service Agreement with JBM, LLC – 18790 Valley Boulevard (existing multi-unit facility)	9/22/2015
9.	Extraterritorial Water Service Agreement with City of San Bernardino – Properties at North Lassen Street (existing facilities)	10/13/2015
10.	Extraterritorial Sewer Service Agreement with James & Margaret Howard – 18772 Valley Boulevard (existing Taco Bell)	10/27/2015
11.	Extraterritorial Sewer Service Agreement with City of Fontana – 1420 North Tamarind (warehouse development)	2/23/2016
12.	Extraterritorial Sewer Service Agreement with Thrifty Oil Co. – APN 0253-171-16 (high-cube warehouse development)	4/12/2016

Of the twelve extraterritorial service agreements, only the sewer agreement between the City and the County of San Bernardino for CSA 70 Zone BL (Item #2 on the list) was submitted to LAFCO for review and authorization. The exemption request for this item was approved by the Commission on January 15, 2014.

The process to comply with the law requires that the City submit an application to LAFCO requesting the Commission's authorization to extend service outside the City's boundaries. For each request, LAFCO requires that the City submit: 1) a written request for authorization to serve outside your boundaries, 2) payment of appropriate filing fees, 3) and filing a completed application form including submission of a copy of the signed agreement/contract and maps of existing/proposed infrastructure to be extended. Attached to this letter are the Commission's policies related to Out-of-Agency Service Contracts and a copy of the application form for Extension of Service by Contract.

If you have any questions on this correspondence, please do not hesitate to contact me or Samuel Martinez, Assistant Executive Officer at (909) 388-0480 or by email at kmcdonald@lafco.sbcounty.gov or smartinez@lafco.sbcounty.gov.

Sincerely,

KATHLEEN ROLLINGS-McDONALD
Executive Officer

Attachments: 1. Chapter 2: Out-of-Agency Service Contracts (Section IV: Application Processing, San Bernardino LAFCO Policy and Procedure Manual)
2. Application for Extension of Service by Contract

cc: Michael E. Story, City Administrator, City of Rialto

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City of Rialto
California

June 5, 2018

Kathleen Rollings-McDonald, Executive Director
Local Agency Formation Commission for San Bernardino County
1170 West 3rd Street, Unit 150
San Bernardino, CA 92415-0490

RE: LAFCO 3190 Countywide Service Review for Wastewater Draft Report

Dear Ms. Rollings-McDonald;

Thank you for the opportunity to review the Countywide Service Review for Wastewater (Collection, Treatment, Disposal) Draft Report. The City of Rialto (Rialto) appreciates your agency's willingness to engage, work with and receive feedback from others.

In reviewing the Draft Report, Rialto took particular notice of services for the Bloomington area south of the I-10 freeway. As stated under the Opportunities – West Valley Water District: Bloomington section on page III-14, "...West Valley Water District to provide wastewater collection with treatment provided by contract with the City of Rialto..."

Rialto respectfully requests to be included in the report as a potential wastewater collection service provider for the Bloomington area.

As a wastewater collection and treatment service provider already operating in the area, Rialto is in a unique position to efficiently serve the community with a Wastewater Treatment Plant located only a few miles away and is currently undergoing a $31 million expansion that will provide reliable capacity to meet the Community's needs for the next thirty years.

In addition, Rialto has already examined services for this area in our 2013 Master Plan, please see Figure 2-2 as attached, which identifies much of Bloomington as within our sphere of influence. With a planned update to the Master Plan, Rialto will identify needed infrastructure, additional treatment plant capacity (if

necessary) and estimated costs to provide service for our entire Community, including all of the Bloomington area.

Rialto also desires to participate in the proposed actions listed on page III-14. Specifically, Rialto would like to participate in the;

- Evaluation of potential sewer infrastructure needs,
- Development of the Community consensus for service,
- Bloomington Municipal Advisory Committee and other community meetings,
- Efforts to develop cost estimates for any infrastructure work needed and potential impacts to property owners, and
- Development of the strategy to fund and construct improvements, including seeking grant funds based on Bloomington and Rialto's shared disadvantage socio-economic status.

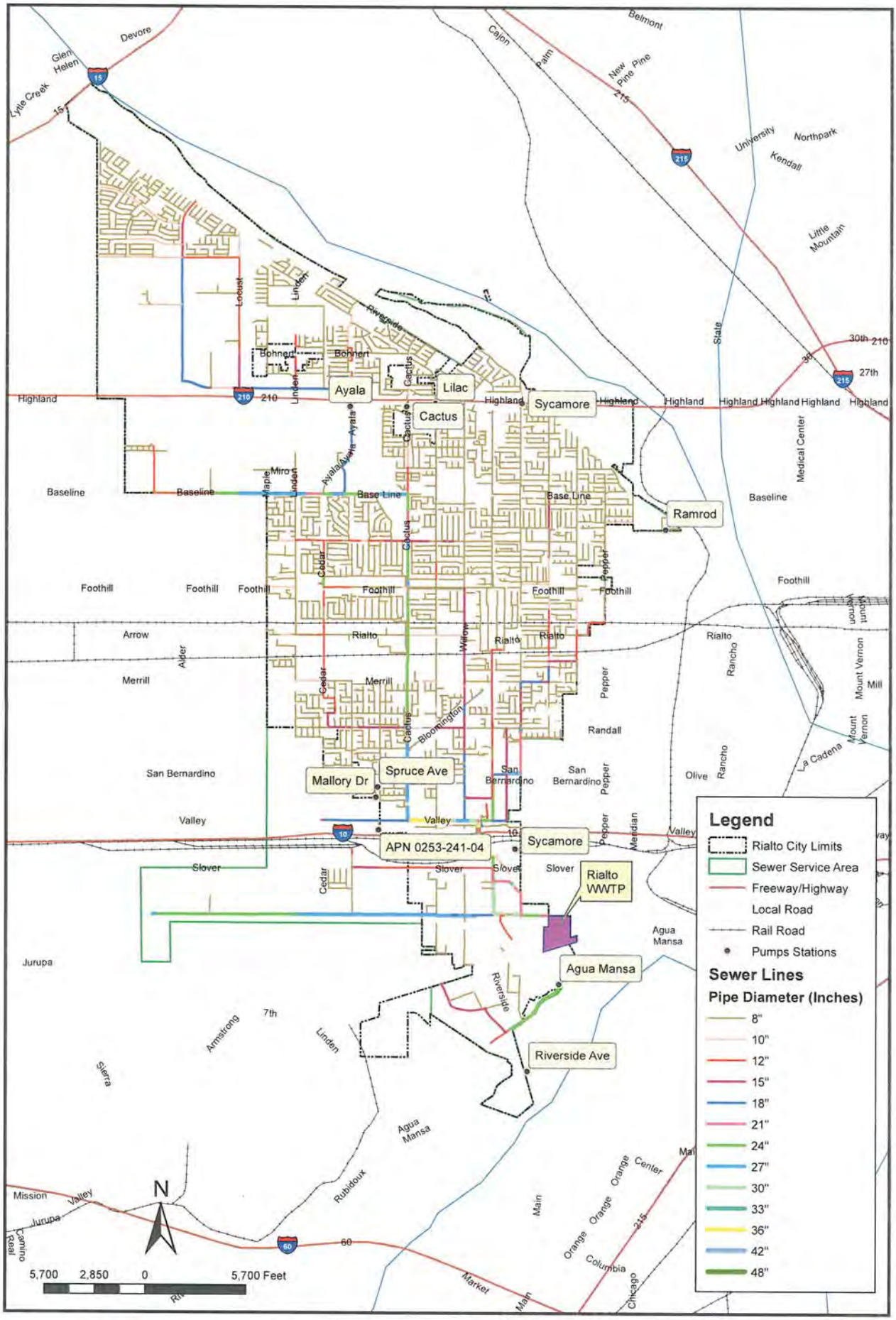
Furthermore, Rialto has a history of being a dynamic participant in this region of the Inland Empire. Most notably as a leader in the Agua Mansa Industrial Corridor (AMIGA) groups with our Mayor serving as a Chair for one group and as an active member of another group. The AMIGA groups promote community involvement to mobility, access and safety while promoting economic opportunity and environmental protection for the area generally defined by Interstate 10 to the north, State Route 60 to the south, Interstate 215 to the east, and Sierra Avenue/Armstrong Road to the west. As a leader on multiple fronts, we believe we can fulfill a valuable role in serving Bloomington in its entirety.

Again, we thank you for the opportunity to provide feedback on the Countywide Service Review for Wastewater Draft Report. If you have any questions, or would like any additional information on our services and how they can benefit Bloomington, please let me know. I can be reached at (909) 820-8056 or by email at tjcrowley@rialtoca.gov.

Sincerely,

Thomas J. Crowley

Thomas J. Crowley, P.E.
Utilities Manager



SAIC Energy, Environment & Infrastructure, LLC
6 Venture, Suite 290
Irvine, CA 92618
(949) 596-8980

Figure 2-2
Sewer Collection System
Rialto Sewer Master Plan

LAFCO

Local Agency
Formation Commission
for San Bernardino County

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Project Manager

LA TRICI JONES
Clerk to the Commission

LEGAL COUNSEL

CLARK H. ALSOP

June 12, 2018

Kevin Stewart, Director of Water Reclamation
City of San Bernardino, Municipal Water Department
P.O. Box 710
San Bernardino, CA 92402

RE: Response to Comments regarding LAFCO Draft Countywide Service Review for Wastewater

Dear Mr. Stewart:

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. LAFCO has received your comments dated June 8, 2018 and June 11, 2018.

June 8, 2018 Comments

As a part of the service review process, Municipal Water Department and LAFCO staffs have coordinated to identify the Department's wastewater service outside the City of San Bernardino boundary. This exercise identified connections outside the City boundary that have not been approved by LAFCO.

Your letter identifies three categories of service outside the City boundary:

1. Those that have been approved by LAFCO.
2. Those that have not been approved by LAFCO but were provided service prior to January 1, 2001.
3. Those that have not been approved by LAFCO but were provided service after January 1, 2001.

Your letter correctly outlines the agreed-upon mechanism to bring categories 2 and 3, identified above, into compliance. Section III of the service review has been revised to outline the mechanism for Commission consideration. Additionally, the City's service area map, a part of Appendix B, has been revised based upon the data attached to your letter.

June 11, 2018 letter

LAFCO staff has revised the service review to include or delete all of your suggested corrections.

Your comment letters and this response letter will be included in Appendix A of the service review. Should you have any questions on this letter or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Sincerely,

MICHAEL TUERPE
Project Manager

MT/

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT

CITY OF SAN BERNARDINO
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LOCAL AGENCY FORMATION COMMISSION

June 11, 2018

Mr. Michael Tuerpe
Project Manager
Local Agency Formation Commission (LAFCO)
1170 W. 3rd Street, Unit 150
San Bernardino, CA 92415-0490

Mr. Tuerpe,

The San Bernardino Municipal Water Department (Department) is in receipt of the San Bernardino County Local Agency Formation Commission's (LAFCO's) DRAFT countywide service review of wastewater collections and treatment. We have reviewed the DRAFT document and have the following requests for revision:

1. *Section: "City of San Bernardino – Municipal Water Department" – Header: "Tertiary Treatment" – Page B-29 – 2nd paragraph, 1st sentence.* "The RIX Facility, now co-owned and operated jointly by the cities of San Bernardino (80%) and Colton (20%), provides…"
    a. Since its inception, the RIX Facility has been jointly owned by SBMWD and Colton but exclusively operated by the SBMWD.
    b. SBMWD requests revision to "The RIX Facility is jointly owned by the cities of San Bernardino (80%) and Colton (20%) and exclusively operated by the San Bernardino Municipal Water Department. The RIX Facility provides…"
2. *Section: "City of San Bernardino – Municipal Water Department" – Header: "City of San Bernardino – Secondary Treatment" – Page B-30 – 3rd paragraph.* "San Bernardino's WRP recently completed the installation of a co-generation facility which uses methane gas produced during the treatment processes as a source of energy. This energy source is used to fuel two 750-watt generators which supply electricity to the WRP, reducing the amount of electricity required to be purchased for the operation of the WRP."
    a. This project was originally conceived and constructed as a beneficial use of digester gas to provide for the power needs of the WRP. Although the project was successful, recent emissions-reduction revisions to South Coast Air Quality Management District (SCAQMD) Rule 1110.2 have made it such that operation of this equipment will not be

1350 South "E" Street, San Bernardino, California 92408 P.O. Box 710, 92402 Phone: (909) 384-5141
FACSIMILE NUMBERS: Administration: (909) 453-6399 Customer Service: (909) 453-6396 Finance: (909) 453-6383 Engineering: (909) 453-6385
Corporate Yards: (909) 453-6389 Water Reclamation Plant: (909) 453-6395 Environmental & Regulatory Compliance: (909) 453-6391
Environmental Control: (909) 453-6394

allowed effective January 1, 2019. The Department will have to discontinue its use of this beneficial equipment and implement a far-more costly solution.

b. SBMWD requests deletion of this text.

3. *Section: "City of San Bernardino – Municipal Water Department" – Header: "City of San Bernardino – Secondary Treatment" – Page B-30 – 5th paragraph, 2nd sentence.* "With potential expansion, it is estimated that 34,200 acre feet per year of recycled water could be generated and used within the Department's service area."
   a. Due to recent challenges of the Water Board's Change of Use Petition as well as the recent work as part of the Upper Santa Ana River (USAR) Habitat Conservation Plan (HCP), the volume is not yet committed at this time.
   b. SBMWD requests deletion of this sentence.
4. *Section: "City of San Bernardino – Municipal Water Department" – Header: "City of San Bernardino – Major Capital Projects Planned" – Page B-31 – 1st paragraph, portion of final sentence.* "… and designing/constructing Primary Influent Flow Equalization."
   a. The Primary Influent Flow Equalization Project was conceived and designed to provide operational flexibility, with the assumption that the East Valley Water District (EVWD) would continue treatment of its wastewater at WRP. However, if EVWD constructs its Sterling Natural Resource Center (SNRC), the WRP will see a 27% reduction (6 million-gallons-per-day) in influent flow to the WRP. If the project were constructed at the scale designed, it would not function efficiently when any flow reduction were to occur. As such, the Department cannot proceed with this project at this time.
   b. SBMWD requests deletion of this portion of the sentence.

Should you have any questions regarding our comments, please contact me any time.

Respectfully,

Kevin T. Stewart, P.E.
Director of Water Reclamation
399 Chandler Place
San Bernardino, CA 92408
(909) 453-6213
kevin.stewart@sbmwd.org

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MUNICIPAL WATER DEPARTMENT

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June 8, 2018

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Ms. Kathleen Rollings-McDonald
Executive Officer
Local Agency Formation Commission (LAFCO)
1170 W. 3rd Street, Unit 150
San Bernardino, CA 92415-0490

Ms. Rollings-McDonald,

The San Bernardino Municipal Water Department (Department) is in receipt of several communications regarding unapproved extraterritorial service contracts discovered during LAFCO's countywide service review of wastewater collections and treatment. Based upon those communications and the verbal discussion with Project Manager, Mr. Michael Tuerpe at the recent June 4, 2018 meeting, the following is our understanding of the proposed steps to resolve the matter:

1. The Department will submit a written response containing:
    a. A letter (this document) memorializing the matter
    b. A common list identifying parcels that receive wastewater collections and treatment service but reside outside of our service boundaries. This list is separated into three (3) categories:
        i. Those that have been approved by LAFCO;
        ii. Those that have not been approved by LAFCO but were provided service prior to the 2001 cutoff date;
        iii. Those that have not been approved by LAFCO but were provided service after the 2001 cutoff date.
    c. A map indicating the parcels identified in the list above, separated in matching categories.
2. The parcels will be indicated in LAFCO's countywide service review of wastewater collections and treatment.
3. Upon notification to the Department of any approval of the countywide service review, SBMWD will submit a single application for a comprehensive service contract inclusive of

parcels that have not been approved by LAFCO, whether connection was provided prior to or following the 2001 cutoff date. This application will not include any parcels for which service was not already being provided as of the January 25, 2018 receipt of the countywide service review documentation. Those parcels that were not connected as of that date will be submitted in compliance with the standard LAFCO process for extraterritorial service contract review.

Our Staff has thoroughly reviewed all documents made available to the Department by the City of San Bernardino Public Works Department, as well as documents provided by LAFCO and those found in our billing system. As a result, it is my belief that the attached list is a true and accurate representation of all extraterritorial parcels receiving wastewater collection and treatment service. These thirty (30) parcels are categorized as follows:

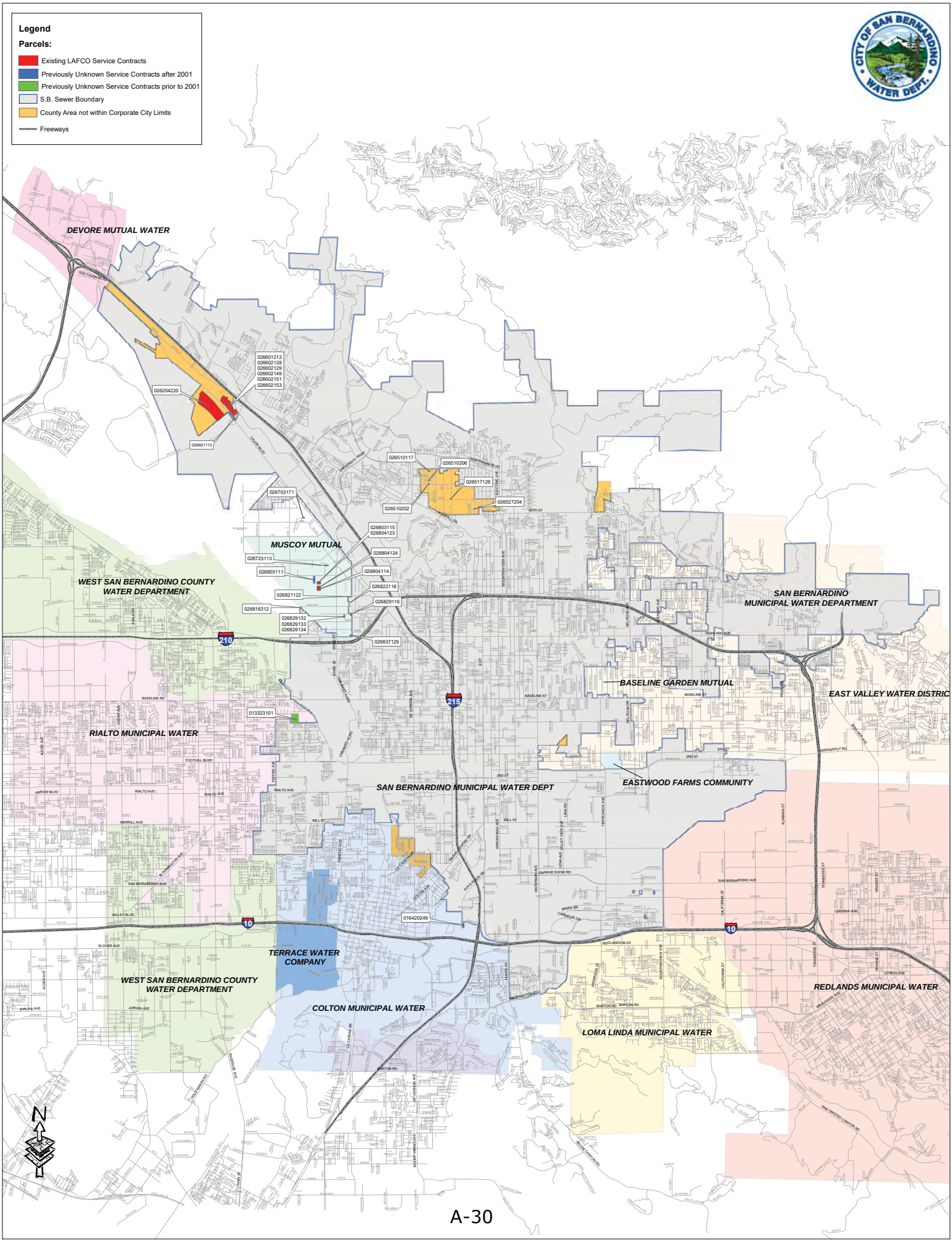
1. Twenty (20) parcels have previously been approved by LAFCO through fourteen (14) service contracts at twenty-one (21) site addresses (LAFCO Service Contracts 84, 157, 211, 217, 273, 284, 301, 307, 309, 314, 315, 367, 402 [3 parcels], 409 [6 parcels]).
    a. It is noted that Service Contract 409 (Owner: Palmken JJJ LLC) is a project site that is still currently vacant (no active sewer connection) and is comprised of six parcels (APNs 026-602-151; 026-602-149; 026-602-129; 026-602-128; 026-601-213; and 026-602-153). The final of these (026-602-153) is the one that LAFCO had associated with Service Contract 409.
    b. It is noted that Service Contract 301 for 4230 N. 4th Ave and Service Contract 314 for 4233 N. 4th Ave are both associated with APN 026-510-206.
2. Four (4) parcels were provided service in 1999 or 2000 but have not been submitted to LAFCO for review and approval. These are Assessor's Parcel Numbers 026-723-113; 013-323-101; 026-816-312; and 026-822-118.
3. Five (5) parcels were provided service between 2006 and 2017 but have not been submitted to LAFCO for review and approval. These are Assessor's Parcel Numbers 026-803-111; 016-420-249; 026-837-129; 026-821-122; and 026-527-204.
4. One (1) parcel is provided service by the Department, however, the Department is not able to determine the date of connection. This Assessor's Parcel Number is 026-601-113.

We appreciate your willingness to work closely with us to resolve this matter as quickly and efficiently as possible. Should you or your staff have any questions regarding the information provided or should my understanding of the prior communications require correction, please contact me any time.

Respectfully,

Kevin T. Stewart, P.E.
Director of Water Reclamation
399 Chandler Place
San Bernardino, CA 92408
(909) 453-6213
kevin.stewart@sbmwd.org

A-29



Date: 6/8/2018

Document Path: K:\Projects\Maps\Lafco_Sewer1.mxd

Service Contract #	Provider	Service	APN	Owner Name	Site Address	Site City	Site State	Site Zip	Year
84	City of San Bernardino MWD	Sewer	026510202	MO, ROGER	1128 W. 48TH ST	San Bernardino	CA	92407	
157	City of San Bernardino MWD	Sewer	026204220	COUNTY OF SAN BERNARDINO	19777 CAJON BLVD	San Bernardino	CA	92407	
211	City of San Bernardino MWD	Sewer	026804124	SAN BERNARDINO COUNTY FIRE PROT DIST	2852 MACY ST	Muscoy	CA	92407	
217	City of San Bernardino MWD	Sewer	026829116	MARTINEZ, ALEJANDRO	1905 PORTER ST	San Bernardino	CA	92407	
273	City of San Bernardino MWD	Sewer	026703171	LEPE, JAIME	3752 DUFFY ST	San Bernardino	CA	92407	
284	City of San Bernardino MWD	Sewer	026803115	DONATELLI, THOMAS H	2910 MACY ST	San Bernardino	CA	92407	
301	City of San Bernardino MWD	Sewer	026510206	HERNANDEZ, JOSE MARTIN	4230 4TH AVE	San Bernardino	CA	92407	
307	City of San Bernardino MWD	Sewer	026517126	WINGO, MARK I	4102 LEUZINGER DR	San Bernardino	CA	92407	
309	City of San Bernardino MWD	Sewer	026804123	QUINTERO, MARCO A	2900 MACY ST	San Bernardino	CA	92407	
314	City of San Bernardino MWD	Sewer	026510206	GARCIA, VICTOR MANUEL	4233 N 4TH AVE	San Bernardino	CA	92407	
315	City of San Bernardino MWD	Sewer	026510117	LOZANO, ROBERT P	4285 W. 4TH AVE	San Bernardino	CA	92407	
367	City of San Bernardino MWD	Sewer	026804114	COUNTY OF SAN BERNARDINO	2818 MACY ST	Muscoy	CA	92407	
402	City of San Bernardino MWD	Sewer	026829132	MEDRANO, MARTHA A	1959 PORTER ST	San Bernardino	CA	92407	
402	City of San Bernardino MWD	Sewer	026829133	MEDRANO, MARTHA A	1959 PORTER ST	San Bernardino	CA	92407	
402	City of San Bernardino MWD	Sewer	026829134	MEDRANO, MARTHA A	1959 PORTER ST	San Bernardino	CA	92407	
409	City of San Bernardino MWD	Sewer	026602153	PALMKEN JJJ LLC	0 PALM AVE.	San Bernardino	CA	92407	
		Sewer	026601213	PALMKEN JJJ LLC	0 PALM AVE.	San Bernardino	CA		
		Sewer	026602128	PALMKEN JJJ LLC	0 PALM AVE.	San Bernardino	CA		
		Sewer	026602129	PALMKEN JJJ LLC	0 PALM AVE.	San Bernardino	CA		
		Sewer	026602149	PALMKEN JJJ LLC	0 PALM AVE.	San Bernardino	CA		
		Sewer	026602151	PALMKEN JJJ LLC	0 PALM AVE.	San Bernardino	CA		
	City of San Bernardino MWD	Sewer	026803111	SAN BERNARDINO CITY UNIFIED SCH DIST	2119 W. BLAKE ST.	San Bernardino	CA	92407	2006
	City of San Bernardino MWD	Sewer	016420249	PALAZZO FAMILY TRUST	1630 FAIRWAY DR	Colton	CA	92324	2007
	City of San Bernardino MWD	Sewer	026837129	FELIX FAMILY TRUST 2008	1910 W. HIGHLAND AVE	San Bernardino	CA	92407	2016
	City of San Bernardino MWD	Sewer	026821122	2986 CALIFORNIA AVE	2986 CALIFORNIA ST.	San Bernardino	CA	92407	2016
	City of San Bernardino MWD	Sewer	026527204	KANADY, KALEB RANDALL	4040 F ST	San Bernardino	CA	92407	2017
	City of San Bernardino MWD	Sewer	026723113	UNITED STATE/AMERICA AND ASSIGNEES	3173 KERRY ST.	San Bernardino	CA	92407	1999
	City of San Bernardino MWD	Sewer	013323101	RIALTO SCHOOL DISTRICT	ADDRESS UNKNOWN	San Bernardino	CA	92376	1999
	City of San Bernardino MWD	Sewer	026816312	MONTANO, MANUEL J	2295 MALLORY ST	San Bernardino	CA	92407	1999
	City of San Bernardino MWD	Sewer	026822118	MJGF AVILA LLC	2860 CALIFORNIA ST.	San Bernardino	CA	92407	2000
	City of San Bernardino MWD	Sewer	026601113	ATCHISON TOPEKA AND SANTA FE RR CO	NO ADDRESS AVAILABLE	San Bernardino	CA	92407	Unknown

City of Upland

LAFCO

Local Agency Formation Commission
for San Bernardino County

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LA TRICI JONES
Clerk to the Commission

LEGAL COUNSEL

CLARK H. ALSOP

June 13, 2018

Harrison Nguyen, P.E.
City of Upland
460 N. Euclid Avenue
Upland, CA 91786

RE: Response to Comments regarding LAFCO Draft Countywide Service Review for Wastewater

Dear Mr. Nguyen:

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. LAFCO has received your two comment emails dated June 6, 2018. We have reviewed your suggested edits/comments and have inserted them into the report in Appendix B.

During the service review processing, the City notified LAFCO of the 1982 agreement between the City of Upland and City of Claremont and the Los Angeles County Sanitation District. The service review will recommend that the Commission determine that the 1982 agreement is exempt from LAFCO review.

Additionally, following issuance of the draft service review, City staff notified LAFCO of the 2016 agreement with the City of Claremont, whereby the City of Upland provides wastewater collection services within the City of Claremont. The affected LAFCO for this matter is Los Angeles since determinations on the agreement relate to the area which the service will be delivered. LAFCO staff recommends that the City of Upland notify Los Angeles LAFCO (copied to this letter) of the 2016 agreement.

The revision to Section III of the service review is included as an attachment to this letter.

Your comment emails and this response letter will be included in Appendix A of the service review. Should you have any questions on this letter or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Sincerely,

MICHAEL TUERPE
Project Manager

MT/

Attachment

cc: Paul Novak, Los Angeles LAFCO

(7) City of Upland – Recognition of 1982 Service Agreement

A portion within the City of Upland called the "Claremont Service Area" cannot be served due to unavailability of the City's sewer mains. Instead, it is served by an inter-agency service agreement with the City of Claremont and the Los Angeles County Sanitation District. The agreement was approved in 1982 and expires in 2032. This tributary area flows into the Claremont sewer system for conveyance to the Los Angeles County Sanitation District treatment facilities. The Claremont service area comprises two sub-areas. The first is in the northeast corner of Monte Vista Ave. and Foothill Blvd., where 17 commercial and office buildings are situated. The second is primarily residential houses situated east of the county line, north of Huntington Drive, south of Arrow Route, and west of the College Park Development (bordering Monte Vista Ave. which is west of the San Antonio Channel).

Additionally, the City of Upland and City of Claremont entered into an agreement in December 2016 whereby the City of Upland would provide wastewater collection services within the City of Claremont to the area generally known as Sycamore Hills/ Bravepark/Parkview Specific Plan. The reason for the agreement is that it is more feasible for Upland to serve the area. As for wastewater treatment and disposal, the agreement identifies that the collected product will be delivered to the Inland Empire Utilities' treatment plant(s) via the City of Upland, as well the mechanism for cost recovery. The affected LAFCO for this matter is Los Angeles since determinations on the agreement relate to the area which the service will be delivered. LAFCO staff recommends that the City of Upland notify Los Angeles LAFCO of the December 2016 agreement.

Recommendation

LAFCO staff recommends that the Commission determine that the City of Upland 1982 agreement with the City of Claremont and Los Angeles County Sanitation District is exempt from LAFCO review as it is:

- *Service between two public agencies where the public service provided is an alternative to, or substitute for, public services already being provided by an existing public service provider (the City of Upland) and where the service provided is consistent with the level of service of the existing service provider (the City of Upland). (Gov. Code §56133(e)(1)*

- *An extended service that was provided on or before January 1, 2001. (Gov. Code §56133(e)(4)*

LAFCO staff recommends that the City of Upland notify Los Angeles LAFCO of the December 2016 agreement with the City of Claremont.

SAMPLE

From: Harrison Nguyen
To: Tuerpe, Michael
Subject: Upland Comment on the LAFCO Report for Service Review for Wastewater
Date: Wednesday, June 6, 2018 11:16:33 AM

Good Morning Michael,

We understand you're requesting comments (or concurrence) regarding the LAFCO report available via the link you indicated below. We reviewed the Upland-related pages (B-35 and 36 of the report), and please find our requested changes as below.

A portion within the City called the "Claremont Service Area" which cannot be served ~~by gravity~~ due to unavailability of ~~flow to~~ the City's sewer mains. Instead, it is served ~~, and is covered~~ by an inter-agency service agreement with the City of Claremont and the Los Angeles County Sanitation District. The agreement was approved in 1982 and expires in 2032. This tributary area flows into the Claremont sewer system for conveyance to the Los Angeles County Sanitation District treatment facilities. The Claremont service area comprises of two sub-areas. The first is in the northeast corner of Monte Vista Ave. and Foothill Blvd., where seventeen commercial and office buildings are situated. The second is primarily of residential houses~~, is~~ situated ~~defined as~~ east of the county line, north of Huntington Drive, south of Arrow ~~Hwy~~ Route, and west of the College Park Development (bordering Monte Vista Ave. which is west of the San Antonio Channel).

Other than that, we found the remaining Upland-related information acceptable.

Thanks for the opportunity to submit our comments.

Harrison Nguyen, P.E.
City of Upland – Public Works
909-291-2970

From: Tuerpe, Michael [mailto:mtuerpe@lafco.sbcounty.gov]
Sent: Wednesday, May 30, 2018 2:21 PM
Subject: LAFCO Service Review for Wastewater

Good afternoon,

Will anyone from the your agency be attending the LAFCO meeting to review the draft *Countywide Service Review for Wastewater*?

Monday, June 4, 2018 at 1:30 p.m.
Joshua Room, First Floor, County Government Center
385 North Arrowhead Avenue, San Bernardino

The link to the draft staff report is below (Valley Region):
http://www.sbclafco.org/Proposals/ServiceReviews/WWSR.aspx

Michael Tuerpe
Project Manager
Local Agency Formation Commission for San Bernardino County
1170 West Third Street, Unit 150
San Bernardino, CA 92415-0490
(909) 388-0488 Direct
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County Special Districts Department

From: Tuerpe, Michael
To: Beyeler, Jared
Cc: Samaras, Steve; Rigney, Jeff
Subject: LAFCO Response to SDD Comments
Date: Wednesday, June 13, 2018 10:19:00 AM
Attachments: image001.png

Jared,

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. This email serves as response to your comments from your email below.

Mountain Region and Valley Region
Your suggested corrections and additions have been made.

In a previous email you identified that in Table 4-3 (draft page IV-10), the 2nd to last entry on the table should read CSA 70 Zone GH (not CSA 70 Zone S-3), Lytle Creek North. This correction has been made.

North Desert Region
Your suggested corrections and additions have been made with the exception of CSA 64's population. The population figure you provide is vastly different than that in the CSA 64 2015 Urban Water Management Plan. Since the UWMP plan is an adopted document, the service review will maintain the 2015 population figure of 9,541 rather than 14,167, barring substantiation of an alternative population figure. However, the narrative will include the transient population language you included.

Your comment email and this response email will be included in Appendix A of the service review. Should you have any questions on this email or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Michael Tuerpe
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From: Beyeler, Jared

Sent: Monday, June 11, 2018 1:24 PM
To: Tuerpe, Michael <mtuerpe@lafco.sbcounty.gov>
Cc: Samaras, Steve <ssamaras@sdd.sbcounty.gov>
Subject: RE: Valley Sewer Districts

Good Afternoon Michael,

Attached are the Word documents for the three **Valley Sewer Service Review** zones (CSA 70 BL – Bloomington, CSA 70 GH – Glen Helen, CSA 70 S-3) with minor tracked changes. Please note that on page IV-10, there is a table at the bottom of the page and the 2nd to last entry on the table should read "CSA 70 Zone GH, Lytle Creek North" (instead of Zone S-3). Other than the tracked changes and the previous note, we're not submitting any further comments on the Valley Sewer Service Review.

If there is still time to submit comments on the **North Desert Sewer Service Review**, we have the following changes:

- CSA 42 – Oro Grande: Population should be approximately 351 (instead of 426). The number of sewer connections should be 96 (instead of 135).
- CSA 64 – Spring Valley Lake: Population should be approximately 14,167 (instead of 9,541). There is also a daily transient population greater than 10,000 per day due to the Victor Valley College campus. Also, the number of sewer connections is 3,837 (instead of the 4,228).
- CSA 70 SP-2 – High Country: Square Miles should be .84 (instead of 75.5). Population should be approximately 869 (instead of 1,340). Connections should be 235 (instead of 508).
- CSA 82 – Trona: Population should be approximately 2,268 (instead of 2,102). Connections should be 613 (instead of 588).

If there is still time to submit comments on the **Mountain Sewer Service Review**, we have the following changes:

- CSA 53B – Fawnskin: in the description of this district, we would like to add information regarding the vacuum system and station which is unique. The vacuum station has 4 vacuum pumps that draw sewage through approximately 6,000 feet of vacuum main pipeline.
- CSA 79 – Green Valley Lake: Miles of sewer line should be 21 (instead of 35). Also, due to the transient nature of the mountain communities, the population in this district can range from 400 to 3,933.

Thanks,

Jared

Jared Beyeler
Special Districts Department
Direct: 760-962-1505

Office: 760-955-9885
12402 Industrial Blvd. D6
Victorville, CA, 92395

Our job is to create a county in which those who reside and invest can prosper and achieve well-being.

www.SBCounty.gov

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Crestline Sanitation District

From: Tuerpe, Michael
To: "Ron Scriven"
Subject: RE: Outfall Conditional Assessment
Date: Wednesday, June 13, 2018 3:53:00 PM

Ron,

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. This email serves as response to your comments from your email below.

Following release of the draft service review, you provided a Conditional Assessment from March 2016. The District's narrative from Appendix C has been revised to include the following:

However, the District contracted with an engineering firm to perform an effluent outfall condition assessment to identify the current condition of its outfall pipeline. According to the report dated March 2016, no pipe segments were identified to require rehabilitation or replacement. Recommendations to consider for long-term monitoring and maintenance of the pipeline include: continuing to maintain air release valves, installing additional flow meters, maintaining pipeline access roads, storing repair couplings and pipe spools, and re-investigating the condition of the pipeline in 15 years.

You also provided coordinates of the treatment facilities. We have mapped the locations against the CSD boundaries and have included that image in the District's narrative.

Your comment email and this response email will be included in Appendix A of the service review. Should you have any questions on this email or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Michael Tuerpe
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From: Ron Scriven [mailto:rscriven@crestlinesanitation.com]
Sent: Tuesday, June 5, 2018 11:05 AM
To: Tuerpe, Michael <mtuerpe@lafco.sbcounty.gov>
Subject: Outfall Conditional Assessment

Attached you will find the Conditional Assessment of our outfall pipe completed in March of 2016 by Dudek engineering firm. Also attached you will find a table of the GPS coordinates of the Requested facilities as per our meeting on the 31st.

--
Ron Scriven
Operations Manager

Crestline Sanitation District
Office 1-909-338-1751
Cell 1-909-723-3075

Cucamonga Valley Water District

From: Tuerpe, Michael
To: "Praseetha Krishnan"
Cc: John Bosler; Eduardo Espinoza; Eric Grubb; "Addington, Matthew"
Subject: RE: CVWD Comments - Wastewater Review
Date: Wednesday, June 13, 2018 2:53:00 PM
Attachments: image001.png

Praseetha,

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. This email serves as response to your comments from your email below.

Your suggested corrections and additions have been made. Specifically, on draft page III-9 the "Septic Proximity to Impaired Water Body" factor has been reduced from a "Yes or High" designation to "No or Low". This is based upon the following from the City's LAMP. *"As of the adoption of this LAMP there are no impaired water bodies within the incorporated limits of the City of Rancho Cucamonga."*

I have copied Matthew Addington from the City of Rancho Cucamonga to this email.

Your comment email and this response email will be included in Appendix A of the service review. Should you have any questions on this email or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Michael Tuerpe
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From: Praseetha Krishnan [mailto:PraseethaK@cvwdwater.com]
Sent: Wednesday, May 30, 2018 5:18 PM
To: Tuerpe, Michael <mtuerpe@lafco.sbcounty.gov>
Cc: John Bosler <JohnB@cvwdwater.com>; Eduardo Espinoza <EduardoE@cvwdwater.com>; Eric Grubb <EricG@cvwdwater.com>
Subject: CVWD Comments - Wastewater Review

Hi Michael,

We have reviewed the draft wastewater review for CVWD and attached are our comments. District's service area is updated to 46 sq. miles with the recent boundary reorganization. Hope this will be reflected in any other document relevant to the District. Please let me know if you have any concerns or comments.

Thanks,

Praseetha Krishnan, P.E.
Associate Engineer
Cucamonga Valley Water District
Phone: (909) 987-2591

Table 3-2:
Hot Spot Summary – Valley Region

Key Code	● Yes or High ◑ Portion or Moderate	? Unknown ○ No or Low	CSA = County Service Area WD = Water District

Agency Boundary and/or Sphere	**Wastewater Agencies**				**Agency Sphere of Influence, beyond boundary**									
	Governance	**Collection System**	**Treatment System**	**Disposal System**	**Septic Prohibition by Water Board**	**Clusters of Septic Systems**	**Septic Proximity to Water Wells**	**Septic Proximity to Impaired Water Body**	**Within Disadvantaged Community**	**DWR Groundwater Basin Priority**	**Basin Population Growth**	**Other Matters Identified by LAFCO**	**Hot Spot, within Boundary**	**Hot Spot, within Sphere**
City of Chino	○	○	--	--	○	●	◑	◑	◔	High	◑	○		
City of Chino Hills	○	○	--	--	○	○	○	●	◔	High	◑	○		
City of Colton	○	○	○	○	○	●	◑	◑	●	High / Med	◑	○		
City of Fontana	○	○	--	--	○	●	●	○	◑	High	◑	○		
City of Grand Terrace	◑	○	--	--	◑	○	○	●	◔	High	◑	○		
City of Loma Linda	○	○	--	--	○	○	○	●	◔	High / Med	◑	○		
City of Montclair	◑	○	--	--	○	●	◑	◑	◑	High	◑	○		
City of Ontario	○	○	--	--	○	○	○	●	◑	High	◑	○		
City of Redlands	○	○	○	◑	○	●	◑	◑	◔	High / Med	◑	○		
City of Rialto	◑	○	○	◑	○	●	◑	◑	◑	High / Med	◑	○		
City of San Bernardino	○	○	○	○	○	●	◑	◑	●	High	◑	○		
City of Upland	◑	○	--	--	○	●	◑	◑	◑	High	◑	○		
CSA 70 BL	○	○	--	--	--	--	--	--	--	High	◑	○		
CSA 70 GH	○	○	○	◑	--	--	--	--	--	High	◑	○		
CSA 70 S-3	○	○	○	○	--	--	--	--	--	High	◑	○		
Cucamonga Valley WD	○	○	--	--	○	◑	◑	◑	○	High / Med	◑	○		
East Valley WD	○	○	--	--	○	○	○	◑	◑	High	◑	○		
Inland Empire Utilities Agency	○	○	○	○	--	--	--	--	--	High	◑	○		
Yucaipa Valley WD	○	○	○	○	○	○	○	◑	◑	Med	◑	○		

DRAFT

This should be NO or LOW - Complies with City of Rancho Cucamonga LAMP (Page IV-24)

Age of Pipelines

The table below identifies the miles of sewer pipeline of each collection agency and tabulates the percentage by 20-year range.[5] As shown, over 50% of the sewer pipelines in the Valley Region have been built or replaced since 1980. While there are some outliers in age, in general, the overall age of pipelines is good.

Table 4-4:
Age of Pipelines (in miles by 20-year range) – Valley Region

Agency	2000 +	1980-1999	1960-1979	1940-1959	1920-1939	1900-1919	Before 1900	Miles of Sewer
City of Chino	33	56	87	27	20	-	-	**223**
City of Chino Hills	10	152	41	-	-	-	-	**203**
City of Colton	-	13	201	-	-	-	-	**214**
City of Fontana	143	317	62	99	-	-	-	**621**
City of Grand Terrace	-	4	62	-	-	-	-	**66**
City of Loma Linda	19	17	28	2	-	-	-	**67**
City of Montclair	8	15	57	3	-	-	-	**84**
City of Ontario	24	172	189	142	24	18	24	**592**
City of Redlands	44	101	111	44	13	3	-	**316**
City of Rialto	14	142	71	57	-	-	-	**284**
City of San Bernardino	37	140	112	140	23	9	5	**468**
City of Upland	24	75	82	24	16	-	-	**222**
CSA 70 Zone GH	8	-	-	-	-	-	-	**8**
CSA 70 Zone S-3	-	11	-	-	-	-	-	**11**
Cucamonga Valley WD	95 ~~143~~	181 ~~267~~	142 ~~211~~	-	-	-	-	418 ~~621~~
East Valley WD	16	66	75	71	-	-	-	**228**
Yucaipa Valley WD	43	164	-	-	-	-	-	**207**
Total Miles of Sewer	**569**	**1,712**	**1,390**	**610**	**95**	**30**	**28**	**4,435**
Percent of Total Age	12.8%	38.6%	31.3%	13.8%	2.1%	0.7%	0.6%	**100%**

source: Regional Board CIWQS, as modified by LAFCO staff from percent to raw number

Contracting for Operations and Maintenance

City Contracts

Irrespective of contracting or joint powers agreements for wastewater treatment, in the Valley there is one instance of a public agency contracting for operations and maintenance.

> In January 2013, the City of Rialto awarded Veolia Water North America, a private company, a 30-year contract to manage the City's water and wastewater systems. All construction, operations, and customer service are performed by Veolia. Under the agreement the City retains full ownership of water and wastewater system assets, water rights and supply, and authority over rate-setting.

[5] The pipleline age information was obtained from the State Water Resources Control Board's (Water Board) California Integrated Water Quality System ("CIWQS") for each agency. This information is also a part of each agency's profile information in the appendices to this service review.

DRAFT

Please update the fiscal Indicator link as the comments from the District's Finance Dept.

Cucamonga Valley Water District[1]

Rancho Cucamonga and portions of Upland, Fontana and Ontario

Agency Information			
Principal Act	County Water District Law Water Code Division 12 - §30000 et. seq.	Year Formed	1955
Governance	5-member Board of Directors, elected at large	Square Miles	~~47~~ 46
Website	http://www.cvwdwater.com/	Population	200,466

LAFCO Authority	
Authorized Functions	Water and sewer
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/~~EastValley~~WD.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

CucamongaValley

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0.5		421			~~200~~ 270	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	37,712		0			37,712 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	23%	43%	34%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$24.12

Cash Flows	**2012**	**2013**	**2014**	**2015**	**2016**
Increase (Decrease) in Cash & Equivalents	($6,287,696)	($463,823)	$4,316,537	($3,105,468)	$836,883
Cash & Equivalents, End of Year	$17,419,997	$16,956,174	$21,272,711	$18,167,243	$19,004,126

Sources: CA State Water Resources Control Board CIWQS database

1. "Change in Cash and Cash Equivalents" - We need to update the Agency Response here, to:
The formula on the graph includes non-restricted (operating) and restricted (bond/capital lease-related) cash. The large increases in cash in 2013 and the smaller ones in 2009 and 2016 represent the issuance of bonds for Capital Improvement Projects in those years. Decreases in cash in 2014 and 2015 represent non-operating, bond/capital lease funded project expenses.
2. "Pension Payments (Post GASB 68: 2015 and beyond)" - LAFCO is only showing the CalPERS pension fund numbers. We have two supplementary smaller plans and I have provided information on those as well. If Michael doesn't want to include those, then I think we need to disclose something in the Agency Response section.

[1] In 2004 the Cucamonga County Water District formally changed its name to the Cucamonga Valley Water District.

DRAFT

CUCAMONGA VALLEY WATER DISTRICT

The Cucamonga Valley Water District ("CVWD") collection system spans ~~47~~ 46 square miles with a population of roughly 200,000, which includes approximately 38,000 sewer connections. CVWD's service area includes the City of Rancho Cucamonga, portions of the Cities of Upland, Ontario and Fontana, and some unincorporated areas of San Bernardino County. The District's wastewater collection system consists of approximately 400 miles of both gravity and pressure sewer pipelines and the associated manholes, two (2) small package lift stations, and thirteen (13) siphons. The age of pipelines is relatively young, with 50% constructed since 1980.

The District is composed of six independent sewer areas called sheds. The sewer sheds, and their related infrastructure systems of pipelines, lift stations, and siphons convey wastewater from the higher elevations in the northern part of the District sewer service area southerly and easterly towards IEUA Regional Water Reclamation Plant No. 1 and No. 4. The system conveys an estimated average of 12.5 million gallons per day of wastewater.

Cucamonga Valley Water District utilizes two CCTV vehicles to perform sewer line inspections of its ~~412~~ 421 mile sewer collection system. The monthly goal for this program is to inspect 64,000 linear feet per month. A component of the District's cleaning efforts includes utilization of a jet spray and routine chemical treatment to minimize the potential for sanitary sewer overflows due to root related problems.

The 2014 Sewer Master Plan identifies future sewer pipeline replacement costs and timeline. The schedule identifies that replacement of aging pipe, ranging from 1963 to 1983, would cost approximately $47 million and take until 2030 for completion.

The Sewer Fund has two large capital improvement projects that include a new sewer line in Hellman Avenue and a new sewer line in Hermosa Avenue. Funds for both come from capital reserves.

- Hellman Avenue - This project will construct a gravity sewer line across the channel to eliminate the existing siphon. The project was designed in FY 2016. However, because the project is crossing the channel, there is a lengthy permitting process with San Bernardino County Flood Control District and Army Corps of Engineers. The project commenced construction in Fall 2017 and is estimated to be completed in FY 2018. $2.3 million.

- Hermosa Avenue - This project will construct a gravity sewer line across the channel to eliminate the existing siphon. This project will also replace a segment of reinforced plastic mortar pipe in Hermosa Ave built in 1971. $1.1 million.

sources: District website
Water System Master Plan
Sewer Master Plan CIP
FY 2017-18 budget
LAFCO files

DRAFT

Treatment Systems and Municipal Collection Agencies	Function	Location in SB County	Approx. Pop.	Lateral Connections	Area (sq. miles)	Address
County Service Area 70 Zone S-3	Collection, Treatment	Lytle Creek	975	622	7	12402 Industrial Blvd, D-6 Victorville, CA 92395
Cucamonga Valley Water District	Collection	Rancho Cucamonga	200,466	37,712 ~~37,553~~	46 ~~47~~	10440 Ashford St. Rancho Cucamonga, CA 91730
East Valley Water District	Collection	Highland	104,457	20,506	30	31111 Greenspot Road Highland, CA 92346
Inland Empire Utilities Agency	Treatment	West Valley	875,000	--	239	6075 Kimball Avenue Chino, CA 91708
Yucaipa Valley Water District	Collection, Treatment	Yucaipa	44,745	16,000	40	12770 Second Street Yucaipa, CA 92399

Sources: CA State Water Resources Control Board CIWQS database, LAFCO Countywide Service Review for Water (2017), agency websites, Urban Water Management Plans

DRAFT

Joshua Basin Water District

From: Tuerpe, Michael
To: "Susan Greer"; "csauer@jbwd.com"
Subject: RE: Wastewater fees
Date: Thursday, June 14, 2018 1:13:00 PM

Curt and Susan,

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. This email serves as response to your comments from your email below.

Following release of the draft service review, LAFCO staff requested and you provided information on the wastewater capacity account and Wastewater Treatment Strategy. A summary of the Wastewater Treatment Strategy and an identification of the wastewater capacity account balance have been added to the District's narrative, a part of Appendix E.

Your comment email and this response email will be included in Appendix A of the service review. Should you have any questions on this email or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Michael Tuerpe
Project Manager
Local Agency Formation Commission for San Bernardino County
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From: Susan Greer [mailto:SGreer@jbwd.com]
Sent: Thursday, May 31, 2018 8:02 AM
To: Tuerpe, Michael <mtuerpe@lafco.sbcounty.gov>
Subject: FW: Wastewater fees

Hi Michael,

Curt asked that I follow up with you. I thought it would be easiest to provide some information in writing, and then I will follow-up with a call.

Attached, is a system printout of the wastewater capacity account. It agrees with the information you have provided below. Note that although we adopted our wastewater capacity fees in

September 2009, there was no purchase of a water meter in the wastewater area, until fiscal 2010/2011. And, there were no purchases of water meters in the wastewater area in 2014/2015 or 2015/2016. Note that the fee in excess of $1M in 13/14 is for the Hi-Desert Medical Center package treatment plan.

Our wastewater fee is applicable to only the high-density areas of the water district (closest to the downtown area.) Most of the new development is not occurring in those areas, so wastewater capacity fees are not due.

Susan Greer
Assistant General Manager/Controller
Joshua Basin Water District
Mailing: P O Box 675
Physical: 61750 Chollita Rd
Joshua Tree CA 92252
(760) 366-8438, ext. 225 telephone
(760) 366-9528 fax
www.jbwd.org
Find us on Facebook

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for
Environmental Protection

Lahontan Regional Water Quality Control Board

June 5, 2018

ECM: General San Bernardino County, LAFCO

Kathleen Rollings-Mcdonald, Executive Officer
Local Agency Formation Commission for
San Bernardino County
1170 West Third Street, Unit 150
San Bernardino, CA 92415-0490
kmcdonald@lafco.sbcounty.gov

Support for Countywide Service Review for Wastewater, North Desert and Mountain Areas, Local Agency Formation Commission for San Bernardino County

The California Regional Water Quality Control Board, Lahontan Region (Water Board) staff reviewed and supports the draft Countywide Service Review for Wastewater; North Desert and Mountain Areas, prepared by the staff of the Local Agency Formation Commission (LAFCO) for San Bernardino County, dated May 9, 2018.

LAFCO evaluated agencies providing wastewater collection or treatment services and determined that three agencies in the North Desert face significant challenges; City of Adelanto, Victorville Water District, and Victor Valley Wastewater Reclamation Authority. The report also identifies many areas where opportunities exist to expand, improve, or develop sewer collection and wastewater treatment infrastructure including: Phelan-Pinon-Hills, Wrightwood, and Yermo and portions of Apple Valley, Hesperia, and Victorville. Additionally, consolidating services is recommended in the Mountain areas such as the Hilltop communities (Running Springs, Arrowbear, and Green Valley Lake). Water Board staff supports these recommendations.

Many local agencies are proposing Local Agency Management Programs (LAMPs) to implement the State Board's Onsite Wastewater Treatment System (OWTS) Policy. These LAMPS require assessment every five years to determine whether, and to what extent, OWTS are affecting water quality. There is direct connection between these periodic assessments and recommendations made in the LAFCO wastewater service review for developing wastewater services.

Many parts of San Bernardino County within the Lahontan Region are rural or semi-urban. Adequately managed decentralized wastewater systems may provide cost-effective alternatives to expensive centralized systems and provide long-term options for protecting public health and water quality from pathogens and nutrients. To help

achieve our mission of protecting water quality, the Water Board works collaboratively with dischargers and agencies. We look forward to working with LAFCO, San Bernardino County, and other local agencies seeking improved wastewater treatment and disposal options to preclude these more restrictive measures.

In the future, please send all correspondence to lahontan@waterboards.ca.gov. We appreciate LAFCO's efforts to identify wastewater service problems and focus areas for future wastewater service solutions.

If you have any questions, please contact me at (760) 241-7404, patrice.copeland@waterboards.ca.gov, or Jehiel Cass, Senior Water Resource Control Engineer at (760) 241-2434, jehiel.cass@waterboards.ca.gov.

Patrice J. Copeland
Supervising Engineering Geologist

cc: Michael Tuerpe, LAFCO, mtuerpe@lafco.sbcounty.gov
Jason Phillipe, San Bernardino County Environmental Health Services, Jason.Phillippe@dph.sbcounty.gov
Steve Samaras, San Bernardino County Special Districts, ssamaras@sdd.sbcounty.gov
Chris Borchert, City of Victorville, cborchert@victorvilleca.gov
Brad Merrell, City of Barstow, bmerrell@barstowca.org
Patrick Carroll, Town of Apple Valley, pcarroll@applevalley.org
Tina Souza, City of Hesperia, tsouza@cityofhesperia.us
Susan Beeson, Santa Ana Water Board, susan.beeson@waterboards.ca.gov
Doug Wylie, Colorado River Water Board, doug.wylie@waterboards.ca.gov
Jehiel Cass, Lahontan Water Board, jehiel.cass@waterboards.ca.gov

RB6V/Shared/Units/Jays Unit/San Bernardino County/Support LAFCO Wastewater Review

Lake Arrowhead Community Services District

June 8, 2018

LAFCO

Catherine Cerri
Lake Arrowhead Community Services District
P.O. Box 700
Lake Arrowhead, CA 92352

RE: Response to Comments regarding LAFCO Draft Countywide Service Review for Wastewater

Local Agency Formation Commission
for San Bernardino County

1170 West 3rd Street, Unit 150
San Bernardino, CA 92415-0490
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MICHAEL TUERPE
Project Manager

LA TRICI JONES
Clerk to the Commission

LEGAL COUNSEL

CLARK H. ALSOP

Dear Ms. Cerri:

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. LAFCO has received your comments dated June 6, 2018.

Your letter points out a discrepancy in the service review of Lake Arrowhead's population and asks how the population for Lake Arrowhead was identified in the service review. The full-time population of 12,579 was obtained from the Draft Lake Arrowhead Communities Plan, which sources the 2014 American Community Survey 5-Year Estimates and ESRI. I have attached the appropriate page from that plan to this letter. Another source, ESRI Community Analyst, corroborates this figure, with an estimated 2017 population of 12,597.

The part time population of 2,404 was obtained from page 1-13 of the Lake Arrowhead CSD 2015 Urban Water Management Plan by subtracting the 2015 Full-Time Service Area Population (7,173) from the 2015 Aggregate Service Area Population (9,587).

The full-time population of 12,579 and part-time population of 2,404 are identified on pages VI-2 and C-36 of the draft service review. These figures will be consistently applied throughout the service review. Note that this does not include transient or weekend population influx.

LAFCO staff has inserted all of your other suggested corrections.

Additionally, your comment letter and this response letter will be included in Appendix A of the service review. Should you have any questions on this letter or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Sincerely,

MICHAEL TUERPE
Project Manager

MT/

Attachment

Location & Geography

The Lake Arrowhead Communities are located 23 miles north of the City of San Bernardino in the mountain area of the San Bernardino National Forest, with Crestline to the west and Bear Valley to the east.

Source(s): ESRI, San Bernardino County LUS

Figure 1: Area Map

Source(s): ESRI, San Bernardino County LUS

Key Census Data

Category	*Lake Arrowhead Communities*		*San Bernardino County*		*California*		*United States*	
	Number	*% of Total*	*Number*	*% of Total*	*Number*	*% of Total*	*Number*	*% of Total*
Population								
Total Population	12,579		2,078,586		38,066,920		314,107,084	
2020 Population Forecast	12,829 (+2.0%)		2,227,066 (+7.1%)		40,619,346 (+6.7%)		334,503,000 (+6.5%)	
Total Households	4,736		607,604		12,617,280		116,211,092	
Average Household Size	2.65		3.34		2.95		2.63	
Median Age	44.8		32.2		35.6		37.4	
Education								
High School Diploma	1,238	14.0%	330,613	26.3%	5,153,257	20.7%	58,440,600	27.95%
Education Past High School	2,953	33.5%	417,953	33.3%	7,400,714	29.8%	60,821,634	29.1%
Bachelor Degree or Higher	2,602	29.5%	336,315	26.8%	7,708,909	31.0%	61,206,147	29.3%
Housing								
Total Dwelling Units	11,921	n/a	703,737	n/a	13,781,929	n/a	132,741,033	n/a
Homeowner Occupied Units	3,361	28.2%	370,032	52.58%	6,908,925	50.1%	74,787,460	56.3%
Renter Occupied Units	1,375	11.5%	237,572	33.76%	5,708,355	41.4%	41,423,632	32.2%
Vacancy*	7,185	60.3%	96,133	13.7%	1,164,649	8.5%	16,529,941	12.5%
Median Year Structure Built	1973	n/a	1976	n/a	1974	n/a	1976	n/a
Income								
Median Household Income	$54,539	n/a	$54,100	n/a	$61,489	n/a	$53,482	n/a
Persons Below Poverty Level	663	7.5%	199,451	12.7%	3,354,518	11.2%	26,235,361	10.6%
Employed	4,439	90.7%	812,707	86.1%	16,890,442	89.0%	143,435,233	90.2%
Unemployed	455	9.3%	131,293	13.9%	2,084,564	12.3%	14,504,781	9.2%
Note: N/A indicates that the data is not available; n/a indicates that the category is not applicable								
*This figure may include seasonal households								

Table 1: Key Census Data

Sources: 2014 American Community Survey 5-Year Estimates and ESRI

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LOCAL AGENCY
FORMATION COMMISSION

Catherine Cerri, General Manager
(909) 336-7102
ccerri@lakearrowheadcsd.com

June 6, 2018

Kathleen Rollings-McDonald
Local Area Formation Commission for San Bernardino County
1170 W. 3rd St.
San Bernardino, CA 92415-0490

Re: 2018 Countywide Service Review for Wastewater

Dear Ms. Rollings-McDonald,

The Lake Arrowhead Community Services District (LACSD or District) has reviewed the Draft Countywide Service Review for Wastewater. We agree with the overall objectives related to our agency but noticed some discrepancies in the details.

Population in the mountain communities can be difficult to determine due to fluctuations between full-time and part-time residencies. There are also geographic differences between census tracts and agency boundaries. LACSD is continually trying to improve its population estimates and would be interested to learn how the populations were determined in the Service Review.

The census count in 2010 for the Lake Arrowhead census-designated place (CDP) was 12,424. This CDP is fairly contiguous with LACSD's sewer service boundaries but does not represent the water service area. The 2010 census stated that there were 2.7 people per household. With 10,400 residential sewer connections, LACSD's full-time population would be closer to 28,000 if all homes were occupied. We could then roughly estimate a 2010 part-time population of 17,600.

The United States Census Bureau does not calculate interim estimates for the Lake Arrowhead CDP so we used moderate assumptions in population growth to estimate a full-time population of 15,165 as stated in the District's 2017 Comprehensive Annual Financial Report. This method is suitable for rough estimates but the most significant driver for population in the mountain communities is the ratio of full-time residents to part-time residents which is mostly driven by economic conditions.

The population for LACSD was documented in the Service Review on the following pages. Also, page C-36 contains a statement that approximately half of the residential dwelling units are second homes. Using billing data, we estimate that number to be approximately one third.

Page	Full-time Population	Part-time Population
VI-15	20,054	
C-33	20,054	
C-36	12,579	2,404
F-4	20,054	

There are also some discrepancies in the number of sewer connections attributed to the District. As of June 30, 2017, LACSD had 10,655 sewer connections. In the Service Review, connection counts were stated as follows.

Page	Connections
C-33	10,712
C-36	10,500
F-4	10,712

Additionally, there are references to the "Grass Valley Golf Course" on pages C-37 and VI-16. The correct name is the "Lake Arrowhead Country Club."

Lastly, on page VI-16, the Design Flow of our plant is listed as 3.0 MGD. It should say 3.75 MGD as is correctly stated elsewhere in the Service Review. Also on the same page, there is a statement that our effluent is used for agriculture which is no longer accurate. Page C-37 of the Service Review states groundwater recharge as the more accurate use.

We appreciate the extensive work required to compile the amount of information that is provided in this Service Review. All of us at LACSD are committed to providing our community the best possible service and recognize LAFCO's dedication to the same.

Sincerely,

Catherine Cerri
General Manager

Attachments: Referenced pages from the Service Review
Reference pages from LACSD's Comprehensive Annual Financial Report

C. OVERVIEW OF WASTEWATER TREATMENT SYSTEMS

Of the Mountain Region's four major communities, two - Bear Valley and Hilltop - are provided sewer services through a regional treatment system. The Lake Arrowhead and Crest Forest communities are each served by a single wastewater collection and treatment agency.

Treatment Agencies

Within Crest Forest, the Crestline Sanitation District provides the community's primary sewer collection and treatment services. The District's service territory totals approximately 8.4 square miles in size with a population of approximately 9,000 residents. Sewage is discharged through separate collection systems to one of three treatment plants.

The Lake Arrowhead Community Services District serves an area of approximately 15 square miles and provides both collection and treatment service to Lake Arrowhead and its surrounding areas. The service population is approximately 20,054. The District operates two wastewater treatment plants, the Grass Valley Wastewater Treatment Plant and the Willow Creek Wastewater Treatment Plant/Laboratory. The Grass Valley Plant is the principal wastewater treatment facility for the District and treats approximately 1 MGD of municipal sewage.

The Running Springs Water District's treatment facility provides wastewater treatment and disposal for the entire Hilltop community, roughly 5,800 population in 2015. The adjacent wastewater collection agencies, CSA 79 and Arrowbear Park County Water District, have chosen to contract with Running Springs Water District for their respective wastewater treatment and disposal. In 2011, LAFCO determined that a single sphere of influence would be assigned for the Hilltop Community signaling the desire for a single service provider to serve the entire community.

Within Bear Valley, the Big Bear Area Regional Wastewater Agency ("BBARWA") is a joint powers authority which treats wastewater from its member agencies: the Big Bear Community Services District, the City of Big Bear Lake, and the County of San Bernardino on behalf of CSA 53 Zone B. The service area for BBARWA includes the entire Big Bear Valley (125 square miles), as represented by the exterior limits of CSA 53, and serves a population of approximately 25,500 in 2015. BBARWA's regional treatment plant operates at about 2.5 million gallons per day. Each underlying agency maintains and operates its own wastewater collection system and delivers wastewater to the BBARWA interceptor system for transport to the regional plant.

The table below provides a listing of each wastewater treatment system that has a design flow over 100,000 gallons per day. The table includes design flow, treatment type, disposal method, system summary, and if the entity disposes a recycled product. While some of the wastewater agencies are planning to expand their treatment capacity in the near future to be able to produce recycled water, others will continue to use their existing treatment facilities. For a table of wastewater treatment systems that have a design flow under 100,000 gallons per day (all are either septic or package plants) see *Table 6-5: Large OWTS - Mountain.*

Table 6-3:
Mountain Region Treatment Agencies

Treatment Agency	Design Flow (MGD)	Treatment Type Disposal Method System Summary	Recycled
Big Bear Area Regional Wastewater Agency	3.2	Secondary and tertiary effluent with and without disinfection Storage ponds in Lucerne Valley via outfall, Storage pond in Baldwin Lake Big Bear Valley Groundwater Management Zone Recycled water used for irrigation in Lucerne Valley and used for irrigation, dust control, construction water, and wildlife habitat restoration at Baldwin Lake	Y
Crestline Sanitation District	1.4	Secondary Recycled – Agriculture Outfall to Tapestry Project in Hesperia Trickling filter and activated sludge system	Y
Lake Arrowhead Community Services District	3.0	Tertiary, only when there is demand Within the Lake Arrowhead CSD boundary Grass Valley Golf Course Secondary Disposal of un-disinfected effluent via outfall to Hesperia disposal site for agricultural use Trickling filter pond system	Y
Running Springs Water District	1.0	Tertiary, Microfiltration Membrane Bioreactor ("MBR") system Discharged to ponds in the US Forest Service lands and used for spray irrigation of a greenbelt adjacent to the treatment plant	Y

source: Colorado, Lahontan, and Santa Ana Regional Boards

DRAFT

Age of Pipelines

The figure below identifies the miles of internal sewer transmission pipeline of each collection agency and tabulates the percentage by 20-year range.[4] As shown, only 26% of the sewer pipelines in the Mountain Region have been built or replaced since 1980. While there are some outliers in age, in general, the overall age of pipelines is fair.

[4] The pipeline age information was obtained from the State Water Resources Control Board's (Water Board) California Integrated Water Quality System (CIWQS) for each agency. This information is also a part of each agency's profile information in the appendices to this service review.

Lake Arrowhead Community Services District — Lake Arrowhead

Agency Information			
Principal Act	Community Services District Law Government Code Title 6, Division 3: §61100 et. seq.	Year Formed	1978
Governance	5-member Board of Directors	Square Miles	13
Website	http://www.lakearrowheadcsd.com	Population	20,054

LAFCO Authority	
Authorized Functions	Water, sewer
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/LakeArrowheadCommunityServicesDistrict.aspx
Service reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/MountainRegion/LakeArrowhead.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	4		200			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	10,712		0			10,712 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	5%	20%	50%	20%	5%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$49.97

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($4,507,173)	$33,346	($3,375,154)	$1,651,607	$1,079,227
Cash & Equivalents, End of Year	$13,116,113	$13,149,459	$9,774,305	$11,425,912	$12,505,139

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Documents
Lake Arrowhead CSD website

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LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT

The Lake Arrowhead Community Services District, formed in 1978, provides water and wastewater treatment services to customers in Lake Arrowhead and surrounding mountain communities which range in elevation from 4,500 feet to over 6,000 feet and encompass approximately 15 square miles. During the 1920s and 1930s, the Lake Arrowhead area was mainly a resort sprinkled with summer cottages. Tourism and outdoor recreation have become the primary economic generators for the area, with the area hosting approximately 2.4 million visitors per year. Today, Lake Arrowhead includes commercial areas oriented to tourists, seasonal residents, as well as year-round residents. Approximately half of the residential dwelling units in the area are second homes. Sewer operations are funded primarily by utility fees, but are augmented by property tax revenue.

Population

In 2015, the permanent population was 12,579, with an additional 2,404 part-time population. This does not count tourists. Today, the District serves approximately 10,500 wastewater connections, serving all the population types previously identified.

Collection System

Wastewater from homes and businesses is transported through the District's sewer collection system, by 200 miles of gravity sewer and four miles of pressure sewer. Additionally, the Lahontan Regional Board identifies the District's collection system as susceptible to infiltration and inflow.

The unsewered area is comprised of subdivided tracts, government land and large, undeveloped parcels. In these areas, septic tanks are used for sewage treatment and disposal. Since 1983, the discharge of waste from "new" leaching or percolation systems is prohibited under Lahontan Water Board Order No. 6-84-93 for Lake Arrowhead.[1]

Treatment and Disposal

The District operates two wastewater treatment plants, the Grass Valley Wastewater Treatment Plant and the Willow Creek Wastewater Treatment Plant/Laboratory. The Grass Valley WWTP is the principal wastewater treatment facility for the District. According to the District's Urban Water Management Plan (2015), approximately 1 MGD of municipal sewage is treated at the plant. At the plant, wastewater flows undergo primary and secondary treatment processes, followed by denitrification. Wastewater flows between 2011 and 2015 are shown in Table C-7 below. On a daily average, wastewater flows feeding the Willow Creek and Grass Valley Plants are below rated capacities.

[1] The prohibitions in the unincorporated areas of the Lahontan Region are presented in the Water Quality Control Plan for the Lahontan Region. The County is authorized to issue OWTS building permits in these exemption areas, usually without Lahontan Water Board's approval. Exemptions to prohibitions may be granted by the Regional Board when it determines that an OWTS (on a particular parcel) will not individually or collectively, directly or indirectly, affect water quality from continued system operation, and/or maintenance.

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Table C-7: Lake Arrowhead CSD Wastewater Flows

Year	Flows (MG)	WWTP Capacity (MGD)
2011	1,580	3.75
2012	1,231	3.75
2013	1,093	3.75
2014	1,142	3.75
2015	1,148	3.75
Avg:	1,239	---

Source: LACSD Urban Water Management Plan (2015)

Lake Arrowhead CSD operates with two discharge orders from the Lahontan Board.

1. Order R6V-2009-0037 authorizes disposal of secondary un-disinfected effluent to the Hesperia disposal sites. A portion of the secondary effluent is further treated as needed. The treated product is then pumped through a ten-mile outfall pipeline to the District's effluent management site in Hesperia. There, the treated effluent flows into percolation ponds, recharging underground aquifers of the Mojave River basin. Additionally, the Lahontan Regional Board identifies that the outfall line is aging and is nearing capacity.
2. Order R6V-2007-0022 authorizes the production and use of tertiary disinfected effluent within the Lake Arrowhead CSD boundary. Current, the only user is the Grass Valley Golf Course. The tertiary wastewater plant is only operated when there is water demand.

Discharge above 3,200 feet

The District's Master Water Recycling Requirements Permit from the Lahontan Regional Board was approved in June 2007 (Board Order No. R6V-2007-0022). In the past, Federal and state laws administered by the Lahontan Regional Board prohibited the use of recycled water in the District service area because the rules governing discharge of waters of a waste origin were not permitted to be used in locations above 3,200 ft in elevation. This was specifically stated in the Waste Discharge Prohibitions contained in Section 4.1 of the Basin Plan. In January 2003, the District made a request for a Basin Plan amendment that would allow the discharge of waters that are of waste origin above the 3,200-ft elevation. In September 2003, the Lahontan Regional Board recommended approval of the Basin Plan Amendment. The amendment was reviewed and approved by the State Water Resources Control Board and by the US EPA in 2004. These changes have allowed the District to proceed with the implementation of a recycled water program to initially supply approximately 1-mgd of recycled water for outdoor irrigation in the Grass Valley Basin.

The Basin Plan states the following: "The Discharge of waste to land or water within the following areas is prohibited (Figure 4.1-23): (a) the Silverwood Lake watershed; (b) Deep Creek watershed above elevation 3,200 feet; and (c) The Grass Valley Creek watershed above elevation 3,200 ft."

Effective March 24, 2004 the prohibition for the Mojave Hydrologic Unit was amended in the Basin Plan as follows: "An exemption to this prohibition may be granted by the Regional

MOUNTAIN REGION

Treatment Systems and Municipal Collection Agencies	Function	Location in SB County	Approx. Pop.	Lateral Connections	Area (sq. miles)	Address
Arrowbear Park County Water District	Collection	Hilltop	1,350	921	2	P.O. Box 4045 Arrowbear Lake, CA 92382-4045
Big Bear Area Regional Wastewater Agency	Treatment	Bear Valley	21,000	300	125	121 Palomino Dr PO Box 517 Big Bear City, CA 92314
Big Bear City Community Services District	Collection	Bear Valley	12,411	11,700	22	139 East Big Bear Blvd. Big Bear City, CA 92314
City of Big Bear Lake	Collection	Bear Valley	5,094	9,281	8	39707 Big Bear Blvd. P.O. Box 10000 Big Bear Lake, CA 92315
Crestline Sanitation District	Collection, Treatment	Crestline	9,000	6,478	8	24516 Lake Drive P.O. Box 3395 Crestline, CA 92325-3395
County Service Area 53 Zone B	Collection	Bear Valley	3,125	1,443	12	12402 Industrial Blvd, D-6 Victorville, CA 92395
County Service Area 79	Collection	Hilltop	2,577	1,222	2	12402 Industrial Blvd, D-6 Victorville, CA 92395
Lake Arrowhead Community Services District	Collection, Treatment	Lake Arrowhead	20,054	10,712	13	P.O. Box 700 Lake Arrowhead, CA 92352
Running Springs Water District	Collection, Treatment	Hilltop	5,632	2,867	4	P.O. Box 2206 Running Springs, CA 92382

Sources: CA State Water Resources Control Board CIWQS database, LAFCO Countywide Service Review for Water (2017), agency websites

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Table 4-4

Lake Arrowhead Community Services District
Demographic and Economic Statistics
Last Ten Fiscal Years

Fiscal Year Ended	Estimated Population (1)	San Bernardino County Population (in thousands) (2)	San Bernardino County Total Personal Income (in thousands) (3)	San Bernardino County Per Capita Personal Income(3)	School Enrollment (4)	San Bernardino County Unemployment Rate (5)
2008	11,726	2,045	61,161	30,524	5,025	8.0%
2009	12,075	2,057	59,992	29,788	4,789	12.9%
2010	12,424	2,033	61,147	29,950	4,559	14.2%
2011	12,783	2,065	64,250	31,121	4,300	13.4%
2012	13,152	2,064	66,752	32,072	4,015	11.9%
2013	13,532	2,069	68,387	32,747	3,889	10.1%
2014	13,923	2,084	69,488	32,892	3,826	9.0%
2015	14,325	2,104	75,403	35,431	3,587	7.1%
2016	14,739	2,139			3,478	6.6%
2017	15,165	2,160			3,404	6.1%

(1) Estimated full time residents based on 2000 & 2010 census. Interim growth is assumed to be constant. Peak holiday weekend population is estimated to be approximately 40,000.

(2) Source: California Department of Finance , E-1: State/County Population Estimates with Annual Percent Change, as of January 1st.

(3) Source: U.S. Department of Commerce, Bureau of Economic Analysis: Regional Economic Accounts for San Bernardino County. Statistics are available through 2014.

(4) Source: Rim of the World Unified School District

(5) Source: www.labormarketinfo.edd.ca.gov - Employment Development Department, Labor Market Information Division. Rates are annual averages.

Lake Arrowhead Community Services District **Table 5-3**

Operating and Capital Indicators

at June 30, 2017

Date of Incorporation		March 16, 1978
Annexation of Sewer System		June 7, 1983
Deer Lodge Park Assessment District Formation		April 1, 1995
Rimforest Water System Acquisition		October 1, 2014
Form of Government		Board/Manager
Number of employees		53.50
Area in square miles		15
Altitude		5,000 - 6,000 feet elevation
Number of Connections by Classification:		
Arrowhead Woods Water:	Residential	7,707
	Residential Irrigation	64
	Commercial/Institutional	139
	Commercial/Institutional Irrigation	8
	Fire Protection Services	424
	Total	8,342
Deer Lodge Park Water:	Residential	187
	Fire Protection Services	24
	Total	211
Rimforest Water:	Residential	262
	Commercial	34
	Fire Protection Services	4
	Total	300
Wastewater:	Residential	10,400
	Commercial/Institutional	255
	Total	10,655
Facilities and Services:		
Water System:	Wells	5
	Treatment plants	3
	Capacity	7.25 mgd
	Average daily demand	1.30 mgd
	Peak holiday weekend demand	6 mgd
	Miles of pipeline	125
	Source of supply:	Lake Arrowhead, local groundwater and imported
Deer Lodge Park Water:	Wells	2
	Capacity	.072 mgd
	Average daily demand	.030 mgd
	Miles of pipeline	6
	Source of supply	Local groundwater and imported
Rimforest Water:	Average daily demand	0.04 mgd
	Miles of pipeline	3.85
	Source of supply	Imported water
Sewer System:	Treatment plants	2
	Capacity	3.7 mgd
	Average daily demand	.942 mgd
	Peak holiday weekend demand	2.4 mgd
	Miles of pipeline	209

LAFCO

Local Agency Formation Commission
for San Bernardino County

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City Member

STAFF

KATHLEEN ROLLINGS-McDONALD
Executive Officer

SAMUEL MARTINEZ
Assistant Executive Officer

MICHAEL TUERPE
Project Manager

LA TRICI JONES
Clerk to the Commission

LEGAL COUNSEL

CLARK H. ALSOP

June 13, 2018

Doug Matthews, Director
Public Works Department
City of Victorville
14343 Civic Drive
PO Box 5001
Victorville, CA 92393-5001

RE: Response to Comments regarding LAFCO Draft Countywide Service Review for Wastewater

Dear Mr. Matthews:

Thank you for taking the time to review the draft Countywide Service Review for Wastewater. LAFCO and City staffs have been working together to update the draft staff report regarding the City/Water District portions of the service review. Your email dated June 12 provides suggested corrections to the draft service review.

LAFCO has reviewed your suggested corrections and has updated Section VII and Appendix D where appropriate. Attached to this email are excerpts from the final report that include the revisions made by LAFCO staff.

Your June 12 email and this response letter will be included in Appendix A of the service review. Should you have any questions on this letter or the service review in general, please feel free to contact me at mtuerpe@lafco.sbcounty.gov or 909-388-0488.

Sincerely,

MICHAEL TUERPE
Project Manager

MT/

Victorville Water District and City of Victorville

Substantiation

Collection System

The overall pipeline system is aging. An estimated one percent of the system's pipelines were installed from 1920 – 1939, three percent from 1940 – 1959, 18 percent from 1960 – 1979, 41 percent from 1980 – 1999, and the remaining 37 percent in year 2000 and later. However, the City has CCTV inspected the entire collection system in 2017 and has developed a five-year capital improvement plan to rehabilitate the collection system to correct structural deficiencies. The capital plan is incorporated into the sewer rate study and will be funded by sewer rates.

Matters with Lahontan Regional Board

In July 2016, the Lahontan Regional Water Quality Control Board issued an Administrative Civil Liability Complaint (No. R6V-216-0042) to the City of Victorville. The Complaint alleges violations by the City as a result of six separate unauthorized discharges of raw sewage into the surface waters of the Mojave River and/or its tributaries between March 2014 and May 2016. The violations also allege the City's failure to clean up raw sewage debris in a timely manner from the September 2015 discharge and the City's failure to properly manage, operate, and maintain all portions of its sanitary sewer system between March 2014 and December 2015. The Complaint assessed an administrative civil liability against the City in the amount of $6,300,250 pursuant to California Water Code Section 13385. According to the Lahontan Executive Officer's Report from November 2017, settlement negotiations are underway.

According to the Lahontan Executive Officer's Report from November 2017, the City's system experienced an unauthorized waste discharge in September 2017 of 22,500 gallons. The raw sewage release was caused by a 10-inch stainless steel bracket that created a debris blockage in the sewer main. The release flowed into a nearby storm water catch basin, and subsequently beneath Hesperia Road and into a wash on the north side of Hesperia Road. City personnel were notified and stopped the flow through the wash by constructing a soil berm approximately 100 yards from the spill entry point into the wash. City personnel were able to recover 200 gallons of raw sewage from the wash and 22,300 gallons percolated into the wash soils. Signs were posted outside of Coad Road as a precautionary measure to alert the public, and the area was disinfected.

Review of Rates, Financial Statements, and Current Budget

LAFCO staff has reviewed the District's budgets, financial statements, and 2018 rate study and has identified the following areas of financial concern. The items below were identified prior to the approved rate increase of June 19, 2018 – the rate increase is anticipated to cover future capital expenses and eliminate reliance of reserve spending (more discussion on the rate increase is below).

DRAFT

- Since July 2012, the Water District has increased rates by 13.5% while VVWRA rates increased by 38.5%. LAFCO staff reviewed the City's wastewater rates since 2002. From 2002 to 2012, the City increased wastewater rates accordingly with the VVWRA rate increases, with one exception of an increase in 2008.

- The current VVWRA single-family-residential ("SFR") residential rate of $26.10 consumes practically all of the Water District's current rate of $26.89. The remainder of $0.79 per EDU pays for the operations, maintenance, and capital costs of the Water District system. It is clear that the current rate structure is not sustainable.

- As stated in the FY 2016-17 audit, …"circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern." These circumstances described below.

- The routine practice of deficit spending has drawn down sewer fund reserves that currently total $17 million. However, sewer rates are proposed to be increased through the Proposition 218 process and have been calculated to resolve the fund reserve drawdown and fund planned capital replacement needs.

- The City has $22 million in capital improvement projects planned over the next five years that would be delayed without adequate funding. However, sewer rates are proposed to be increased to fund these capital projects.

City as a Whole

For the City as a whole, the FY 2016-17 audit identifies "emphasis of matters" in the Independent Auditor's Report. First, the Southern California Logistics Airport Authority has suffered recurring losses in recent years and has defaulted on a number of its recent debt payments. Second, the dissolution of redevelopment agencies creates additional uncertainty with respect to the SCLAA due to its dependence upon tax increment funding from the Victor Valley Economic Development Authority. Third, pension costs are expected to continue to rise annually. As stated in the audit, "These circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern."

Approved Rate Increase

On June 19, 2018, the City/Water District imposed increases to the wastewater rates. According to the City/District documentation regarding the rate increases, due to the lack of rate increases to match VVWRA rate increases, deferral of capital upgrades, inflation, and scheduled capital upgrades and improvements, the City and Water District adopted annual rate increases as follows:

Year	2018-19	2019-20	2020-21	2021-22	2022-23
Percent Increase	22.8%	15.0%	7.5%	7.5%	7.5%
Rate	$33.03	$37.98	$40.83	$43.89	$47.18

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Analysis

Cash flows and net position have had annual increases through 2016. The annual surplus was at the expense of reserve transfers, deferring capital upgrades, and lack of matching rate increase with VVWRA rates. Operations and maintenance and payments to VVWRA are increasing. If the June 2018 rate increases were not approved, then in due time, debt service and scheduled capital expenses would have been affected.

The routine practice of deficit spending has drawn down sewer fund reserves that currently total at $17 million. In addition, the City has $22 million in capital improvement projects planned over the next five years that would have been delayed without substantial rate increase of June 2018. Even with the rate increase, reserves would continue to decline through 2020 (to $1.8 million) and would not meet the target reserve balance until 2023. In response to the Draft Service Review, the City/District states that the approved Sewer Rate Study and five-year incremental rate increases will provide sufficient revenues to fund the five-year capital improvement plan, operation and maintenance costs, treatment costs, debt service, and maintain adequate reserves. A copy of the City/Districts comments is included as a part of Attachment A.

There is no organizational change that would assist the City or Water District. Further, the District's sphere of influence is not excessive beyond its boundary; therefore, this service review does not recommend for a sphere of influence update for the District. Rather, the solutions to the challenges that face the City and District are to come from within.

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Victorville Water District[1]/City of Victorville — Victorville

Agency Information			
Principal Act City District	 Government Code Title 4 - §34000 County Water District Law Water Code Division 12 - §30000 et seq.	Year Formed City District	 1962 2007
Governance	Victorville City Council Victorville City Council as the Board of Directors	Square Miles	85
Website	http://www.victorvilleca.gov	Population	128,005

LAFCO Authority	
Authorized Functions	Victorville Water District: Water and sewer
Fiscal Indicators City District	 http://www.sbclafco.org/FiscalIndicators/Cities/Victorville.aspx http://sbclafco.org/FiscalIndicators/SubsidiaryDistricts/VictorvilleWD.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/VictorvilleCommunity.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure (City owns and operates the collection system)							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	1.1		438			121	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	27,604		0			27,604 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	37%	41%	18%	3%	1%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$26.89

Cash Flows (Water District)	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($287,304)	$3,794,954	$4,270,991	$4,308,197	$2,746,040
Cash & Equivalents, End of Year	$1,554,775	$5,349,729	$9,620,720	$13,928,917	$16,674,957

Sources: Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017), LAFCO Files,
Agency Financial Statements, City of Victorville website, District email dated March 1, 2018

[1] The Victorville Water District was formed in 2007 by action of the Local Agency Formation Commission consolidating the City of Victorville Water Department, the Victor Valley Water District (formed in 1931) and the Baldy Mesa Water District (1965).

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VICTORVILLE WATER DISTRICT AND CITY OF VICTORVILLE

The City of Victorville is situated approximately 97 miles northeast of Los Angeles and 35 miles northeast of San Bernardino in the Victor Valley. The City was originally incorporated as a general law city on September 21, 1962 and reorganized as a charter city on July 18, 2008. According to the City's General Plan, the City is the region's most heavily populated urban area, consisting of residential land uses which range in density from one to 20 dwelling units per acre. Industrial land uses are generally concentrated within the northwestern corner of the City. Open space and some agricultural tracts are concentrated along the Mojave River corridor.

The City owns, operates, and maintains the collections lines which consists of 437 miles of gravity sewer lines, 1.1 miles of force mains, a population of roughly 97,000 with roughly 28,000 connections. The collected product flows to the VVWRA Wastewater Treatment Plant at six connection points or the Victorville Wastewater Treatment Plant. The sewer collection system sends an average of 10.7 MGD to the VVWRA and 1.5 MGD to the local treatment plant. The Victorville Wastewater Treatment Plant is owned, operated, and maintained by the City's subsidiary district, the Victorville Water District. The Victorville Water District was formed in 2007 by LAFCO action (LAFCO 2991) consolidating the City of Victorville's water operations), the Victor Valley Water District (formed in 1931) and the Baldy Mesa Water District (formed in 1965).

Local Treatment Plant

The Victorville Water District assumed operation of a 2.5-MGD wastewater treatment plant at the Southern California Logistics Airport ("SCLA") to process waste from three customers including Dr. Pepper Snapple Group, Plastipak, and the Federal Correctional Complex. The treatment plant is sized for treating 1.0 MGD of industrial wastewater flows and 1.5 MGD of sanitary flows from the City of Victorville. The treatment plant is designed in a modular fashion consisting of equalization, aeration and anaerobic sludge holding tanks and membrane bioreactor tanks. The effluent is discharged as recycled water (disinfected, tertiary recycled water as defined in California Code of Regulations (CCR), Title 22) for use as coolant at the High Desert Power Project and irrigation at Schmidt Park and ball fields at SCLA.

Capital Improvements

The District has embarked on an aggressive capital improvement plan for its sewer system. From 2008 to 2016, the following key projects have been completed:

- SCLA Sewer Trunklines – construction of 15 miles of trunkline sewer around the perimeter of the City's wastewater treatment plant, including an industrial trunkline from the Dr. Pepper/Snapple Group to the treatment plant. Cost: $8.5 million
- Mojave Sewer Emergency – repair two sections of trunkline sewer (between Brucite Rd and Cobalt Rd) with concrete encasements and new lines between manholes. Cost: $300,000

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- La Mesa/Nisqualli Interchange – relocation of existing trunklines and construction of extended sewer lines surrounding the new La Mesa/Nisqualli Freeway interchange. Cost: $1.4 million
- Center Street Sewer – sewer line replacement of unreinforced concrete pipe with 2,000 feet of 12" PVC. Cost: $300,000

According to the City agenda Item 1 from its February 27, 2018 hearing, some of the major capital expenses that were incurred in FY 2016-17 and 2017-18 are:

• Sewer Collection System Condition Assessment	$4,199,270
• Line 2.2 miles of structurally deficient sewer main	$ 511,000
Total	**$4,710,270**

Also, some of the planned major expenses to correct existing deficiencies in the sewer collection system are:

• Structural deficiencies identified in Sewer Master Plan	$1,499,000
• Capacity deficiencies identified in Sewer Master Plan	$5,352,000
• Sewer Cleaning Truck in 2019	$ 700,000
Total	**$7,551,000**

• Structural deficiencies identified in Condition Assessment	$2,122,000/year
• Capital Replacement at City's Industrial Wastewater Treatment Plant	$1,065,000/year
• Sewer and Cleaning and CCTV Inspection	$ 443,000/year
Total	**$3,630,000/year**

The overall pipeline system is aging. An estimated one percent of the system's pipelines were installed from 1920 – 1939, three percent from 1940 – 1959, 18 percent from 1960 – 1979, 41 percent from 1980 – 1999, and the remaining 37 percent in year 2000 and later. However, the City has CCTV inspected the entire collection system in 2017 and has developed a five-year capital improvement plan to rehabilitate the collection system to correct structural deficiencies. The capital plan is incorporated into the sewer rate study and will be funded by sewer rates.

Matters with VVWRA

In January 2016, the District began diverting roughly a million gallons of wastewater flow per day from the VVWRA plant to its own plant. The flow diversion has resulted in a reduction of operating and capital income to VVWRA.

Additionally, in April 2016 the City of Victorville informed VVWRA of its intent to withdraw from the VVWRA Service Agreement per the 30-year notice requirement (in essence withdrawing the City from VVWRA). VVWRA management's opinion is that the flow diversion will have a negative impact on VVWRA's operations and cash flows.

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Lahontan Regional Board

In July 2016, the Lahontan Regional Water Quality Control Board issued an Administrative Civil Liability Complaint (No. R6V-216-0042) to the City of Victorville. The Complaint alleges violations by the City as a result of six separate unauthorized discharges of raw sewage into the surface waters of the Mojave River and/or its tributaries between March 2014 and May 2016. The violations also allege the City's failure to clean up raw sewage debris in a timely manner from the September 2015 discharge and the City's failure to properly manage, operate, and maintain all portions of its sanitary sewer system between March 2014 and December 2015. The Complaint assessed an administrative civil liability against the City in the amount of $6,300,250 pursuant to California Water Code Section 13385. According to the Lahontan Executive Officer's Report from November 2017, settlement negotiations are underway.

According to the Lahontan Executive Officer's Report from November 2017, the City's system experienced an unauthorized waste discharge in September 2017 of 22,500 gallons. The raw sewage release was caused by a 10-inch stainless steel bracket that created a debris blockage in the sewer main. The release flowed into a nearby storm water catch basin, and subsequently beneath Hesperia Road and into a wash on the north side of Hesperia Road. City personnel were notified and stopped the flow through the wash by constructing a soil berm approximately 100 yards from the spill entry point into the wash. City personnel were able to recover 200 gallons of raw sewage from the wash and 22,300 gallons percolated into the wash soils. Signs were posted outside of Coad Road as a precautionary measure to alert the public, and the area was disinfected.

According to the Lahontan Executive Officer's Report from September 2017, the City of Victorville has verbally communicated with Water Board staff that they will not be submitting a LAMP. They plan to manage their OWTS program under the Policy's Tier 1 prescriptive siting and design requirements.

Review of Rates, Financial Statements, and Current Budget

LAFCO staff has reviewed the District's budgets, financial statements, and 2018 rate study and has identified the following areas of financial concern. The items below were identified prior to the approved rate increase of June 19, 2018 – the rate increase is anticipated to cover future capital expenses and eliminate reliance of reserve spending (more discussion on the rate increase is below).

- Since July 2012, the Water District has increased rates by 13.5% while VVWRA rates increased by 38.5%.

- The current VVWRA single-family-residential ("SFR") residential rate of $26.10 consumes practically all of the Water District's current rate of $26.89.

- As stated in the FY 2016-17 audit, …"circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern." These circumstances described below.

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- The routine practice of deficit spending has drawn down sewer fund reserves that currently total $17 million. However, sewer rates are proposed to be increased through the Proposition 218 process and have been calculated to resolve the fund reserve drawdown and fund planned capital replacement needs.

- The City has $22 million in capital improvement projects planned over the next five years that would be delayed without adequate funding. However, sewer rates are proposed to be increased to fund these capital projects.

Rates

LAFCO staff reviewed the City's wastewater rates since 2002. From 2002 to 2012, the City increased wastewater rates accordingly with the VVWRA rate increases, with one exception of an increase in 2008. Since July 2012, the Water District has increased rates by 13.5% while VVWRA rates increased by 38.5%, as shown in the table below.

The current VVWRA single-family-residential ("SFR") residential rate of $26.10 consumes practically all of the Water District's current rate of $26.89. The remainder of $0.79 per EDU pays for the operations, maintenance, and capital costs of the Water District system. It is clear that the former rate structure was not sustainable.

Table D-5:
Victorville Water District Rate History

Year	2009-10	2012-13	2014-15	2017-18
Victorville WD sewer rate	$23.70	$26.89	$26.89	$26.89
Portion that passed-through to VVWRA (EDU equivalent)	($15.65)	($18.84)	($20.54)	($26.10)
Victorville Water District rate increase, in comparison with VVWRA rate increase	Match	Match	None	None
Remainder for Victorville WD sewer	$8.05	$8.05	$6.35	$0.79

Cash Flows and Net Position

A review of the Water District's financial statements and FY 2017-18 budget identify that debt service and cash funded capital expenses are manageable under the current rate structure for the short-term. As shown, cash flows and net position have had annual increases through 2016. However, the annual increases generally were lower before 2016. The annual surplus was at the expense of deferring capital upgrades and lack of matching rate increase with VVWRA rates. Operations and maintenance and payments to VVWRA are increasing. If the June 2018 rate increases were not approved, then in due time, debt service and scheduled capital expenses would have been affected.

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Table D-6:
Victorville Water District Cash Flows

Cash Flows	2013	2014	2015	2016	2017
Cash flows from operations	4,158,142	4,195,923	4,087,071	4,369,679	1,443,148
Cash flows from non-capital financing	(285,016)	108,243	387,294	(412,337)	(5,955,768)
Cash flows from capital financing	(92,440)	(49,571)	(176,547)	(1,221,961)	(2,401,408)
Cash flows from investments	14,268	16,396	10,379	10,659	93,922
Net increase in cash & cash equivalents	3,794,954	4,270,991	4,308,197	2,746,040	(6,820,106)
Cash & cash equivalents, end of year	**5,349,729**	**9,620,720**	**13,928,917**	**16,674,957**	**9,854,851**

Table D-7:
Victorville Water District Net Position

Net Position	2013	2014	2015	2016	2017
Operating Revenues	15,176,409	14,957,948	16,022,089	13,549,489	11,542,150
Operating Expenses	(10,871,801)	(12,398,323)	(13,403,121)	(10,896,249)	(12,448,583)
Non-operating Rev (Expenses)	(222,697)	65,572	(160,568)	(1,053,480)	(108,445)
Capital Contributions	518,120	(16,898)	662,797	-	
Transfers In				-	
Transfers Out				(824,820)	
Change in Net Position	4,600,031	2,608,299	3,121,197	774,940	(1,014,878)
Net Position, End of Year	**56,324,692**	**58,932,991**	**63,584,880**	**64,359,820**	**63,344,942**
Note: 2015 beginning balance restated					

Authorization of Wastewater Function for the Victorville Water District

On December 21, 2011, the Local Agency Formation Commission approved LAFCO 3168 and adopted Resolution No. 3151 that authorized the activation of sewer function and services within the boundaries of the Victorville Water District. According to the application documents from the City/District, the reason for the application to LAFCO was to enable a lease agreement between the City and the District for the District to operate the City-owned collection lines. In turn this would enable grant and loan eligibility for the District.

Counter to the City/District application and Commission approval, the lease agreement has not been signed between the entities, and the City remains the owner and operator of the collection lines. In response to the Draft Service Review, the City/District staff state that there is no plan for the Water District to assume wastewater collection services, nor is there any plan for the City to lease the collection system to the Water District. The City/District's comments are included a part of Attachment A.

Currently, the District owns and operates the Victorville Wastewater Treatment Plant. However, the financial statements for the Victorville Water District do not separate the Water District's water activities from its Victorville Wastewater Treatment Plant activities. Therefore, it would seem that the Water District's financial statements should include, or

identify separately, its authorized, and actively provided, wastewater activities. In response to the Draft Service Review, the City/District staff state that the activities are accounted for separately within that fund.

Additionally, in 2009 the City of Victorville Southern California Logistics Airport Authority loaned the Victorville Water District $20,000,000 to partially fund the Wastewater Treatment Facility Project. LAFCO Resolution No. 3151 determined, pursuant to Government Code Section 56824.14, that the wastewater service will be repaid for its costs in operating the SCLA Industrial Waste Water Treatment Plant and that the mechanism for repayment of the funds expended in the construction and development of the facility will be returned to the District. According to the City of Victorville June 30, 2016 financial statements, page 69, in February 2013 this loan was repaid in full.

City as a Whole

For the City as a whole, the FY 2016-17 audit identifies "emphasis of matters" in the Independent Auditor's Report. First, the Southern California Logistics Airport Authority has suffered recurring losses in recent years and has defaulted on a number of its recent debt payments. Second, the dissolution of redevelopment agencies creates additional uncertainty with respect to the SCLAA due to its dependence upon tax increment funding from the Victor Valley Economic Development Authority. Third, pension costs are expected to continue to rise annually. As stated in the audit, "These circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern."

Approved Rate Increase

On April 3, 2018, the City/Water District approved resolutions regarding proposed increases to its wastewater and refuse collection rates. For wastewater, due to the lack of rate increases to match VVWRA rate increases, deferral of capital upgrades, inflation, and scheduled capital upgrades and improvements, the City and Water District is proposing annual rate increases for single-family-residences as follows:

Table D-8:
Victorville Water District Proposed Rate Increase, single-family-residence

Year	2018-19	2019-20	2020-21	2021-22	2022-23
Percent Increase	22.8%	15.0%	7.5%	7.5%	7.5%
Rate	$33.03	$37.98	$40.83	$43.89	$47.18

According to the rate study, the rate increase is necessary to return reserves to minimum target levels. The estimated cash balance at the end of Fiscal Year 2017/2018 was approximately $8.0 million. The routine practice of deficit spending has drawn down sewer fund reserves that currently total at $17 million. In addition, the City has $22 million in capital improvement projects planned over the next five years that would be delayed without adequate funding. Even with the rate increase, reserves would continue to decline through 2020 (to $1.8 million) and would not meet the target reserve balance until 2023. According to the City/District, the recently approved five-year incremental sewer rate increase is

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sufficient to fund five-year capital improvement costs, operation and maintenance costs, treatment costs, debt service, and maintain adequate reserves.

Sewer rate revenues also fund the Water District's wastewater treatment plant at Southern California Logistics Airport. The rate study recommended a unique annual permit fee for each of the four and other fees connected to the City's pre-treatment program due to unique wastewater needs of each customer.

sources: City of Victorville: website, General Plan, FY 2017-18 budget, financial statements
Victorville Water District: CIP, financial statements, Sewer Master Plan
LAFCO files
Mojave Water Agency UWMP
City of Victorville/Victorville Water District, Agenda Item 1 from 4-3-2018

SAMPLE

From:	Doug Mathews
To:	Tuerpe, Michael
Cc:	Brian Gengler
Subject:	RE: San Bernardino LAFCO - Countywide Service Review for Wastewater (North Desert Region)
Date:	Friday, June 8, 2018 1:05:08 PM
Attachments:	image003.png Section VII Portion.docx Victorville Water District.docx Victorville Water District3.docx

Good afternoon Michael,

Brian and I spent the last couple of days providing comments and changes on the documents you attached to the email below. I have attached our edited documents to this email. We are available to provide additional clarification or discuss any outstanding issues at your convenience. I can be reached by cell phone at 760-403-8105.

Thanks for the opportunity to discuss, review, and revise these documents.

Best regards,

Doug Mathews

Doug Mathews
Director of Public Works & Water
760.243.6332
PUBLIC WORKS DEPARTMENT
ENGINEERING | PUBLIC WORKS | UTILITIES | WATER

From: Tuerpe, Michael [mailto:mtuerpe@lafco.sbcounty.gov]
Sent: Wednesday, June 06, 2018 4:26 PM
To: Brian Gengler <BGengler@victorvilleca.gov>
Cc: Doug Mathews <DMathews@victorvilleca.gov>
Subject: RE: San Bernardino LAFCO - Countywide Service Review for Wastewater (North Desert Region)

Brian,

See attached for the appropriate sections. Insert suggested changes in track change format and add comments should you wish.

You will see that in the "Victorville Water District3" document, I have updated the portion related to the Water District's service authorization. The matter became more clear after yesterday's meeting. This is in track change format.

Michael Tuerpe
Project Manager
Local Agency Formation Commission for San Bernardino County
1170 West Third Street, Unit 150
San Bernardino, CA 92415-0490
(909) 388-0488 Direct
(909) 388-0481 Fax
www.sbclafco.org

CONFIDENTIALITY NOTICE:
This email and any files or attachments transmitted with it may contain privileged or otherwise confidential information. If you are not the intended recipient, or believe that you may have received this communication in error, please advise the sender via reply email and immediately delete the email you received.

From: Brian Gengler [mailto:BGengler@victorvilleca.gov]
Sent: Wednesday, June 6, 2018 4:17 PM
To: Tuerpe, Michael <mtuerpe@lafco.sbcounty.gov>
Cc: Doug Mathews <DMathews@victorvilleca.gov>
Subject: RE: San Bernardino LAFCO - Countywide Service Review for Wastewater (North Desert Region)

Michael,

Can you send us the Word doc. for the service review? That will be easier for us to show our comments.

Thanks, Brian

From: Brian Gengler
Sent: Wednesday, June 06, 2018 4:10 PM
To: 'Tuerpe, Michael'
Cc: Doug Mathews
Subject: RE: San Bernardino LAFCO - Countywide Service Review for Wastewater (North Desert Region)

Michael,

Thanks for sending the attachment. I am working with Doug Mathews on comments on the service review. We plan to send our comments to you by 5:30 pm tomorrow.

Last night the City Council approved the sewer rate increase as recommended on the City Council agenda. You can refer to item B3 on the agenda. The residential sewer rates shown in the service review are the same as the residential rates in the agenda item.

Brian

Victorville Water District

Substantiation

Collection System

The overall pipeline system is aging. An estimated 0 percent of the system's pipelines were installed from 1900 – 1919, 1 percent from 1920 – 1939, 3 percent from 1940 – 1959, 18 percent from 1960 – 1979, 41 percent from 1980 – 1999, and the remaining 37 percent in year 2000 and later. However, the City has CCTV inspected the entire collection system in 2017 and has developed a five-year capital improvement plan to rehabilitate the collection system to correct structural deficiencies. The capital plan is incorporated into the sewer rate study and will be funded by sewer rates.

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Commented [bg1]: How does Victorville compare with other agencies?

Matters with Lahontan Regional Board

In July 2016, the Lahontan Regional Water Quality Control Board issued an Administrative Civil Liability Complaint (No. R6V-216-0042) to the City of Victorville. The Complaint alleges violations by the City as a result of six separate unauthorized discharges of raw sewage into the surface waters of the Mojave River and/or its tributaries between March 2014 and May 2016. The violations also allege the City's failure to clean up raw sewage debris in a timely manner from the September 2015 discharge and the City's failure to properly manage, operate, and maintain all portions of its sanitary sewer system between March 2014 and December 2015. The Complaint assessed an administrative civil liability against the City in the amount of $6,300,250 pursuant to California Water Code Section 13385. According to the Lahontan Executive Officer's Report from November 2017, settlement negotiations are underway.

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According to the Lahontan Executive Officer's Report from November 2017, the City's system experienced an unauthorized waste discharge in September 2017 of 22,500 gallons. The raw sewage release was caused by a 10-inch stainless steel bracket that created a debris blockage in the sewer main. The release flowed into a nearby storm water catch basin, and subsequently beneath Hesperia Road and into a wash on the north side of Hesperia Road. City personnel were notified and stopped the flow through the wash by constructing a soil berm approximately 100 yards from the spill entry point into the wash. City personnel were able to recover 200 gallons of raw sewage from the wash and 22,300 gallons percolated into the wash soils. Signs were posted outside of Coad Road as a precautionary measure to alert the public, and the area was disinfected.

According to the Lahontan Executive Officer's Report from November 2017, there are pending Enforcement Cases against the City related to unauthorized discharges and failure to operate and maintain the sewer system.

Commented [bg2]: This is redundant and should be deleted.

Review of Rates, Financial Statements, and Current Budget

LAFCO staff has reviewed the District's budgets, financial statements, and rate study and has identified the following areas of financial concern:

Commented [bg3]: These bullet points should no longer be a concern since the rate increase was approved. The revenues will be sufficient to fund the 5-Year CIP, O&M costs, treatment costs, debt service, and maintain adequate reserves.

- Since July 2012, the Water District has increased rates by 13.5% while VVWRA rates increased by 38.5%. LAFCO staff reviewed the City's wastewater rates since 2002. From 2002 to 2012, the City increased wastewater rates accordingly with the VVWRA rate increases, with one exception of an increase in 2008.

- The current VVWRA single-family-residential ("SFR") residential rate of $26.10 consumes practically all of the Water District's current rate of $26.89. The remainder of $0.79 per EDU pays for the operations, maintenance, and capital costs of the Water District system. It is clear that the current rate structure is not sustainable.

- As stated in the FY 2016-17 audit, …"circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern." These circumstances described below.

- The routine practice of deficit spending has drawn down sewer fund reserves that currently total $17 million. However, sewer rates are proposed to be increased through the Proposition 218 process and have been calculated to resolve the fund reserve drawdown and fund planned capital replacement needs.

- The City has $22 million in capital improvement projects planned over the next five years that would be delayed without adequate funding. However, sewer rates are proposed to be increased to fund these capital projects.

City as a Whole

For the City as a whole, the FY 2016-17 audit identifies "emphasis of matters" in the Independent Auditor's Report. First, the Southern California Logistics Airport Authority has suffered recurring losses in recent years and has defaulted on a number of its recent debt payments. Second, the dissolution of redevelopment agencies creates additional uncertainty with respect to the SCLAA due to its dependence upon tax increment funding from the Victor Valley Economic Development Authority. Third, pension costs are expected to continue to rise annually. As stated in the audit, "These circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern."

Commented [bg4]: There is no loan from SCLAA to the water district or to the sewer fund and therefore these issues have no impact on the sewer funds or operations.

Proposed Rate Increase

On April 3, 2018, the City/Water District approved resolutions regarding proposed increases to its wastewater and refuse collection rates. For wastewater, due to the lack of rate increases to match VVWRA rate increases, deferral of capital upgrades, inflation, and scheduled capital upgrades and improvements, the City and Water District is proposing annual rate increases as follows:

Commented [bg5]: Rate increase was approved on June 5, 2018.

Year	2018-19	2019-20	2020-21	2021-22	2022-23
Percent Increase	22.8%	15.0%	7.5%	7.5%	7.5%

Rate	$33.03	$37.98	$40.83	$43.89	$47.18

Analysis

Cash flows and net position have had annual increases through 2016. The annual surplus was at the expense of reserve transfers, deferring capital upgrades, and lack of matching rate increase with VVWRA rates. Operations and maintenance and payments to VVWRA are increasing. In due time, this will affect debt service and scheduled capital expenses.

Commented [bg6]: The sewer rate increase will cover these expenses.

Of note, the Victorville Water District is the authorized agency to provide wastewater services. Yet, the financial statements for the Victorville Water District do not include the "Sanitary Fund", which activity is only found in the City's financial statements. On December 21, 2011, the Local Agency Formation Commission approved Resolution No. 3151 that approved the activation of sewer function and services within the boundaries of the Victorville Water District. Therefore, it would seem that the Water District's financial statements should include its authorized, and actively provided, wastewater activities.

Commented [bg7]: The IWWTP is accounted for separately and so is the sewer collection system.

The routine practice of deficit spending has drawn down sewer fund reserves that currently total at $17 million. In addition, the City has $22 million in capital improvement projects planned over the next five years that would be delayed without adequate funding. Even with the rate increase, reserves would continue to decline through 2020 (to $1.8 million) and would not meet the target reserve balance until 2023.

Commented [bg8]: This is in accordance with the approved sewer rate study and sewer rate increases.

There is no organizational change that would assist the City or Water District. Further, the District's sphere of influence is not excessive beyond its boundary; therefore, this service review does not recommend for a sphere of influence update for the District. Rather, the solutions to the challenges that face the City and District are to come from within.

Victorville Water District[1]

Victorville

Commented [DM1]: This should reflect the City of Victorville for the collection system, and the Victorville Water District for the Victorville Wastewater Treatment Plant.

Agency Information			
Principal Act	County Water District Law Water Code Division 12 - §30000 et seq.	Year Formed	2007
Governance	Victorville City Council as the Board of Directors	Square Miles	85
Website	http://www.victorvilleca.gov	Population	128,005

LAFCO Authority	
Authorized Functions	Water and sewer
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/SubsidiaryDistricts/VictorvilleWD.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/VictorvilleCommunity.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**		**Laterals**		
	1.1		438		121		
# of Sewer Connections	**Within Boundary**		**Outside Boundary**		**Total**		
	27,604		0		27,604 (lateral connections)		
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	37%	41%	18%	3%	1%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$26.89

Cash Flows	**2012**	**2013**	**2014**	**2015**	**2016**
Increase (Decrease) in Cash & Equivalents	($287,304)	$3,794,954	$4,270,991	$4,308,197	$2,746,040
Cash & Equivalents, End of Year	$1,554,775	$5,349,729	$9,620,720	$13,928,917	$16,674,957

Sources: Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Victorville website
District email dated March 1, 2018

[1] The Victorville Water District was formed in 2007 by action of the Local Agency Formation Commission consolidating the City of Victorville Water Department, the Victor Valley Water District (formed in 1931) and the Baldy Mesa Water District (1965).

VICTORVILLE WATER DISTRICT AND CITY OF VICTORVILLE

The City of Victorville is situated approximately 97 miles northeast of Los Angeles and 35 miles northeast of San Bernardino in the Victor Valley. The City was originally incorporated as a general law city on September 21, 1962 and reorganized as a charter city on July 18, 2008. According to the City's General Plan, the City is the region's most heavily populated urban area, consisting of residential land uses which range in density from one to 20 dwelling units per acre. Industrial land uses are generally concentrated within the northwestern corner of the City. Open space and some agricultural tracts are concentrated along the Mojave River corridor.

The City owns, operates, and maintains the collections lines which consists of 437 miles of gravity sewer lines, 1.1 miles of force mains, a population of roughly 97,000 with roughly 28,000 connections. The collected product flows to the VVWRA Wastewater Treatment Plant at six connection points or the Victorville Wastewater Treatment Plant. The sewer collection system sends an average of 10.7 MGD to the VVWRA and 1.5 MGD to the local treatment plant. The Victorville Wastewater Treatment Plant is owned, operated, and maintained by the City's subsidiary district, the Victorville Water District. The Victorville Water District was formed in 2007 by LAFCO action (LAFCO 2991) consolidating the City of Victorville's water operations), the Victor Valley Water District (formed in 1931) and the Baldy Mesa Water District (formed in 1965).

Local Treatment Plant

The Victorville Water District assumed operation of a 2.5-MGD wastewater treatment plant at the Southern California Logistics Airport ("SCLA") to process waste from three customers including Dr. Pepper Snapple Group, Plastipak, and the Federal Correctional Complex. The treatment plant is sized for treating 1.0 MGD of industrial wastewater flows and 1.5 MGD of sanitary flows from the City of Victorville. The treatment plant is designed in a modular fashion consisting of equalization, aeration and anaerobic sludge holding tanks and membrane bioreactor tanks. The effluent is discharged as recycled water (disinfected, tertiary recycled water as defined in California Code of Regulations (CCR), Title 22) for use as coolant at the High Desert Power Project and irrigation at Schmidt Park and ball fields at SCLA.

Capital Improvements

The District has embarked on an aggressive capital improvement plan for its sewer system. From 2008 to 2016, the following key projects have been completed:

- SCLA Sewer Trunklines – construction of 15 miles of trunkline sewer around the perimeter of the City's wastewater treatment plant, including an industrial trunkline from the Dr. Pepper/Snapple Group to the treatment plant. Cost: $8.5 million
- Mojave Sewer Emergency – repair two sections of trunkline sewer (between Brucite Rd and Cobalt Rd) with concrete encasements and new lines between manholes. Cost: $300,000

- La Mesa/Nisqualli Interchange – relocation of existing trunklines and construction of extended sewer lines surrounding the new La Mesa/Nisqualli Freeway interchange. Cost: $1.4 million
- Center Street Sewer – sewer line replacement of unreinforced concrete pipe with 2,000 feet of 12" PVC. Cost: $300,000

According to the City agenda Item 1 from its February 27, 2018 hearing, some of the major capital expenses that were incurred in FY 2016-17 and 2017-18 are:

• Sewer Collection System Condition Assessment	$4,199,270
• Line 2.2 miles of structurally deficient sewer main	$ 511,000
Total	**$4,710,270**

Also, some of the planned major expenses to correct existing deficiencies in the sewer collection system are:

• Structural deficiencies identified in Sewer Master Plan	$1,499,000
• Capacity deficiencies identified in Sewer Master Plan	$5,352,000
• Sewer Cleaning Truck in 2019	$ 700,000
Total	**$7,551,000**

• Structural deficiencies identified in Condition Assessment	$2,122,000/year
• Capital Replacement at City's Industrial Wastewater Treatment Plant	$1,065,000/year
• Sewer and Cleaning and CCTV Inspection	$ 443,000/year
Total	**$3,630,000/year**

The overall pipeline system is aging. An estimated one percent of the system's pipelines were installed from 1900 – 1919, two percent from 1920 – 1939, 20 percent from 1940 – 1959, 20 percent from 1960 – 1979, 27 percent from 1980 – 1999, and the remaining 30 percent in year 2000 and later.

Commented [DM1]: See comments from other document (Section VVII Portion).

Matters with VVWRA

In January 2016, the District began diverting roughly a million gallons of wastewater flow per day from the VVWRA plant to its own plant. The flow diversion has resulted in a reduction of operating and capital income to VVWRA.

Additionally, in April 2016 the City of Victorville informed VVWRA of its intent to withdraw from the VVWRA Service Agreement per the 30-year notice requirement (in essence withdrawing the City from VVWRA). VVWRA management's opinion is that the flow diversion will have a negative impact on VVWRA's operations and cash flows.

Lahontan Regional Board

In July 2016, the Lahontan Regional Water Quality Control Board issued an Administrative Civil Liability Complaint (No. R6V-216-0042) to the City of Victorville. The Complaint

alleges violations by the City as a result of six separate unauthorized discharges of raw sewage into the surface waters of the Mojave River and/or its tributaries between March 2014 and May 2016. The violations also allege the City's failure to clean up raw sewage debris in a timely manner from the September 2015 discharge and the City's failure to properly manage, operate, and maintain all portions of its sanitary sewer system between March 2014 and December 2015. The Complaint assessed an administrative civil liability against the City in the amount of $6,300,250 pursuant to California Water Code Section 13385. According to the Lahontan Executive Officer's Report from November 2017, settlement negotiations are underway.

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According to the Lahontan Executive Officer's Report from November 2017, the City's system experienced an unauthorized waste discharge in September 2017 of 22,500 gallons. The raw sewage release was caused by a 10-inch stainless steel bracket that created a debris blockage in the sewer main. The release flowed into a nearby storm water catch basin, and subsequently beneath Hesperia Road and into a wash on the north side of Hesperia Road. City personnel were notified and stopped the flow through the wash by constructing a soil berm approximately 100 yards from the spill entry point into the wash. City personnel were able to recover 200 gallons of raw sewage from the wash and 22,300 gallons percolated into the wash soils. Signs were posted outside of Coad Road as a precautionary measure to alert the public, and the area was disinfected.

According to the Lahontan Executive Officer's Report from November 2017, there are pending Enforcement Cases against the City related to unauthorized discharges and failure to operate and maintain the sewer system.

Commented [DM2]: This is redundant and should be deleted as it is stated in the first paragraph of this section.

According to the Lahontan Executive Officer's Report from September 2017, the City of Victorville has verbally communicated with Water Board staff that they will not be submitting a LAMP. They plan to manage their OWTS program under the Policy's Tier 1 prescriptive siting and design requirements.

Review of Rates, Financial Statements, and Current Budget

LAFCO staff has reviewed the District's budgets, financial statements, and rate study and has identified the following areas of financial concern:

Commented [DM3]: See comments from other document (Section VVII Portion).

- Since July 2012, the Water District has increased rates by 13.5% while VVWRA rates increased by 38.5%.
- The current VVWRA single-family-residential ("SFR") residential rate of $26.10 consumes practically all of the Water District's current rate of $26.89.
- As stated in the FY 2016-17 audit, …"circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern." These circumstances described below.
- The routine practice of deficit spending has drawn down sewer fund reserves that currently total $17 million. However, sewer rates are proposed to be increased

through the Proposition 218 process and have been calculated to resolve the fund reserve drawdown and fund planned capital replacement needs.

- The City has $22 million in capital improvement projects planned over the next five years that would be delayed without adequate funding. However, sewer rates are proposed to be increased to fund these capital projects.

Rates

LAFCO staff reviewed the City's wastewater rates since 2002. From 2002 to 2012, the City increased wastewater rates accordingly with the VVWRA rate increases, with one exception of an increase in 2008. Since July 2012, the Water District has increased rates by 13.5% while VVWRA rates increased by 38.5%, as shown in the table below.

The current VVWRA single-family-residential ("SFR") residential rate of $26.10 consumes practically all of the Water District's current rate of $26.89. The remainder of $0.79 per EDU pays for the operations, maintenance, and capital costs of the Water District system. It is clear that the current rate structure is not sustainable.

Commented [DM4]: The recently approved 5-year incremental sewer rate increase is sufficient to fund 5-Year CIP, O&M costs, treatment costs, debt service, and maintain adequate reserves.

Table D-5:
Victorville Water District Rate History

Year	2009-10	2012-13	2014-15	2017-18
Victorville WD sewer rate	$23.70	$26.89	$26.89	$26.89
Portion that passed-through to VVWRA (EDU equivalent)	($15.65)	($18.84)	($20.54)	($26.10)
Victorville Water District rate increase, in comparison with VVWRA rate increase	Match	Match	None	None
Remainder for Victorville WD sewer	$8.05	$8.05	$6.35	$0.79

Cash Flows and Net Position

A review of the Water District's financial statements and FY 2017-18 budget identify that debt service and cash funded capital expenses are manageable under the current rate structure for the short-term. As shown, cash flows and net position have had annual increases through 2016. However, the annual increases generally were lower before 2016. The annual surplus was at the expense of deferring capital upgrades and lack of matching rate increase with VVWRA rates. Operations and maintenance and payments to VVWRA are increasing. In due time, this could affect debt service and scheduled capital expenses.

Commented [DM5]: The recently approved 5-year incremental sewer rate increase is sufficient to fund 5-Year CIP, O&M costs, treatment costs, debt service,and maintain adequate reserves.

Table D-6:
Victorville Water District Cash Flows

Cash Flows	2013	2014	2015	2016	2017
Cash flows from operations	4,158,142	4,195,923	4,087,071	4,369,679	1,443,148
Cash flows from non-capital financing	(285,016)	108,243	387,294	(412,337)	(5,955,768)
Cash flows from capital financing	(92,440)	(49,571)	(176,547)	(1,221,961)	(2,401,408)
Cash flows from investments	14,268	16,396	10,379	10,659	93,922
Net increase in cash & cash equivalents	3,794,954	4,270,991	4,308,197	2,746,040	(6,820,106)
Cash & cash equivalents, end of year	**5,349,729**	**9,620,720**	**13,928,917**	**16,674,957**	**9,854,851**

Table D-7:
Victorville Water District Net Position

Net Position	2013	2014	2015	2016	2017
Operating Revenues	15,176,409	14,957,948	16,022,089	13,549,489	11,542,150
Operating Expenses	(10,871,801)	(12,398,323)	(13,403,121)	(10,896,249)	(12,448,583)
Non-operating Rev (Expenses)	(222,697)	65,572	(160,568)	(1,053,480)	(108,445)
Capital Contributions	518,120	(16,898)	662,797	-	
Transfers In				-	
Transfers Out				(824,820)	
Change in Net Position	4,600,031	2,608,299	3,121,197	774,940	(1,014,878)
Net Position, End of Year	**56,324,692**	**58,932,991**	**63,584,880**	**64,359,820**	**63,344,942**
Note: 2015 beginning balance restated					

Authorization of Wastewater Function for the Victorville Water District

On December 21, 2011, the Local Agency Formation Commission approved LAFCO 3168 and adopted Resolution No. 3151 that authorized the activation of sewer function and services within the boundaries of the Victorville Water District. According to the application documents from the City/District, the reason for the application to LAFCO was to enable a lease agreement between the City and the District for the District to operate the City-owned collection lines. Counter to the District's and City's application, the lease agreement has not been signed between the entities, and the City remains the owner and operator of the collection lines.

The District owns and operates the Victorville Wastewater Treatment Plant. However, the financial statements for the Victorville Water District do not separate the Water District's water activities from its Victorville Wastewater Treatment Plant activities. Therefore, it would seem that the Water District's financial statements should include, or identify separately, its authorized, and actively provided, wastewater activities.

Additionally, in 2009 the City of Victorville Southern California Logistics Airport Authority loaned the Victorville Water District $20,000,000 to partially fund the Wastewater Treatment Facility Project. LAFCO Resolution No. 3151 determined, pursuant to Government Code

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Commented [DM6]: After further scrutiny, the lease agreement was not determined to be a prudent option due to the economic climate at that time.

Commented [bg7]: It is our understanding that the Water District is not obligated to activate its sewer powers for the sewer collection system, and there is no plan to do so. There is no intent to lease the collection system to the Water District. Should the service plan be revised accordingly?

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Deleted: note, the Victorville Water District has been authorized to provide wastewater services. Yet,

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Deleted: the "Sanitary Fund", which activity is only found in the City's financial statements.

Moved up [1]: On December 21, 2011, the Local Agency Formation Commission adopted Resolution No. 3151 that approved the activation of sewer function and services within the boundaries of the Victorville Water District.

Commented [DM8]: Although the Victorville Wastewater Treatment Plant and Recycled Water Operations fall under the umbrella of the Victorville Water District, they are accounted for separately within that fund.

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Section 56824.14, that the wastewater service will be repaid for its costs in operating the SCLA Industrial Waste Water Treatment Plant and that the mechanism for repayment of the funds expended in the construction and development of the facility will be returned to the District. According to the City of Victorville June 30, 2016 financial statements, page 69, in February 2013 this loan was repaid in full.

Deleted: During FY 2016-17, the Water District received transfers of $311,522 from the City in order to provide the District its annual portion of revenue generated by the Waste Water Treatment Facility recorded in the Sanitary District fund.

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Inter-fund Activity

A loan agreement was signed on November 15, 2011 and renewed on August 8, 2016 by the City Council for a $6,335,780 advance from the Sanitary Fund to the Golf Course Fund.[1] The advance is due to negative cash balances in the Golf Course Fund which had accumulated over several years of expenses exceeding revenues. The advance has a term ending June 30, 2026, with the annualized Local Agency Investment Fund ("LAIF') rate of return as the interest rate. The outstanding balance of the advance as of June 30, 2017 is $6,485,381.

Commented [bg9]: It is anticipated that this loan will be paid in full next fiscal year per the latest draft budget.

City as a Whole

For the City as a whole, the FY 2016-17 audit identifies "emphasis of matters" in the Independent Auditor's Report. First, the Southern California Logistics Airport Authority has suffered recurring losses in recent years and has defaulted on a number of its recent debt payments. Second, the dissolution of redevelopment agencies creates additional uncertainty with respect to the SCLAA due to its dependence upon tax increment funding from the Victor Valley Economic Development Authority. Third, pension costs are expected to continue to rise annually. As stated in the audit, "These circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern."

Commented [bg10]: There is no longer a loan from SCLAA. If it was repaid, why is this a financial issue with the sewer treatment plant or the collection system? Why is it discussed in the service review?

Proposed Rate Increase

On April 3, 2018, the City/Water District approved resolutions regarding proposed increases to its wastewater and refuse collection rates. For wastewater, due to the lack of rate increases to match VVWRA rate increases, deferral of capital upgrades, inflation, and scheduled capital upgrades and improvements, the City and Water District is proposing annual rate increases for single-family-residences as follows:

Table D-8:
Victorville Water District Proposed Rate Increase, single-family-residence

Year	2018-19	2019-20	2020-21	2021-22	2022-23
Percent Increase	22.8%	15.0%	7.5%	7.5%	7.5%
Rate	$33.03	$37.98	$40.83	$43.89	$47.18

According to the rate study, the rate increase is necessary to return reserves to minimum target levels. The estimated cash balance at the end of Fiscal Year 2017/2018 was

[1] The 2010-11 financial statements identify the loan was from the Solid Waste Management Fund, not the Sanitary (Sewer) fund.

approximately $8.0 million. The routine practice of deficit spending has drawn down sewer fund reserves that currently total at $17 million. In addition, the City has $22 million in capital improvement projects planned over the next five years that would be delayed without adequate funding. Even with the rate increase, reserves would continue to decline through 2020 (to $1.8 million) and would not meet the target reserve balance until 2023.

Sewer rate revenues also fund the Water District's wastewater treatment plant at Southern California Logistics Airport. The rate study recommended a unique annual permit fee for each of the four and other fees connected to the City's pre-treatment program due to unique wastewater needs of each customer.

The City has initiated a Proposition 218 process to adjust the rates charged to customers. A public hearing is scheduled for June 5, 2018 to consider adopting changes to the rates and fees the City charges its customers for sewer/wastewater services.

sources: City of Victorville: website, General Plan, FY 2017-18 budget, financial statements
Victorville Water District: CIP, financial statements, Sewer Master Plan
LAFCO files
Mojave Water Agency UWMP
City of Victorville/Victorville Water District, Agenda Item 1 from 4-3-2018

Commented [DM11]: The approved Sewer Rate Study and 5-year incremental rate increases will provide sufficient revenues to fund the 5-Year CIP, O&M costs, treatment costs, debt service, and maintain adequate reserves.

Commented [DM12]: Approved by the City Council as there was no majority protest.

West Valley Water District

BOARD OF DIRECTORS

Dr. Clifford O. Young, Sr.
President, Board of Directors
Gregory Young
Vice President, Board of Directors
Dr. Michael Taylor
Director
Kyle Crowther
Director
Donald Olinger
Director

West Valley Water District

RECEIVED
2018 JUN 18 AM 10: 11
LOCAL AGENCY FORMATION COMMISSION

ESTABLISHED AS A PUBLIC AGENCY IN 1952

WEST VALLEY WATER DISTRICT'S MISSION IS TO PROVIDE A RELIABLE, SAFE-DRINKING WATER SUPPLY TO MEET OUR CUSTOMERS' PRESENT AND FUTURE NEEDS AT A REASONABLE COST AND TO PROMOTE WATER-USE EFFICIENCY AND CONSERVATION.

ADMINISTRATIVE STAFF

Robert Christman
Interim General Manager
Greg Gage
Assistant General Manager
Deborah L. Martinez
Interim Human Resources and Risk Manager
Crystal L. Escalera
Interim Board Secretary
Patricia Romero
Assistant Board Secretary

June 11, 2018

Mr. Michael Tuerpe
Project Manager
San Bernardino County Local Agency Formation Commission
1170 West 3rd Street, Unit 150
San Bernardino, CA 92415-0490

Subject: Countywide Service Review for Wastewater

Dear Mr. Tuerpe,

The West Valley Water District has reviewed the draft package prepared by the Local Agency Formation Commission (LAFCO) for its Countywide Service Review for Wastewater (LAFCO 3190). The District has the following comments regarding LAFCO 3190:

- In Section III, at Page III-14, the Countywide Service Review identifies "Opportunities – West Valley Water District: Bloomington". The report accurately notes that West Valley Water District is authorized to provide wastewater collection within its service area, including throughout Bloomington. West Valley Water District does not currently operate sewer collection facilities at any location within its service area. However, the District is prepared to consider operation of sewer collection facilities within the Bloomington area provided that an appropriate plan for service is developed which is acceptable to LAFCO and the District.

The District appreciates LAFCO's efforts to compile the Countywide Service Review for Wastewater, and the opportunity to provide its comments prior to the Commission's adoption of the document. We look forward to working with LAFCO and other stakeholders to develop an appropriate plan for service for the Bloomington Area.

If you have any questions regarding this issue, please contact Mr. Greg Gage, Assistant General Manager, at (909) 820-3702.

Sincerely,

WEST VALLEY WATER DISTRICT
Robert Christman
Interim General Manager

855 W. Base Line Rd., P.O. Box 920 | Rialto, CA 92377-0920
Ph: (909) 875-1804 | Fax: (909) 875-1849
www.wvwd.org

FAX (909) 875-7284 Administration
FAX (909) 875-1361 Engineering
FAX (909) 875-1849 Customer Service

APPENDIX B
Valley Service Review
Agency Updates

- Agency Profile
- Agency Map
- Narrative of Agency System

City of Chino

Chino

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1910
Governance	Separately elected mayor and 4 city council members elected by district	Square Miles	30.9
Website	http://www.cityofchino.org/	2017 Population	80,676
Services	Police, water, sewer, solid waste, community development, parks and community services, and general administrative services		

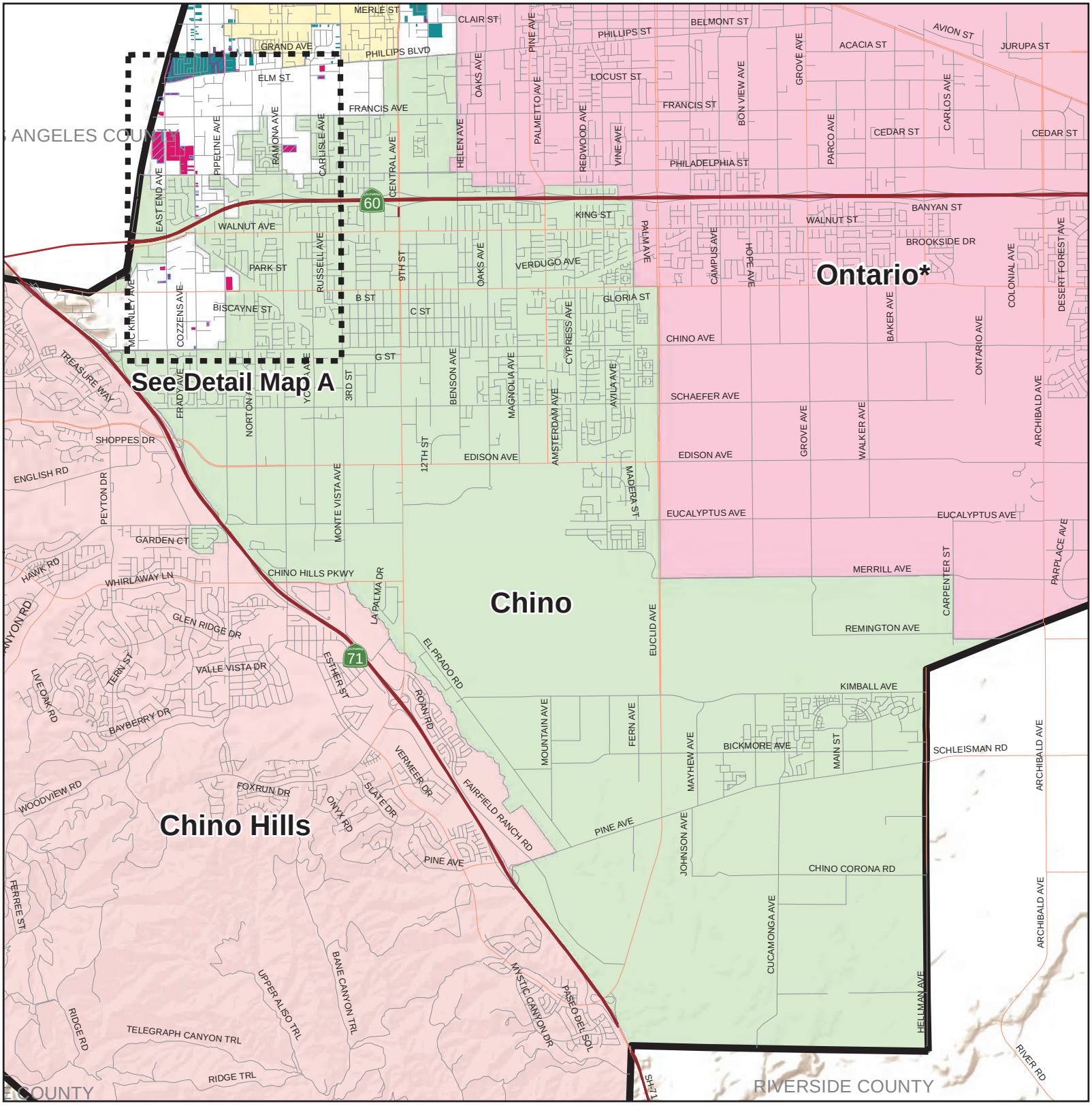
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/Chino.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0.49		223			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	19,973		73			20,046 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	15%	25%	39%	12%	9%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$31.94

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($895,517)	$4,530,159	$2,286,738	$1,980,014	$2,452,638
Cash & Equivalents, End of Year	$4,988,785	$9,518,944	$11,805,682	$13,785,696	$16,238,334

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Chino website
City of Chino letter dated February 14, 2018



City of Chino

0 0.5 1 2 Miles

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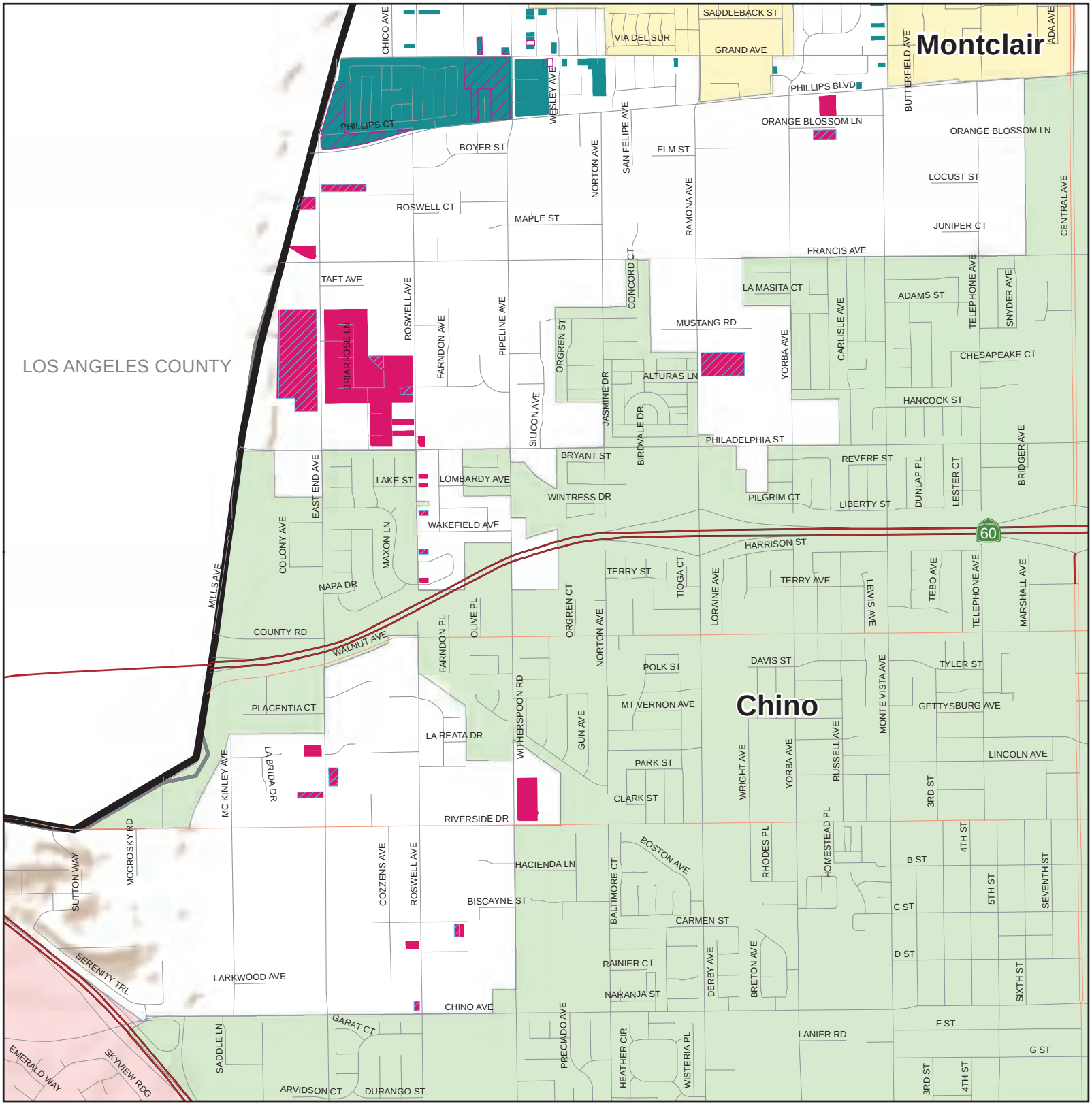
LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Chino
- City of Chino Hills
- City of Montclair
- City of Ontario
- City of Chino Service Contracts
- City of Chino Hills, Assumed Service into Pomona as a Condition of Incorporation
- City of Montclair Service Contracts
- City of Chino Service Contracts, LAFCO Authorized, but Service Undetermined
- City of Montclair Service Contracts, No Service Provided or Service Undetermined

Date Created: 6/11/2018



City of Chino Detail Map A

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*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

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- City of Chino
- City of Chino Hills
- City of Montclair
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- City of Chino Service Contracts, LAFCO Authorized, but Service Undetermined
- City of Montclair Service Contracts, No Service Provided or Service Undetermined

Date Created: 6/11/2018

CITY OF CHINO

The City of Chino sewerage system collects wastewater through an extensive system of gravity flow sewers and pressurized sewers (force mains) comprising 223 miles of lines. The system consists of trunk sewer systems ranging in size from 6 to 21 inches in diameter. The collection system conveys the entire City collected wastewater to Inland Empire Utilities Agency ("IEUA") for treatment and reuse, or disposal. The City of Chino's wastewater is currently treated at the IEUA Carbon Canyon Reclamation Plant and RP-5, with a small portion treated at Reclamation Plant RP-1.

The figure below shows the City's current and projected wastewater flows from 2010 to 2035.

Figure B-1:
City of Chino Current and Projected Wastewater Flows

	2010	2015	2020	2025	2030	2035
Population[1]	84,742	90,750	96,759	102,890	109,041	115,181
Wastewater Flow (mgd)[2]	6.8	7.3	7.7	8.2	8.7	9.2

[1] Total City population data obtained from California Department of Finance and Southern California Association of Governments (Local Input/General Plan Growth Forecast 2012).

[2] Based on total City population data and preliminary findings in the City's Sewer Master Plan for per-capita wastewater production.

source: City Sewer Master Plan

The City's 2017-18 Fiscal Year ("FY") Capital Improvement Budget identifies four major wastewater projects within the next five years. All four are sewer rehabilitation projects with to-be-determined funding from the City's Sewer Fund and/or development impact fees ("DIF"). The project summaries are as follows:

- Alley- 5th to 6th (B to C), Alley- 13th to 14th (D to Chino), 12th St- Edison to Schaefer (generally between Central and Benson). FY 2018-19. $1,000,004.
- National Place- Oaks through Easement, Portsmouth St from Benson Ave to the east, Holly Ave-Walnut to the North, Walnut Ave- Benson to Oaks. FY 2019-20. $850,000.
- Oaks Ave-Walnut to Riverside, Walnut Ave-Oaks to Magnolia. FY 2020-21. $1,038,125.
- Grand Ave-Pipeline to Roswell, Roswell Ave-Grand Ave to Schaefer. FY 2021-22. $1,543,125.

Change in Policy on Out-of-Agency Service Delivery

LAFCO has authorized the City of Chino 27 out-of-agency service contracts (for a total of 92 connections) for wastewater service outside its boundary but within its sphere of influence. As a part of this service review, the City has identified that it currently serves 73 parcels outside it boundary but within its sphere. Whereas not every parcel that has been

authorized for connection is currently connected, the out-of-agency service is tied to the parcel in perpetuity, or until annexed. Therefore, the City is obligated to provide sewer service to the remaining 19 parcels in the sphere should the property owner request so and meet all requisites.

In 2006, the City adopted Resolution No. 2006-028 which stated that properties within the City's sphere may connect to the City's sanitary sewer system by either annexing into the City or, under certain circumstances, obtaining approval of an irrevocable agreement to annex. Since adoption of the resolution, several irrevocable offer agreements have been received by the City, but only one annexation has occurred relating to those agreements.

In 2016, recognizing property owners were not pursuing annexation following the City's provision of sewer service to the sphere properties, the City began to no longer approve irrevocable agreements to annex and only approved sewer services to property owners that were willing to go through the annexation process.[1] However, the City is still obligated to provide sanitary sewer service to any of the 19 parcel in the sphere already authorized by LAFCO, should the property landowner request so and meet all requisites.

In February 2018, the City adopted Resolution No. 2018-009 to further clarify its position pertaining to the City's sanitary sewer connection policy. The revised policy states that sphere properties may only connect to the City's sanitary sewer system if (a) the parcel is first annexed into the City, and (b) the parcel is developed in accordance with the City's General Plan provisions applicable to the affected area.

The City of Chino authorized a request for proposals for an economic feasibility study on annexing its sphere of influence. Because adequate access to sewer facilities is a pre-condition for most types of development, this change in policy has resulted in several proposed annexations and land use changes within the sphere over the last two years. The City is in the process of obtaining a comprehensive economic analysis of the sphere to assess in understanding different possible scenarios for future annexations. The analysis will look at several aspects, including costs for services, public improvements, existing land use, and tax revenues. A liability analysis will also be included. This information will help the Chino City Council with both discussions and decisions regarding future annexations of the sphere area. The projected completion of the analysis is January 2019.

Sources: City FY annual financial statements, FY 2017-18 budget, Sewer Master Plan
City agenda items from February 6, 2018 and February 20, 2018
LAFCO Files

[1] City of Chino Agenda Item 8, page 2, from 6 February 2018.

City of Chino Hills

Chino Hills

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1991
Governance	Chino Hills City Council	Square Miles	46
Website	http://www.chinohills.org	2015 Population	77,596
Services	Contracted police, lighting and landscaping, public improvements, water, sewer, planning and zoning, general administrative services, contracted animal control, building and safety, community services, and street and highway maintenance.		

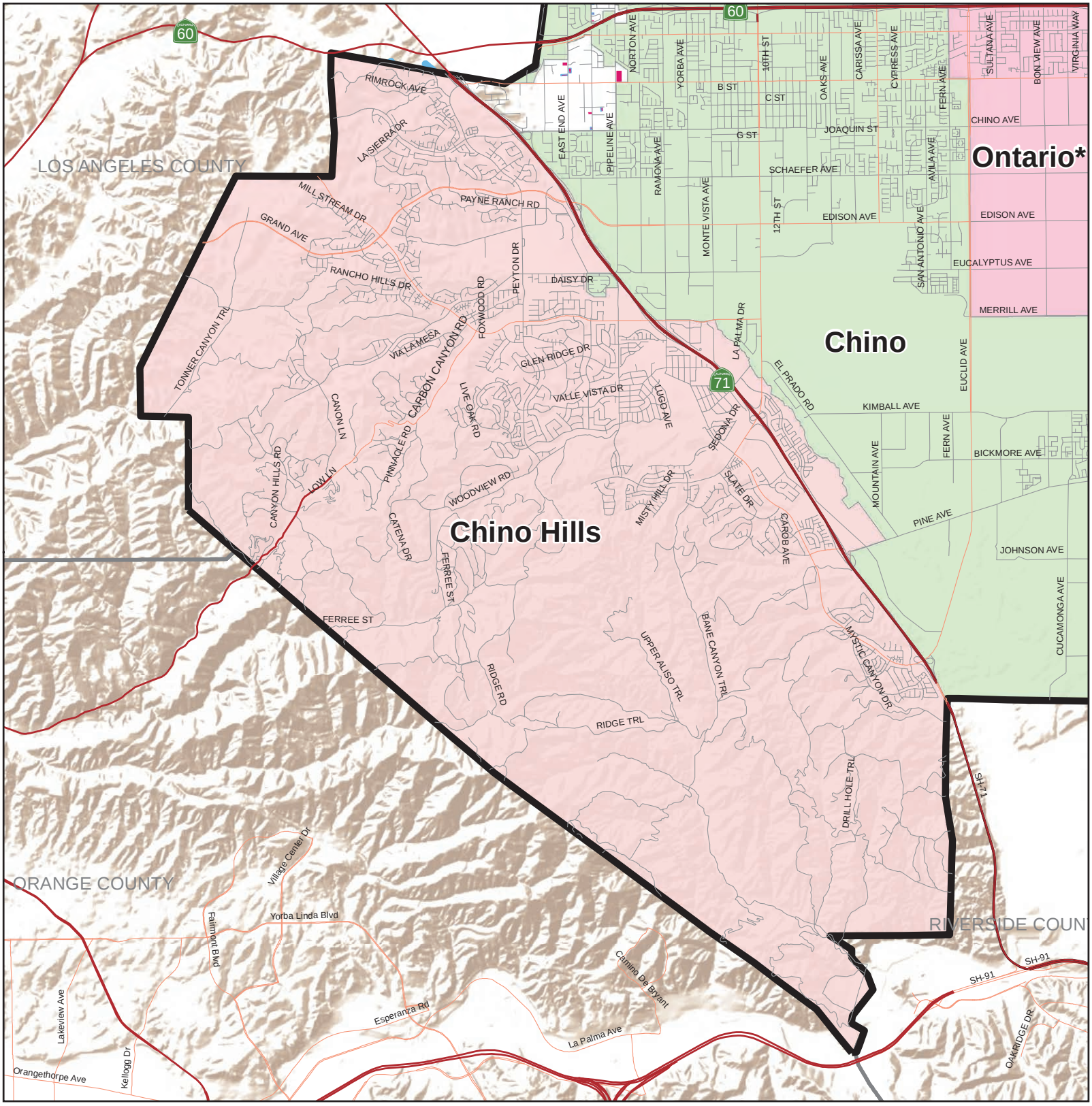
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/ChinoHills.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	3.3		200			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	19,588		36			19,624 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	5%	75%	20%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$25.59 to $27.09 (depending on home's elevation, gravity flow, or pumped flow)

Cash Flows	**2012**	**2013**	**2014**	**2015**	**2016**
Increase (Decrease) in Cash & Equivalents	($6,681,533)	$714,075	($763,920)	$1,144,313	$2,182,253
Cash & Equivalents, End of Year	$8,644,915	$9,358,980	$8,595,070	$9,739,383	$11,921,636

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Chino Hills website
City of Chino Hills Utilities Department – 9-28-17 phone call
City email dated February 1, 2018



City of Chino Hills

0 0.75 1.5 3 Miles

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LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

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- City of Chino
- City of Chino Hills
- City of Ontario
- City of Chino Service Contracts
- City of Chino Hills, Assumed Service into Pomona as a Condition of Incorporation
- City of Chino Service Contracts, LAFCO Authorized, but Service Undetermined

Date Created: 6/11/2018

CITY OF CHINO HILLS

The City's sewer infrastructure includes 203 miles of sewer lines, eight lift stations (pumps and motors) and 4,812 sewer manholes. The collection system conveys the entire City collected wastewater to the Inland Empire Utilities Agency ("IEUA") for treatment and reuse, or disposal. Currently, there are two IEUA wastewater treatment facilities that service the City. The Carbon Canyon Reclamation Plant services the City's meter basins 1 and 2. The RP-5 Reclamation Plant services all other meter basins within the City. The Sanitation Maintenance Program ensures compliance with the Sewer System Management Plan via Closed Circuit Television inspection, sewer main cleaning, and pump maintenance at lift stations. The FY 2016-17 budget initiated a multi-year program to conduct video inspection of the system.

Due to historical service, the City provides sewer service to 36 parcels within the City of Pomona. The City has identified that it does not have a policy regarding service provided outside its boundary, and that it does not charge an out-of-agency rate for the Pomona area. In a response to information from LAFCO in 2015, the City stated that it would make more sense to have the City of Pomona provide the sewer service to these customers and bill these customers for sewer service on the Pomona Water bill. Further, these parcels are within Los Angeles County, outside the boundary of IEUA. Therefore, IEUA is unable to place its ad valorem tax on the Los Angeles County tax rolls. As a result, the City of Chino Hills is placed in the middle of billing the City of Pomona for these customers on behalf of IEUA, with remittance to IEUA. Since the neither the City's boundary or its sphere extends into Los Angeles County, there is no LAFCO solution to this matter. Nonetheless, LAFCO staff recommends that the Cities of Chino Hills and Pomona initiate discussion to remove these parcels from the Chino Hills system.

Projected wastewater flows can be related to water usage. According to the City, it is assumed that the City will generate the proportion of wastewater from its water usage. Historically, wastewater production has been approximately 50 percent of the City's water usage. The figure below shows the City's current and projected wastewater flows.

Figure B-2:
City of Chino Hills Current and Projected Wastewater Flows

Type	2015	2020	2025	2030	2035
Wastewater Generation (MGD)	4.27	4.91	5.01	5.11	5.22
Wastewater Generation (AFY)	4,780	5,502	5,614	5,729	5,846

Wastewater collected was calculated based on 55 gallons/day of wastewater generated by each person.

source: City of Chino Hills 2015 UWMP

In the prior fiscal years (2012-2016), the Sewer Utility Fund had a variety of "Advances" to other funds. These are interfund loans of cash for various purposes, which were approved by the City Council. They were all to be repaid based on a repayment schedule or when funds from the borrowing fund became available. In FY 2016-17, all of the interfund loans were paid in full except one, an advance to the Parks and Recreation Facilities Fee Fund for

the New Community Park. As of 6/30/17, the balance outstanding in the Sewer Utility Fund Advances was $385,750 and is expected to be paid in full by the end of FY 2017-18.

Sources: City FY 2015-16 annual financial statements
FY 2017-18 budget, and Information provided dated October 6, 2015, October 26, 2017, and January 11, 2018
City Urban Water Management Plan
City Sewer System Management Plan
LAFCO Files

City of Colton

Colton

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1887
Governance	7-member city council; 6 elected by district; 1 city-wide	Square Miles	14
Website	http://www.ci.colton.ca.us/	Population	45,496
Services	Police and fire protection, electricity, water, sanitation, public works, parks, recreation and certain social services and general administrative services		

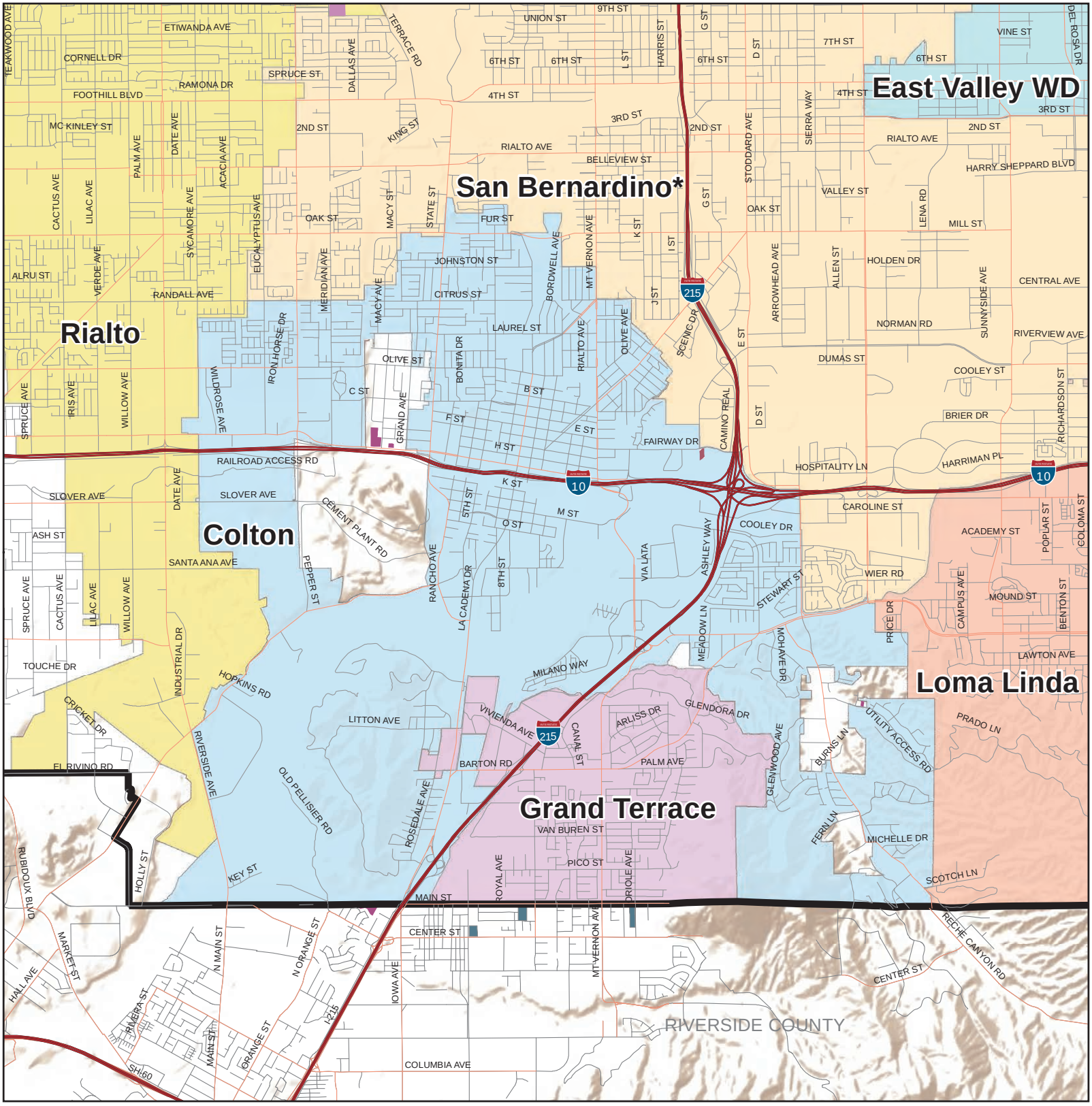
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/Colton.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/EastValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Force Main**		**Gravity Sewer**			**Laterals Responsible**	
	4		180			30	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	14,454		3			14,457 (lateral)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	6%	94%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$34.33

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$2,978,460	($514,749)	$3,766,400	$721,443	($74,828)
Cash & Equivalents, End of Year	$7,125,306	$7,125,306	$10,388,117	$11,109,560	$11,034,732

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Colton website



City of Colton

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Colton
- City of Grand Terrace
- City of Loma Linda
- City of Rialto
- City of San Bernardino
- East Valley Water District
- City of Colton Service Contracts
- City of Grand Terrace Service Contracts
- City of San Bernardino, Area Served without LAFCO Approval
- City of San Bernardino, Service Provided Pre Gov Code 56133

Date Created: 6/11/2018

CITY OF COLTON

Tertiary Treatment

On August 2, 1994, the City of San Bernardino, through its Water Department, formed a joint powers authority with the City of Colton to construct, operate and maintain tertiary wastewater treatment, disposal and water reclamations systems, including the Regional Rapid Infiltration and Extraction Facility ("RIX"). This authority is governed by a separate board consisting of four members – two appointed by the City of San Bernardino though the Water Department's Board of Commissioners and two appointed by the City Council of the City of Colton. Construction of RIX was administered by the Santa Ana Watershed Project Authority and was substantially completed during 1996, with a few additional components remaining. Administration and operation was turned over to the cities of Colton and San Bernardino at that time with the remaining construction completed over the next few years.

The RIX Facility, now co-owned and operated jointly by the cities of San Bernardino (80%) and Colton (20%), provides tertiary treatment for the Cities of San Bernardino, Colton, Loma Linda, and Grand Terrace; the East Valley Water District; and some unincorporated areas. According to the San Bernardino Valley Regional Urban Water Management Plan (2015), the RIX facility treats a combined secondary-treated effluent stream of approximately 33 MGD from both Colton's Waste Water Treatment Plant and the San Bernardino Water Reclamation Plant to tertiary standards in accordance with Title 22, Division 4, of the California Code of Regulations. The RIX facility utilizes natural bio filtration through the use of percolation basins, followed by an ultraviolet disinfection system.

RIX Facility is permitted to treat up to 40 MGD and to discharge at its UV disinfection's design capacity of 64 MGD into the Santa Ana River. Discharge volume is higher than influent volume because the discharge includes over-extracted groundwater. During 2016, average monthly discharges from RIX to the Santa Ana River ranged from 28 to 30 MGD. A portion of the discharged water, 16,000 AFY, is provided by contract to San Bernardino Municipal Water District to maintain flows in the Santa Ana River, fulfilling the District's downstream obligations under the Orange County Judgment.

<u>RIX – Major Capital Projects Planned</u>

The City of San Bernardino, in its RIX Fund Capital Improvement Plan (FY 17-18) has designated just over $8 million dollars for facilities rehabilitation to the RIX facility, including UV system rehabilitation, well retrofit, and well repair and rehabilitation. Eighty percent of that cost ($6,436,674) is the responsibility of the City of San Bernardino and 20 percent of the cost ($1,609,168) is the responsibility of the City of Colton.

City of Colton – Secondary Treatment

The City of Colton owns and operates a wastewater collection, pumping and treatment system which currently serves Colton, the City of Grand Terrace and some unincorporated areas. The area served is approximately 18 square miles. The City's sewer system has four miles of force mains, 180 miles of gravity sewer lines and 447 miles of lateral

connections. Almost all (94%) of the sewer lines were installed between 1960 and 1979. Colton's wastewater treatment plant ("WWTP") utilizes a conventional and extended aeration process which treats effluent to secondary treatment levels. According to the City, the total population discharging into to Colton's WWTP is approximately 65,867. Average daily flows are estimated to be seven MGD.

Contract with City of Grand Terrace

Prior to the incorporation of the City of Grand Terrace in 1978, the County (on behalf of County Service Area 70 Zone H) contracted with the City of Colton for wastewater collection, operations, and treatment. When the City of Grand Terrace incorporated in 1978, the new City succeeded to the County-Colton contract. In March 2014, the City of Colton entered into a wastewater enterprise lease agreement with the City of Grand Terrace. Through this agreement, the City of Grand Terrace agreed to lease the City's entire wastewater enterprise to the City of Colton. These activities include collection, pretreatment, maintenance, treatment, billing, and capital improvements. In exchange for the City of Colton's use of Grand Terrace's infrastructure, Colton will make an annual lease payment of $300,000 to Grand Terrace. The agreement is for a term of 50 years ending in 2064. Customers in both cities pay the same monthly rate for service. Nonetheless, the City of Grand Terrace remains the owner of the facilities. Therefore, any out-of-agency service contract for connection must be from the City of Grand Terrace.

City of Colton – Major Capital Projects Planned

The City of Colton's FY 2017-18 adopted budget allocates approximately $3.6 million in capital improvements to its wastewater system. The most significant capital expenditures are for design and construction management of a new Wastewater Administration building, upgrades to the RIX Facility ($2 million), and starting construction of the Centrifuge Project at the City's WRP ($300,000). (The City is constructing a centrifuge to thicken digested sludge from 3% to a range of 20% to 30% solids, a process that is expected to significantly reduce the area of onsite sludge storage and drying facilities and reduce the WRP footprint). Additional expenditures include sewer line replacement ($1.1 million).

Sources: City of Colton FY 2017-18 Budget, website, Sewer System Management Plan
San Bernardino Regional Urban Water Management Plan
LAFCO files

City of Fontana

Fontana

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1952
Governance	Elected mayor and four council members	Square Miles	42
Website	http://www.fontana.org/	Population	210,300
Services	Police, fire, sewer, community development, and other general administrative services		

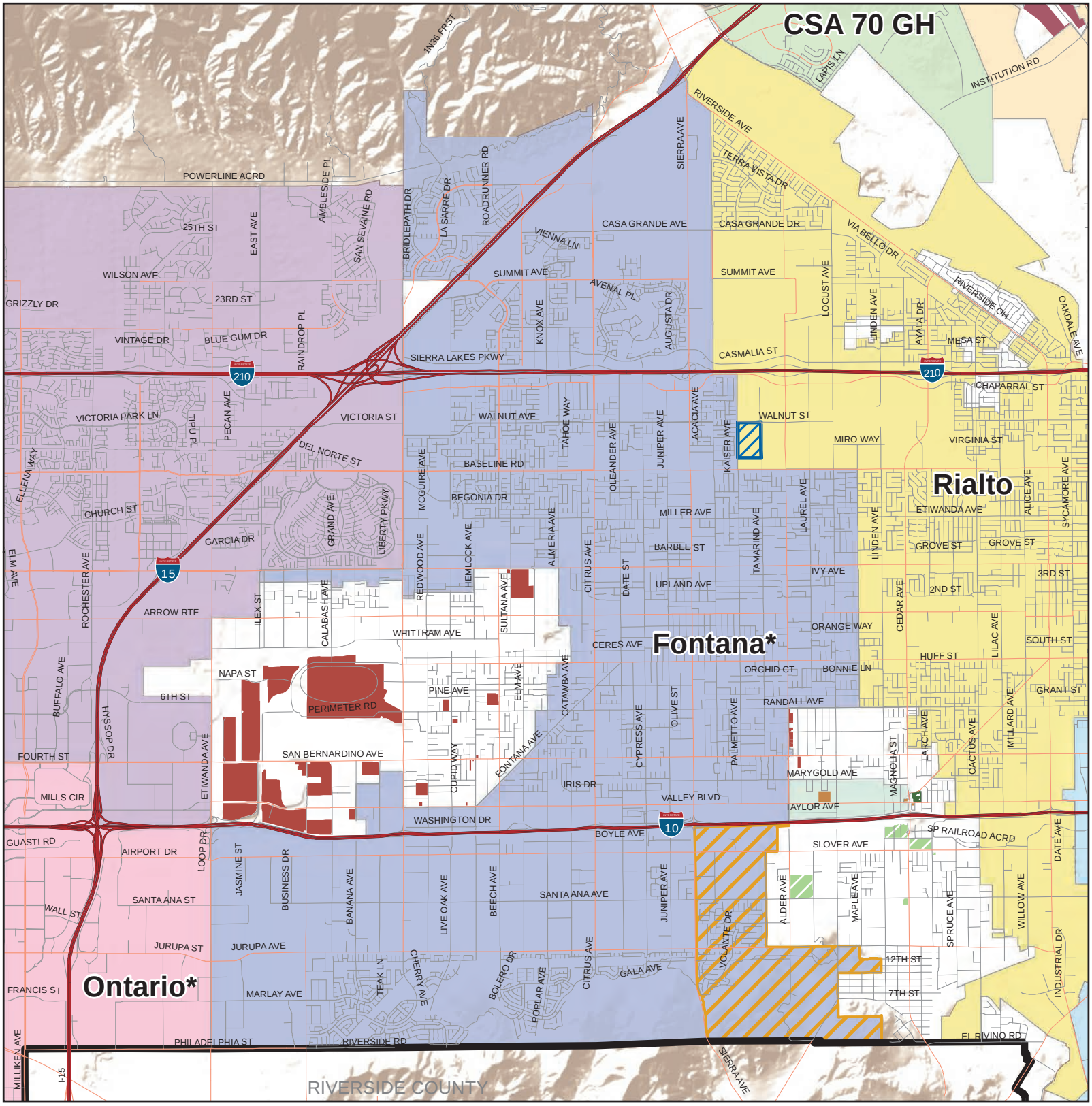
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/Fontana.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	2		419			200	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	42,908		89			42,997 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	23%	51%	10%	16%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$26.64 (inside City limits), $41.43 (outside City limits)

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$560,213	($589,849)	($314,882)	($398,878)	$351,906
Cash & Equivalents, End of Year	$21,741,619	$21,151,770	$20,836,888	$20,438,010	$20,789,916

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
City of Fontana website
City of Fontana Customer Billing Department – 9-28-17 phone call
City of Fontana email dated 2-8-2018



City of Fontana

0 0.75 1.5 3 Miles

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- CSA 70 BL
- CSA 70 GH
- City of Colton
- City of Fontana
- City of Ontario
- City of Rialto
- City of San Bernardino
- Cucamonga Valley Water District
- City of Rialto Jurisdiction, Extraterritorial Service Agreement with City of Fontana without LAFCO Authorization
- Area Served without Contract with City of Rialto
- City of Fontana Service Contracts
- City of Rialto Service Contracts
- City of Fontana Jurisdiction, Service Provided by City of Rialto Pre Gov Code 56133
- City of Rialto, Service Provided by City of Rialto Pre Gov Code 56133
- City of San Bernardino Service Contracts

Date Created: 6/11/2018

CITY OF FONTANA

The City of Fontana collection system of 424 miles of sewer lines conveys the entire City collected wastewater to IEUA for treatment and reuse, or disposal. IEUA Regional Plant 4 treats the collection, which was metered at 11,425 acre-feet in 2015.

Extra-territorial Agreements and Activity

City of Fontana provides service outside its boundary, within its sphere of influence, to 89 connections. Additionally, IEUA provides service to Prologis, California Steel Industries, and the Fontana Speedway. None of the private entities perform pretreatment of their waste. Per the IEUA-Prologis agreement, IEUA owns, operates, maintains, and repairs the "Permanent System" which includes the IEUA San Bernardino Lift Station and the public right of way sewer lines. Maintenance of all the other sewer lines/laterals from Speedway, Prologis' warehouses, and CSI are the responsibility of the respective owners. The City of Fontana's role is to collect the user fees.

In January 1997, IEUA approved the City of Fontana's application for extra-territorial sewer service for all areas within the City of Fontana sphere of influence. According to the IEUA memorandum dated January 15, 1997 related to this matter, the Exhibit A to the memorandum identifies the Fontana sphere of influence as the Fontana sphere as of that time. Therefore, any subsequent sphere expansions to the City of Fontana sphere would not be covered by said approval.

Since 1991, through the Rialto/Fontana Extraterritorial Wastewater Service Agreement, the City of Rialto provides sewer treatment services to businesses and residents in the southeastern area of Fontana's jurisdiction. The sewer service area is within Fontana's city limits and the wastewater is conveyed to Rialto's treatment plant located within the City of Rialto. The sewer collection system located in the southeast area of Fontana is owned and operated by the City of Fontana, up to the point of connection at the City boundaries between Fontana and Rialto. The City of Fontana is responsible for billing residents and businesses and collecting monthly sewer service fees. Fontana pays the City of Rialto monthly sewer service fees based on the agreement.

Capital Improvements

The City's seven-year CIP identifies four sewer projects totaling $5,849,000. Of this amount, $3,311,000 has been spent. The four projects are identified below. For FY 2017-18, new funding of $1 million is allocated for sewer line replacement or improvement and lift station rehabilitation. Construction is scheduled to start in July 2017 and be completed in June 2018.

- Industry Sewer Lift Rehab. Preliminary design began April 2017. $341,000
- Police Department Pump Station Renovation. The construction began March 2017 with an estimated completion date of October 2017. $832,000
- Sewer Replacement Program. Ongoing. $4,494,000
- Tamarind Sewer Lift Rehab. Preliminary design began April 2017. $182,000

The City identifies the following performance measures for the three most recent years:

Figure B-3:
City of Fontana Performance Measures

Performance Measures	Actual 2015-16	Estimated 2016-17	Target 2017-18
Waste Water:			
Conduct commercial and industrial site inspections annually	364	400	400
Conduct site inspections of Significant Industrial users annually	8	8	8
Lineal feet of sanitary sewer video assessed annually	270,000	300,000	320,000
Lineal feet of sanitary sewer jet rod cleaned annually	1,300,000	1,100,000	1,400,000

Source: City FY 2017-18 Operating Budget

In March 2007, the City received approval from the State of California Water Resources Control Board for the San Bernardino Trunk Sewer Project. The Project was being funded by the State Revolving Fund on a reimbursement basis for construction costs incurred in relation to the project. The project was done in three phases, with each of the three phases being funded by a separate loan from the State Revolving Fund. The loans will be repaid in 20 annual installments that commenced FY 2010-11. The principal balance as of June 30, 2016 was $10,676,491.

Sources: City FY 2015-16 annual financial statements
FY 2017-18 budget, and Information provided dated October 5, 2015
City Capital Improvement Program
LAFCO Files
Inland Empire Utilities Agency

City of Grand Terrace

Grand Terrace

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1978
Governance	5-member city council, elected at-large	Square Miles	3.6
Website	http://www.grandterrace-ca.gov	2017 Population	12,100
Services	Highways and streets, cultural and recreation improvements, planning and zoning, building and safety, low and moderate income housing programs, general administrative services, waste water and contracted law enforcement.		

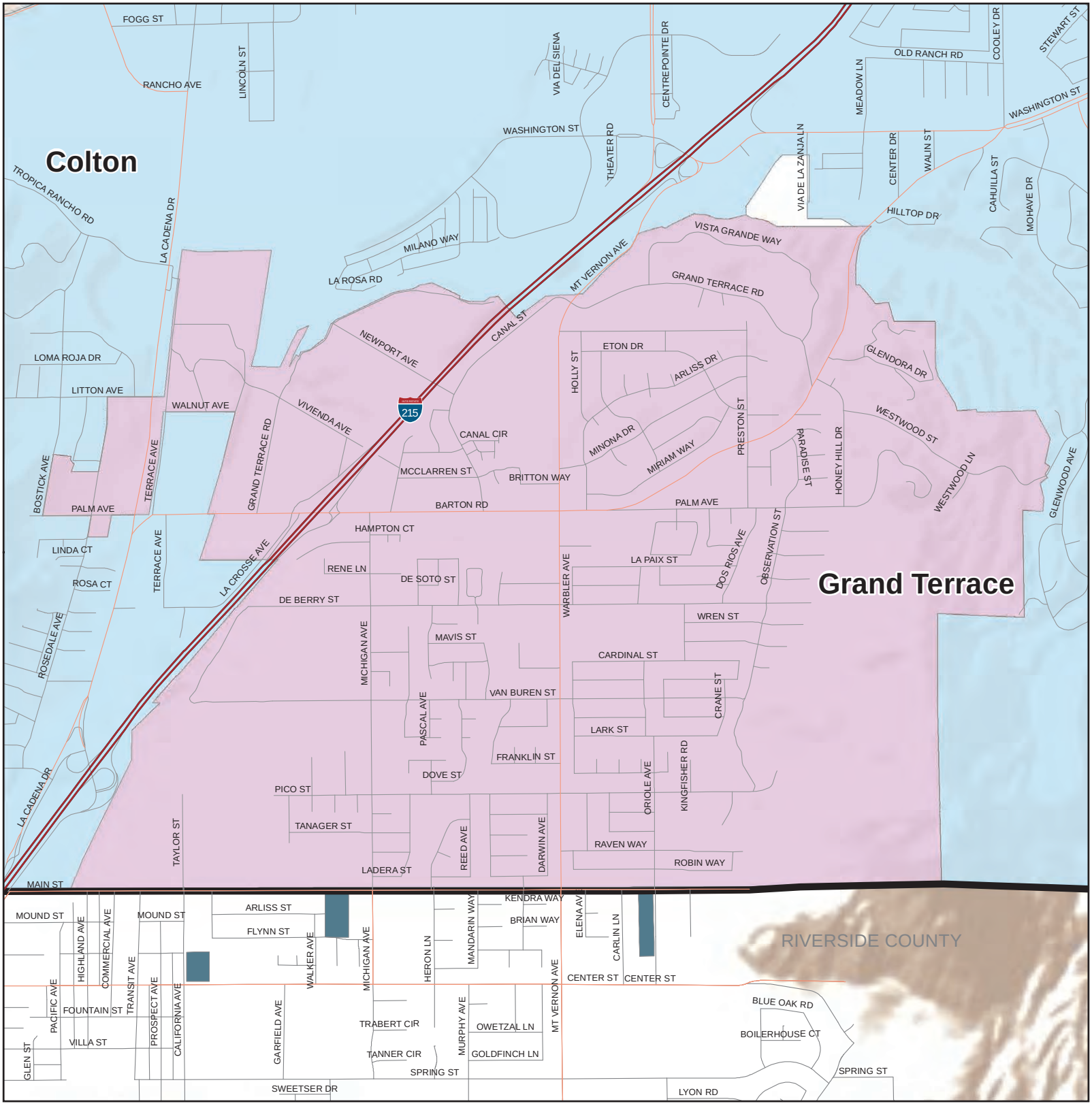
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/GrandTerrace.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/EastValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0		33			32.7	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	4,736		0			4,736 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	6%	94%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$34.33

Cash Flows	**2012**	**2013**	**2014**	**2015**	**2016**
Increase (Decrease) in Cash & Equivalents	$2,221	($216,797)	$426,104	($828,141)	($306,850)
Cash & Equivalents, End of Year	$2,353,475	$2,136,678	$2,562,779	$1,734,638	$1,427,788

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Grand Terrace website
City of Grand Terrace Public Works – phone call (9/28/17)
City email dated February 6, 2018



City of Grand Terrace

0 0.2 0.4 0.8 Miles

N

City of Colton

City of Grand Terrace

City of Grand Terrace Service Contracts

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 6/11/2018

CITY OF GRAND TERRACE

Prior to the incorporation of the City of Grand Terrace in 1978, the County (on behalf of County Service Area 70 Zone H) contracted with the City of Colton for wastewater collection, operations, and treatment. When the City of Grand Terrace incorporated in 1978, the new city succeeded to the County-Colton contract. Nonetheless, the City of Grand Terrace remains the owner of the facilities. Therefore, any out-of-agency service contract for connection must be from the City of Grand Terrace.

In March 2014, the City of Grand Terrace agreed to lease the City's entire wastewater enterprise to the City of Colton. These activities include collection, pretreatment, maintenance, treatment, billing, and capital improvements. In exchange for the City of Colton's use of Grand Terrace's infrastructure, Colton will make an annual lease payment of $300,000 to Grand Terrace. The agreement is for a term of 50 years ending in 2064. Customers in both cities pay the same monthly rate for service. Further, according to the contract, Grand Terrace will account for the lease funds in a separate Wastewater Account.

Additionally, the City of Grand Terrace's collection system provides service in Riverside County, to properties along Main Street (Countyline) where the City has a wastewater main. The properties include nine subdivided parcels, the California Citrus Cooperative[1], and Calvary of the Brook Church[2]. For the latter two properties, Riverside LAFCO as principal county reviewed and provided exemptions from the provisions of Gov't. Code §56133.

The City of Colton owns and operates a wastewater collection, pumping and treatment system which currently serves Colton, Grand Terrace and some unincorporated areas. The City of Colton's wastewater treatment plant utilizes a conventional and extended aeration process which treats effluent to secondary treatment levels. This treated wastewater is then transported to the Regional Rapid Infiltration and Extraction Facility ("RIX").

The RIX Facility, now co-owned and operated jointly by the cities of San Bernardino (80%) and Colton (20%), provides tertiary treatment for the Cities of San Bernardino, Colton, Loma Linda, and Grand Terrace; the East Valley Water District; and some unincorporated areas. According to the San Bernardino Valley Regional Urban Water Management Plan (2015), the RIX facility treats a combined secondary-treated effluent stream of approximately 33 MGD from both Colton's Waste Water Treatment Plant and the San Bernardino Water Reclamation Plant to tertiary standards in accordance with Title 22, Division 4, of the California Code of Regulations. The RIX facility utilizes natural bio filtration through the use of percolation basins, followed by an ultraviolet disinfection system. Treated wastewater from the Colton and San Bernardino wastewater treatment plants is percolated through earthen basins at the RIX facility.

sources: City of Grand Terrace FY 2015-16 audit, email dated 2-6-2018, FY 2017-18 Budget, website, Sewer System Management Plan, and sewer services agreement with the City of Colton
San Bernardino Regional Urban Water Management Plan
LAFCO files, Riverside LAFCO

[1] Riverside County LAFCO 2016-10-2
[2] Riverside County LAFCO 2017-05-2

City of Loma Linda

Loma Linda

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1970
Governance	5-member city council, elected at large	Square Miles	10.6
Website	http://www.lomalinda-ca.gov	Population	23,298
Services	Park and recreation, fire protection and emergency medical response, water, streetlights, and wastewater collection services		

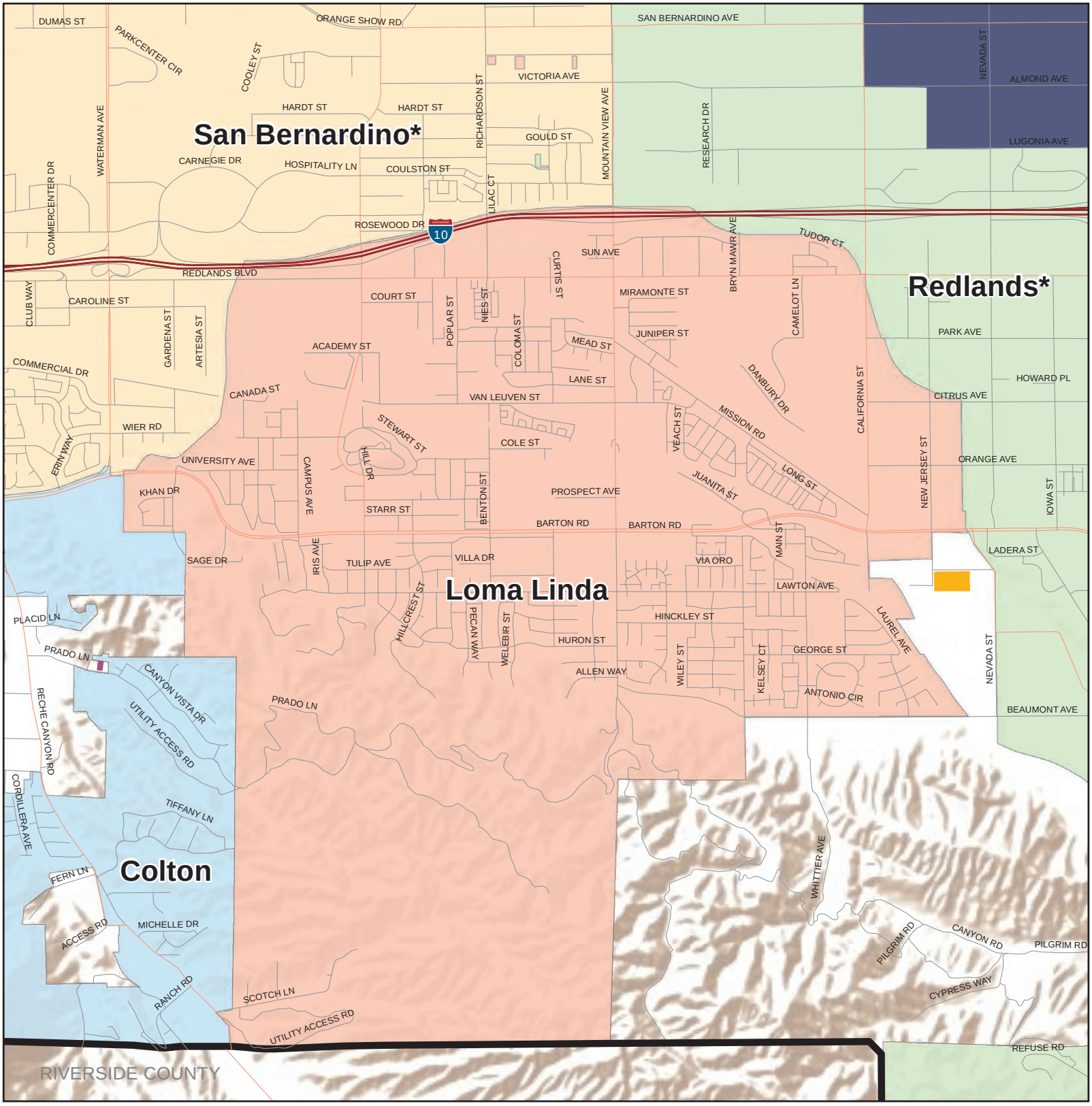
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/LomaLinda.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0.1		67.4			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	5,280		1			5,281 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	29%	26%	42%	3%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$34.73

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($69,498)	$194,405	($6,300)	$46,195	$82,292
Cash & Equivalents, End of Year	$7,037	$201,442	$195,142	$241,337	$323,629

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Loma Linda website



City of Loma Linda

0 0.3 0.6 1.2 Miles

N

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Colton
- City of Loma Linda
- City of Redlands
- City of San Bernardino
- City of Colton Service Contracts
- City of Loma Linda Service Contracts
- City of Redlands, LAFCO Reviewed Out-of-Agency Service

Date Created: 6/11/2018

CITY OF LOMA LINDA

Loma Linda provides sewer line maintenance and collection services to its customers, while wastewater treatment services are provided under provisions outlined in a JPA with the City of San Bernardino. The City's collection system includes 67 miles of gravity sewer and roughly 5,300 connections. According to the State Resources Control Board, 42% of the system's pipelines were constructed between 1960 and 1979 and 26% between 1980 and 1999.

City of San Bernardino – Secondary Treatment

The City of San Bernardino's Municipal Water Department has operated the City's Water Reclamation Plant ("WRP") since 1973. The WRP is a 33 million gallons per day ("MGD") regional secondary treatment facility that provides wastewater treatment services for the City of San Bernardino, City of Loma Linda, and East Valley Water District. Primary and secondary treatment processes are used to meet the discharge standards specified in the National Pollutant Discharge Elimination Permit ("NPDES") issued to the WRP by the State Regional Water Quality Control Board.

Tertiary Treatment

The RIX Facility, now co-owned and operated jointly by the cities of San Bernardino (80%) and Colton (20%), provides tertiary treatment for the Cities of San Bernardino, Colton, Loma Linda, and Grand Terrace; the East Valley Water District; and some unincorporated areas. According to the San Bernardino Valley Regional Urban Water Management Plan (2015), the RIX facility treats a combined secondary-treated effluent stream of approximately 33 MGD from both Colton's Waste Water Treatment Plan and the San Bernardino Water Reclamation Plant to tertiary standards in accordance with Title 22, Division 4, of the California Code of Regulations. The RIX facility utilizes natural bio filtration through the use of percolation basins, followed by an ultraviolet disinfection system.

sources: City of Loma Linda FY 2015-16 annual financial statements
City of Loma Linda FY 2017-18 budget
City of San Bernardino Sewer System Management Plan
San Bernardino Valley Regional Urban Water Management Plan
LAFCO files

City of Montclair

Montclair

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1956
Governance	5-member city council, elected at large	Square Miles	5.54
Website	http://www.cityofmontclair.org	Population	36,664
Services	Park and recreation, storm drainage, sewer, roads, street sweeping, fire protection and emergency medical, library, and police services.		

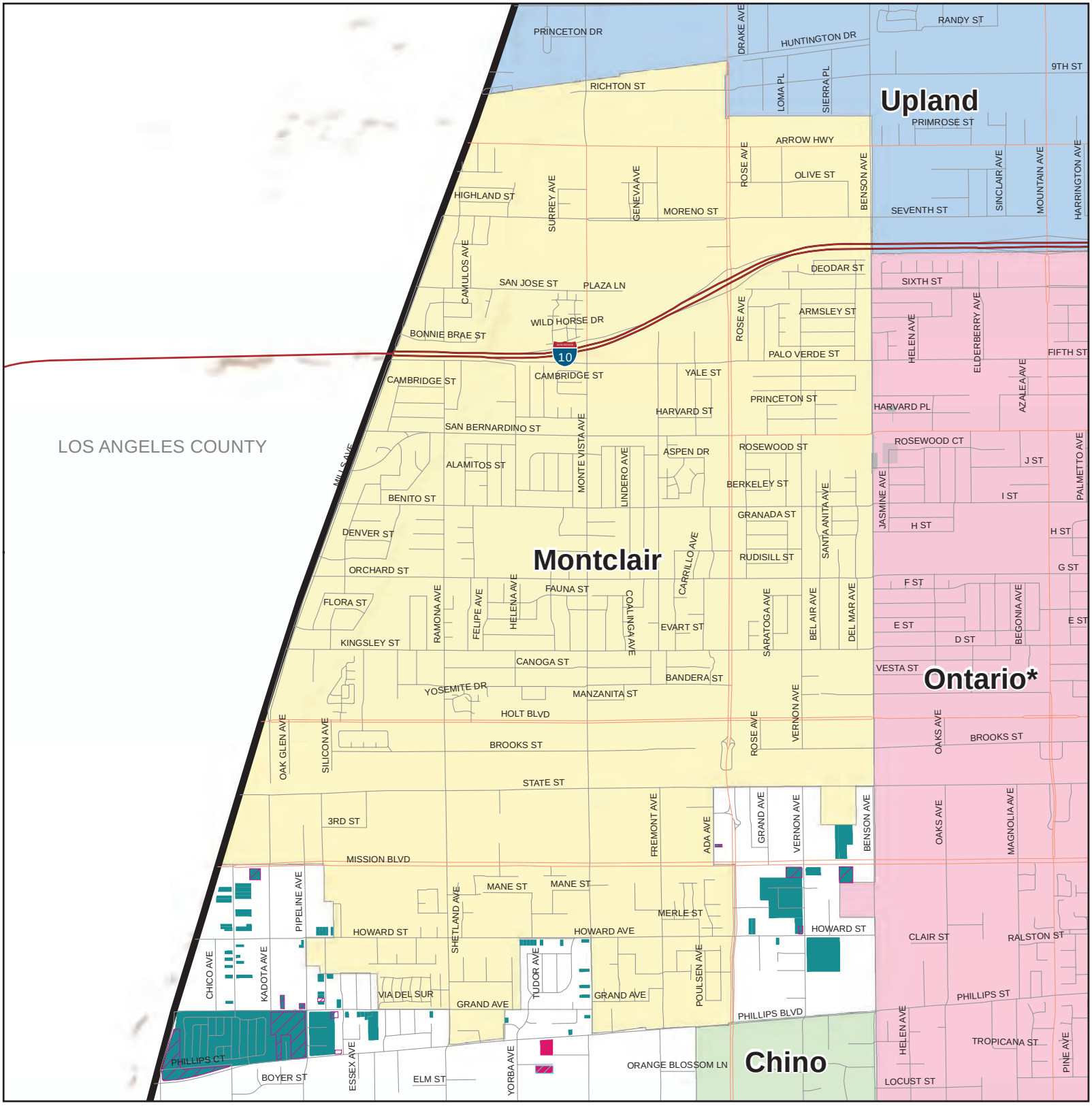
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/Montclair.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0		84			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	8,627		555			9,182 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	10%	18%	68%	4%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$27.11

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$373,290	$362,965	$242,988	$783,745	$334,066
Cash & Equivalents, End of Year	$1,129,023	$1,491,988	$1,734,976	$2,518,721	$2,852,787

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
City of Montclair website



City of Montclair

0 0.25 0.5 1 Miles

N

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Chino
- City of Montclair
- City of Ontario
- City of Upland
- City of Chino Service Contracts
- City of Montclair Service Contracts
- City of Chino Service Contracts, LAFCO Authorized, but Service Undetermined
- City of Montclair Service Contracts, No Service Provided or Service Undetermined

Date Created: 6/11/2018

CITY OF MONTCLAIR

The City of Montclair provides wastewater collection services within its boundary and to parcels within its sphere of influence. The service area served is 5.5 square miles with 84 miles of gravity sewer lines and an estimated population of 36,664 in 2015. Within its boundary, the collection system has 8,627 connections and within its sphere of influence there are 555 connections to the City system. The majority of the pipelines (68%) were constructed between 1960 and 1979. Eighteen percent were constructed between 1980 and 1999, with 10% since 2000.

All main sewer lines are cleaned annually. Problem areas, locations where grease accumulates on the sewer line walls, are inspected and cleaned more frequently. Main sewer lines are also televised and inspected on an on-going basis. A review of the five-year Capital Improvement Budget does not identify any major wastewater capital projects.

The collection system conveys the entire City collected wastewater to Inland Empire Utilities Agency ("IEUA") for treatment and reuse, or disposal. The City's wastewater is currently treated at IEUA Carbon Canyon Reclamation Plant and RP-5.

Since 1994, LAFCO has approved 72 out-of-agency service contracts for the City to provide service outside its boundary, within its sphere of influence, for an estimated 555 connections. While the majority of the service contracts have been for a single connection, three service contracts comprise the majority of the out-of-agency connections.

- Service Contract 185 – In 2002 LAFCO authorized the City of Montclair to extend sewer service outside its boundaries to Tract 16215, a 41 residential lot subdivision on 12.3 acres. This area is generally located west of Vernon Avenue and south of Mission Blvd, in the City's southeastern sphere of influence.

- Service Contract 278 – In 2006 LAFCO authorized the City of Montclair to extend sewer service outside its boundaries to Tract 17509, a 37 residential lot subdivision on 9.3 acres. This area is generally located on the east side of Pipeline Avenue, extending between Phillips Blvd. and Grand Avenue, in the southern portion of the City's sphere.

- Service Contract 389 – In 2011 LAFCO determined that the City of Montclair's service outside of its boundaries due to the acquisition of a system from the City of Chino Hills. The system services the area commonly known as Peachwood Estates (340 parcels) and Cannery Row (12 parcels). The system was formerly a part of San Bernardino County Waterworks District #8 which as dissolved upon incorporation of the City of Chino Hills in 1991, with the City of Chino Hills as successor agency. At that time the City of Montclair did not have sewer lines extended to that part of its sphere.

sources: City FY 2017-19 budget
City CIP Program
City website
LAFCO files

City of Ontario

Ontario

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1890
Governance	5-member city council, elected at large	Square Miles	50
Website	https://www.ontarioca.gov/	2015 Population	168,777
Services	Parks and recreation, sewer, solid waste, water, fire protection and emergency response, and police services		

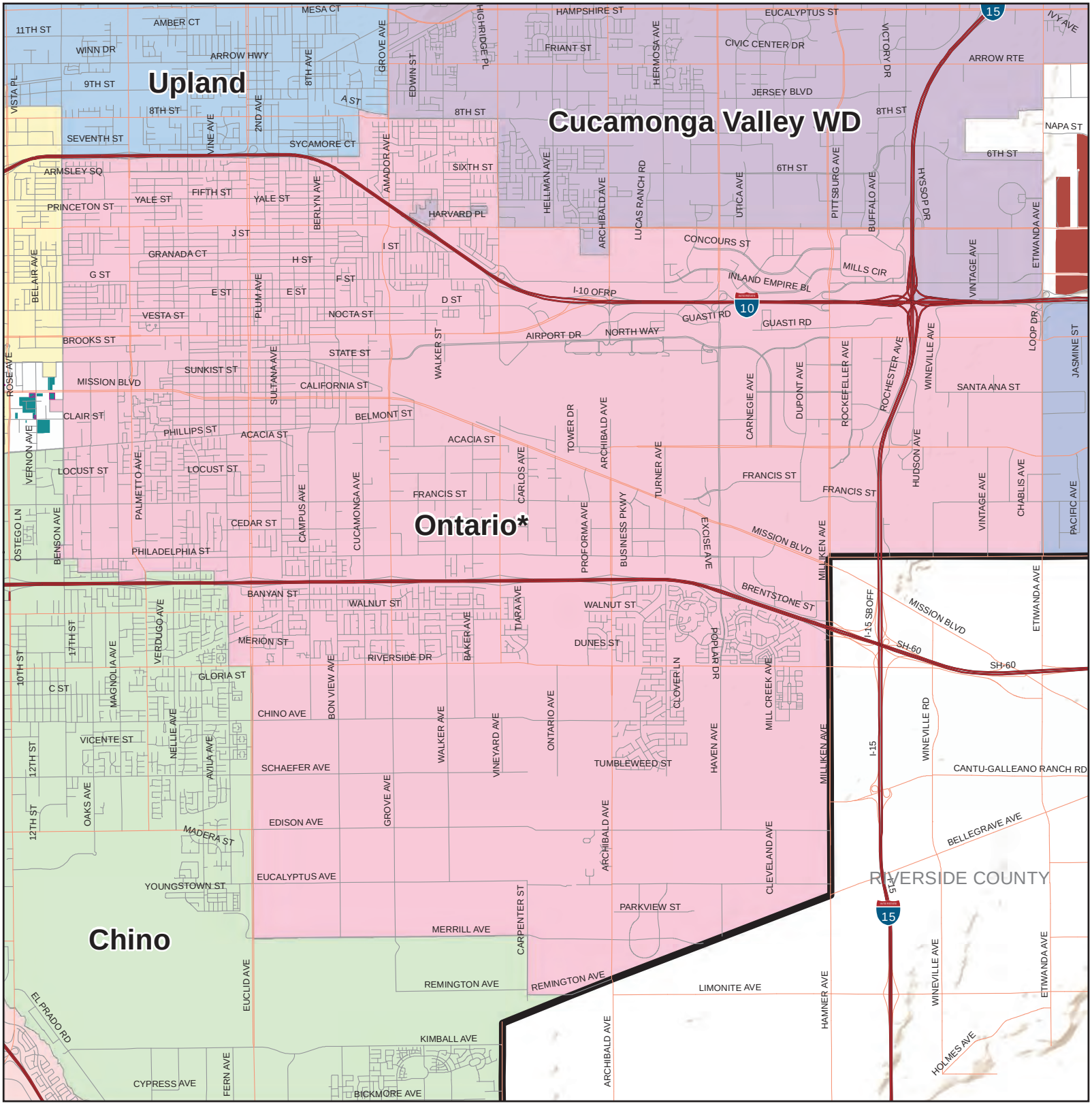
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/Ontario.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure (2015)							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	2.5		397			188	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	30,306		0			30,306 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	4%	29%	32%	24%	4%	3%	4%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$32.02

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$5,791,528	$2,688,762	$2,863,533	$2,162,287	$3,229,075
Cash & Equivalents, End of Year	$33,263,307	$35,952,069	$38,815,602	$40,977,889	$44,206,964

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Ontario website



City of Ontario

0 0.5 1 2 Miles

N

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Chino
- City of Chino Hills
- City of Fontana
- City of Montclair
- City of Ontario
- City of Upland
- Cucamonga Valley Water District
- City of Fontana Service Contracts
- City of Montclair Service Contracts
- City of Montclair Service Contracts, No Service Provided or Service Undetermined

Date Created: 6/11/2018

CITY OF ONTARIO

Wastewater is collected by the City's sewer system, a network made up of 390 miles of gravity pipe, 7,801 manholes, and three pump stations with 2.4 miles of associated force mains. An estimated 12,131 AF of City wastewater was collected in 2015 from a total of 29,710 lateral connections. The area served is 50 square miles with an estimated population of 168,777 in 2015. This does not include the area of the City within the overlying Cucamonga Valley Water District, which provides collection services within this area.

The City's collection system was constructed across a range of decades, as follows:

Table B-1
City of Ontario Age of Pipelines

Age of	2000 +	1980-1999	1960-1979	1940-1959	1920-1939	1900-1919	Before 1900
Pipelines	4%	29%	32%	24%	4%	3%	4%

The collection system conveys the entire City-collected wastewater to Inland Empire Utilities Agency for treatment and reuse at its RP-1 or RP-5 plants.

The City is currently updating its 2012 Sewer Master Plan which will include revisions to projected wastewater flows and infrastructure requirements. The City's Sewer Master Plan details the system and the Capital Improvement Program, including projects planned for FY 2018-19. In addition, the Sewer Master Plan identifies extensive development activity and infrastructure construction in Ontario Ranch.

sources: FY 2017-18 budget
City website
2015 Urban Water Management Plan
LAFCO files

City of Redlands

Redlands, unincorporated San Bernardino County, small portion of City of San Bernardino

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1888
Governance	5-member city council, elected at large	Square Miles	36[1]
Website	http://www.cityofredlands.org/	Population	85,276
Services	Fire protection and emergency medical, water, sewer, police, parks and recreation, library, airport and cemetery services		

LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/Redlands.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/EastValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

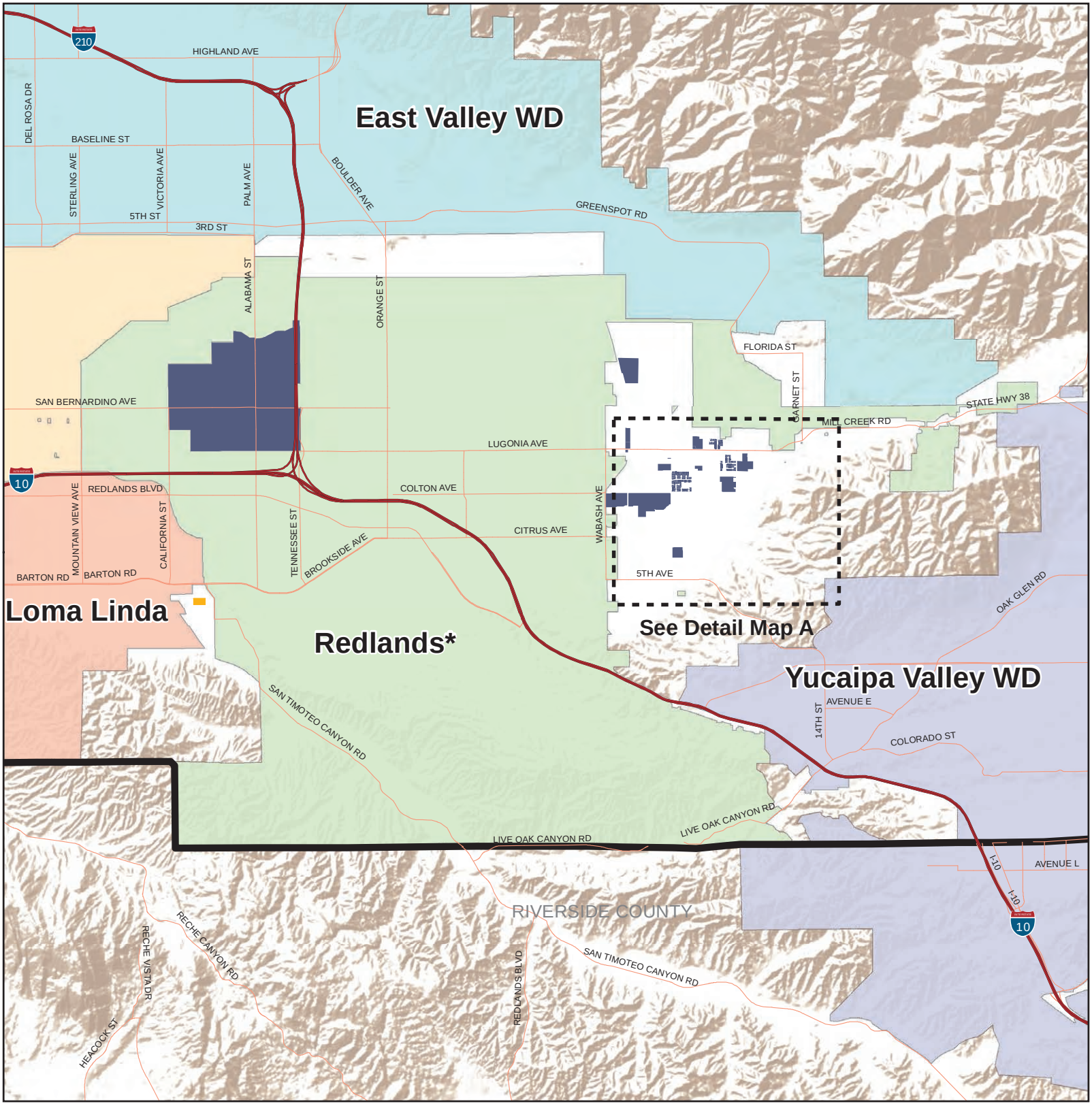
Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	3.5		236.6			76	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	13,818		473			14,291 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	14%	32%	35%	14%	4%	1%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$24.42

Cash Flows	**2012**	**2013**	**2014**	**2015**	**2016**
Increase (Decrease) in Cash & Equivalents	$2,045,469	$262,860	$1,570,415	$2,902,468	$1,800,235
Cash & Equivalents, End of Year	$16,025,284	$16,288,144	$17,858,559	$20,761,027	$22,561,262

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO: Files, Countywide Service Review for Water (2017)
Agency Financial Statements
City of Redlands website

[1] Does not include 5,000 residents served outside the City boundary but within the City's sphere of influence.



City of Redlands

0 0.75 1.5 3 Miles

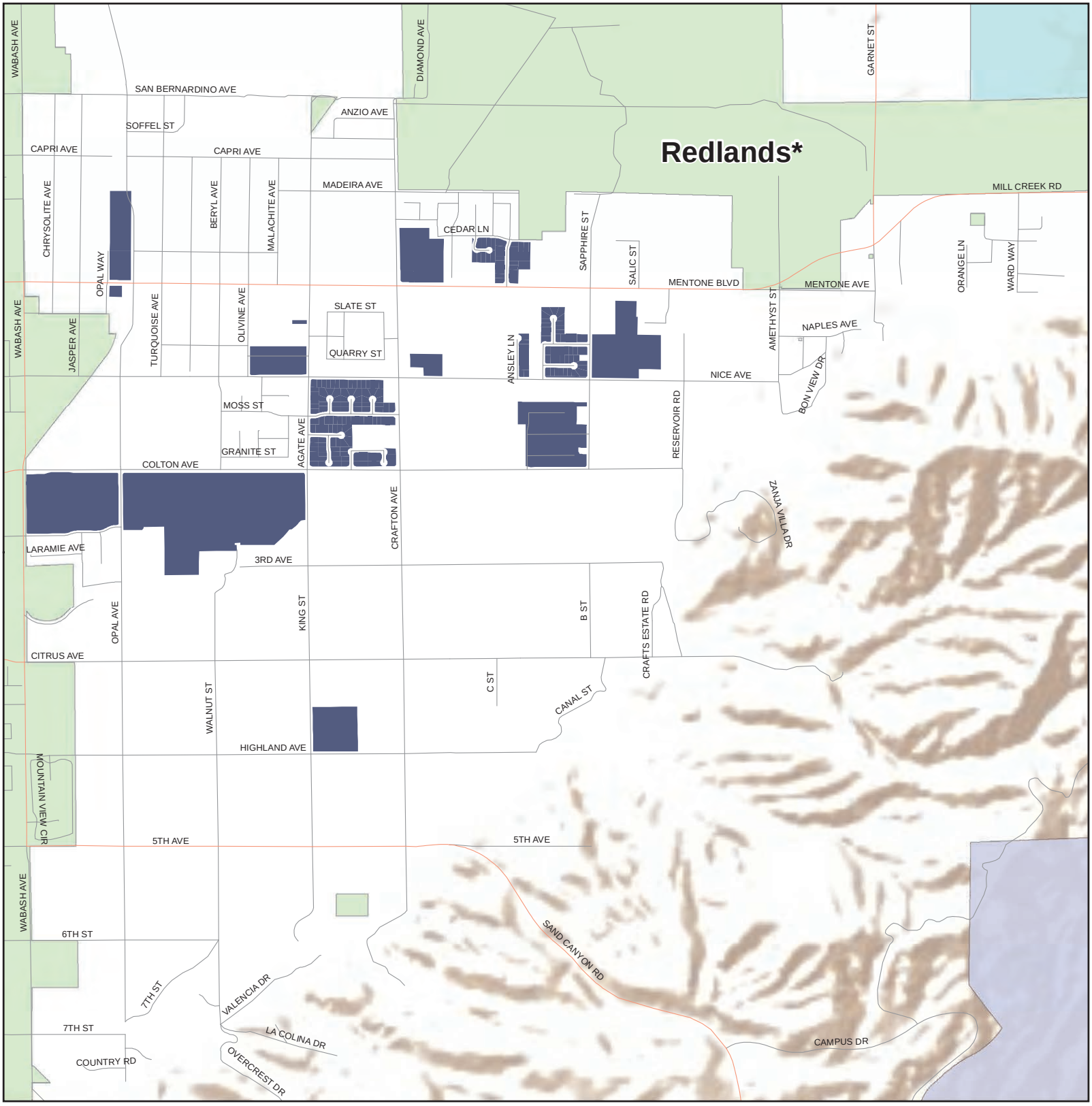
N

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Loma Linda
- City of Redlands
- City of San Bernardino
- East Valley Water District
- Yucaipa Valley Water District
- City of Loma Linda Service Contracts
- City of Redlands, LAFCO Reviewed Out-of-Agency Service

Date Created: 6/11/2018



City of Redlands Detail Map A

0 0.2 0.4 0.8 Miles

N

City of Redlands
East Valley Water District
Yucaipa Valley Water District
City of Redlands, LAFCO Reviewed Out-of-Agency Service

LAFCO for San Bernardino County

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 6/11/2018

CITY OF REDLANDS

Beginning in the 1920s up to the late 1950s, the Redlands "Sewer Farm" was located north and west of the City, on the north side of the Santa Ana River, near Alabama Street. Treatment technology at that time was limited - raw sewage was placed in a large tank, and allowed to settle. The solids were then transferred to large drying lagoons, and the liquid portion, without further treatment, was discharged into the Santa Ana River.

In the late 1950s, federal legislation was enacted which required upgrades of all wastewater treatment facilities nationwide and the elimination of all pipelines crossing water courses wherever possible. As a result of these new regulations, the City of Redlands facility was relocated in the early 1960s to the south side of the river at the north end of Nevada Street and modified to provide secondary wastewater treatment. With this method of treatment, the wastewater solids are settled in large tanks and then removed, dried and then disposed of off-site. The liquid portion is processed further to remove over 95% of the waterborne pollutants. The processed water is then percolated back into the groundwater basin.

The City's current wastewater system infrastructure consists of a total of 14,291 lateral connections with 3.5 miles of pressure sewer, 237 miles of gravity sewer and 76 miles of lateral sewer. The City's WWTP has the capability of treating 9 million gallons per day ("MGD") to a secondary level. Of that, 7.2 MGD can be treated to a tertiary level.

According to the San Bernardino Valley Regional Urban Water Management Plan (2015), the City of Redlands provides wastewater collection and treatment for all of Redland's residents through its own Wastewater Treatment Plant ("WWTP"). Additionally, LAFCO has authorized the City to provide wastewater services outside of its boundary within the Mentone and Crafton Hill communities. As of January 2018, there are 473 authorized connections outside of the City's boundary.

Wastewater collected and treated at Redland's WWTP is used for both distribution to customers and percolation into the Bunker Hill Subbasin[1]. Treated wastewater distributed to customers is tertiary treated, which is deemed recycled water. The City's recycled water customers include the Southern California Edison ("SCE") Company and recycled/non potable water customers that use the water for irrigation purposes. SCE uses recycled water as cooling water at its Mountain View Power Plant.

As identified in the San Bernardino Valley Regional Urban Water Management Plan (2015), all remaining wastewater is treated is treated to a secondary level and released into spreading basins located east of the WWTP for recharge back into the Bunker Hill ground water subbasin. Based on 2015 volumes, approximately 45% of treated wastewater was used as recycled water supply for customers, and 55% was used to recharge. According to

[1] The Bunker Hill Subbasin consists of alluvial materials that underlie the San Bernardino Valley. With a surface area of 120 square miles, the subbasin is bounded by contact with consolidated rocks of the San Gabriel Mountains, San Bernardino Mountains, and Crafton Hills, and by several faults. The Santa Ana River, Mill Creek, and Lytle Creek are the main tributary streams in the subbasin.

the City, the capacity of wastewater collection and treatment facilities is incrementally increased, as needed, to meet the demands of new development.

The City of Redland's adopted FY 2017-18 budget allocates $700,000 for upgrades to the WWTP, $100,000 for improvements to the City's Utilities Building, $750,000 for sewer line replacement and $200,000 for sewer-related special studies.

In August 2015, the City of Redlands and the Santa Ana Regional Water Quality Control Board entered into a Settlement Agreement which addressed civil liabilities assessed for the City's violation of Water Code Section 13376 when it discharged 625,000 gallons of partially treated sewage to Reach 5 of the Santa Ana River without a National Pollution Discharge Elimination System ("NPDES") permit. The settlement included a $252,684 payment made by the City of Redlands to the State Water Resources Control Board's Cleanup and Abatement Account.

Measure U

A growth management initiative referred to as Measure U was passed by City voters in 1997, as enacted within the Redlands General Plan and Municipal Code. The principles of managed development established by the measure help to assure that future development within the City occurs in a way that promotes the social and economic well-being of the entire community. Section J of the Measure states that it is "...consonant with and furthers the purpose and intent of Proposition R, approved by the voters in 1978, and Measure N, approved by the voters in 1987 with regard to the preservation of agricultural land." Specifically, development within the planning area and sphere of influence of the City of Redlands shall conform to development standards within the City. Further, the City has a total of 550 residential units available for development each calendar year (150 units within the sphere of influence and 400 units within the City). If the proposed service connection is adjacent to the City limits, then annexation is the sole method of obtaining service.

For utility connections for residential development outside of the City limits, the City adopted Ordinance 2080 in July 2015 setting forth requirements:

- The owner of the property to be served enters into a pre-annexation agreement with the City, which requires the owner to irrevocably consent to annexation proceedings.
- Payment to the City of an amount equivalent to all capital improvement and other development fees which would be applicable to the property if it were within city limits.
- The pre-annexation agreement shall provide, among other things, that in the event the property is not annexed to the City in accordance with the terms of the agreement, the owner of the property shall pay each year to the city, as liquidated damages, a sum equal to the property taxes and any sales taxes the City would have received had the property been annexed.
- The pre-annexation agreement shall further provide that the failure to make such liquidated damages payments shall be cause for the City to cease water and/or sewer service to the project.

On December 5, 2017 the City adopted its General Plan Update that provides a vision of development through 2035. The language from Measure U that amended the 1995 General Plan is incorporated and highlighted throughout the General Plan Update.

Service to Donut Hole

In 2000, the area commonly known as the "Donut Hole" was removed from the City's sphere of influence (LAFCO 2867) as allowed by Government Code Section 56429[2]. However, this removal created service delivery concerns under the provisions of Section 56133. To address these service extension funding issues, in 2003 the County and City approved Agreement No. 03-0856 whereby the City receives 90% of the sales and use tax generated in the Donut Hole. In exchange for the receipt of sales tax revenues, the agreement states that the City will provide water, sewer, fire, and police services within the Donut Hole. In the same year, LAFCO approved Service Contracts 194 and 207 which determined that the contracts between the City of Redlands and the County for fire and police services for the whole of the area, respectively, were exempt from LAFCO review based upon the exemption provisions within Section 56133.

Service in Yucaipa

Crafton Hills College currently receives its water and sewer services through the City of Redlands. This arrangement took place in the early 1970s when the college was developed. The availability of the level of service required could not be provided by the Western Heights Mutual Water Company for water service, and sewer service was not available within the community. The area, at that time, was a part of the City of Redlands sphere of influence.

sources:
City of Redlands FY 2015-16 audit
City of Redlands FY 2017-18 budget
City website
CA State Water Resources Control Board website
San Bernardino Valley Regional Urban Water Management Plan
LAFCO files

[2] In July 2000, Assembly Bill 1544 (Calderon, Granlund, and Baugh) was signed into law, which added Section 56429 to the Government Code. Section 56429 requires a petition from landowners within the Norton Air Force Base Redevelopment Project Area for removal of territory from a city sphere of influence (Redlands). Conversely, no territory removed from a city's sphere of influence pursuant to Section 56429 can be added to the city's sphere of influence unless it follows the same petition and adoption procedures outlined in the section.

City of Rialto

Rialto

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1911
Governance	5-member city council (mayor elected separately)	Square Miles	89
Website	http://www.yourrialto.com/	Population	101,740
Services	Police, fire protection and emergency medical, roads, parks and recreation, public improvements, planning and zoning, and general administrative services		

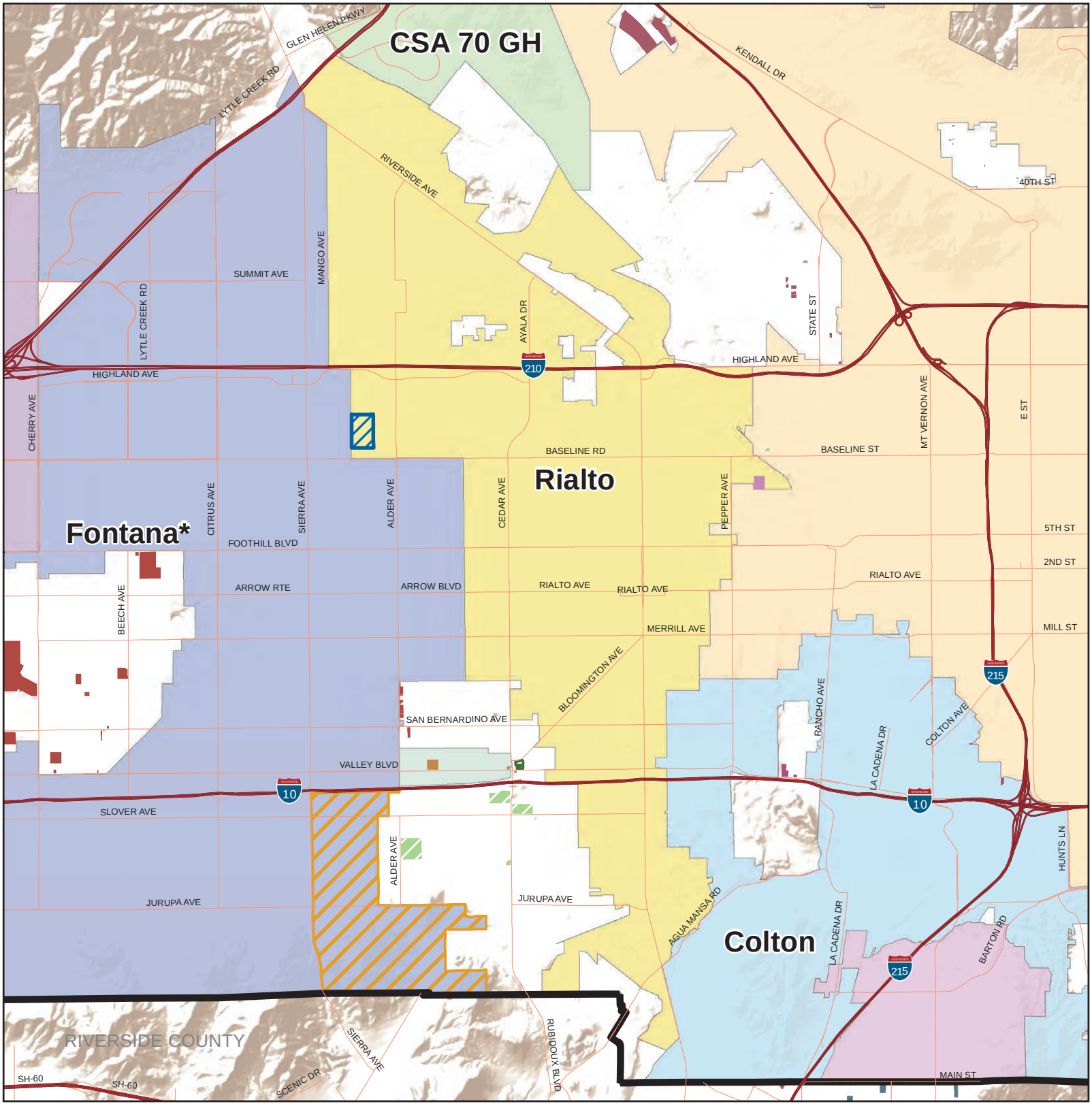
LAFCO Authority	
Fiscal Inidicators	http://sbclafco.org/FiscalIndicators/Cities/Rialto.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/EastValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	4		280			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	19,748		2			19,750	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	5%	50%	25%	20%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$61.27

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$1,094,880	$20,871,146	($6,211,166)	($3,302,001)	($408,911)
Cash & Equivalents, End of Year	$17,868,886	$38,740,032	$32,528,866	$29,226,865	$29,226,865

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
City of Rialto website



City of Rialto

0 0.75 1.5 3 Miles

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LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- CSA 70 BL
- CSA 70 GH
- City of Colton
- City of Fontana
- City of Grand Terrace
- City of Rialto
- City of San Bernardino
- Cucamonga Valley Water District
- City of Rialto Jurisdiction, Extraterritorial Service Agreement with City of Fontana without LAFCO Authorization
- Area Served without Contract with City of Rialto
- City of Colton Service Contracts
- City of Fontana Service Contracts
- City of Grand Terrace Service Contracts
- City of Rialto Service Contracts
- City of Fontana Jurisdiction, Service Provided by City of Rialto Pre Gov Code 56133
- City of Rialto, Service Provided by City of Rialto Pre Gov Code 56133
- City of San Bernardino Service Contracts
- City of San Bernardino, Area Served without LAFCO Approval
- City of San Bernardino, Service Provided Pre Gov Code 56133

Date Created: 6/11/2018

CITY OF RIALTO

The City of Rialto's wastewater treatment plant has a 12 million gallon per day ("MGD") treatment capacity with a current flow of 8 MGD. The Rialto WWTP provides sewer service to Rialto's 101,740 residents within its 89 square mile service area. The City's sewer system includes four miles of pressure sewer and 280 miles of gravity sewer. All of the City's treatment plant effluent is tertiary treated and meets Title 22 standards for recycled water usage in restricted irrigation. Reclaimed water not currently used for irrigation is discharged in the Santa Ana River.

Additionally, the Rialto WWTP treats the effluent collected from County Service Area 70 Zone BL (Bloomington). Service charges and user fees from Zone BL have helped fund a 5,150 foot sewer line connecting the Zone BL area to the Rialto WWTP. The Zone BL connections pay Rialto's wastewater treatment user fees at a rate of 1.3 times the rate for customers within Rialto's boundary. The contract between the Zone BL and Rialto identifies that Zone BL will not allow connection of more than 419 equivalent dwelling units ("EDUs") to deliver flow to the Rialto Disposal System and that after the current available capacity at the WWTP of 419 EDUs is exhausted, Zone BL will need to finance and construct improvements to the Rialto Disposal System to make additional capacity.

In January 2013, the City of Rialto awarded Veolia Water North America, a private company, a 30-year contract to manage the City's water and wastewater systems. All construction, operations, and customer service are performed by Veolia. Under the agreement the City retains full ownership of water and wastewater system assets, water rights and supply, and authority over all rate-setting.

Since 1991, through the Rialto/Fontana Extraterritorial Wastewater Service Agreement, the City of Rialto provides sewer treatment services to businesses and residents in the southeastern area of Fontana's jurisdiction. The sewer service area is within Fontana's city limits and the wastewater is conveyed to Rialto's treatment plant located within Rialto. The sewer collection system located in the southeast area of Fontana is owned and operated by the City of Fontana, up to the point of connection at the city boundaries between Fontana and Rialto. Fontana is responsible for billing residents and businesses and collecting monthly sewer service fees, which is roughly twice that of the City of Fontana rate. Fontana pays Rialto monthly sewer service fees per the agreement.

In September 2017, the City broke ground on a pilot plant to demonstrate new wastewater treatment technology designed to save energy, land, water and capital expense over existing technologies. The project is a partnership between EDPEnvironTech and Veolia and is funded through a $1.56 million grant from the California Energy Commission. The concept combines two separate processes in the wastewater treatment process into one task, instead of two, which results in economies including energy and water usage. Construction of the 200,000 gallon-per-day demonstration project is complete. The City is the first demonstration of the company's Double-Efficiency Process in the United States.

sources: City of Rialto website, Sewer System Management Plan
San Bernardino Valley Regional Urban Water Management Plan
LAFCO files

City of San Bernardino – Municipal Water Department

San Bernardino

Agency Information			
Principal Act	City Charter, Adopted 11-8-16	Year Formed	1905
Governance	Board of Water Commissioners (appointed by Mayor and subject to confirmation by Common Council)	Square Miles	81
Website	http://www.ci.san-bernardino.ca.us/water	Population City, collection Treatment, total pop.	 199,657 357,203
Services	Water, sewer (collection, treatment)		

LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/SubsidiaryDistricts/CityofSanBernardinoMunicipalWaterDepartment.aspx
Previous service review	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/EastValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

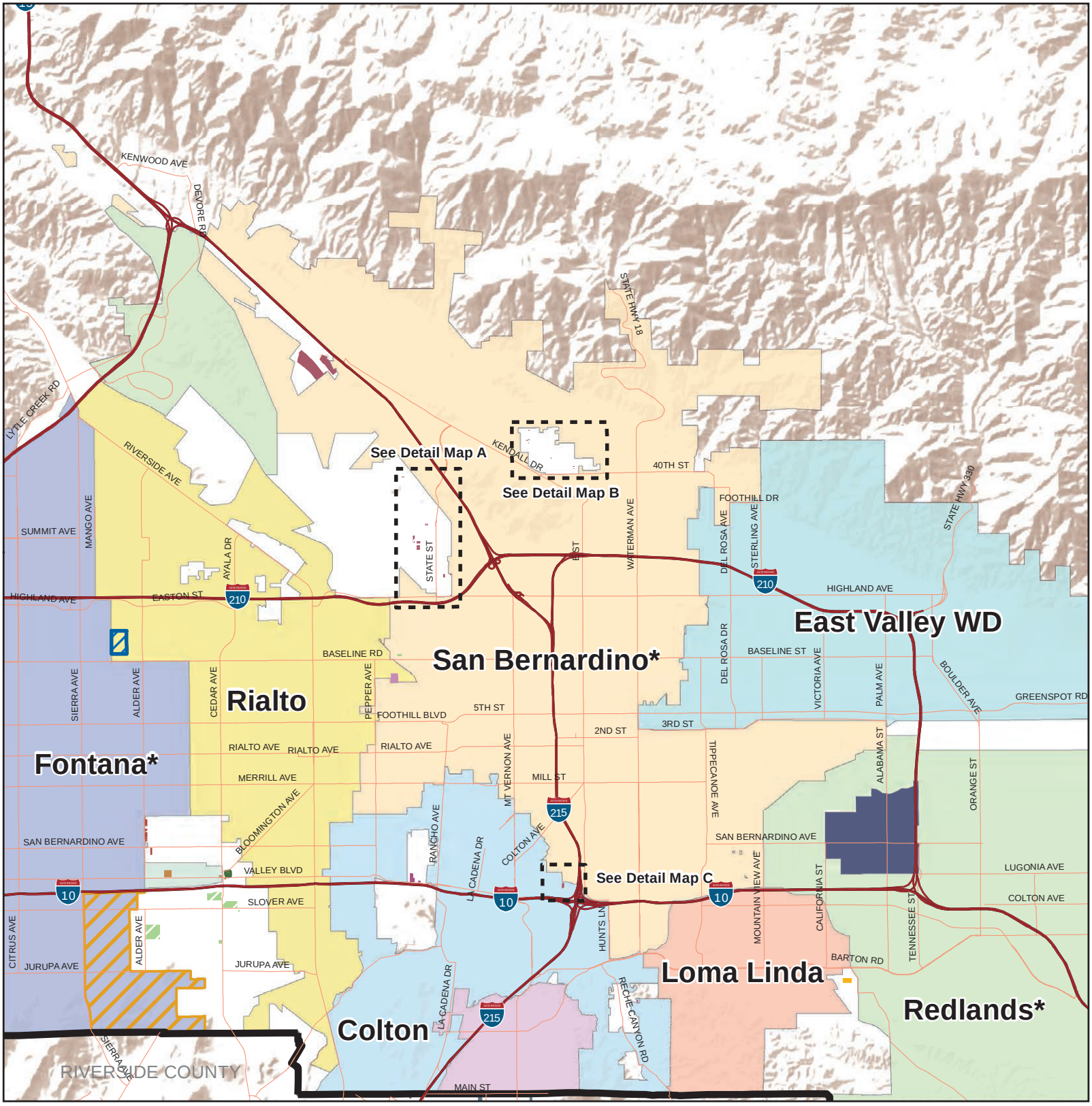
Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	1		466			1	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	38,391		15			38,406	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	8%	30%	24%	30%	5%	2%	1%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$33.00 ($9.90 for collection, $23.10 for treatment)

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($1,159,236)	($18,197,736)	($3,411,162)	($6,080,715)	$3,755,920
Cash & Equivalents, End of Year	$34,448,202	$16,250,466	$12,839,304	$6,619,012	$10,374,932

Effective May 1, 2017, the responsibility for operating and maintain the sewer collection system within the Water Department's service area formally transferred from the City's Public Works Department to the Water Department.

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of San Bernardino Water Department website
Municipal Water Department letter dated February 21, 2018



City of San Bernardino

0 1 2 4 Miles

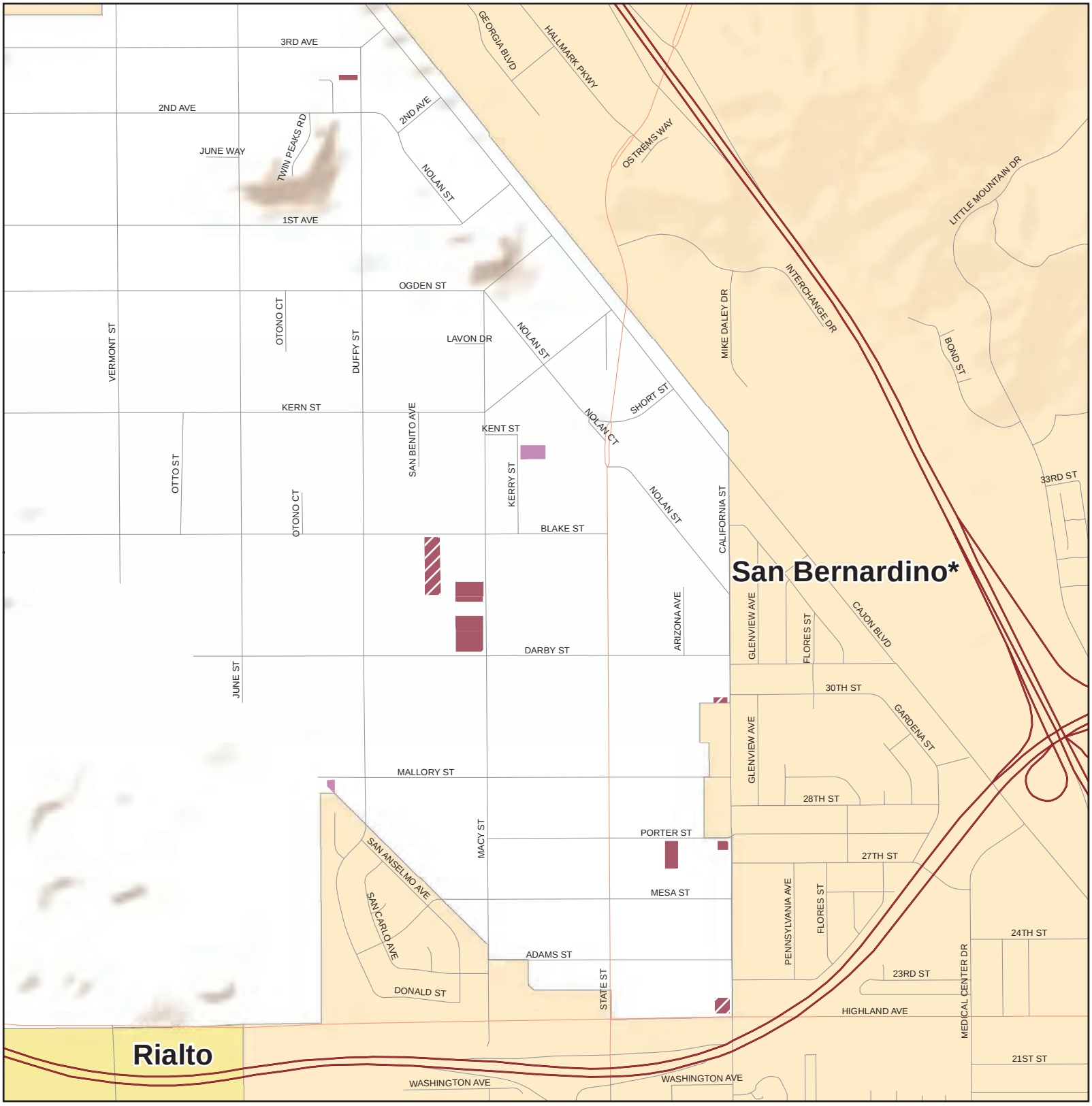
N

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- CSA 70 BL
- CSA 70 GH
- City of Colton
- City of Fontana
- City of Grand Terrace
- City of Loma Linda
- City of Redlands
- City of Rialto
- City of San Bernardino
- East Valley Water District
- City of Rialto Jurisdiction, Extraterritorial Service Agreement with City of Fontana without LAFCO Authorization
- Area Served without Contract with City of Rialto
- City of Colton Service Contracts
- City of Fontana Service Contracts
- City of Grand Terrace Service Contracts
- City of Loma Linda Service Contracts
- City of Redlands, LAFCO Reviewed Out-of-Agency Service
- City of Rialto Service Contracts
- City of Fontana Jurisdiction, Service Provided by City of Rialto Pre Gov Code 56133
- City of Rialto, Service Provided by City of Rialto Pre Gov Code 56133
- City of San Bernardino Service Contracts
- City of San Bernardino, Area Served without LAFCO Approval
- City of San Bernardino, Service Provided Pre Gov Code 56133

Date Created: 6/11/2018



City of San Bernardino Detail Map A

0 0.15 0.3 0.6 Miles

N

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Rialto
- City of San Bernardino
- City of San Bernardino Service Contracts
- City of San Bernardino, Area Served without LAFCO Approval
- City of San Bernardino, Service Provided Pre Gov Code 56133

Date Created: 6/11/2018

City of San Bernardino Detail Map B

0 0.1 0.2 0.4 Miles

N

City of San Bernardino

City of San Bernardino Service Contracts

City of San Bernardino, Area Served without LAFCO Approval

LAFCO for San Bernardino County

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 6/11/2018

City of San Bernardino Detail Map C

0 0.1 0.2 0.4 Miles

N

City of Colton

City of San Bernardino

City of San Bernardino, Area Served without LAFCO Approval

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 6/11/2018

CITY OF SAN BERNARDINO

Tertiary Treatment

On August 2, 1994, the City of San Bernardino, through its Water Department, formed a joint powers authority with the City of Colton to construct, operate and maintain tertiary wastewater treatment, disposal and water reclamations systems, including the Regional Rapid Infiltration and Extraction Facility ("RIX"). This authority is governed by a separate board consisting of four members – two appointed by the City of San Bernardino though the Water Department's Board of Commissioners and two appointed by the City Council of the City of Colton. Construction of RIX was administered by the Santa Ana Watershed Project Authority and was substantially completed during 1996, with a few additional components remaining. Administration and operation was turned over to the cities of Colton and San Bernardino at that time with the remaining construction completed over the next few years.

The RIX Facility, now co-owned and operated jointly by the cities of San Bernardino (80%) and Colton (20%) and exclusively operated by the San Bernardino Municipal Water Department. The RIX Facility provides tertiary treatment for the Cities of San Bernardino, Colton, Loma Linda, and Grand Terrace; the East Valley Water District; and some unincorporated areas. According to the San Bernardino Valley Regional Urban Water Management Plan (2015), the RIX facility treats a combined secondary-treated effluent stream of approximately 33 MGD from both Colton's Waste Water Treatment Plan and the San Bernardino Water Reclamation Plant to tertiary standards in accordance with Title 22, Division 4, of the California Code of Regulations. The RIX facility utilizes natural bio filtration through the use of percolation basins, followed by an ultraviolet disinfection system.

RIX Facility is permitted to treat up to 40 MGD and to discharge at its UV disinfection's design capacity of 64 MGD. Discharge volume is higher than influent volume because the discharge includes over-extracted groundwater. During 2016, average monthly discharges from RIX to the Santa Ana River ranged from 28 to 30 MGD.

All of the RIX-treated water is discharged into the Santa Ana River. A portion of the discharged water, 16,000 AFY, is provided by contract to San Bernardino Municipal Water District to maintain flows in the Santa Ana River, fulfilling the District's downstream obligations under the Orange County Judgment.

Regional Rapid Infiltration and Extraction Facility (RIX)

As referenced previously, the Regional Rapid Infiltration and Extraction Facility ("RIX") facility provides tertiary treatment to secondary treated wastewater effluent from the wastewater treatment facilities of Colton and San Bernardino. Treated wastewater from the Colton and San Bernardino wastewater treatment plants is percolated through earthen basins at the RIX facility. Physical, biological and chemical processes take place within the soil structure to further reduce dissolved organic matter, suspended solids, nitrogen, carbon, and pathogens. The percolated wastewater is then extracted along with more than 10 percent of the native groundwater and then channeled through ultraviolet disinfection banks prior to discharge in the Santa Ana River.

RIX – Major Capital Projects Planned

Ownership of the RIX tertiary treatment facility is divided between the City of Colton (20 percent ownership) and the City of San Bernardino (80 percent). The City of San Bernardino, in its RIX Fund Capital Improvement Plan (FY 17-18), has designated just over $8 million dollars for facilities rehabilitation to the RIX facility, including UV system rehabilitation, well retrofit, and well repair and rehabilitation. Eighty percent of that cost ($6,436,674) is the responsibility of the City of San Bernardino and 20 percent of the cost ($1,609,168) is the responsibility of the City of Colton.

City of San Bernardino – Secondary Treatment

The City of San Bernardino Municipal Water Department ("Department") was formed in 1905 under the Charter of the City of San Bernardino and is governed by the Board of Water Commissioners. Water Commissioners are appointed by the Mayor of the City of San Bernardino. The most recent Charter, approved by voters in November 2016, gave the Board "responsibility to oversee and manage the City's water supply, recycled water, wastewater collection and treatment functions in accordance with State law."[1]

The Department has operated the City's Water Reclamation Plant ("WRP") since 1973. The WRP is a 33 million gallons per day ("MGD") regional secondary treatment facility that provides wastewater treatment services for the City of San Bernardino, City of Loma Linda, and East Valley Water District. Primary and secondary treatment processes are used to meet the discharge standards specified in the National Pollutant Discharge Elimination Permit ("NPDES") issued to the WRP by the State Regional Water Quality Control Board. Secondary treated wastewater from the WRP discharges to the RIX facility.

In 2005, the Department completed a Water Reclamation Feasibility Study to explore an effective and efficient means of treating and distributing recycled water to customers within the Department's service area. The study resulted in the proposed Clean Water Factory, a project to treat effluent from the San Bernardino WRP to a quality approved for recharge – as set by the California Division of Drinking Water ("DDW") and the Santa Ana Regional Water Quality Control Board – and convey the recycled water to the Waterman Basins, East Twin Creek Spreading Grounds, and Devil Canyon and Sweetwater Basins for surface spreading in the northern portion of the Department's service area.

The Clean Water Factory will also treat a side stream of San Bernardino Water Reclamation Plan effluent to a quality approved for direct use and convey the tertiary treated recycled water to customers that can benefit from a non-potable water supply. In its FY 2017-2018 CIP, the Department has allocated $18.2 million for phases 2 and 3 of the Factory Project.

Effective May 1, 2017, the responsibility for operating and maintaining the sewer collection system within the Water Department's service area formally transferred from the City's Public Works Department to the Water Department. Since that time, the Water Department has been heavily engaged in updating its GIS database and the 2002 Sewer Master Plan.

[1] City of San Bernardino Municipal Water Department Operating and Capital Improvement Budget, FY 2017-2018

In addition to the City, sewer collection systems are operated by the County of San Bernardino, City of Loma Linda and East Valley Water District. More than 500 miles of public sewers convey wastewater from residences and businesses to the Department's WRP.

City of San Bernardino - Major Capital Projects Planned

According the Management Discussion and Analysis from the Water Department's FY 2015-16 comprehensive annual financial report, the Sewer Utility faces an extensive list of compliance-related construction requirements over the next several years.

The Department operates three enterprise funds: the Water Utility Enterprise Fund, the Sewer Treatment Utility Enterprise Fund and the Sewer Collections Utility Enterprise Fund. According to the City's FY 2017-18 Budget Summary, the San Bernardino's Sewer Treatment Utility faces an extensive list of compliance-related construction requirements over the next several years, and is also focused on rehabilitating existing facilities. The Sewer Collections Utility's immediate capital projects are designed primarily to bring facilities up to Department safety and compliance standards.

The Department and City of San Bernardino Council implemented a three-step adjustment in sewer treatment fees, rates and charges of approximately 8.5% for implementation in July 2015 and 2016, respectively; and 3.25% on July 1, 2017. A similar rate adjustment for Sewer Collections was authorized at the same time. Additionally, during Fiscal Year 2016-17, the Department issued revenue bonds for both the Water and the Sewer Treatment Utilities through the California Municipal Financing Authority. These bonds were issued to fund various capital projects for each utility.

The Department's FY 2017-2018 Capital Improvement Plan ("CIP") allocates $41 million to the Sewer Treatment Fund for facilities rehabilitation and new equipment. The largest portion ($18.2 million) is budgeted for Phases 2 and 3 of the Clean Water Project, a multi-year project designed to increase the supply of sustainable, clean water. The CIP also designates $2.85 million to the Sewer Collection Fund, primarily for lift station rehabilitation, sewer main replacement, system appurtenances and replacement, and facility and plant rehabilitation and replacement. Just over $8.1 million has been designated in the CIP for tools, equipment and facility upgrades to the RIX facility.

Table B-2:
City of San Bernardino CIP Summary

Sewer Treatment Fund Capital Improvement Plan FY 17-18						
Category	Overall Adjusted Budget as of FY 17	Prior Year Costs	Estimated FY17 Costs	Estimated Cumulative Cost to Date	Project Carry Over	CIP Budget FY 17-18
Facilities Replacement/ Rehabilitation	4,771,000	1,050,310	276,749	1,327,059	3,443,941	3,288,941
New Equipment	22,867,200	3,108,585	355,043	3,463,628	19,403,572	19,149,572
Other Funded Projects	18,516,400	6,983	139,177	146,161	18,370,239	18,170,239
Total	$46,154,600	$4,165,878	$710,969	$4,936,848	$41,217,752	$40,608,752

Source: City of San Bernardino Municipal Water Department Operating and Capital Improvement Budget FY 17-18

Sewer Collection Fund Capital Improvement Plan FY 17-18						
Category	New Project or Additional Funding	CIP Budget FY 17-18	Projected FY 18-19	Projected FY 19-20	Projected Beyond	Overall Project Budget
Facilities Replacement/ Rehabilitation	1,700,000	1,700,000	2,200,000	2,200,000	2,200,000	8,300,000
New Equipment	0	0	0	0	0	0
Other Funded Projects	1,150,000	1,150,000	1,650,000	150,000	150,000	3,100,000
Total	$2,850,000	$2,850,000	$3,850,000	$2,350,000	$2,350,000	$11,400,000

Source: City of San Bernardino Municipal Water Department Operating and Capital Improvement Budget FY 17-18

The FY 2017-18 CIP highlights the following projects:

Clean Water Factory Project:

- Improvements designed to establish a reliable, sustainable source of clean water.
- Treatment improvements to the existing WRP, which has an annual production capacity up to 36,967 acre-feet of secondary effluent.
- Addition of up to 5 MGD of tertiary filtration/disinfection facilities to the WRP to provide a source of Title 22 water to parks, golf courses and other irrigation users within the Department's service area.
- Addition of up to 15 MGD of advanced wastewater treatment to the WRP to provide a source of clean water for groundwater replenishment.
- Construction of a system to convey the recycled water to the Waterman Basins and the East Twin Creek Spring Grounds for surface spreading.
- Reduction of up to approximately 22 MGD of treated wastewater discharges into the Santa Ana River via the Rapid Infiltration and Extraction facility to be beneficially used for groundwater recharge/direct reuse; and
- Future connection of the RIX facility to the Chino Groundwater Basin and the Inland Empire Utility Agency's non-potable system; recycled water in excess of the Department's needs can then be conveyed to Inland Empire Utility Agency's service area for non-potable direct uses and groundwater recharge of the Chino Basin.

Meridian Lift Station Emergency Generator Project:

- Construct a backup generator into the Merdian Lift Station (located in West San Bernardino (east of Railto High School) to prevent overflows in the event of a power failure.

Wastewater Financial Activity

As shown below, the Cash Flows of the Water Department have experienced a decrease in cash and equivalents from 2012 through 2015, resulting in a decrease of $27.8 million, or 81%. A review of the comprehensive annual financial reports for those years provides the following explanations:

- 2013 - $24.0 million in purchase of investments
- 2014 - $3.2 million in construction in progress completed, revenues decreased by 3% while expenses increased 2% from prior year
- 2015 – completion of several long-term capital projects

Table B-3:
City of San Bernardino Cash Flows

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($1,159,236)	($18,197,736)	($3,411,162)	($6,080,715)	$3,755,920
Cash & Equivalents, End of Year	$34,448,202	$16,250,466	$12,839,304	$6,619,012	$10,374,932

For FY 2015-16, cash flows experiences the first increase in at least five years. The comprehensive annual financial report for 2016 provides the following explanations:

- During Fiscal Year 2016, total revenues for the Sewer Utility increased 3% from the prior year, while total expenses decreased almost 1% during the same time period.

- Total capital assets increased by $3 million in fiscal year 2016, with approximately $1.3 million in construction in progress completed and placed in service. Major project completions include the Santa Ana River Interceptor (SARI) Line Pipe Projection project and the rehabilitation of the asphalt at the Water Reclamation Plant.

- During the year, the Sewer Utility's long-term debt decreased $6.8 million which can be attributed to both normal debt payments as well as the defeasance of the 1998 Certificates of Participation during the fiscal year.

- A three-part water utility rate increase was presented to the Board of Water Commissioners in June 2016, and was approved after the close of the current fiscal year. A three-phase sewer treatment rate increase was approved in September 2015 consisting of increases of 8.5% implemented on October 1, 2015 and July 1, 2016 with an additional 3.25% to be implemented on July 1, 2017.

Current Proposals Related to Wastewater

In February 2018, the East Valley Water District submitted two proposals to San Bernardino LAFCO related to wastewater service. The first proposal, LAFCO 3226[2], requests Commission approval for the Water District to actively provide wastewater treatment, reclamation, disposal, and recharge services. Currently, the Water District's authorization by LAFCO for its wastewater function is limited to collection services. As stated in the opening paragraph of the LAFCO 3226 Plan for Services:

"The activation of latent powers will allow the District to plan, design, construct, operate, manage, and control wastewater treatment facilities, generating recycled water for beneficial use, including a wastewater treatment plant."

[2] LAFCO 3226 – Reorganization to Include Activation of Authorized Services to Include Wastewater Treatment, Reclamation, Disposal, and Recharge of Recycled Water

Should LAFCO 3226 be approved and completed, LAFCO Service Contract 423[3] proposes to exchange wastewater and conveyance services between the City of San Bernardino and East Valley Water District. As stated in a letter dated February 15, 2018 from the Water District to LAFCO:

"The City and District would establish a contractual arrangement allowing for the commingling/exchange of wastewater flows for specified areas within each respective service area. Flows of roughly equal quantities of Water Department [City] customers and District customers would be treated by the other agency to ensure efficient operation of the regional wastewater system. … This exchange will be invisible to the customers and will not impact their rates in any way."

sources: City of San Bernardino Municipal Water Department FY 2015-16 annual financial statements
City of San Bernardino FY 2017-18 budget, and Information provided dated October 5, 2015
City of San Bernardino Sewer System Management Plan
San Bernardino Regional Urban Water Management Plan
LAFCO files
LAFCO 3226 and Service Contract 423 applications

[3] Service Contract 423 – Exemption Pursuant to Government Code Section 56133(e) for Contract between the East Valley Water District and City of San Bernardino Municipal Water Department for Exchange of Wastewater Service

City of Upland

Upland/San Antonio Heights

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1906
Governance	5-member city council (mayor elected separately)	Square Miles	16 (approx.)
Website	http://www.ci.upland.ca.us	2015 Population	75,787
Services	Animal services, library, parks and recreation, water, wastewater, storm drains, roads, and refuse		

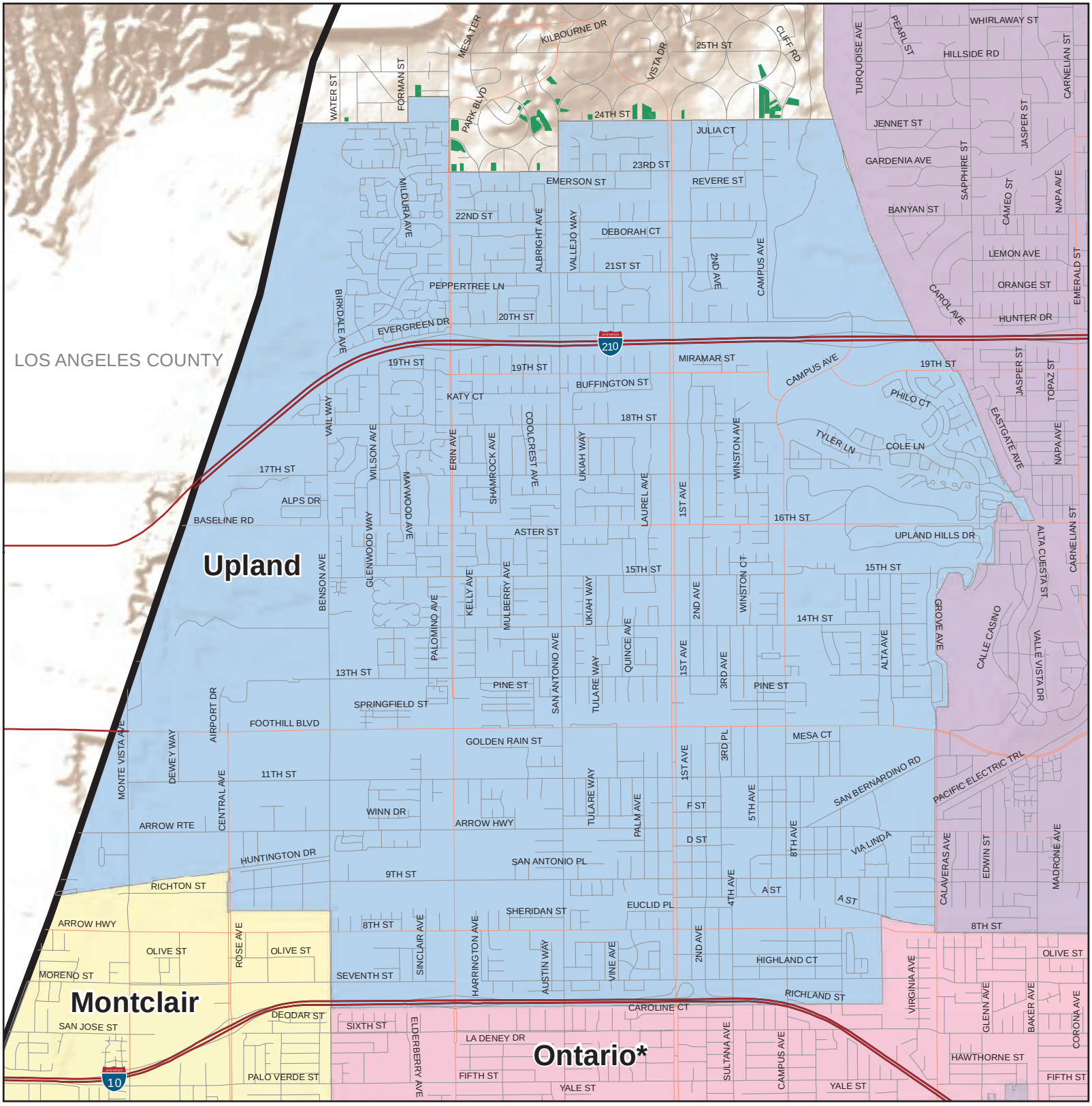
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/Upland.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0		222			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	18,687		136			18,822 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	11%	34%	37%	11%	7%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$28.49

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($362,949)	($2,966,477)	$246,314	$5,110,314	$1,033,363
Cash & Equivalents, End of Year	$5,039,561	$2,073,084	$2,319,398	$7,429,712	$8,463,075

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Upland website
City email dated February 8, 2018



City of Upland

0 0.35 0.7 1.4 Miles

N

- City of Montclair
- City of Ontario
- City of Upland
- Cucamonga Valley Water District
- City of Upland Service Contracts

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 6/11/2018

CITY OF UPLAND

The City's collection system contains 228 miles of main lines within an area of 16 square miles, comprised of roughly 17,000 connections. The collection system conveys the City's collected wastewater to Inland Empire Utilities Agency for treatment and reuse, or disposal, with the majority treated at its Carbon Canyon Reclamation Plant and RP-1 facility.

The City is divided into several grids, and every segment of sewer main in the entire sewer system is programmed for sewer cleaning and flushing at least once every 18 months or twice every three years. On a routine basis, once every two or three years, the City conducts video inspections of various segments of its public sewer mains. This inspection is in addition to the sewer flushing activity. Previous inspections showed deposits of solid/debris in sewer mains that are relatively flat and it was removed by the contracted vendors. No structural deficiency was found.

Capital Improvement Program

The Capital Improvement Program identifies a continuing major sewer program - the Citywide Sewer Rehabilitation (Hydraulic Deficiencies, Root Intrusion, and Structural Manhole Replacements).

- For 2016-17, the program included replacing old brick sewer manhole structures with new precast concrete manholes in various sections of the City at a budgeted cost of $500,000. The project was necessary to ensure sewer manhole structure and system reliability and reliable sewer disposal service.
- For 2017-18, the program includes constructing various sewer mains that have been identified through sewer modeling and CCTV inspections to contain hydraulic deficiencies and/or obstructions inhibiting flow (i.e. tree roots, concrete, rocks, debris, etc.). Project also includes replacing aged sewer manholes. The project is necessary to ensure sewer manhole structure and system reliability and reliable sewer disposal service. The current budget allocates $1,425,000.

Out-of-Agency Service

A portion within the City called the "Claremont Service Area" cannot be served due to unavailability of the City's sewer mains. Instead, it is served by an inter-agency service agreement with the City of Claremont and the Los Angeles County Sanitation District. The agreement was approved in 1982 and expires in 2032. This tributary area flows into the Claremont sewer system for conveyance to the Los Angeles County Sanitation District treatment facilities. The Claremont service area comprises two sub-areas. The first is in the northeast corner of Monte Vista Ave. and Foothill Blvd., where 17 commercial and office buildings are situated. The second is primarily residential houses situated east of the county line, north of Huntington Drive, south of Arrow Route, and west of the College Park Development (bordering Monte Vista Ave. which is west of the San Antonio Channel).

The City also provides service outside its boundaries. The area is primarily to the developments immediately north of the 24th St. (in San Antonio Heights). These homes and commercial activities have to enter into Sewer Service Agreements with the City prior to receiving the service. However, per a Memorandum of Understanding between the City

and the San Antonio Heights community, a pre-annexation agreement is not required in order for properties to receive water or wastewater services from the City.

The second area where the City provides service outside its boundaries is into Claremont, in Los Angeles County, due to lack of service by the City of Claremont in this area. The service is limited to roughly two acres of commercial development. The agreement is between the City of Upland, City of Claremont, and the property owner, which was signed in December 2016 and recorded in Los Angeles County. Per the agreement, the City of Upland is to collect the IEUA sewage treatment fees in addition to the sewage fees assessed by Upland.

sources: City of Upland FY 2017-18 budget, Capital Improvement Program, Water System Master Plan, City website, LAFCO files

County Service Area 70 Zone BL — Bloomington

Agency Information			
Principal Act	County Service Area Law Gov. Code Title 3, Div. 2, Part 2, Ch. 2.5 - §25210 et seq.	Year Formed	2013
Governance	San Bernardino County Board of Supervisors	Square Miles	0.5
Website	http://www.specialdistricts.org	Population	400
Services	Sewer collection		

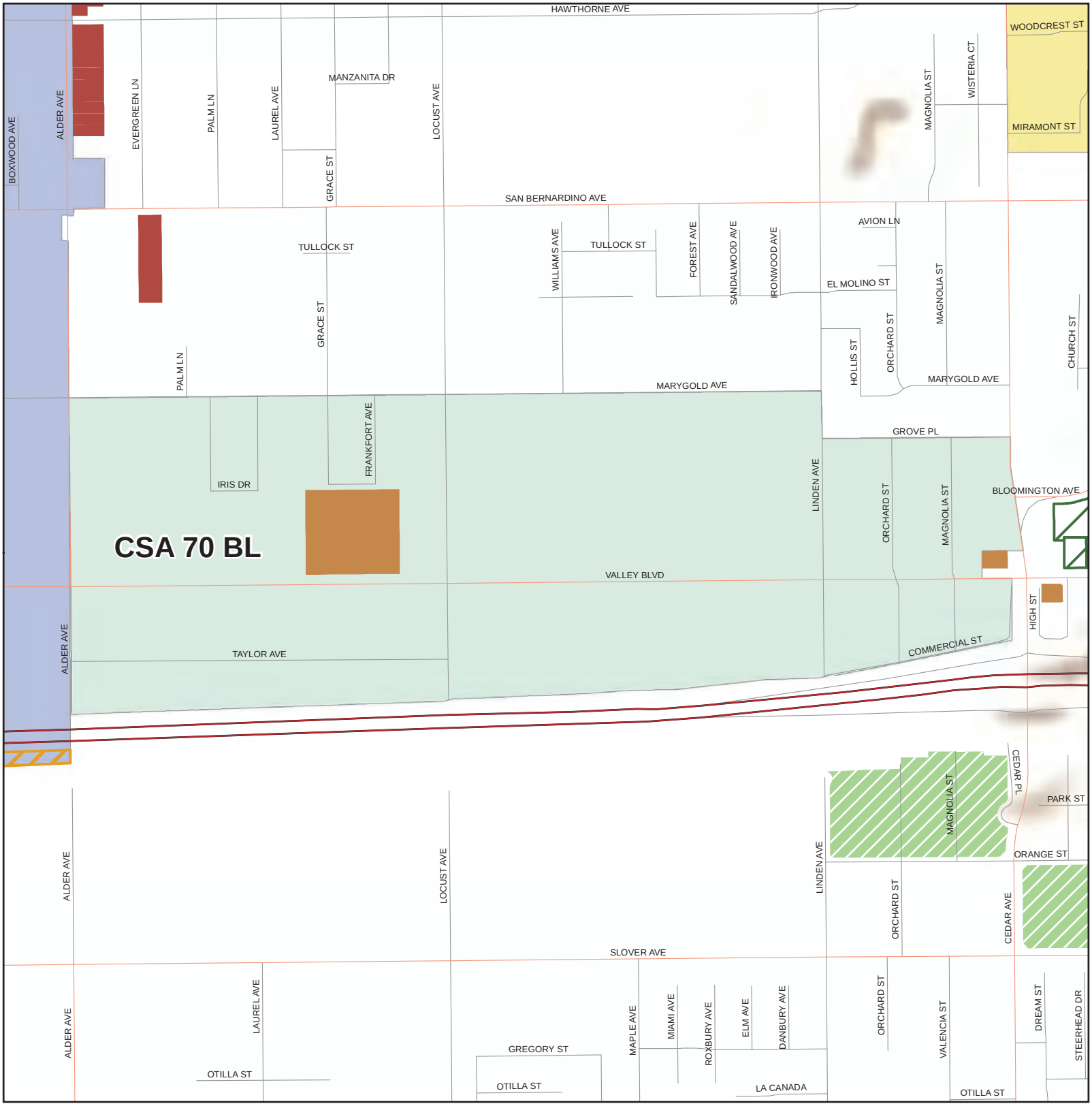
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/BOS/CountyServiceArea70ZoneBloomingtonSewer.aspx
Service Reviews	No previous

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	--		5,150			--	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	4		0			4 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	100%	%0	%0	0%	%0	%0	%0

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$88.44

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	--	--	--	($1,655,004)	$222,149
Cash & Equivalents, End of Year	--	--	--	$285,141	$507,290

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
County Special Districts Department website



CSA 70 BL

0 0.1 0.2 0.4 Miles

N

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- CSA 70 BL
- City of Fontana
- City of Rialto
- Area Served without Contract with City of Rialto
- City of Fontana Service Contracts
- City of Rialto Service Contracts
- City of Fontana Jurisdiction, Service Provided by City of Rialto Pre Gov Code 56133
- City of Rialto, Service Provided by City of Rialto Pre Gov Code 56133

Date Created: 6/11/2018

COUNTY SERVICE AREA 70 ZONE BL (BLOOMINGTON)

County Service Area 70 Zone Bloomington ("CSA 70 BL") was established by the County of San Bernardino Board of Supervisors in 2013, to provide sewer services to roughly 305 acres of the Bloomington community. It is anticipated that service will be provided to 300 EDUs as a result of a 190-unit affordable mixed-generational housing development, as well as a library. CSA 70 BL is funded by user fees and service charges. Tertiary sewage treatment is provided by contract with the City of Rialto through its Rialto Wastewater Treatment Plant.

Service charges and user fees from Zone BL have helped fund an 18-inch, 5,150 foot sewer line connecting the Zone BL area to the Rialto WWTP. The Zone BL connections pay Rialto's wastewater treatment user fees at a rate of 1.3 times the rate for customers within Rialto's boundary. The contract between the Zone BL and the City of Rialto identifies that Zone BL will not allow connection of more than 419 equivalent dwelling units (EDUs) to deliver flow to the Rialto Disposal System and that after the current available capacity at the WWTP of 419 EDUs is exhausted, Zone BL will need to finance and construct improvements to the Rialto Disposal System to make additional capacity.

Although the line has been sized for build out, only those properties that connect to the public sewer system will be charged for this service.

The creation of CSA 70 BL allowed for an alternative to private on-site septic systems for private residences, as well as provide sewer service to those properties that are prohibited from installing septic systems (commercial and industrial properties).

sources: LAFCO Files
San Bernardino Special Districts website

County Service Area 70 Zone GH — Glen Helen

Agency Information			
Principal Act	County Service Area Law Gov. Code Title 3, Div. 2, Part 2, Ch. 2.5 - §25210 et seq.	Year Formed	2005
Governance	San Bernardino County Board of Supervisors	Square Miles	5.4
Website	http://www.specialdistricts.org	Population	7,141
Services	park and recreation, open space and habitat mitigation, sewer, and streetlight services		

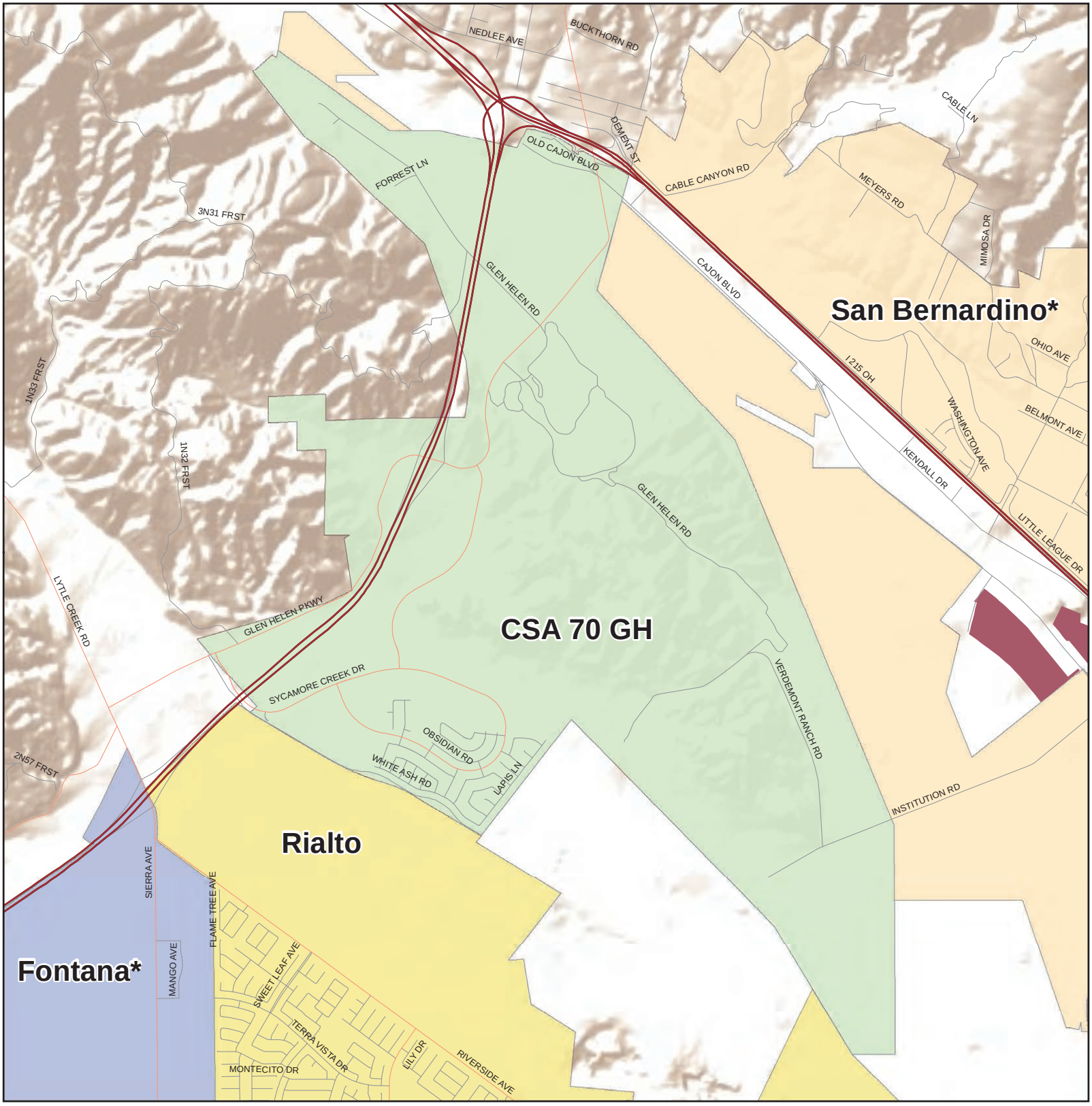
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/BOS/CSA70ZoneGH.aspx
Service Reviews	No previous

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0.1		8.1			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	1,930		0			1,930 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	100%	0%	0%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$39.79

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$679,431	$311,901	$16,097	($103,848)	($412,464)
Cash & Equivalents, End of Year	$1,914,753	$2,226,654	$2,242,751	$2,138,903	$1,726,439

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
County Special Districts Department website



CSA 70 GH

0 0.325 0.65 1.3 Miles

N

- CSA 70 GH
- City of Fontana
- City of Rialto
- City of San Bernardino
- City of San Bernardino Service Contracts

LAFCO for San Bernardino County

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 6/11/2018

COUNTY SERVICE AREA 70 ZONE GH (GLEN HELEN)

County Service Area 70 Zone GH ("Zone GH") was established by the County of San Bernardino Board of Supervisors on August 17, 2004, to provide park and recreation, habitat preservation, sewer, and streetlight services to the Glen Helen area. This sanitation zone is funded by developer contributions, user fees, and service charges to approximately 1,965 EDUs. This zone also provides sanitation services to the San Bernardino Sheriff's Department Detention facility.

Zone GH is located within the boundaries of County Service Area 70 which is operated by the San Bernardino County Special Districts Department. The service area, 5.42 square miles in size, has an elevation of approximately 2,018 feet and is surrounded by the community of Devore and the Cities of San Bernardino and Rialto. Zone GH is partially within the sphere of influence of the City of Rialto. The collection system is generally located within public roads and recorded easements.

In March 2007 the County Board of Supervisors formed Community Facilities District 2006-1 to finance a variety of facilities and services. Those that pertain to wastewater are treatment facilities and sanitary sewer system improvements. Bonds were issued in 2013 and 2015 for the construction of the wastewater facilities.[1]

Zone GH's collection system, designed for an average daily flow of 1.75 MGD, uses the Lytle Creek North Wastewater Recycling Plant ("LCNWRP") for treatment and disposal. Wastewater is treated at LCNWRP with an array of treatment methods including a bar screen, grit removal, oxidation ditch, secondary clarifier, two effluent equalization ponds, filters, and recycled water and storage and pumping.

In its FY 2017-18 budget, the County Board of Supervisors designated over $1.2 million to complete upgrades to the Zone GH sewer infrastructure. These upgrades include treatment plant improvements ($411,225), construction of a reclaimed water pipeline at Reach #1 ($660,000), and installation of a screw process for sludge ($150,000 for design).

The CSA 70GH system is annually cleaned with inspections using a CCTV; cleaning performed with a high pressure combination and/or jetter truck. The sewer collection system serving Rosena Ranch is identified as "excellent condition", and the sewer collection serving Sheriff's Glen Helen Rehabilitation Facility is identified as "good condition with no major issues".[2]

sources: CSA 70GH Sewer System Management Plan
San Bernardino County Special Districts website
FY 2017-2018 County budget
LAFCO files

[1] More information on CFD 2006-1 can be found at: http://www.specialdistricts.org/index.aspx?page=351
[2] Source: San Bernardino County, Water and Sanitation Division – memo date 9/23/14

County Service Area 70 Zone S-3 — Lytle Creek

Agency Information			
Principal Act	County Service Area Law Gov. Code Title 3, Div. 2, Part 2, Ch. 2.5 - §25210 et seq.	Year Formed	1974
Governance	San Bernardino County Board of Supervisors	Square Miles	6.5
Website	http://www.specialdistricts.org	Population	1,465
Services	wastewater		

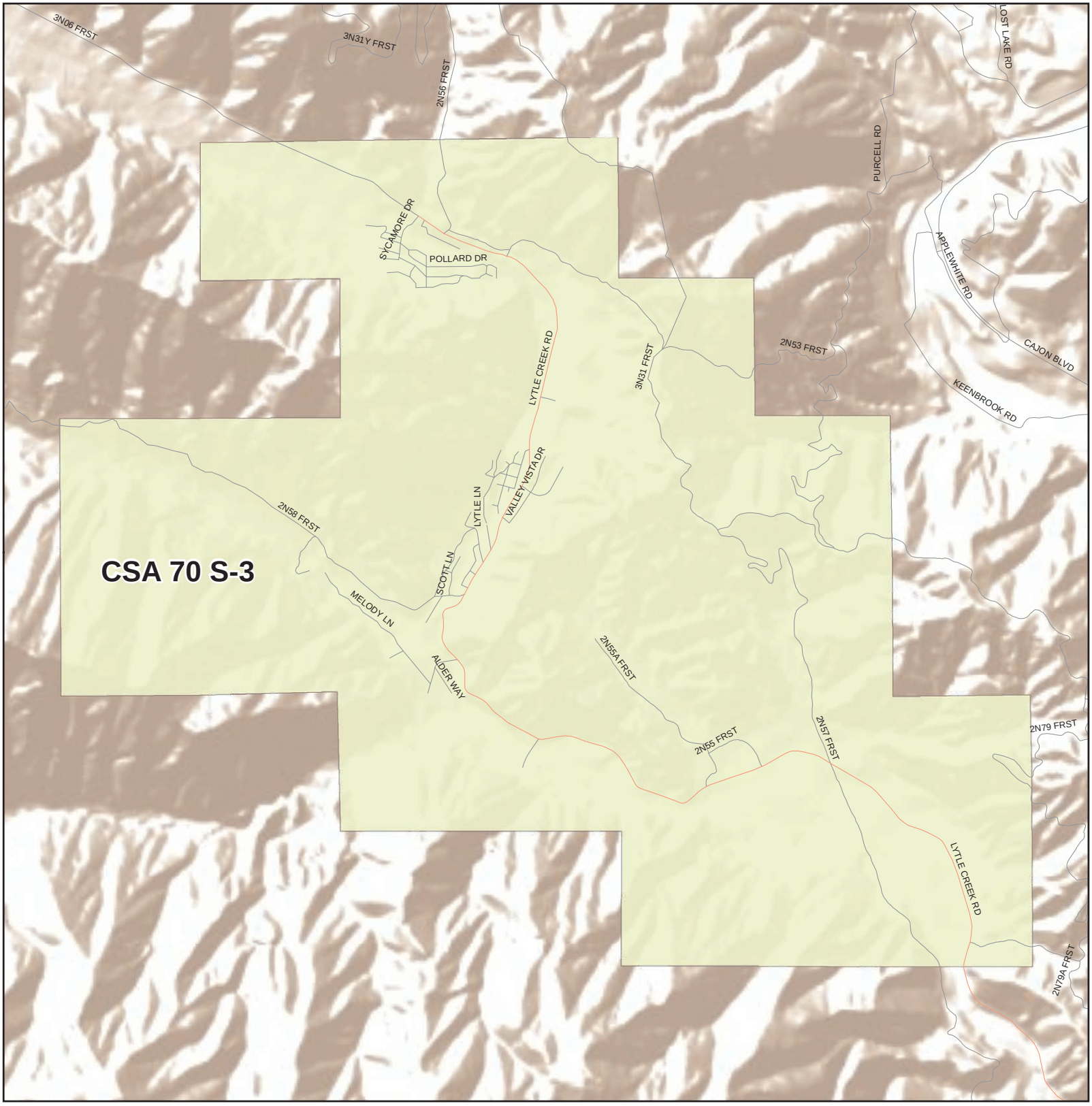
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/BOS/CountyServiceArea70ZoneS3.aspx
Service Reviews	No previous

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0.5		8.8			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	397		0			397 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	100%	0%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$59.56

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$101,636	$305,728	$65,936	$184,521	$113,054
Cash & Equivalents, End of Year	$610,379	$916,107	$982,043	$1,166,564	$1,279,618

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
County Special Districts Department website



CSA 70 S-3

0 0.25 0.5 1 Miles

N

CSA 70 S-3

LAFCO
For San Bernardino County

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

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Date Created: 6/11/2018

COUNTY SERVICE AREA 70 ZONE S-3 (LYTLE CREEK)

County Service Area 70 Zone S-3 ("Zone S-3") was established by the County of San Bernardino Board of Supervisors on December 2, 1974, to provide sewer services to the Lytle Creek community. This sanitation zone is funded by user fees and service charges to approximately 801 EDUs. The zone provides sanitation services to residents in the Lytle Creek Community and the U.S. Forest Service.

Located entirely within the San Bernardino National Forest, the community of Lytle Creek is north of the Cities of Fontana and Rancho Cucamonga. The Lytle Creek Canyon area is 6.5 square miles in size. Its elevation ranges from 2,600 feet to over 5,000 feet and includes the sub-communities of Happy Jack, Mountain Lakes, Scotland, Bonita and Apple White Campground.

Zone S-3's sewer collection system consists of 8.8 miles of gravity flow pipeline, one mile of sewer mains, two pumping stations and one force main feeding the Lyle Creek Wastewater Treatment Plant ("LCWWTP"). The collection system is generally located within public roads and recorded easements. The LCWWTP collection system was designed to convey an average daily flow of 160,000 gallons per day for treatment and disposal. Wastewater treatment at LCWWTP includes preliminary treatment with bar screening, secondary treatment with oxidation ditch and clarification, two percolation ponds and six sludge drying beds.

In its FY 2017-18 budget, the County Board of Supervisors approved funding for several upgrades to the sewer infrastructure of Zone S-3, including: $65,000 for sewer plant renovation (including the purchase and installation of an oxidation ditch that was initiated in FY 2015-16); $239,107 for the Creekside sewer line relocation and project; $150,000 for force main upgrades; and $75,000 for a bar screen upgrade.

sources: CSA 70 S-3 Sewer System Management Plan
San Bernardino County Special Districts website
FY 2017-18 County budget
LAFCO files

Cucamonga Valley Water District[1]

Rancho Cucamonga and portions of Upland, Fontana and Ontario

Agency Information			
Principal Act	County Water District Law Water Code Division 12 - §30000 et. seq.	Year Formed	1955
Governance	5-member Board of Directors, elected at large	Square Miles	46
Website	http://www.cvwdwater.com/	Population	200,466

LAFCO Authority	
Authorized Functions	Water and sewer
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/CucamongaValleyWD.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

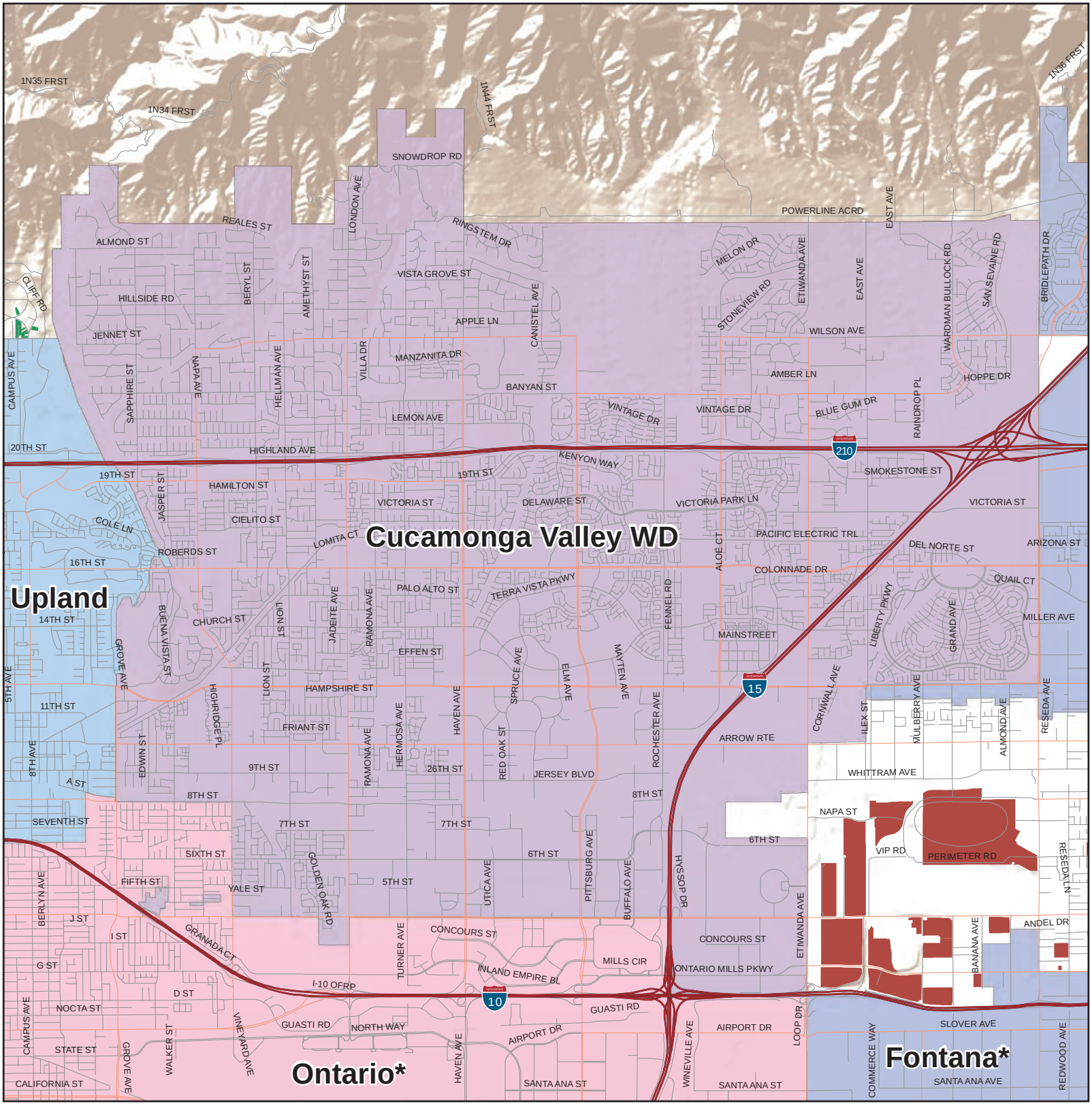
Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0.5		421			270	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	37,712		0			37,712 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	23%	43%	34%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$24.12

Cash Flows	**2012**	**2013**	**2014**	**2015**	**2016**
Increase (Decrease) in Cash & Equivalents	($6,287,696)	($463,823)	$4,316,537	($3,105,468)	$836,883
Cash & Equivalents, End of Year	$17,419,997	$16,956,174	$21,272,711	$18,167,243	$19,004,126

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
District website
Cucamonga Valley Water District Customer Service – phone call (9/28/17)
District email dated February 15, 2018

[1] In 2004 the Cucamonga County Water District formally changed its name to the Cucamonga Valley Water District.



Cucamonga Valley Water District

0 0.5 1 2 Miles

N

LAFCO
for San Bernardino County

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Fontana
- City of Ontario
- City of Upland
- Cucamonga Valley Water District
- City of Fontana Service Contracts
- City of Upland Service Contracts

Date Created: 6/11/2018

CUCAMONGA VALLEY WATER DISTRICT

The Cucamonga Valley Water District ("CVWD") collection system spans 46 square miles with a population of roughly 200,000, which includes approximately 38,000 sewer connections. CVWD's service area includes the City of Rancho Cucamonga, portions of the Cities of Upland, Ontario and Fontana, and some unincorporated areas of San Bernardino County. The District's wastewater collection system consists of approximately 400 miles of both gravity and pressure sewer pipelines and the associated manholes, two (2) small package lift stations, and thirteen (13) siphons. The age of pipelines is relatively young, with 50% constructed since 1980.

The District is composed of six independent sewer areas called sheds. The sewer sheds, and their related infrastructure systems of pipelines, lift stations, and siphons convey wastewater from the higher elevations in the northern part of the District sewer service area southerly and easterly towards IEUA Regional Water Reclamation Plant No. 1 and No. 4. The system conveys an estimated average of 12.5 million gallons per day of wastewater.

Cucamonga Valley Water District utilizes two CCTV vehicles to perform sewer line inspections of its 421 mile sewer collection system. The monthly goal for this program is to inspect 64,000 linear feet per month. A component of the District's cleaning efforts includes utilization of a jet spray and routine chemical treatment to minimize the potential for sanitary sewer overflows due to root related problems.

The 2014 Sewer Master Plan identifies future sewer pipeline replacement costs and timeline. The schedule identifies that replacement of aging pipe, ranging from 1963 to 1983, would cost approximately $47 million and take until 2030 for completion.

The Sewer Fund has two large capital improvement projects that include a new sewer line in Hellman Avenue and a new sewer line in Hermosa Avenue. Funds for both come from capital reserves.

- Hellman Avenue - This project will construct a gravity sewer line across the channel to eliminate the existing siphon. The project was designed in FY 2016. However, because the project is crossing the channel, there is a lengthy permitting process with San Bernardino County Flood Control District and Army Corps of Engineers. The project commenced construction in Fall 2017 and is estimated to be completed in FY 2018. $2.3 million.

- Hermosa Avenue - This project will construct a gravity sewer line across the channel to eliminate the existing siphon. This project will also replace a segment of reinforced plastic mortar pipe in Hermosa Ave built in 1971. $1.1 million.

sources: District website
Water System Master Plan
Sewer Master Plan CIP
FY 2017-18 budget
LAFCO files

East Valley Water District[1] — Highland

Agency Information			
Principal Act	County Water District Law Water Code Division 12 - §30000 et seq.	Year Formed	1954
Governance	5-member Board of Directors, elected at large	Square Miles	30.1
Website	http://www.eastvalley.org	Population	104,457

LAFCO Authority	
Authorized Functions	Water, sewer, park and recreation (not actively provided)
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/EastValleyWD.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/EastValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

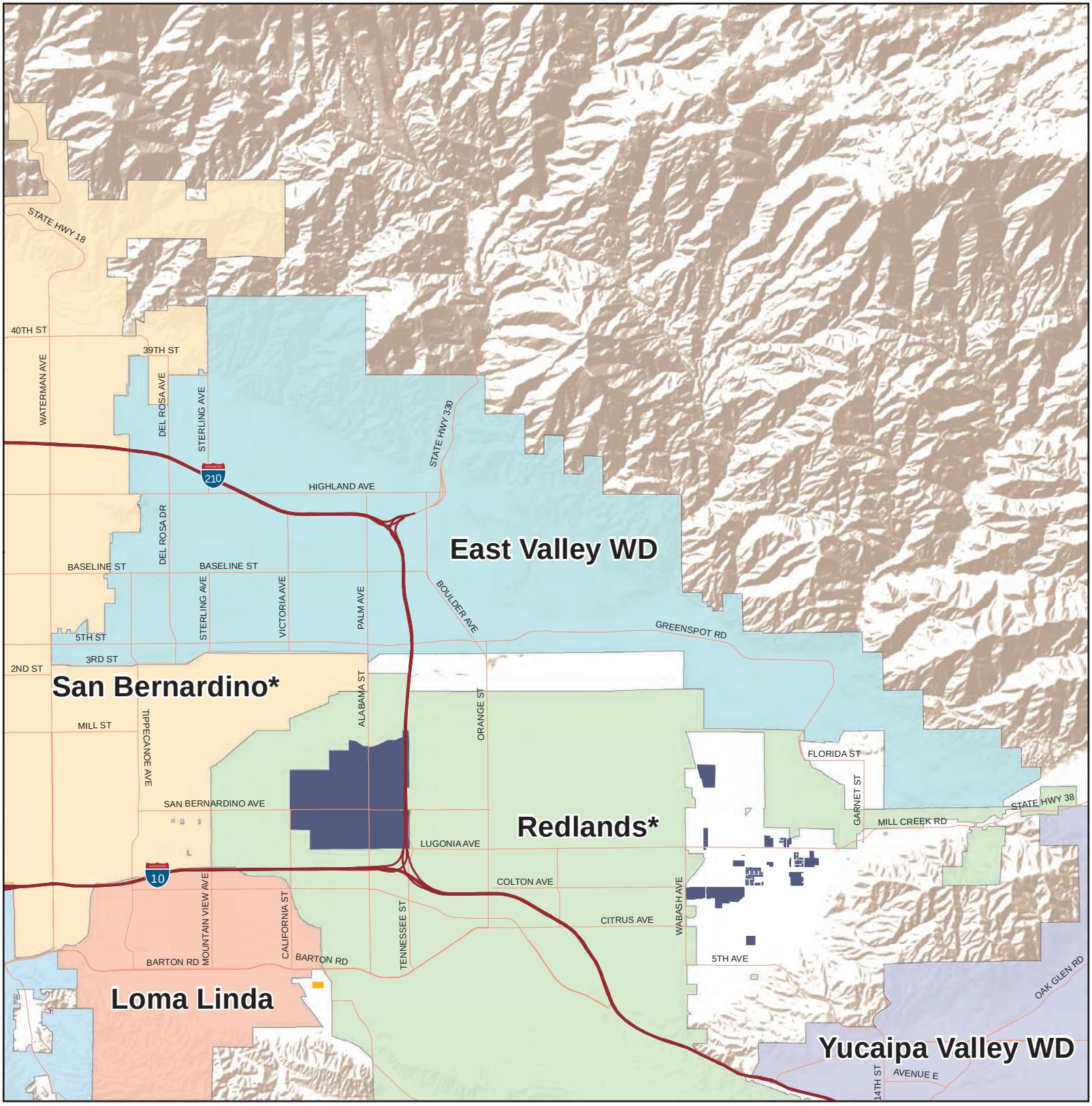
Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	0		228			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	20,506		0			20,506 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	7%	29%	33%	31%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$36.91 (west of City Creek) $38.91 (east of City Creek)

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$2,098,458	$4,946,619	($7,159,396)	($187,898)	$1,487,264
Cash & Equivalents, End of Year	$2,698,470	$7,645,089	$485,693	$297,795	$1,785,059

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
East Valley Water District website

[1] Originally formed in 1954 as East San Bernardino County Water District; name changed to East Valley Water District in 1982.



East Valley Water District

0 0.75 1.5 3 Miles

N

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Colton
- City of Loma Linda
- City of Redlands
- City of San Bernardino
- East Valley Water District
- Yucaipa Valley Water District
- City of Colton Service Contracts
- City of Loma Linda Service Contracts
- City of Redlands, LAFCO Reviewed Out-of-Agency Service

Date Created: 6/11/2018

EAST VALLEY WATER DISTRICT

East Valley Water District provides sewage collection service to its customers. Wastewater treatment is provided by a regional wastewater treatment plant, located downstream and outside of EVWD's sphere of influence. A Joint Powers Agreement was formed in 1957 between EVWD and the neighboring City of San Bernardino whereby the City treats all sewage generated within the EVWD service area.

The District's collection system includes 228 miles of gravity sewer and roughly 20,500 connections. According to the State Resources Control Board, 33% of the system's pipelines were constructed between 1960 and 1979 and 29% between 1980 and 1999.

City of San Bernardino – Secondary Treatment

The Department has operated the City's Water Reclamation Plant ("WRP") since 1973. The WRP is a 33 million gallons per day ("MGD") regional secondary treatment facility that provides wastewater treatment services for the City of San Bernardino, City of Loma Linda, and East Valley Water District. Primary and secondary treatment processes are used to meet the discharge standards specified in the National Pollutant Discharge Elimination Permit ("NPDES") issued to the WRP by the State Regional Water Quality Control Board.

Tertiary Treatment

The RIX Facility, now co-owned and operated jointly by the cities of San Bernardino (80%) and Colton (20%), provides tertiary treatment for the Cities of San Bernardino, Colton, Loma Linda, and Grand Terrace; the East Valley Water District; and some unincorporated areas. According to the San Bernardino Valley Regional Urban Water Management Plan (2015), the RIX facility treats a combined secondary-treated effluent stream of approximately 33 MGD from both Colton's Waste Water Treatment Plan and the San Bernardino Water Reclamation Plant to tertiary standards in accordance with Title 22, Division 4, of the California Code of Regulations. The RIX facility utilizes natural bio filtration through the use of percolation basins, followed by an ultraviolet disinfection system.

Current Proposals Related to Wastewater

In February 2018, the East Valley Water District submitted two proposals to San Bernardino LAFCO related to wastewater service. The first proposal, LAFCO 3226[1], requests Commission approval for the Water District to actively provide wastewater treatment, reclamation, disposal, and recharge services. Currently, the Water District's authorization by LAFCO for its wastewater function is limited to collection services. As stated in the opening paragraph of the LAFCO 3226 Plan for Services:

> "The activation of latent powers will allow the District to plan, design, construct, operate, manage, and control wastewater treatment facilities, generating recycled water for beneficial use, including a wastewater treatment plant."

[1] LAFCO 3226 – Reorganization to Include Activation of Authorized Services to Include Wastewater Treatment, Reclamation, Disposal, and Recharge of Recycled Water

Should LAFCO 3226 be approved and completed, LAFCO Service Contract 423[2] proposes to exchange wastewater and conveyance services between the City of San Bernardino and East Valley Water District. As stated in a letter dated February 15, 2018 from the Water District to LAFCO:

> "The City and District would establish a contractual arrangement allowing for the commingling/exchange of wastewater flows for specified areas within each respective service area. Flows of roughly equal quantities of Water Department [City] customers and District customers would be treated by the other agency to ensure efficient operation of the regional wastewater system. … This exchange will be invisible to the customers and will not impact their rates in any way."

sources: City of San Bernardino Municipal Water Department FY 2015-16 annual financial statements
FY 2017-18 budget, and Information provided dated October 5, 2015
City of San Bernardino Sewer System Management Plan
San Bernardino Valley Regional Urban Water Management Plan
LAFCO files
LAFCO 3226 and Service Contract 423 applications

[2] Service Contract 423 – Exemption Pursuant to Government Code Section 56133(e) for Contract between the East Valley Water District and City of San Bernardino Municipal Water Department for Exchange of Wastewater Service

Inland Empire Utilities Agency[1] — West Valley

Agency Information			
Principal Act	Water Code, Division 20 - §71000 Water Code, Appendix 20-1	Year Formed	1950
Governance	5-member board, elected by division	Square Miles	239
Website	https://www.ieua.org/	2015 Population	875,000

LAFCO Authority	
Authorized Functions	Water, sewer, total basin management
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/InlandEmpireUA.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WestValleyRegion.aspx
Round 2, Valley Region Water Conservation	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/WaterConservationNew.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

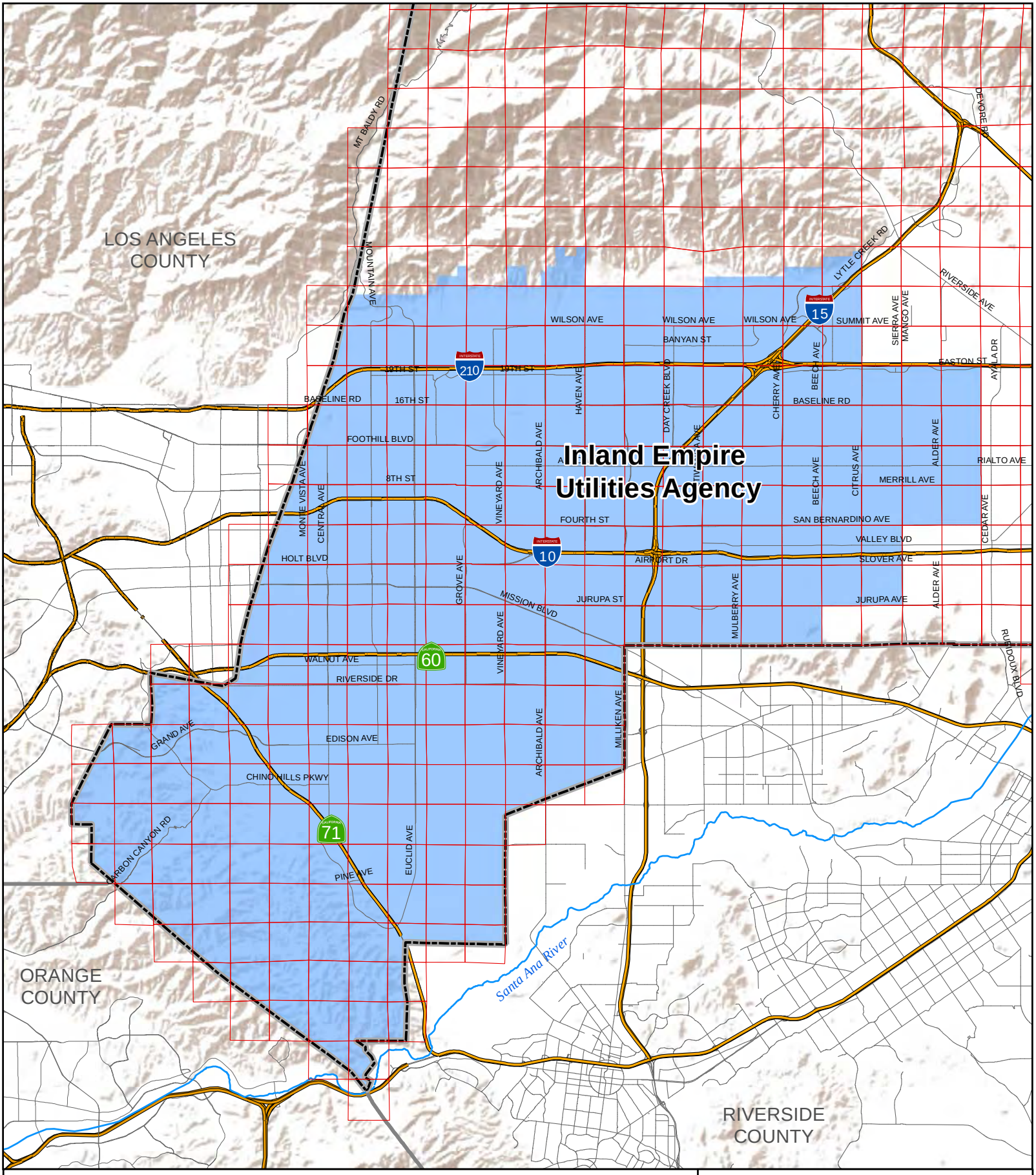
Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	5		86			0	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	21%	50%	24%	4%	0%	0%	0%

Typical Monthly Sewer Fee for Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$18.39

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$2,548,571	$31,818,463	$4,063,896	($6,451,655)	$33,382,482
Cash & Equivalents, End of Year	$63,916,386	$95,734,849	$99,978,745	$93,347,090	$126,729,572

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
IEUA website
District letter dated February 14, 2018

[1] In 1998, the Chino Basin Municipal Water District changed its name to the "Inland Empire Utilities Agency, a municipal water district". The name change was meant to reflect the changes in the district's mission.



Inland Empire Utilities Agency

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

0 1.75 3.5 7 Miles

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Inland Empire Utilities Agency

San Bernardino County

Author: Jeffrey Lum Map Created: 4/23/2018

INLAND EMPIRE UTILITIES AGENCY

As a regional wastewater treatment agency, the Inland Empire Utilities Agency ("IEUA") provides sewage utility services to seven contracting agencies under the Chino Basin Regional Sewage Service Contract: the cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Upland, and Cucamonga Valley Water District (generally Rancho Cucamonga).[1] IEUA serves approximately 875,000 residents in a 242-square mile service area.

IEUA began domestic wastewater collection during the mid-1960s and built the Southwest Chino Trunk Sewer for domestic wastewater transport. In 1973, IEUA completed lengthy negotiations on the Chino Basin Regional Sewage Service Contract with the cities of Chino, Fontana, Montclair, Ontario, Upland; Cucamonga Valley Water District; and the former County Service Area 70Q (later folded into the City of Chino Hills). Pursuant to that contract, IEUA agreed to purchase and operate three local wastewater treatment plants, and to plan and construct all new pipelines, regional interceptor sewer and treatment plants.

Wastewater within IEUA's service area is collected by two collection systems. The first system is a regional trunk system that collects municipal/domestic wastewater and conveys it to IEUA's regional water recycling plants. These facilities include wastewater collection, wastewater treatment, recycled water distribution, and biosolids handling. The second system is the Non-Reclaimable Wastewater ("NRW") System. The NRW System collects industrial and high-salinity wastewater (brine) for transport to the Sanitation Districts of Los Angeles County ("Sanitation Districts") or the Orange County Sanitation District ("OCSD") for treatment and ocean disposal.

Regional Trunk System

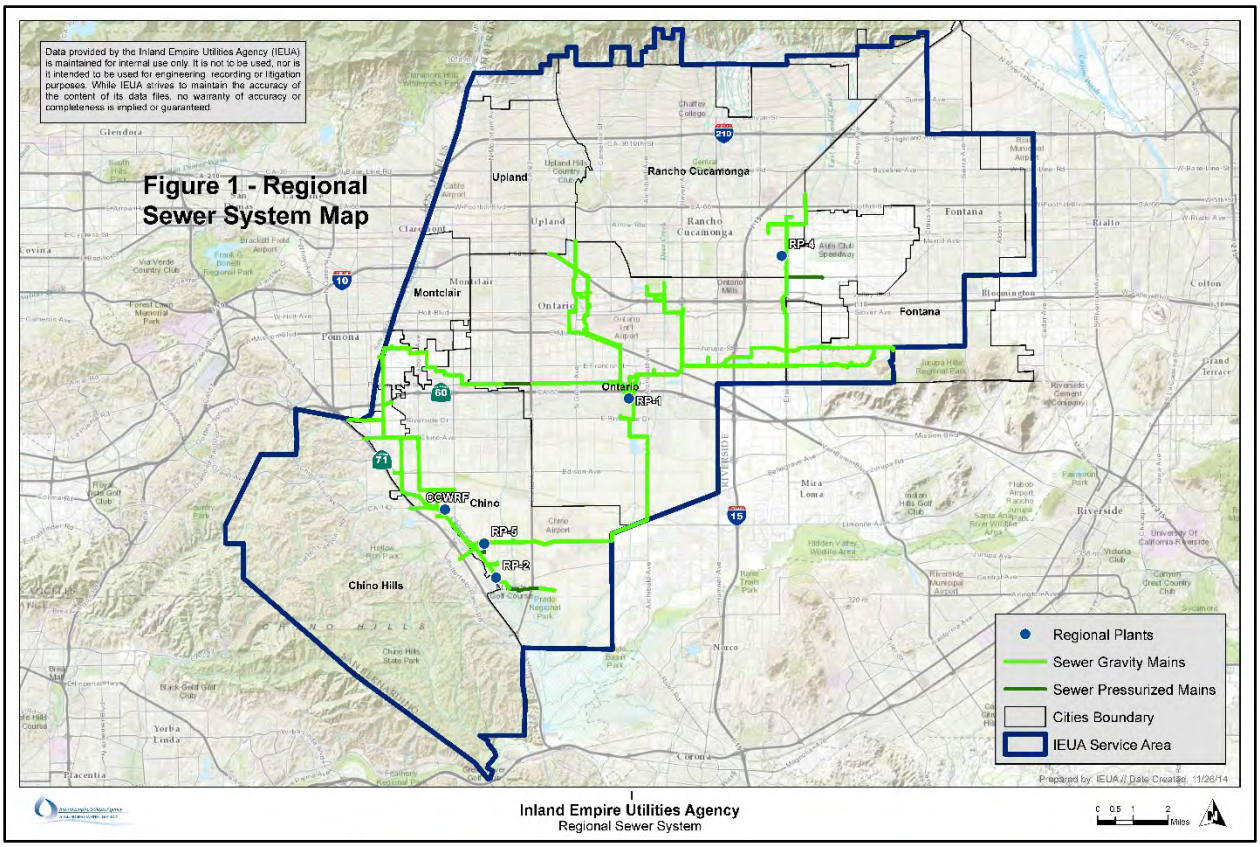
The Regional Trunk System includes 90 miles of regional sewage interceptors. All of the wastewater is treated at IEUA's Recycled Water Regional Plants, which provide advanced tertiary treatment that meets or exceeds all California Department of Public Health Services (Title 22 regulations) and Resources Water Quality Control Board's waste discharge permit requirements. IEUA currently receives approximately over 50 million gallons per day of wastewater from its regional treatment plants and delivers the recycled water for agriculture, municipal irrigation, industrial uses, and for groundwater replenishment.

Municipal/domestic wastewater is treated at one of four regional water recycling plants: Regional Water Recycling Plant No. 1 ("RP-1"), Regional Water Recycling Plant No. 4 ("RP-4"), Regional Water Recycling Plant No. 5 ("RP-5"), and Carbon Canyon Water Recycling Facility ("CCWRF"). The liquid treatment facilities at these plants are designed to produce Title 22 water that can be reused or recharged into the groundwater. Recycled water is distributed from each facility into six different recycled water pressure zones for reuse. To date, IEUA has more than 531 active connections to the recycled water distribution system. Recycled water in excess of the recycled water demand is dechlorinated and discharged to streams that are tributary to the Santa Ana River.

[1] In addition to the contracting agencies, IEUA provides wholesale imported water from the Metropolitan Water District of Southern California to seven retail agencies: the cities of Chino, Chino Hills, Ontario, Upland, CVWD in the city of Rancho Cucamonga, Fontana Water Company in the city of Fontana, and the Monte Vista Water District in the city of Montclair.

Biosolids are produced at the four liquid treatment facilities that require stabilization and disposal. IEUA operates two solids treatment processes located at RP-1 and Regional Water Recycling Plant No. 2 ("RP-2"). The RP-1 solids handling process treats biosolids produced at RP-1 and RP-4, and the RP-2 solids handling process treats biosolids produced at RP-5 and CCWRF. Biosolids are thickened, stabilized, and dewatered at each facility, then are trucked to the Inland Empire Regional Composting Facility ("IERCF") for composting. The IERCF is operated by the Inland Empire Regional Composting Authority, which was created by a joint powers agreement between IEUA and the Sanitation Districts. The IERCF accepts biosolids from both the IEUA and the Sanitation Districts treatment facilities and produces a high-quality soil amendment. The figure below identifies the Regional Trunk System mains and treatment plants.

Figure B-5:
IEUA Regional Sewer System Map



Source: Regional Annual Report, 2015-16

Contracting Agencies

The contracting agencies are integral to the overall regional system. First, IEUA does not maintain a Fats, Oils, Grease ("FOG") program. Each individual contracting agency maintains their own FOG program as part of their respective source control program. Second, the sewage lateral pipelines are owned and maintained by the individual

contracting agencies. According to the IEUA 2015 Sewer System Management Plan ("SSMP"), a condition assessment conducted over the past several years revealed that the majority of collection systems are in relatively good structural condition with minimal repairs needed. In compliance with the SSMP, the maintenance policy for collections systems include the following elements:

A. Maintain an up-to-date map of the sanitary sewer systems showing all infrastructure and facilities.
B. Implement a routine preventive maintenance by staff and contractors including documentation of completed maintenance tasks in the Computerized Maintenance Management Software.
C. Implement a rehabilitation and replacement plan through Agency's Asset Management Program.
D. Provide training and certification requirements for current staff in sanitary sewer systems operations and maintenance.
E. Provide equipment and part inventories for critical equipment and spare parts.

As for the private entities, IEUA provides service to Prologis, California Steel Industries, and the Fontana Speedway. None of these private entities perform pretreatment of their waste. Per the IEUA-Prologis agreement, IEUA owns, operates, maintains, and repairs the "Permanent System" which includes the IEUA San Bernardino Lift Station and the public right of way sewer lines. Maintenance of all the other sewer lines/laterals from Speedway, Prologis' warehouses, and CSI are the responsibility of the respective owners. The City of Fontana's role is to collect the user fees.

According to IEUA, regional contract discussions with contracting agencies have been underway for the last year. A contract with a facilitator was formally entered into in September 2017. The regional contract negotiation process is currently underway between IEUA and the contracting agencies. It is expected that the negotiation process will be complete within the next two years. The facilitated contract negotiation process may define any changes to IEUA roles and responsibilities regarding wastewater service within its boundaries.

Out-of-Agency Service

IEUA also has approved extra-territorial areas that discharge to the City of Fontana sewer system which is ultimately treated at IEUA's water recycling plants. According to IEUA, it receives influent from 32 commercial and 520 residential connections outside of its boundary. For commercial, this equates to 288 EDUs for a total use of 131,593 gallons per day ("gpd"). As for residential connections, this equates to 1,031 EDUs with an average use of 270 gpd.

Per the Section 12 of the Chino Basin Regional Sewage Service Contract (as amended October 1994), if an IEUA contracting agency was furnishing sewer service to any territory outside the boundaries of IEUA and its Improvement District C in October 1994, it may continue to furnish such service and shall be entitled to the services and facilities of the Regional Sewerage System for that purpose. If the contracting agency desires to furnish sewer service outside of the IEUA and Improvement District C boundaries after 1994, IEUA

authorization is required first. In either case, the contracting agency shall pay IEUA special capital outlay charges.

In January 1997, IEUA approved the City of Fontana's application for extra-territorial sewer service for all areas within the City of Fontana sphere of influence. According to the IEUA memorandum dated January 15, 1997 related to this matter, the Exhibit A to the memorandum identifies the Fontana sphere of influence as the Fontana sphere as of that time. Therefore, any subsequent sphere expansions to the City of Fontana sphere would not be covered by said approval.

Non-Reclaimable Wastewater System

The Non-Reclaimable Wastewater System ("NRW") began in 1964 and was installed to encourage industry to locate within the IEUA's service area. The primary function of the NRW System is to export high-salinity wastewater out of IEUA's service area. The NRW System is a key element in the IEUA's salinity management program.

Discharging to the NRW System instead of the Regional System keeps salt out of the water recycling facilities, ensuring that IEUA meets the Total Dissolved Solids ("TDS") and total nitrogen limits listed in the National Pollutant Discharge Elimination System ("NPDES") permits. This enables IEUA to produce a reliable recycled water supply for the region. The NRW System collects industrial and high-salinity wastewater (brine) for transport to the Sanitation Districts or to the Orange County Sanitation District ("OCSD") for treatment and ocean disposal. To promote the use of recycled water throughout the IEUA service area, the NRW recycled water users were provided a 50 percent discount off of IEUA's direct recycled water rate. The discount will be decreased by five percent each fiscal year thereafter until it sunsets on June 30, 2024.

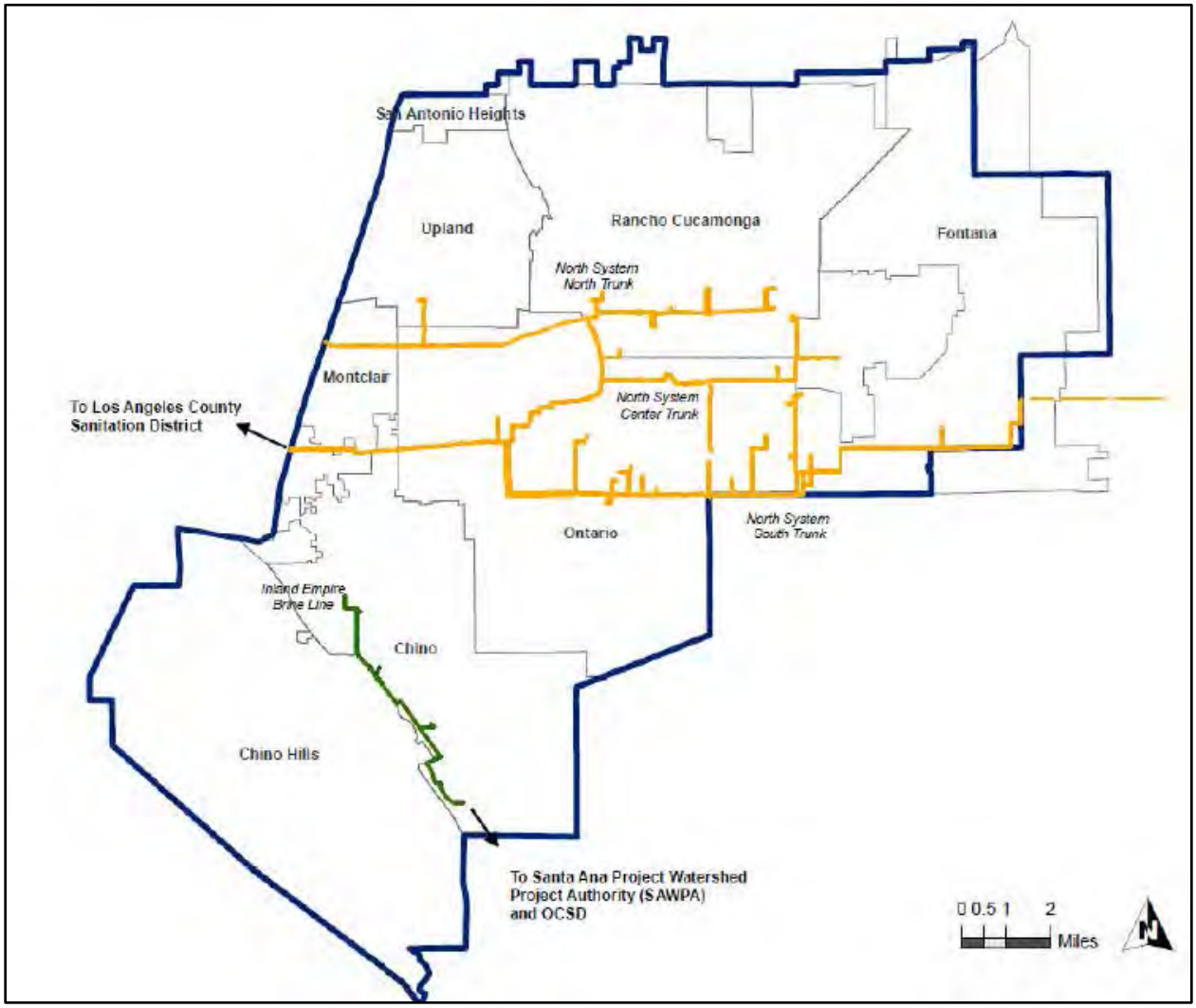
In April 1972, IEUA entered into a contract with OCSD for the construction of a 30 million gallon per day (mgd) increment of capacity in a brine removal interceptor, to be constructed by OCSD from Fountain Valley to the Orange/San Bernardino County line. The Santa Ana Watershed Project Authority ("SAWPA") completed construction of the 30 mgd interceptor from that point through Prado Dam. Under Project Agreement #1, this 30 mgd capacity was assigned to SAWPA, with IEUA retaining rights to use up to 11.25 mgd of this capacity. IEUA's share of the construction costs not funded by grants was $1,179,204. Over the course of time, IEUA has purchased capacity from SAWPA in the Santa Ana Regional Interceptor System, now called Inland Empire Brine Line.

The NRW System consists of three trunk lines which are briefly described below and shown in the following figure:

- In the IEUA north service area, NRWS and Etiwanda Wastewater Line convey the wastewater to the Sanitation District's sewer system; and

- In the IEUA south service area, the Inland Empire Brine Line (also known as the Santa Ana Regional Interceptor – SARI) conveys the wastewater from IEUA's southern service area to the OCSD's sewer system.

Figure B-6:
NRW Pipeline Map



Source: IEUA Audit, 2015-16

Joint Projects, sample

The regional systems require responsibilities of each contracting agency as well as collaboration amongst the parties. Below is a sampling of collaboration with the region:

- IEUA/City of Ontario Sewer Conveyance Facilities of the Eastern Trunk Sewer Kimball Interceptor Sewer Extension and RP1 Outfall (CKB02074) (2003). Participation in the construction and joint-use of an Eastern Trunk Sewer and RP-1 Outflow to reduce overall costs and transport flows from IEUA's Regional Plant No. 1 and Ontario's Turner Pump Station to the Eastern Trunk Sewer. Both of these facilities to be owned jointly by IEUA and Ontario and not considered part of the

Regional infrastructure governed by the Chino Basin Regional Sewage Service Contract.

- Church Lateral Construction and Purchase Between IEUA and Cucamonga Valley Water District ("CVWD") (46_525) (2009). IEUA provided the financing and grant administration support for construction of the Church Lateral. CVWD provided all aspects of design, construction and ongoing operation of the facility. At completion of construction and final payment by CVWD, IEUA transferred title to the facilities to CVWD.

- San Bernardino Lift Station – Joint project with City of Fontana. Sewer lift station to send flow to Regional Plant No. 4. Fontana was the lead agency for the design, construction and financing. IEUA reimbursed the City of Fontana for expenses.

- Monte Vista Water District RW laterals – Recycled Water Pipeline, joint project with Monte Vista Water District (MVWD). IEUA lead agency for the design, construction, and financing; MVWD reimbursed IEUA for the loan payment.

Major Capital Projects Planned Over the Next 10 Years

The results of the IEUA 10-year capacity demand forecast based on the FY 2018-19 CIP participating agency survey are summarized in the first figure below. For FY18-19, the forecasted activity was 6,149 new EDUs. Over the next ten years, activity was projected to total 55,786 EDUs. Approximately 60% of this activity is projected to occur in the cities of Ontario and Fontana as the result of new development. The figure below indicates the projected additional EDUs by treatment plant over the next 10 years.

Figure B-7:
IEUA 10-Year Additional Capacity Demand Forecast by Agency

Fiscal Year	Chino	Chino Hills	CVWD	Fontana	Montclair	Ontario	Upland	Total
2018/19	705	442	790	793	287	2,720	412	6,149
2019/20	470	272	1,240	840	139	2,930	403	6,294
2020/21	430	182	1,650	808	32	3,180	350	6,632
2021/22	355	133	2,050	762	32	3,180	321	6,833
2022/23	262	96	2,050	700	32	3,180	121	6,441
2023/24	262	64	1,650	693	32	2,960	92	5,753
2024/25	262	6	1,250	720	32	2,770	82	5,122
2025/26	262	1	890	731	32	2,610	64	4,590
2026/27	262	0	490	720	32	2,480	57	4,041
2027/28	262	0	490	720	32	2,370	57	3,931
TOTAL	3,532	1,196	12,550	7,487	682	28,380	1,959	55,786
Percent	6%	2%	23%	13%	1%	51%	4%	100%

Source: IEUA Fiscal Year 2018/19 Ten-Year Capital Improvement Plan

Figure B-8:
IEUA 10-Year Additional Demand Forecast by Regional Plant

Fiscal Year	Residential (EDUs)	Commercial/ Industrial	Total (EDUs)
2018/19	4,447	1,702	6,149
2019/20	4,665	1,629	6,294
2020/21	5,003	1,629	6,632
2021/22	5,241	1,592	6,833
2022/23	5,056	1,385	6,441
2023/24	4,461	1,292	5,753
2024/25	3,904	1,218	5,122
2025/26	3,430	1,160	4,590
2026/27	2,922	1,119	4,041
2027/28	2,842	1,089	3,931
TOTAL	41,971	13,815	55,786

Source: IEUA Fiscal Year 2018/19 Ten Year Capital Improvement Plan

Included in the FY 2018-2027 Ten-Year Capital Improvement Program ("CIP") is the expansion and improvement of existing IEUA facilities to meet the needs of future growth and optimization of the wastewater collection system, wastewater treatment system and the regional recycled water distribution system. The following figure presents the design capacities and average flows of the water recycling facilities as of June 30, 2016. As shown, the total average flow is roughly 57% of design capacity, with the highest capacity being RP-4 at 71%. The measures that IEUA is taking to address its projected additional demand and design capacities are discussed below.

Figure B-9:
IEUA Water Recycling Facilities Capacities and Flows

Facility	Design Capacity (MGD)*	Average Flow (MGD)*	Average Flow as % of Design Capacity
RP-1	44.0	23.5	53.4%
RP-4	14.0	10.0	71.4
RP-5	15.0	8.0	53.3
CCWRF	12.0	6.9	57.5
Total	**85.0**	**48.4**	**56.9%**

**MGD = million gallons per day*

Source: IEUA 2016-17 audit

One of the key objectives included in the IEUA Business Goal Wastewater Management is to ensure systems are managed and constructed so that 90 percent of capacity is never exceeded. To prepare for the anticipated growth, IEUA initiated an update of some of the key long term planning documents, including their Wastewater Facilities Master Plan ("WFMP") last updated in 2002. The update included an assessment of the general plans for each of the IEUA member agencies to identify planned land use and growth projections

through 2060. These growth forecasts served as the basis to identify future wastewater and organics infrastructure needs throughout the IEUA service area.

The acquisition, construction, improvement, and expansion of the IEUA regional wastewater system are supported by the regional wastewater connection fee. The IEUA Board of Directors adopted five-year EDU[2] volumetric rates in 2015 intended to achieve full cost of service by FY 2018-19 based on certain key assumptions. The figure below shows the adopted rate of $18.39 for FY 2017-18. According to the IEUA FY 2017-18 budget, it is on track to meet its cost of service objective at the end of the five-year period. Projected growth in number of monthly EDUs is estimated at 0.25 percent each year. Program rates and fees will be evaluated and updated in FY 2019-20, the final year of the five year adopted rates.

Figure B-10:
IEUA Adopted Treatment Rates

Rate Description	2015/16	2016/17	2017/18	2018/19	2019/20
EDU Volumetric Rate	$15.89	$17.14	$18.39	$19.59	$20.00
Effective Date	10/1/15	7/1/16	7/1/17	7/1/18	7/1/19
EDU Units	3,215,268	3,281,664	3,289,868	3,298,092	3,306,338

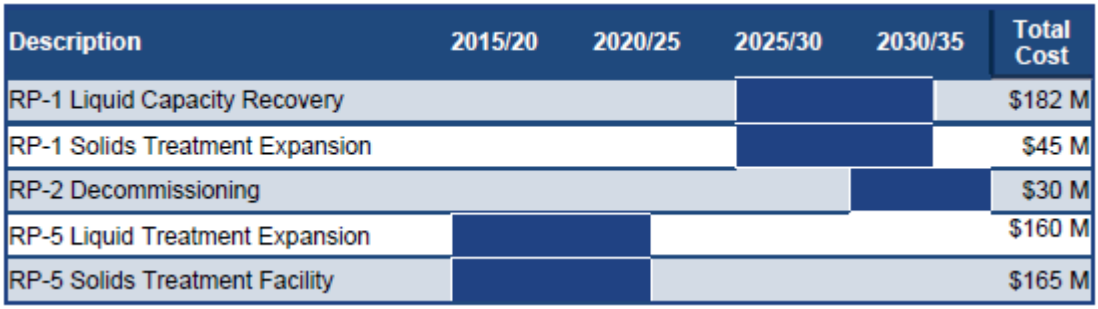
Source: IEUA Fiscal Year 2017-18 Budget

Capital projects in the Regional Wastewater program accounts for $604 million of the total $833 million CIP. Approximately $493 million of the Regional Wastewater Program capital project spending is scheduled within the first five fiscal years (2018-2022). Such high capital expenditures in the Regional Wastewater program are necessary to account for projects that were deferred during the most recent economic downtown. The major wastewater capital projects are identified in the figure below. To prepare for the anticipated growth, included in the CIP is the RP-5 Liquid and Solids Treatment Expansion project (RP-5 Expansion project) that will double plant capacity from 15 to 30 million gallons per day (MGD), and relocate solids handling processing from Regional Water Recycling Plant No. 2 (RP-2).

The Ten-Year Capital Improvement Plan is funded 48 percent on a pay-go basis, 45 percent by debt including State Revolving Fund loans and bond proceeds, 5 percent by grants, and the remaining 2 percent by contributions from member agencies and joint power authorities.

[2] As defined in the Regional Contract, an EDU is equivalent to 270 gallons per day.

Figure B-11:
IEUA Major Wastewater Capital Projects



Description	2015/20	2020/25	2025/30	2030/35	Total Cost
RP-1 Liquid Capacity Recovery					$182 M
RP-1 Solids Treatment Expansion					$45 M
RP-2 Decommissioning					$30 M
RP-5 Liquid Treatment Expansion					$160 M
RP-5 Solids Treatment Facility					$165 M

Source: IEUA Fiscal Year 2018-19 TYCIP

sources: IEUA Sewer System Master Plan
IEUA 2018-2027 CIP
IEUA Wastewater Facilities Master Plan
IEUA 2017-18 Budget
IEUA 2018-19 Ten Year Capital Improvement Plan (TYCIP)
LAFCO files
IEUA website

Yucaipa Valley Water District — Yucaipa, Calimesa

Agency Information			
Principal Act	County Water District Law Water Code Division 12 - §30000 et. seq.	Year Formed	1971
Governance	5-member Board of Directors, elected by division	Square Miles	40
Website	http://www.yvwd.dst.ca.us	2015 Population	44,745

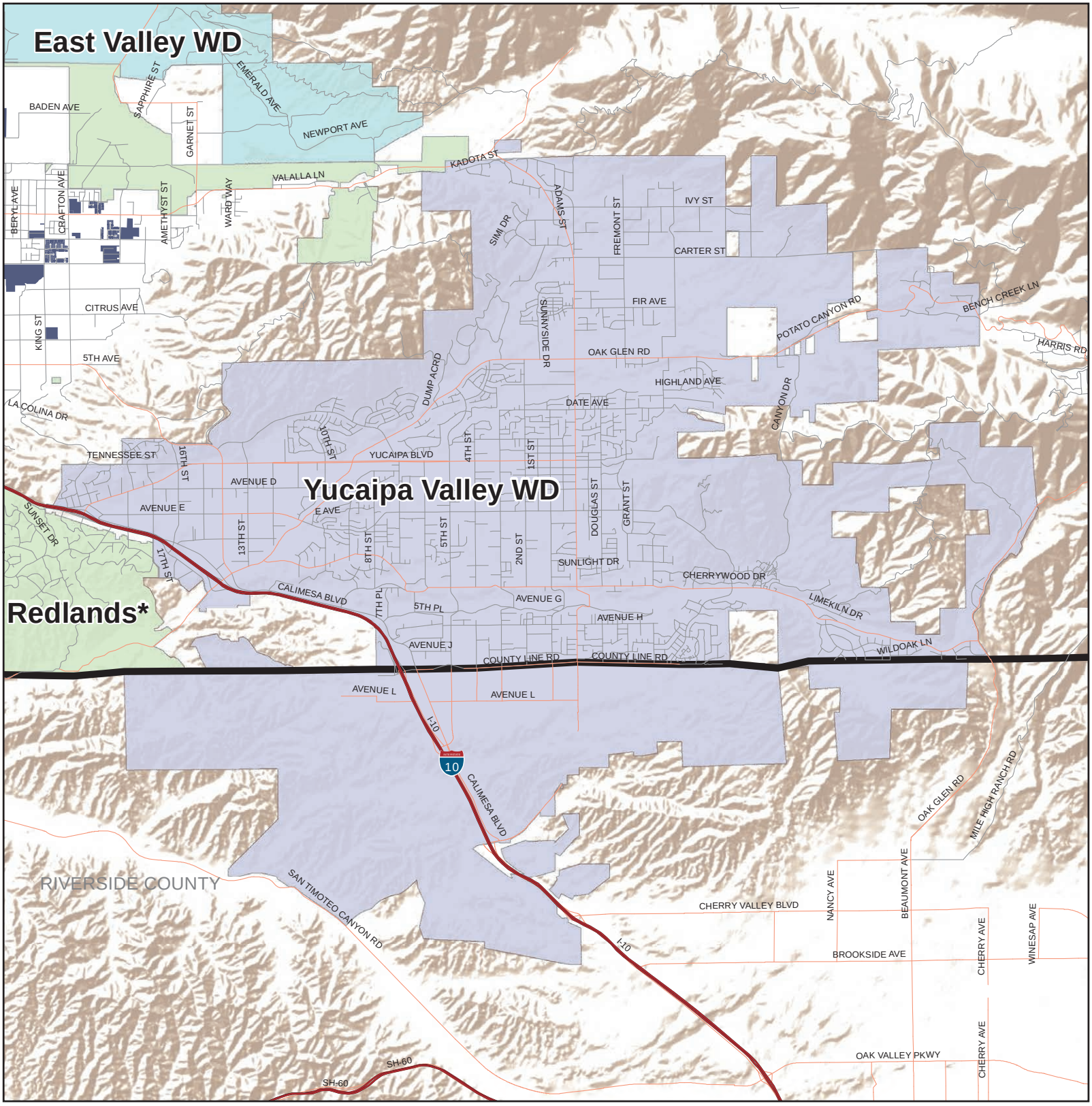
LAFCO Authority	
Authorized Functions	Water and sewer
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/YucaipaValleyWD.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/ValleyRegion/EastValleyRegion.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals Responsible**	
	2.2		205.4			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	16,000		0			16,000 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	21 %	79 %	0 %	0 %	0 %	0 %	0 %

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$42.43

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($4,234,798)	$2,385,465	$820,538	$3,561,777	$578,348
Cash & Equivalents, End of Year	$1,345,512	$3,730,977	$4,551,515	$8,113,292	$8,691,640

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
District website
YVWD Customer Service – 9-28-17 phone call



Yucaipa Valley Water District

0 0.5 1 2 Miles

N

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Redlands
- East Valley Water District
- Yucaipa Valley Water District
- City of Redlands, LAFCO Reviewed Out-of-Agency Service

Date Created: 6/11/2018

YUCAIPA VALLEY WATER DISTRICT

The Yucaipa Valley Water District ("YVWD") was formed in 1971.[1] In addition to sewer collection and treatment, YVWD currently provides a variety of services including water, drinking water treatment, and recycled water service. The District, approximately 25,742 acres (40 square miles), includes the incorporated cities of Yucaipa and Calimesa which are in San Bernardino and Riverside Counties, respectively. The District began treating wastewater in 1986.

The altitude of the District rises from about 2,000 feet above sea level at the western end of the valley to about 5,000 feet at the eastern end, with average elevation of roughly 2,650 feet. The District expects that undeveloped land within its boundaries will continue to be developed consistent with the general plans of the cities of Yucaipa and Calimesa. The projected population of the District in year 2030 will be approximately 94,800, which reflects buildout of the City of Calimesa and the Oak Valley development. Approximately 49.8% of the land within the boundaries of the District is currently undeveloped. The District is governed by a five-member board of directors, the members of which are elected from five separate divisions of the District for staggered four-year terms.

YVWD sewer treatment takes place at the Wochholz Regional Water Recycling Facility ("WRWRF") that provides advanced treatment, including the capability to demineralize recycled water. The demineralization process involves a reverse osmosis system that separates small molecules from the recycled water supply. According to the District, the WRWRF is one of only three treatment facilities statewide that provides this kind of treatment. The reverse osmosis system generates a saltwater concentrate (approximately one-tenth the salinity of the ocean) that is transported via the Yucaipa Valley Regional Brine Line and the Inland Empire Brine Line to the Orange County Sanitation District.

According to the San Bernardino Valley Regional Urban Water Management Plan (2015), the WRWRF was recently expanded to an 8.0 MGD wastewater treatment facility with the long-term capability of treating up to 11 MGD of wastewater. It will include the following major components:

- Septage Receiving Station
- Headworks Grit Removal System
- Primary Equalization Tank
- Secondary Treatment System
- Advanced Tertiary Treatment Facilities
- Reverse Osmosis System
- Recycled Water Storage Reservoir

[1] YVWD was formed in 1971 as part of a reorganization (LAFCO 970) which consisted of the dissolution of the Calimesa Water Company and the formation of Improvement District No. 1 of the District as successor-in-interest thereto, and the dissolution of Improvement District "A" of the San Bernardino Valley Municipal Water District and the formation of Improvement Districts "A" and "1" of the District as successor-in-interest.

YVWD is also continuing to expand its recycled water system to meet increasing demand in the system which includes additional golf courses, schools, community parks, and other non-potable users as well as increased residential development. The existing recycled water system went into operation in 2002.

According to the adopted FY 2017-2018 budget, the District places a high priority on maximizing revenue sources to adequately fund necessary capital improvements. The District's Water, Sewer and Recycled Water Divisions are all self-supported by user fees. The FY 2017-2018 budget identifies the Regional Recycled Water Conveyance System as the Sewer Division's major capital improvement project, allocating almost $4.7 million for its implementation. Planned for construction in 2018, the 3.0 mile long Regional Recycled Water Conveyance System (located within the Calimesa portion of the Yucaipa Valley Water District's service area) will provide recycled water for streetscape and commercial landscape irrigation uses, as well as for front-yard and rear-yard irrigation to single-family homes planned for the City of Calimesa. The pipeline will also provide for an interconnection with the Beaumont Cherry Valley Water District, reducing the long-term drought impacts of both communities and increasing the protection of local groundwater resources.

sources: Yucaipa Valley Water District FY 2017-18 budget
District website
Email dated October 27, 2017
San Bernardino Valley Regional Urban Water Management Plan
LAFCO files

APPENDIX C
Mountain Service Review
Agency Updates

- Agency Profile
- Agency Map
- Narrative of Agency System

Arrowbear Park County Water District

Hilltop

Agency Information			
Principal Act	County Water District Law Water Code Division 12 - §30000 et seq.	Year Formed	1953
Governance	5-member Board of Directors	Square Miles	2
Website	http://www.arrowbearwater.org/	Population	1,350[1]

LAFCO Authority	
Authorized Functions	Water, sewer, fire protection, parks and recreation (not active), sanitation (not active)
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/ArrowbearParkCountyWaterDistrict.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/MountainRegion/Hilltop.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

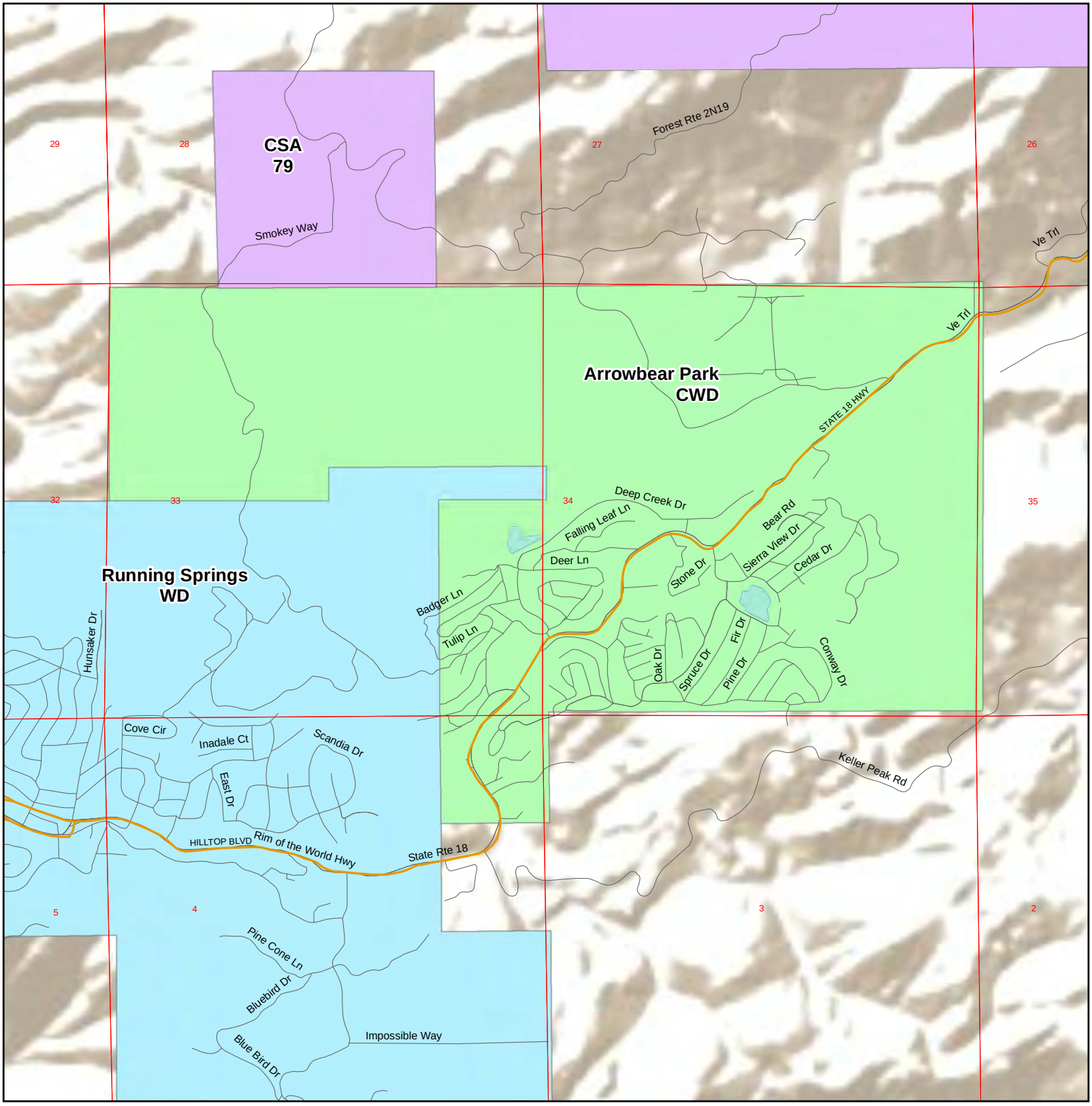
Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	1		12.5			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	921		0			921 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	0%	100%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home)
$38.00

Cash Flows	**2012**	**2013**	**2014**	**2015**	**2016**
Increase (Decrease) in Cash & Equivalents	($17,472)	($2,325)	($71,307)	($109,125)	($30,339)
Cash & Equivalents, End of Year	$1,346,630	$1,344,305	$1,272,998	$1,163,873	$1,133,534

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO files
Agency Financial Statements
Arrowbear Park County Water District website

[1] Population expands to 2,500 on busy weekends and holidays



Arrowbear Park County Water District

0 0.175 0.35 0.7 Miles

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Arrowbear Park County Water District
County Service Area 79
Running Springs Water District

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 3/5/2018

ARROWBEAR PARK COUNTY WATER DISTRICT

The community of Arrowbear Lake dates back to 1924 when M.P. Carlock leased a portion of land formerly used as a sawmill, excavated a five-acre lake, and began developing the area. Approximately 2,400 lots were established in 1924 and were intended as "vacation lots" with narrow lot sizes intended for private ownership tent camping use. Lots were priced at $50 and up. The Arrowbear Park County Water District ("APCWD") was formed on April 15, 1953 for the purpose of providing water for residential and fire protection use in the Arrowbear Lake area. The District is authorized by LAFCO to provide water, sewer, fire protection, park and recreation, and refuse services, although APCWD does not actively provide park and recreation and refuse services at the present time.

The APCWD service area covers approximately six square miles and runs west to east between Running Springs and the Green Valley Lake turnoff along St. Highway 18. It is bounded on the north and south by the San Bernardino National Forest. The area is largely rural residential in nature and has approximately 15 commercial businesses, including one gas station and one hardware/lumber center.[1] According to the District, approximately 60 percent of its service territory is built-out.

The APCWD collection system serves a population of 1,350[2] and includes 12.5 miles of gravity sewer, one mile for force main, and 921 total lateral connections. The entirety of the sewer collection system was constructed between 1960 and 1979. According to the District's 2017 Sewer System Management Plan ("SSMP"), the sewer system has not experienced any capacity-related problems or sewer system overflows. The APCWD system was constructed without a treatment component, and it has chosen to contract with the neighboring Running Springs Water District for its wastewater treatment and disposal. In 2011, LAFCO assigned a single sphere of influence for the Hilltop Community signaling the desire for a single service provider to serve the entire community.[3]

In 2017, in conjunction with the preparation of the SSMP, the collection system underwent a capacity evaluation of all collection sewers, two inverted siphons and the lift station/force main. All were found to have adequate capacity for projected flows with the exception of a flat segment of sewer on Highway 18 (between Deep Creek and Dove Lane). According to the SSMP, the District will continue to monitor system capacity with special attention to the Route 18 problem area as additional areas are developed and flows are added. The District continues to make operational improvements to the system, but no capacity-related improvements are anticipated for the foreseeable future.

sources: Sewer System Management Plan
District website
Hazardous Mitigation Plan
LAFCO files

[1] Arrowbear Park County Water District Hazard Plan Update (2012)

[2] Population expands to 2,500 on busy week-ends and holidays

[3] In 2011, the LAFCO Commission defined the Hilltop community which includes Arrowbear Park, Green Valley Lake, and Running Springs.

Big Bear Area Regional Wastewater Agency

Big Bear

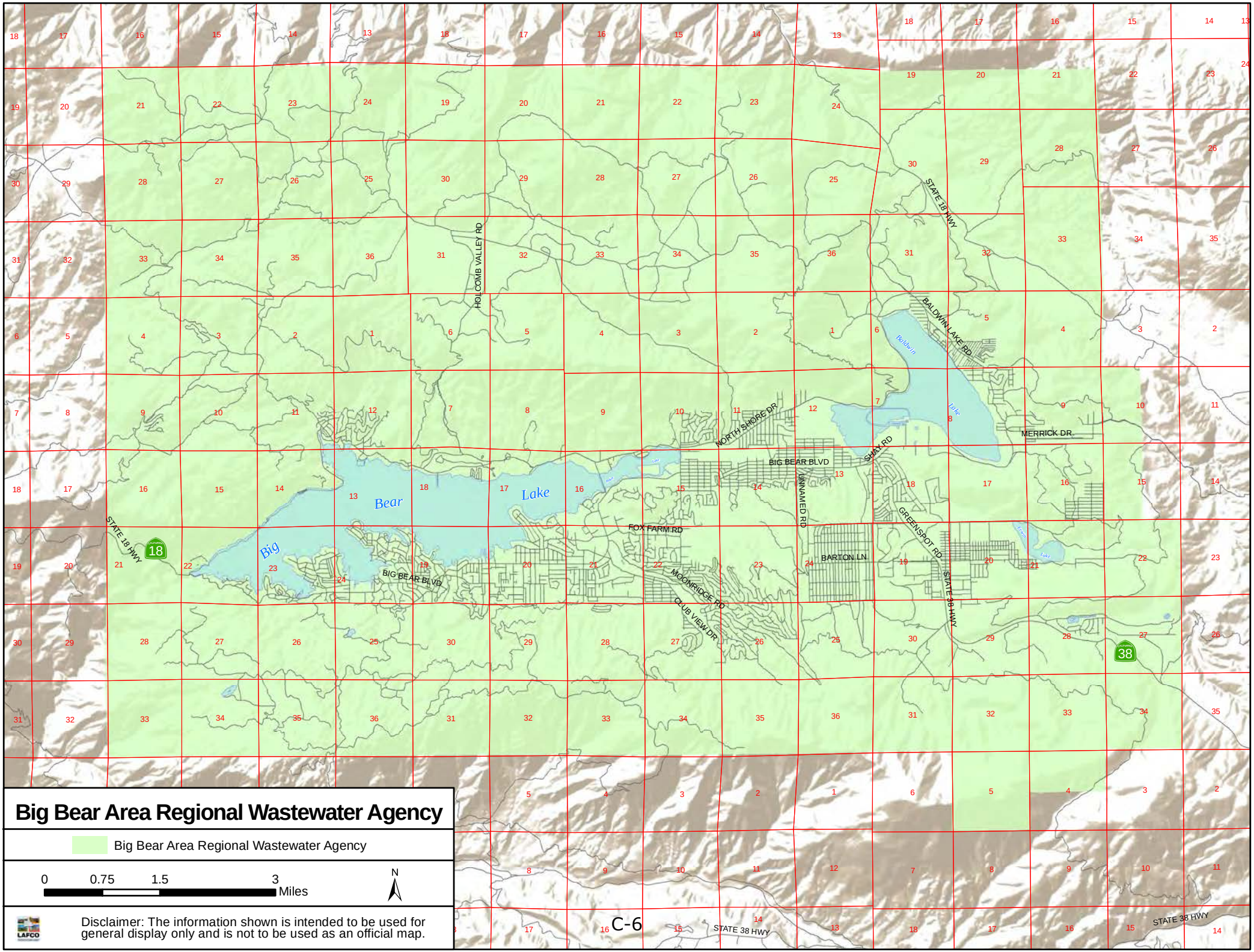
Agency Information			
Principal Act	Joint Exercise of Powers Act, Gov Code §6500 et seq.	Year Formed	1974
Governance	Joint Powers Authority (Big Bear City CSD, City of Big Bear Lake, County of San Bernardino on behalf of CSA 53)	Square Miles	125
Website	http://bbarwa.org	Population	21,000
Services	Wastewater collection and disposal		

LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/JPA/BigBearAreaRegionalWastewaterAgency.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/MountainRegion/BearValley.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	10.6		4.8			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	300		0			300 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	1%	0%	99%	0%	0%	0%	0%

Cash Flows	**2012**	**2013**	**2014**	**2015**	**2016**
Increase (Decrease) in Cash & Equivalents	($339,524)	$210,582	($968,632)	$380,748	$790,691
Cash & Equivalents, End of Year	$6,203,695	$6,414,277	$5,445,645	$5,826,393	$6,617,084

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
Big Bear Area Regional Wastewater Agency website



Big Bear Area Regional Wastewater Agency

Big Bear Area Regional Wastewater Agency

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Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

BIG BEAR AREA REGIONAL WASTEWATER AGENCY

The Big Bear Area Regional Wastewater Agency ("BBARWA") is a joint powers authority formed in 1974 for the purposes of planning and constructing sewer improvements to serve the members' service areas, obtaining State and Federal Clean Water grants, financing the local share of project costs, and operating the regional facilities. The member agencies are the Big Bear City Community Services District, City of Big Bear Lake, and County of San Bernardino on behalf of County Service Area 53. As stated in its Strategic Plan (2016-2021), BBARWA's overall mission is "to efficiently collect, treat and beneficially reuse wastewater and bio-solids in an environmentally and fiscally responsible manner."

Current System

The Agency's 1975 Wastewater Facilities Plan identified the need to provide centralized wastewater treatment and disposal. Today, BBARWA owns and operates a regional wastewater treatment plant which operates at about 2.5 million gallons per day (or approximately 800 million gallons annually).

The service area for BBARWA includes the entire Big Bear Valley (125 square miles) and serves a population of approximately 21,000 residents. Many of the homes are not primary residences; it is estimated that only 38 percent of the residential units are occupied full-time.[1] The area is served by three separate collection systems: the City of Big Bear Lake, representing approximately 47 percent of the connections, the Big Bear City Community Services District, representing approximately 48 percent of the connections, and CSA 53B representing approximately five percent of the connections. Each underlying agency maintains and operates its own wastewater collection system and delivers wastewater to the BBARWA's interceptor system for transport to the regional plant. According to BBARWA staff, capacity at the plant is not allocated amongst the member agencies.

The regional treatment plant treats sewage flows from its member agencies and also accepts septic waste from residents and businesses not served by a collection system. The plant's system includes 10.6 miles of pressure sewer lines and 4.8 miles of gravity sewer lines. Treated effluent is discharged to farm lands in Lucerne Valley and into the Big Bear Valley Groundwater Management Zone. As permitted by the Colorado Regional Board a minimal volume of treated wastewater is discharged through its Discharge Points 002 and 003 for recycling and reuse at various sites for irrigation, dust control at construction sites, and wildlife habitat restoration in the Baldwin Lake.

Solids produced from the wastewater treatment process are covered at the District's drying bed facility, which was opened in 2014. This allows the District to dry its solids year-round instead of just in the summer. Dryer solids are less expensive to haul to the composting facility in Redlands.

Capital Improvement Projects

According the BBARWA's 2018 Operating and Capital Budget, the Agency's five year Capital Improvement Plan (FY 2018-2022) totals approximately $11 million and will be

[1] Big Bear Area Regional Wastewater Agency Sewer Master Plan (2010)

funded with cash (52 percent) and debt (48 percent). Rates were structured to collect approximately $450,000 for annual capital expenditures, assuming a long-term capital funding structure of approximately 55 percent pay-as-you-go (funded through rates) and 45 percent debt financing (funded through debt).

The following table summarizes key project areas in the five-year plan. The next five-year period represents a high investment cycle due to the timing of two major improvement projects: (1) a $3.5 million sludge dewatering project schedule to begin construction in FY 2019, and (2) a $3.6 million Load Equalization Basin project[2] scheduled in FY 2021.

Table C-1:
BBARWA Five-year Capital Improvement Program Summary

	Budget FY 2018	Forecast FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	5-Year FY 2018-22
Administration Building	16,500	0	0	0	0	16,500
Effluent Disposal Assets	60,000	0	0	0	0	60,000
Flow Measuring Devices	26,343	0	47,289	0	25,198	98,829
Interceptor System	7,800	0	0	411,334	599,570	1,018,704
Communications/Electrical/Office	52,113	43,883	120,449	0	25,948	242,394
Website	0	14,578	0	0	0	14,578
Asphalt & Paving	35,000	120,000	120,000	0	0	275,000
Power Generating Equipment	202,649	0	0	423,058	122,554	748,261
Transportation - Vehicles	0	0	92,453	47,704	0	140,157
Treatment Plant	483,214	3,466,000	677,137	3,655,978	74,798	8,357,127
TOTAL	**883,619**	**3,644,462**	**1,057,328**	**4,538,074**	**848,068**	**10,971,550**

source: BBARWA's 2018 Operating and Capital Budget

Big Bear Valley Water Sustainability Project

The vitality of this area is largely defined by water, and has seen the impact of drought in recent years. The Lake has seen extreme low levels twice in the last 15 years, and is expected to drop further in 2018. Varying water levels have a significant impact on habitat, recreation and the community. Due to the need for a comprehensive solution, the community is currently in the process of pursuing the Big Bear Valley Water Sustainability Project. Agencies partnering in this pursuing this project are: Big Bear Municipal Water District, BBARWA, Big Bear City Community Services District, and the City of Big Bear Lake. Additionally, the U.S. Army Corps of Engineers partnered with the Big Bear Municipal Water District to prepare the Big Bear Lake Ecosystem Restoration Feasibility Study.

The plan for the project envisions the following:

> The existing secondary wastewater treatment plant will receive upgrades realted to processing to include tertiary, nutrient removal and TDS reduction. A small portion of the water produced will be used to support endangered fish in Shay Pond. The

[2] The Load Equalization Basin (LEB) project is the replacement of two balancing chambers, originally constructed in the 1930s as part of the original BBCCSD Treatment Plant. Over the years, they have been modified to serve as chlorine contact chambers, secondary effluent polishing ponds and tertiary treated storage basins. In service for over 70 years, they are showing signs of excessive damage and failure and are in need of replacement.

rest of the water will be discharged to the Stanfield Marsh and Big Bear Lake to support habitat and recreation.

From there, water can be extracted for groundwater recharge in Sand Canyon, for golf course irrigation, or for storage in the watershed as snow, contributing to a sustainable water supply in Big Bear Valley. Additional water releases from the Lake can be used for recharge in the San Bernardino Basin. This One Water approach will revitalize and renew the Big Bear Valley environment, community, and habitat and extend the benefits beyond the Valley to the upper Santa Ana Watershed.

The Big Bear Valley Water Sustainability Project requires a $44 million water system investment, and is authorized for $15 million in Section 219(f) (84) of the Water Resources Development Act.

Army Corps support involves:

1. Collaborating with partner agencies to determine which elements of the Section 219 Assistance Project the Army Corps will engage in.
2. Participating in an Agreement for Design and Construction Assistance.
3. Initiating design and construction once Congress appropriates Section 219 funds to the project.

The estimated project cost is shown below:

1. Upgrade Treatment Plant $24,832,000
2. Brine Storage and Pump Station $2,032,000
3. Effluent Pump Station $1,180,000
4. Brine Discharge Pipeline Extension $1,659,000
5. Brine Evaporation Ponds in Lucerne Valley $7,264,000
6. Pipeline to Stanfield Marsh $4,040,000
7. Pipeline Extension to Stickleback Habitat $94,000
8. Groundwater Recharge Pipeline, Pump Station and Monitoring Wells $2,254,000
9. Existing Pipelines

Total Project Cost = $43,355,000

The Project is currently seeking environmental clearance and regulatory compliance, and it is estimated that by 2020 the necessary clearance and compliance will be obtained.

sources: BBARWA Sewer Master Plan Strategic Plan, website, BBARWA email dated April 3, 2018, Operating and Capital Budget, “Achieving Big Bear Valley Water Sustainability” pamphlet
LAFCO files

Big Bear City Community Services District — Big Bear City

Agency Information			
Principal Act	Community Services District Law Government Code Title 6, Division 3: §61100 et seq.	Year Formed	1966
Governance	5-member Board of Directors, elected at large	Square Miles	21.25
Website	http://www.bbccsd.org	Population	12,411

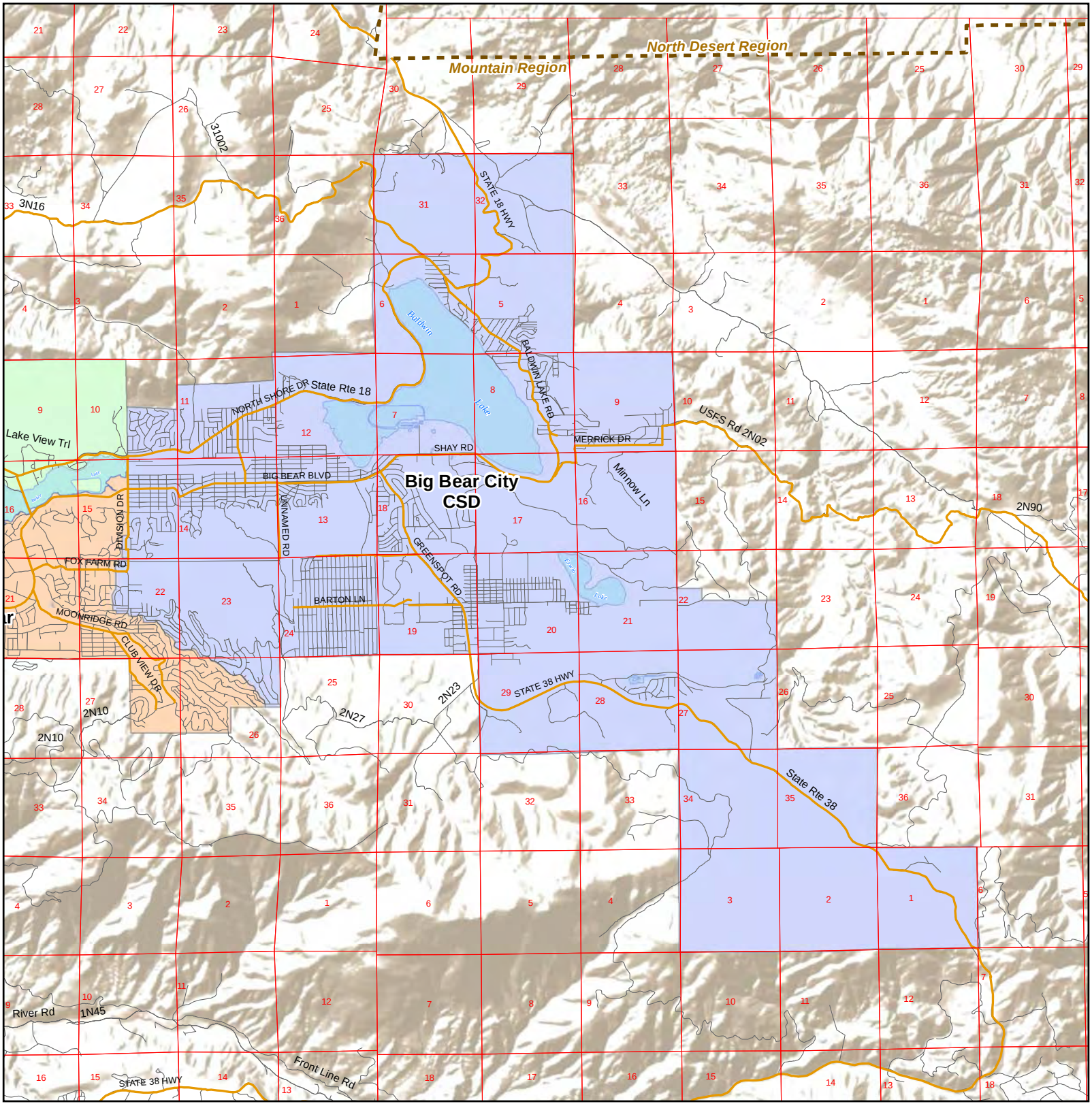
LAFCO Authority	
Authorized Functions	Water, sewer, street lighting, fire protection, solid waste, park and recreation
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/BigBearCityCommunityServicesDistrict.aspx
Service Review	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/MountainRegion/BearValley.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	0.9		115			44.3	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	11,700		0			11,700 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	5%	15%	80%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$31.40 (customers pay annually on their property tax bill: $376.84 includes both collection and regional treatment)

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($508,539)	$345,294	$336,856	($509,388)	$52,451
Cash & Equivalents, End of Year	$3,612,947	$3,958,241	$4,295,097	$3,785,709	$3,838,160

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
Big Bear City CSD website



Big Bear City Community Services District

0 0.75 1.5 3 Miles

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LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- Big Bear City Community Services District
- City of Big Bear Lake
- County Service Area 53B
- Regions

Date Created: 3/5/2018

BIG BEAR CITY COMMUNITY SERVICES DISTRICT

The Big Bear City Community Services District ("BBCCSD") is located in southwest San Bernardino County, in the unincorporated area known as of Big Bear City. The BBCCSD service area is approximately eight square miles, encompassing Big Bear City and the unincorporated communities of Sugarloaf, Moonridge, and Erwin Lake. The service area population is estimated to be 12,411 in 2017 and, according to the District's Urban Water Management Plan (2015), is projected to grow to 13,485 by 2035, an increase of nine percent. The service territory is primarily residential and experiences an influx of part-time population and vacationers attracted to the summer and winter recreational facilities within and adjacent to the service area. Due to the recreational nature of the Big Bear City area, occupancy within the service area fluctuates seasonally and typically peaks in July.

According to the San Bernardino County Zoning Map for the Big Bear City community, future land use is not projected to deviate from the existing distribution between residential, commercial, and light industrial nor lead to significant intensification.

Collection

The BBCCSD's collection system includes 0.9 miles of force main, 115 miles of gravity sewer main, 2,842 manholes, and seven lift stations. The total number of service lateral connections is 11,700. The majority of the system's sewer lines (80 percent) were installed between 1960 and 1979. Fifteen percent of the sewer lines were constructed between 1980 and 1999, and the remaining five percent were constructed after 2000. Maintenance activity includes system-wide closed-circuit television inspection every six years and hydro cleaning every three years. Preventative maintenance with respect to the lift stations includes inspections on a weekly basis. The District utilizes the infraMAP asset management system, a geospatial platform, to schedule and track maintenance activity and record field observations.

Flow projections for BBCCSD are shown in Table C-2 below. "Current Use" is based on a 47.4 percent occupancy; "intensified use" assumes a 75 percent occupancy.

Table C-2:
Big Bear City CSD Summary of Flow Estimates

	Occupancy Rate	Existing (MGD)	2020 (MGD)	2035 (MGD)
Average Annual Flow	Current	0.91	1.02	1,22
	Intensified Use	1.43	1.60	1.92
Peak Hour Wet Weather Flow	Current	7.32	7.64	8.22
	Intensified Use	8.40	8.84	9.67

source: BBCCSD Sewer Plan (2017)

Treatment and Disposal

BBCCSD is a member of the Big Bear Area Regional Wastewater Agency ("BBARWA"), the regional wastewater treatment and disposal agency. BBARWA operates a trunk line that passes through the BBCCSD's service area and collects wastewater for delivery to the

BBARWA wastewater treatment plant. Approximately 85% of the BBCCSD service area drains to the BBARWA wastewater treatment plant solely by gravity, without the assistance of a lift station. The BBCCSD averages a monthly sewage flow to the BBARWA treatment plant of approximately 28,740,120 gallons.

Capital Improvements

According to the District's Five-Year Capital Improvement Plan, shown below in Table C-3, between FY 2017/2018 and FY 2021/2022 the District plans to spend $1,754,750 in capital improvements and $1,190,000 in vehicle replacements.

Table C-3:
Big Bear City CSD Five-Year Sewer Capital Improvement Plan

CAPITAL IMPROVEMENT PLAN	Carryover	2017/18	2018/19	2019/20	2020/21	2021/22	Total
Sewer Master Plan	11,500						
Infrastructure Repairs & Supplies		25,000	25,000	25,000	25,000	25,000	**125,000**
Lift Station Paving		5,000	5,000	5,000	5,000	5,000	**25,000**
Hoses/Fitting/Nozzles		7,000	7,000	7,000	7,000	7,000	**7,000**
Easement Lids		8,000	4,000				
Major Vehicle Repairs		10,000	10,000	10,000	10,000	10,000	**50,000**
SCADA		5,000					**5,000**
Doors & Locks		32,000					**32,000**
Easement Accessibility Study		71,000					**71,000**
Gas Pump Replacement		3,750					**3,750**
Bowles/Arbor/Elysian Pipeline Replacement			207,000				**207,000**
Kern Lift Station Design Parking			34,000				**34,000**
GIS Upgrades				45,000			
GIS Server				8,000			
Sewer Rate Study				60,000			
GIS Laptop Replacements				24,000			
Pump/Valve Replacement				25,000			
Easement Implementation				217,500			
Kern Parking Implementation					51,000		
Gildart Relief Line/Rainbow upgrades						579,000	
Replace Shore & Drake Pumps & Valves						134,000	
Total	**11,500**	**166,750**	**292,000**	**426,500**	**98,000**	**760,000**	**1,754,750**

CAP. IMPROVEMENT PLAN - Vehicle		2017/18	2018/19	2019/20	2020/21	2021/22	Total
Replace Unit #204 – Hydro Cleaner		500,000					**500,000**
Unit #207 – TV Van 1980		435,000					**35,000**
Unit #208 – Colorado Pickup 4X4		35,000					**35,000**
Vehicle Replacements				220,000			**220,000**
Total		**970,000**		**220,000**			**1,190,000**

source: BBCCSD Five-Year CIP

The BBCCSD's Sewer Master Plan (2017) states that the staff has done an exceptional job at maintaining and operating the system's facilities. Key recommendations cited in the Master Plan include rehabilitation of the Division Lift Station, rehabilitation of the remaining lift stations, incorporation of a parking space at the Kern Lift Station, minor O&M projects, assessment of force main conditions and investigation of wet well, bypass well, and dry well

corrosion. The Master Plan's recommendations for system upgrades are primarily a product of aging infrastructure and appear to be largely addressed in BBCCSD's Capital Improvement Plan.

Cash Flow

The Statement of Cash Flows from the District's financial statements for 2012 and 2015 identify decreases in cash and equivalents of roughly $508,000 and $509,000, respectively. A review of the financial statements for those years identifies that in 2012 the cash decrease is mainly attributed to capital purchases.

As for 2015, what would have been an increase in cash by roughly $468,000 turned into a $509,338 decrease due to a loan from the Wastewater Fund to the Public Safety Fund. The District's Wastewater Fund loaned the Public Safety Fund $1,020,445 to pay off the Public Safety Fund's CalPERS side-fund, which had an interest rate of 7.50%. The loan is for 10-years starting on December 31, 2014 to December 31, 2024 with an interest rate of 3.75% and bi-annual payments of $61,657. Interestingly, in the same year the District's Public Safety Fund had loaned the Ambulance Services Fund $1,919,349 for continuing operations of Ambulance Services as the Fire Department transitions to the Big Bear Lake Fire Protection District.

sources: BBCCSD website
5-Year Capital Improvement Program
BBCCSD Sewer Master Plan
LAFCO files

City of Big Bear Lake

Big Bear

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1980
Governance	5-member City of Big Bear Lake City Council	Square Miles	8.3
Website	https://www.cityofbigbearlake.com	Population	5,094
Services	Sewer collection, park and recreation, law enforcement (via contract with the County)		

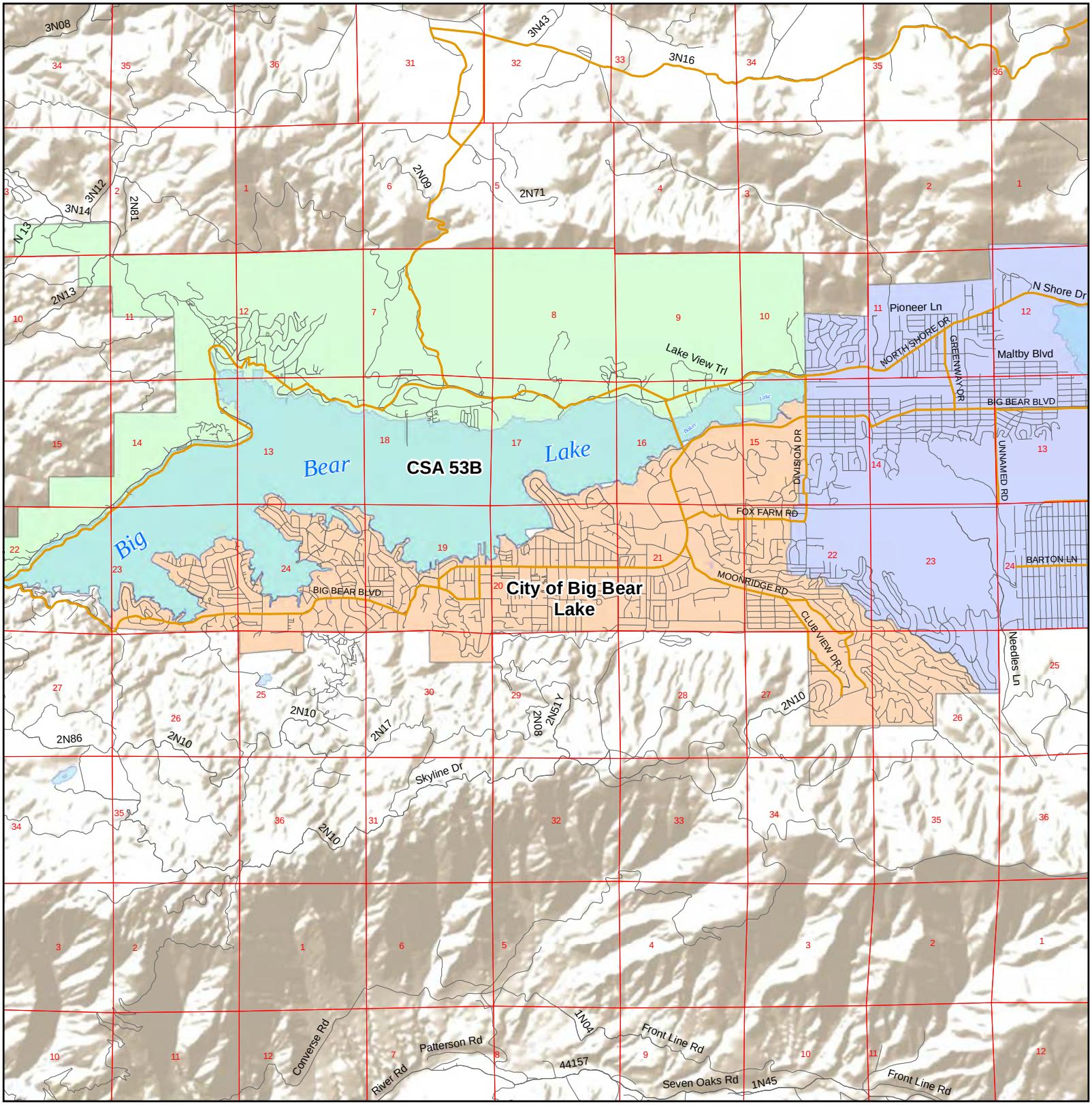
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/BigBearLake.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/MountainRegion/BearValley.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	5.5		250			17.4	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	9,281		0			9,281 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	10%	40%	40%	10%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$37.32 (customers pay annually on their property tax bill; $237.79 for collection; $210.09 for regional treatment)

Fund Balances	**2012**	**2013**	**2014**	**2015**	**2016**
Increase (Decrease) in Cash & Equivalents	$724,405	$670,888	$2,603	($288,296)	$383,448
Cash & Equivalents, End of Year	$2,551,791	$3,222,679	$3,225,282	$2,936,986	$3,320,434

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Summaries
City of Big Bear Lake website
City of Big Bear Lake – 12-20-17 phone call



City of Big Bear Lake

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Big Bear City Community Services District

City of Big Bear Lake

County Service Area 53B

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 3/5/2018

CITY OF BIG BEAR LAKE

The Big Bear Lake Sanitation District was formed by the County of San Bernardino in the mid-1940s to provide collection and treatment of sewage for the Big Bear Lake community. The first sewers were constructed in 1947 through Assessment District No. 1. Various assessment districts (Assessment Districts No. 2 through No. 17) were formed over the next 40 years to fund continued construction of the sewer system infrastructure. Several tracts of sewer lines/manholes were also constructed by land developers and dedicated to the City. The City of Big Bear Lake was incorporated in 1980, and the City assumed responsibility for operation and maintenance of the sewer system from the County.

Land Use and Population

Elevations within the service area range from a low of approximately 6,740 feet above mean sea level at the Big Bear Lake shoreline to a high of 7,400 feet above sea level at the southeastern portion of the City in the Moonridge area. According to the City's zoning map, land uses within the City are predominantly single family residential with a small percentage of multi-family development located near the lake and ski resorts. Commercial development generally follows the main highways, State Route 18, Pine Knot Road and Village Drive. There is virtually no industrial development within the City of Big Bear Lake.

The City had roughly 11,400 permanent residents in 2015 with an additional 2,400 part-time residents. The total connections were 9,281 in 2015 for both the permanent and part-time residents. Due to geography and land use designations, the permanent population is not anticipated to increase significantly in raw numbers – roughly 2,200 by 2040 However, this represents a 19% increase. Adding to this increase, are the anticipated additional part-time residents – 2,500 by 2040.

Collection System

According to the City, the sewer system is comprised of approximately 250 miles of gravity sewer, 5.5 miles of force main, 6,000 manholes, and 13 sewage life stations. Materials used in construction of the sewer system include concrete irrigation pipe, vitrified clay pipe, cast iron pipe asbestos cement pipe and polyvinyl chloride pipe. Pipe sizes range from 4-inches in diameter to 24-inches in diameter, with over 90 percent of the system comprised of 6-inch and 8-inch diameter pipe. Due to the topography of the study area, wastewater generally flows by gravity northerly toward the lake via the collection system. Flows are then generally transmitted easterly via a combination of larger diameter interceptor sewers, sewage lift stations and forced mains.

Treatment and Disposal

The City is a member of the Big Bear Area Regional Wastewater Agency ("BBARWA"), the regional wastewater treatment and disposal agency. BBARWA operates a trunk line that passes through the City's service area and collects wastewater for delivery to the BBARWA wastewater treatment plant located east of Big Bear City on the south shore of Baldwin Lake.

Rates and Capital Improvements

Sewer services provided by the City are funded by a sewer user fee which is collected on the property tax roll. The City also collects a fee for BBARWA's services on the tax roll for properties located within the City as a direct pass through to BBARWA for treatment services. Sewer user fees for improved parcels for FY 2017-18 are $237.79 per equivalent dwelling unit. The adopted FY 2017-18 budget includes a one-time expenditure of $345,000 for capital improvements and reserve commitments.

The City's financial statements show swings in annual net cash for its Sanitation Fund (wastewater). From 2012 through 2016, the annual net cash has been $724,405, $670,888, $2,603, ($288,296), and $383,448, respectively. The financial statements for 2014 and 2015 identify capital and maintenance projects which required the use of cash funds. Therefore, the excesses of prior years are paying for capital projects and upgrades in subsequent years.

For 2015, the Sanitation Fund transferred:

- $150,000, to the General Fund for various costs including maintenance and operations.
- $187,915 to the Street Improvements Fund to provide funding for various street improvement projects.
- $900,959 to Nonmajor funds primarily for capital projects.

Sources: City zoning map, website, Sewer Master Plan, FY 2017-18 budget, financial statements, LAFCO files

Crestline Sanitation District — Crestline

Agency Information			
Principal Act	County Sanitation District Act, Health and Safety Code 4700 et seq	Year Formed	1946[1]
Governance	5-member Board of Directors	Square Miles	8.4
Website	www.crestlinesanitation.com	Population	9,000

LAFCO Authority	
Authorized Functions	Wastewater collection and treatment
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/CrestlineSanitationDistrict.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/MountainRegion/CrestForest.aspx

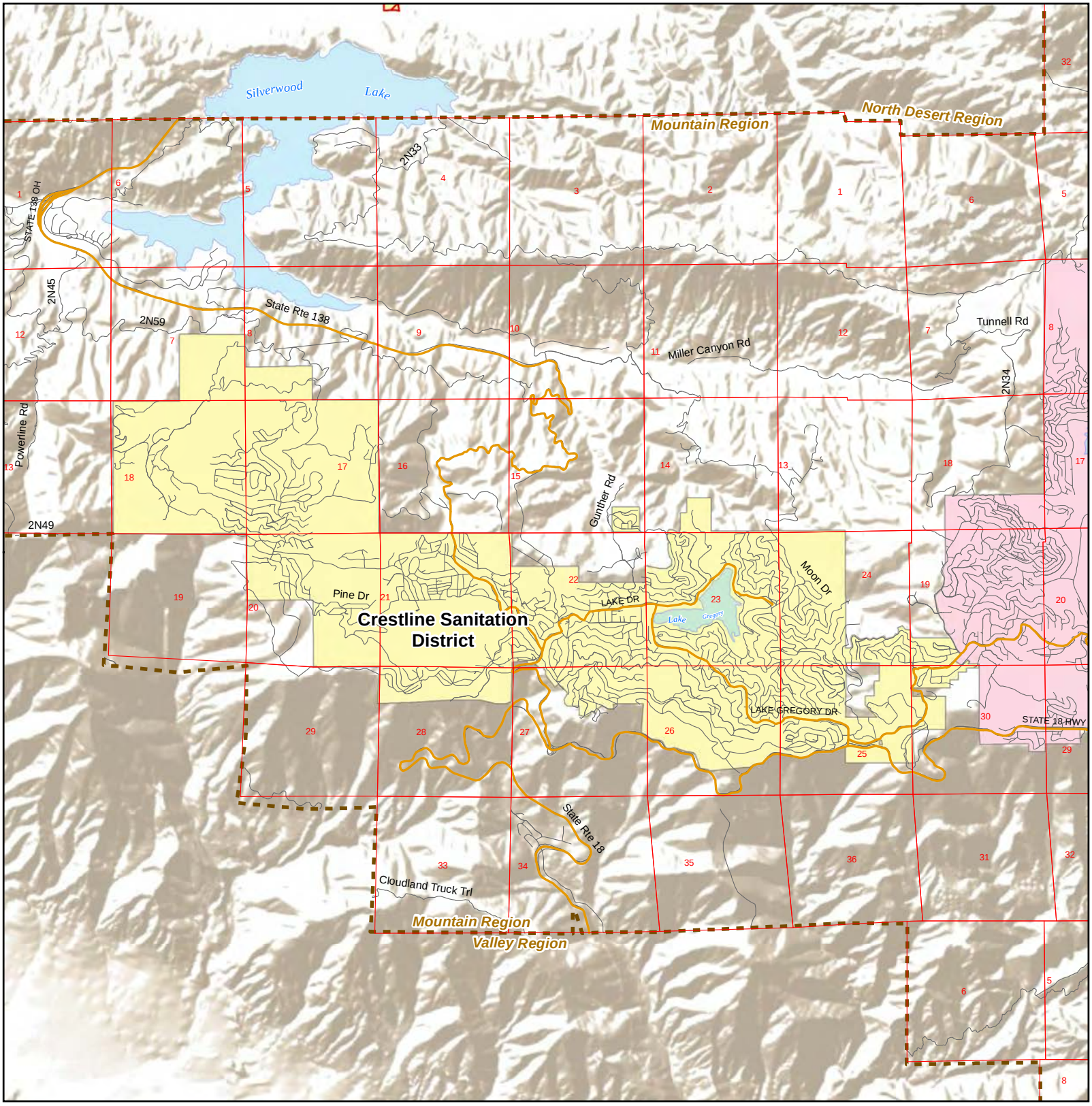
Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	2		88			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	6,478		1			6,478 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	0%	80%	20%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of January 2018
$45.29

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($466,383)	$608,770	$134,492	($553,309)	($197,178)
Cash & Equivalents, End of Year	$419,848	$1,028,618	$1,163,110	$609,801	$412,263

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements, Sewer System Management Plan (2015), website
Crestline Sanitary District – phone call – 12/20/2017

[1] Crestline Sanitation District was formed in 1946 by the County Board of Supervisors to provide sewer service to the Crestline/Lake Gregory area. On August 10, 2010, voters approved a change in governance from the County Board of Supervisors to an independent district with a five-member board of directors.



Crestline Sanitation District

0 0.5 1 2 Miles

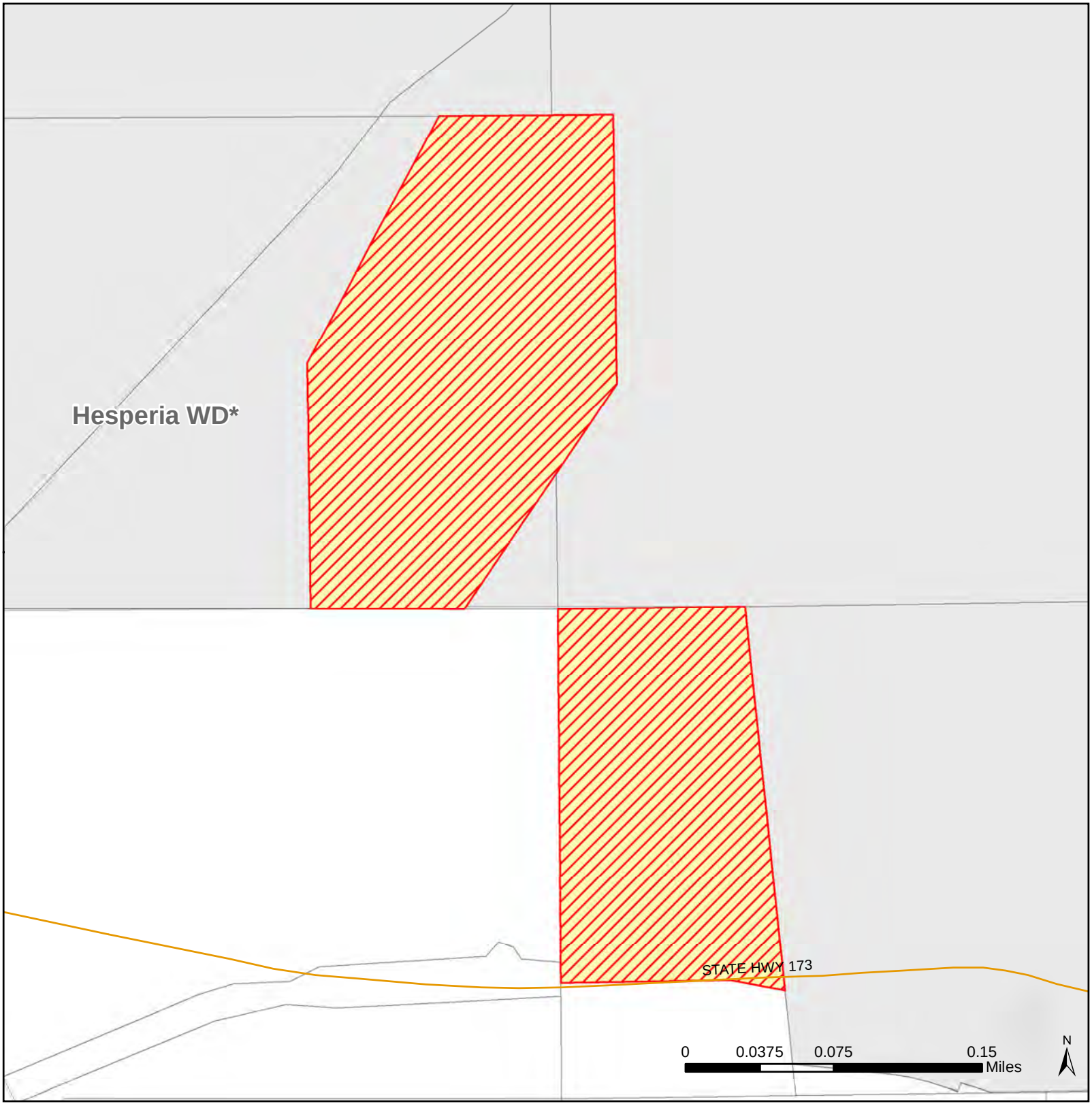
N

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- Crestline Sanitation District
- Crestline Sanitation District Owned Property, Not within Boundary
- Lake Arrowhead Community Services District
- Regions

Date Created: 3/5/2018



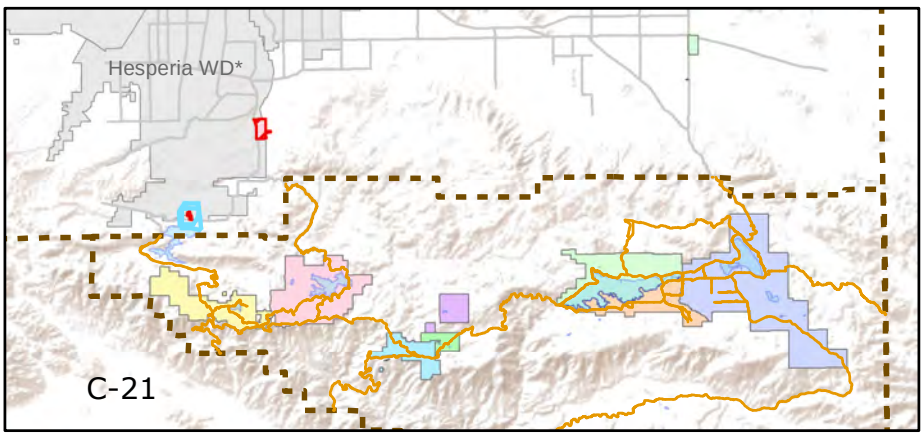
Crestline Sanitation District
Non-contiguous Property

Crestline Sanitation District

Hesperia WD*

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.



Date Created: 3/1/2018

CRESTLINE SANITATION DISTRICT

Crestline Sanitation District was formed on January 16, 1947 to provide sewer services to the Lake Gregory area of the San Bernardino Mountains. Formerly governed by the County Board of Supervisors and managed by the County Special Districts Department, effective October 2010 an independent elected five-person Board of Directors governs the district.

Crestline Sanitation District now owns, operates and maintains the wastewater collection and treatment system. The District's service territory totals approximately 8.4 square miles in size with a population of approximately 10,000 residents. The District operates and maintains three treatment plants, 75.3 miles of gravity sewer, 1.13 miles of force main, an 11.09-mile effluent outfall line, and an effluent disposal site on Las Floras Ranch in Summit Valley. The District's infrastructure is aging with most of the system over 30 years old and approximately 48 percent of the system over 50 years old.[1]

Collection System

According to the District's 2015 Sewer System Management Plan, the service area varies greatly in elevation. As a result, there is moderate potential for sewer system overflows due to little storage capacity in the collection system compared to systems with flatter terrain, increasing the likelihood of a sewer overflow. Additionally, the Lahontan Regional Board identifies the District's collection system as susceptible to infiltration and inflow. Crestline Sanitation has allocated approximately $250,000 annually to continue its due diligence in cutting down on infiltration and inflow.

Approximately one-third of the District area is connected to the collection system. The unsewered area is comprised of subdivided tracts, government land and large, undeveloped parcels. In these areas, septic tanks are used for sewage treatment and disposal. The discharge of waste from "new" leaching or percolation systems is prohibited under Lahontan Water Board Order No. 6-81-3 for Crestline.[2]

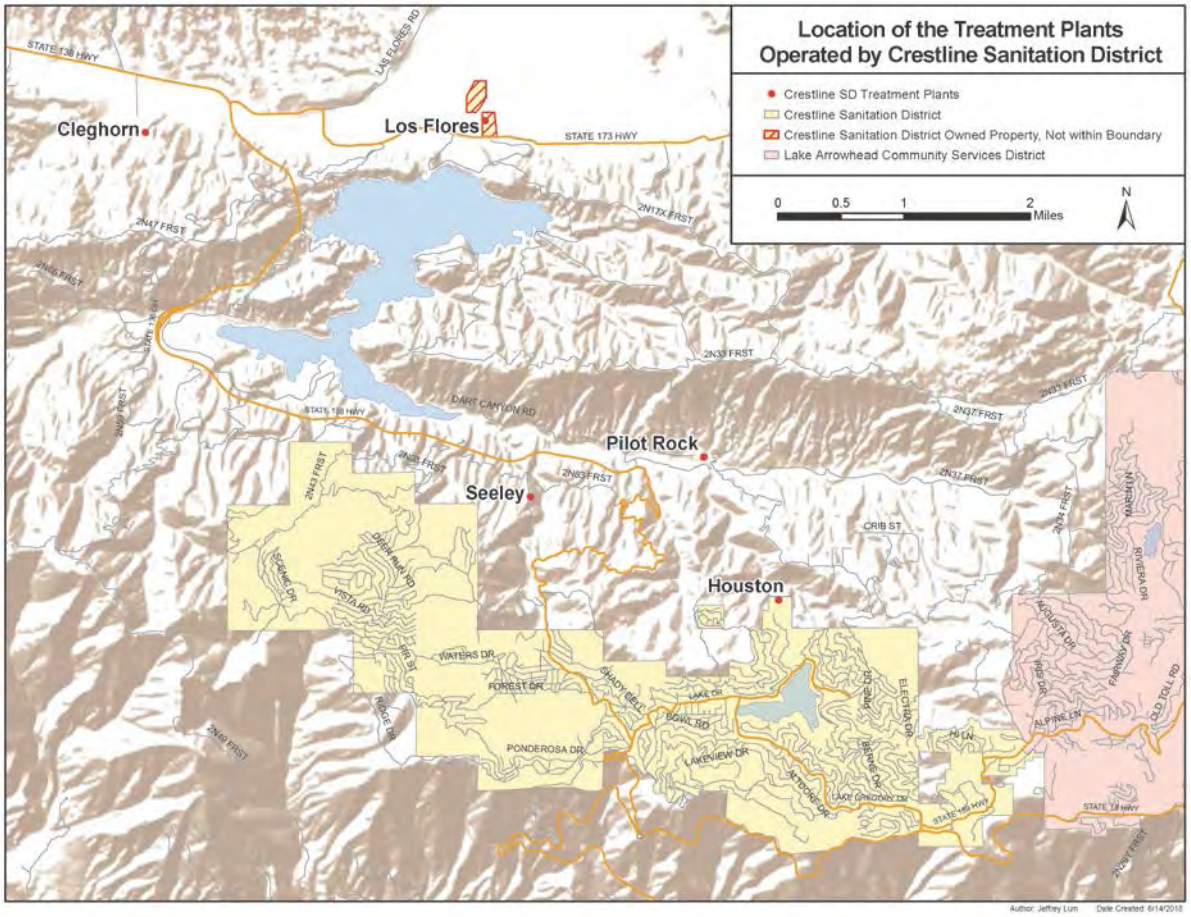
Treatment System

Sewage is discharged to one of three treatment plants via separate collection systems. The majority of the District's sewage is sent to Huston Creek Wastewater Treatment Plant, with the balance sent to Seeley Creek Wastewater Treatment Plant. The Cleghorn Wastewater Treatment Plant is the smallest of the three plants and serves the needs of the California Department of Parks and Recreation campgrounds at Lake Silverwood.

[1] Crestline Sanitation District Sanitary Sewer Management Plan (updated 2015)

[2] The prohibitions in the unincorporated areas of the Lahontan Region are presented in the Water Quality Control Plan for the Lahontan Region. The County is authorized to issue OWTS building permits in these exemption areas, usually without Lahontan Water Board's approval. Exemptions to prohibitions may be granted by the Regional Board when it determines that an OWTS (on a particular parcel) will not individually or collectively, directly or indirectly, affect water quality from continued system operation, and/or maintenance.

In addition, the District disposes of treated effluent from the Pilot Rock Treatment Plant (owned by the California Department of Forestry) that is pumped into the District's effluent outfall. The District receives payment for these services on an annual basis. The location of the District's treatment facilities is shown below:



In the *Crestline Sanitation District Governance Commission Report* dated February 2010, estimates that there are approximately 2,500 equivalent dwelling units on septic systems within the district boundaries. Areas on septic now include: Cedarpines Park, Arrowhead Highland, Dart Canyon, Horseshoe Bend, Valley of the Moon and Strawberry Flats. If these dwelling units with septic tanks were to be required to be added to the District's system by the Lahontan Regional Board, then its capacity would be adversely affected. Further, if either the Strawberry Flats (Twin Peaks area) or Arrowhead Highlands (along Crest Forest Drive) were required to be connected, the District has identified that expansion of Huston Creek Treatment would be immediately necessary.

Disposal System

The Las Flores Ranch located near Hesperia is where the District discharges its effluent via an outfall line since the 1970s, with a permit from the Lahontan Regional Water Quality

Control Board. The Effluent from all of the treatment plants travels through an outfall line that runs around Silverwood Lake and ends at the District-owned property at Las Flores Ranch. The Lahontan Regional Board identifies that the outfall line as an aging system. However, the District contracted with an engineering firm to perform an effluent outfall condition assessment to identify the current condition of its outfall pipeline. According to the report dated March 2016, no pipe segments were identified to require rehabilitation or replacement. Recommendations to consider for long-term monitoring and maintenance of the pipeline include: continuing to maintain air release valves, installing additional flow meters, maintaining pipeline access roads, storing repair couplings and pipe spools, and re-investigating the condition of the pipeline in 15 years.

The District Effluent water is used on Las Flores Ranch irrigation of grazing land and recharges the groundwater basin through percolation. However, up until late 2017, the District's agreement with the landowner was on a year-to-year basis.

The District commented on the Tapestry Project (which includes Las Flores Ranch), and stated that Tapestry posed "substantial conflicts" with its wastewater management operation in Phase 10 of the Tapestry Specific Plan as it historically discharges secondary treated waste into nearly 825 acres of the property formerly known as Las Flores Ranch, which is partially located in the Tapestry community. A settlement was reached with the Crestline Sanitation District when the Terre Verde Group removed a portion of Phase 10 and offered the District a long-term agreement of 50 years for water discharge. Construction of the Tapestry Project should begin sometime in 2019, after the City of Hesperia approves Terra Verde's financial and development agreements, and construction plans.

As for waste solids, these are hauled by the District to a composting facility in Redlands.

Cash Flow Fluctuations

The District experienced gains in total cash flows for 2013 and 2014. Years 2015 and 2016 identify decreases of $553,309 and $197,178, respectively. These decreases are attributed to the acquisition of capital assets of $966,587 and $590,150, respectively.

Capital Improvement Plan

The District's five-year Capital Improvement Plan (FY 2017/18 – FY 2021/22) allocates a total of $9.1 million for system upgrades and rehabilitation. CIP allocations are summarized in Table C-4 below.

Table C-4:
Crestline Sanitation District Five-Year Capital Improvement Program

CAPITAL PROJECTS	2017/18	2018/19	2019/20	2020/21	2021/22	Total Project Capital Costs FY 2018-2022
Pipeline Rehab	150,000	150,000	150,000	150,000	150,000	$750,000
Manhole Rehab	50,000	50,000	50,000	50,000	50,000	$250,000
SCADA Upgrades	160,000	60,000	60,000	60,000	60,000	$400,000
Misc. Upgrades	50,000	50,000	50,000	50,000	50,000	$250,000
Alt. Effluent Disposal	120,000	120,000	120,000	120,000	120,000	$600,000
Electrical Upgrades	75,000	75,000	-	-	-	$150,000
Operations Bldg. Upgrades	200,000	-	-	-	-	$200,000
Operations Upgrade	-	-	300,000	-	-	$300,000
HC Primary Sedimentation Basin Rehab	-	350,000	350,000	-	-	$700,000
Solids Handling Upgrades	-	-	-	200,000	-	$200,000
Over-Pressurized Inverted Siphon	-	-	-	500,000	-	$500,000
Vehicle Replacement	90,000	-	50,000	-	100,000	$240,000
Skid Steer Replacement	60,000	-	-	-	-	$60,000
Utility Vehicle	17,000	-	-	-	-	$17,000
Belt Press Rollers	17,500	-	-	-	-	$17,500
Facility Upgrade	-	2,750,000	1,750,000	-	-	$4,500,000
GRAND TOTAL	**$989,500**	**$3,065,000**	**$2,880,000**	**$1,130,000**	**$530,000**	**$9,134,500**

source: Crestline Sanitation District Fiscal Year 2017-2018 Annual Budget

sources: District Sewer System Master Plan
Five-Year Capital Improvement Program
FY 2017-18 Budget
LAFCO Files
Lahontan Regional Board

County Service Area 53 Zone B — Fawnskin

Agency Information			
Principal Act	County Service Area Law Gov. Code Title 3, Div. 2, Part 2, Ch. 2.5 – §25210 et seq.	Year Formed	1968
Governance	San Bernardino County Board of Supervisors	Square Miles	12
Website	http://www.specialdistricts.org	Population	3,125
Services	Sewer, water (inactive)		

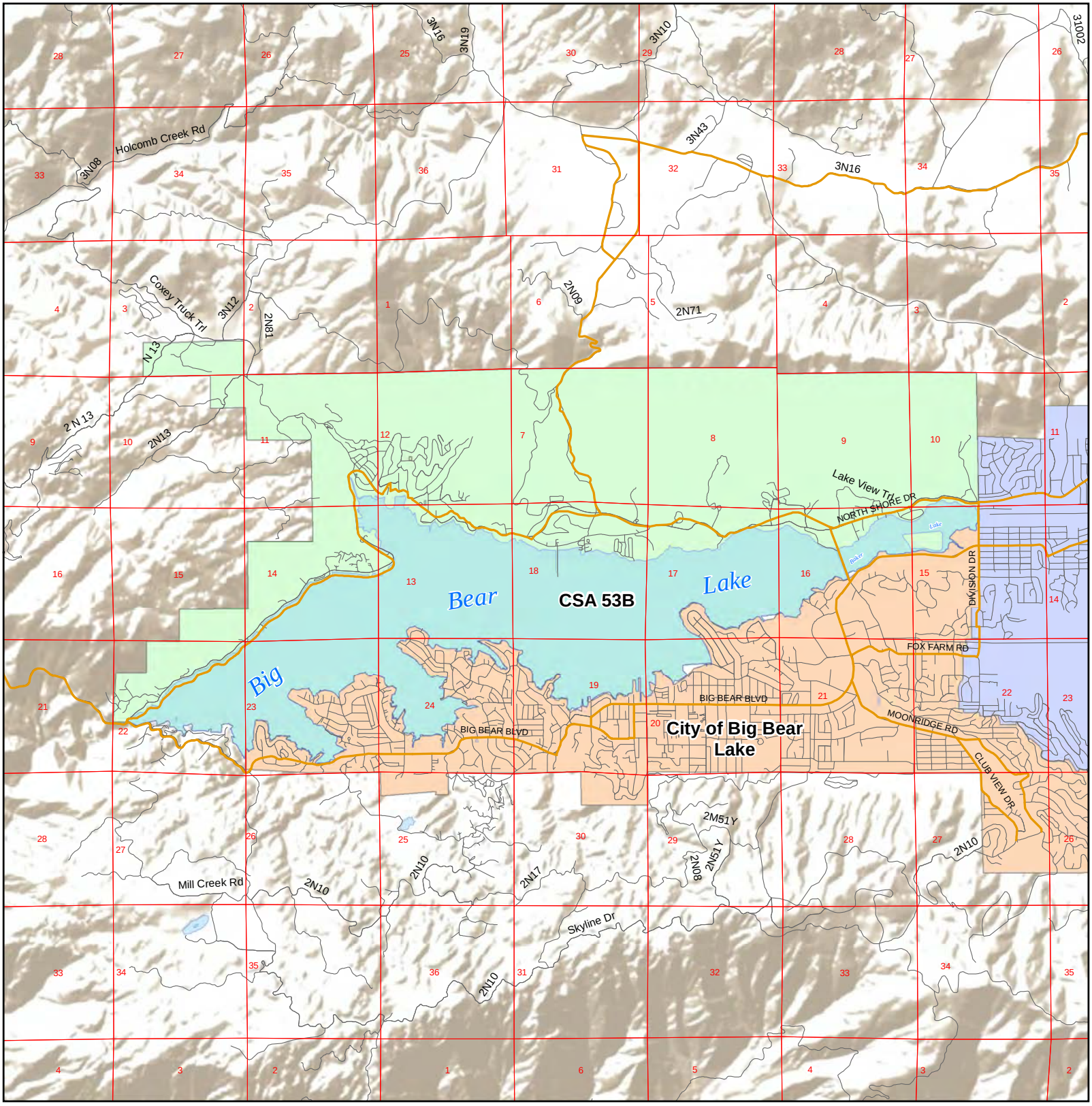
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/BOS/CSA53B.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/MountainRegion/BearValley.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	2		17.5			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	1,443		0			1,443 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	0%	100%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$61.96

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$4,660	$149,558	$235,616	$157,102	($88,056)
Cash & Equivalents, End of Year	$927,690	$1,077,248	$1,312,864	$1,469,966	$1,381,910

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
County Special Districts website



County Service Area 53B

0 0.5 1 2 Miles

N

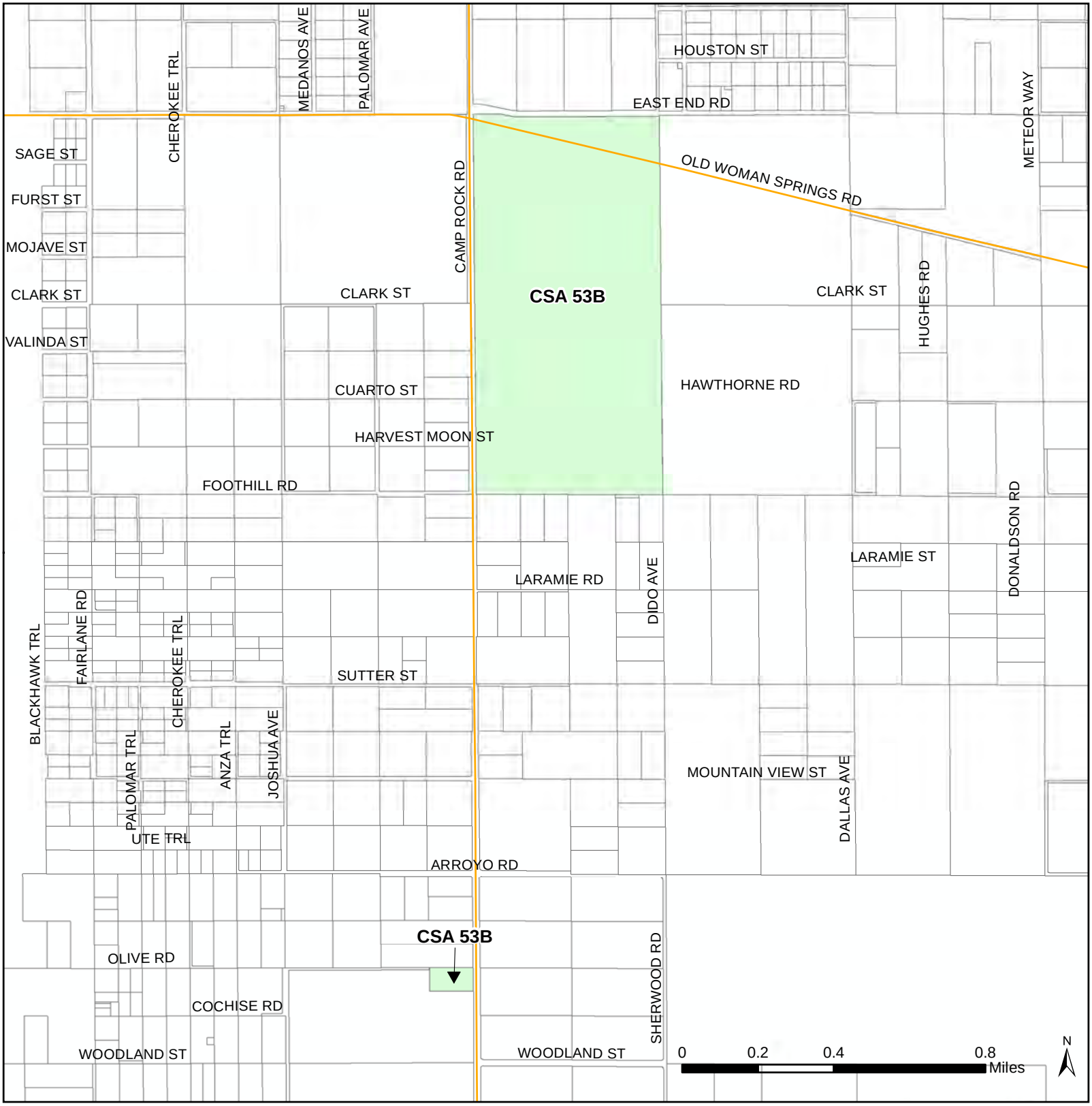
- Big Bear City Community Services District
- City of Big Bear Lake
- County Service Area 53B

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 3/5/2018

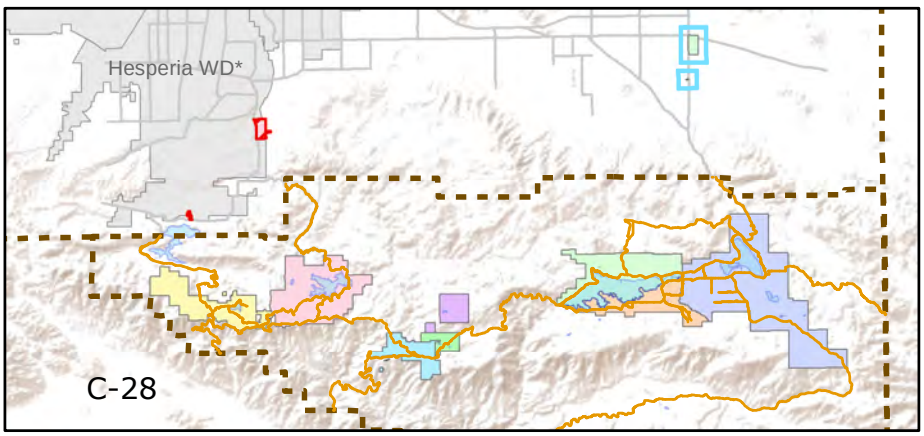


County Service Area 53B
Non-contiguous Boundary

CSA 53B

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.



Date Created: 3/1/2018

COUNTY SERVICE AREA 53 ZONE B (FAWNSKIN)

County Service Area 53 is a special district located within the Big Bear area and is governed by the County Board of Supervisors. Improvement Zone B of the CSA was established on January 2, 1968 to provide sewer services to 1,240 households in the Fawnskin community located on the north shore of Big Bear Lake. According to the Special Districts Department, with the exception of the addition of a camp to the collection system, the number of active connections within the CSA 53B service territory have been relatively stable. Based on a detailed review of growth patterns by CSA 53B, the number of customer EDUs are projected to remain flat with zero percent growth for the foreseeable future. The CSA 53B growth review does not include the Mooncamp Project.

The sewage collection system was installed in 1972 and currently services approximately 1,250 Equivalent Dwelling Units (roughly 950 connections) to residential and light commercial uses. The collection system includes two miles of force main, 17.5 miles of gravity sewer, 375 manholes and eight miles of laterals. All of the collection system sewer lines were constructed between 1960 and 1979. CSA 53B's collection system is designed to convey an average daily flow of 83,000 gallons per day to BBARWA for treatment and disposal. The County Special Districts Department has determined that CSA 53B's sewage facilities are designed for build-out capacity.

The County of San Bernardino, on behalf of CSA 53, is a member of the Big Bear Area Regional Water Agency ("BBARWA") which provides wastewater treatment and disposal. In 1980 CSA 53 annexed areas in Lucerne Valley for use in conjunction with BBARWA's outfall line.

CSA 53B has developed a multi-year Capital Improvement Plan (FY 2018 through FY 2022) which includes $1.9 million in capital needs over the five-year study period. The County's FY 2017-18 budget allocates $721,849 for CSA 53B capital improvements which include: $460,609 for collection system repairs, $161,240 for the purchase of a new office building, and $100,000 for vacuum line improvements. The vacuum station has four vacuum pumps that draw sewage through approximately 6,000 feet of vacuum main pipeline.

Correction to LAFCO 3124 (Resolution 3145)

This service review (LAFCO 3190) provides a correction to the CSA 53 portion of the 2011 Service Review for the Bear Valley Community (LAFCO 3124, Resolution 3145). The following are the corrections (deletions in strike format and additions in red font):

The reorganization of the San Bernardino County Fire Protection District (LAFCO 3000), effective July 1, 2008, included the transfer of responsibility for fire services from CSA 53 and its Zone B (serving the Fawnskin area) to the Mountain Service Zone. As a condition of approval, the property tax share that was allocated toward fire protection (~~99%~~100%) transferred to County Fire. ~~Therefore, the one percent that was allocated towards sewer service remained with CSA 53 Zone B.~~

sources: Sewer System Management Plan, Sewer Rate Study, Capital Improvement Plan (FY 2018 – FY 2022), County FY 2017-18 budget, LAFCO files

County Service Area 79 — Green Valley Lake

Agency Information			
Principal Act	County Service Area Law Gov. Code Title 3, Div. 2, Part 2, Ch. 2.5 – §25210 et seq.	Year Formed	1971
Governance	San Bernardino County Board of Supervisors	Square Miles	2.5
Website	http://www.specialdistricts.org	Population	2,577
Services	Water (inactive), sewer, road/snow removal		

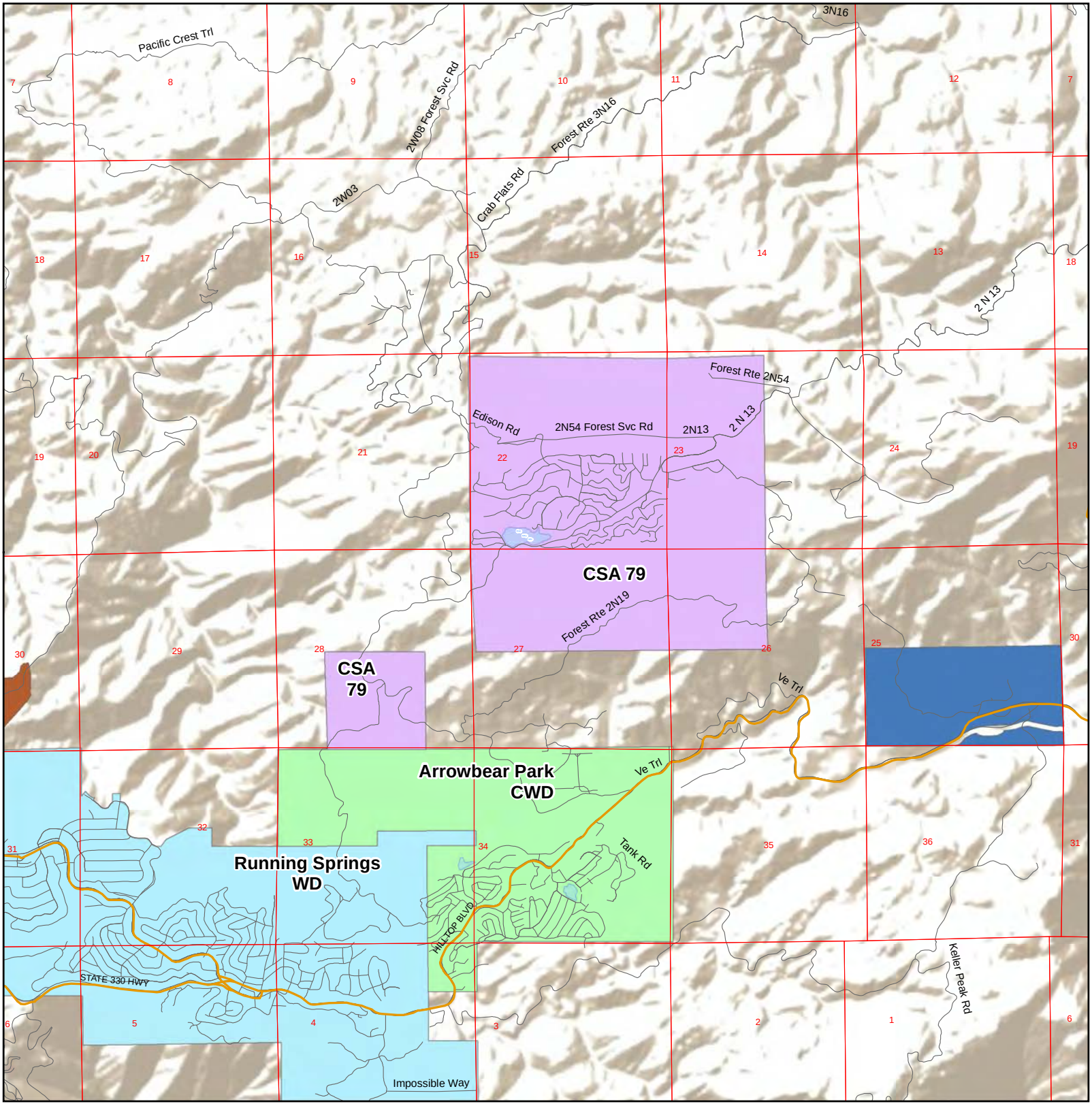
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/BOS/CSA79.aspx
Service reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/MountainRegion/Hilltop.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	1		21			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	1,221		1			1,222 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	0%	100%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$65.77

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$60,896	$29,788	$69,021	($150,160)	($28,688)
Cash & Equivalents, End of Year	$1,334,237	$1,364,025	$1,433,046	$1,282,886	$1,254,198

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
County Special Districts website



County Service Area 79

0 0.375 0.75 1.5 Miles

N

- Arrowbear Park County Water District
- County Service Area 79
- Running Springs Water District
- Running Springs Water District Service Contract
- Service Provided by CSA 79 Prior to Gov Code 56133

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 3/5/2018

COUNTY SERVICE AREA 79 (GREEN VALLEY LAKE)

County Service Area ("CSA") 79 was formed on September 7, 1971 with the active powers of fire (inspection, suppression, protection, first aid and rescue), sewer (collection and disposal), and road maintenance and improvement for the Green Valley Lake area. In 2008, the County Fire reorganization (LAFCO 3000) included the transfer of responsibility for fire protection services from CSA 79 to the San Bernardino County Fire Protection District and its Mountain Service Zone.

Collection and Contract for Treatment

Currently, CSA 79 provides sewer collection and road maintenance services to its approximately 2.5 square mile service area and serves a population of approximately 2,577 residents. Note that the population figure does not include the transient nature of the Mountain communities. Based on a detailed review of growth patterns by the CSA, the number of Equivalent Dwelling Units ("EDUs") are projected to experience a minimal growth rate of 0.08 percent per year to year 2022.[1] The projected number of customer EDUs is shown in Table C-5 below:

Table C-5:
CSA 79 EDU Projections

FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
1,193 EDUs	1,194	1,195	1,196	1,197

Source: CSA 79 Sewer Rate Study (2017)

The entirety of the CSA 79 collection system was originally constructed in the late 1970s. Currently, it consists of 21 miles of gravity sewer mains, one mile of force main, 481 manholes, and four pump stations. Modification and additions to the collection system and lift stations have occurred over the years to maintain adequate capacity. According to the County, CSA 79's sewage facilities are designed for build-out capacity.

Since 1978, CSA 79 has also provided service outside its boundaries and sphere of influence to the Snow Valley Ski area. This agreement expired in April 2018, and the County and Snow Valley opted not to extend the former contract where Snow Valley was charged based upon flow rate. Rather, in lieu of a contract, Snow Valley is now charged under the same method as CSA 79's other customers, by EDU.

The system was constructed without a treatment component, and it has chosen to contract with the neighboring Running Springs Water District for wastewater treatment and disposal. CSA 79's collection system is designed to convey an average daily flow of 0.43 million gallons per day to the Running Springs Wastewater Treatment Plant for treatment and disposal. In 2011, LAFCO assigned a single sphere of influence for the Hilltop Community signaling the desire for a single service provider to serve the entire community. [2]

[1] CSA 79 Green Valley Lake Sewer Rate Study (2017)

[2] In 2011, the LAFCO Commission defined the Hilltop community which includes Arrowbear Park, Green Valley Lake, and Running Springs.

Cash Flow Fluctuations

The District experienced gains in total cash flows for 2012, 2013, and 2014. Years 2015 and 2016 identify decreases of $150,160 and $28,688, respectively. These decreases are attributed to the acquisition of capital assets of $345,382 and $122,767.

Capital Improvement Program

CSA 79 developed a multi-year Capital Improvement Program for FY 2018 through FY 2022, identified in Table C-6 below. Based on the identified major capital projects, the CSA has identified a total of $2.0 million in capital needs through FY 2022.

Table C-6:
CSA 79 Sewer Capital Improvement Program

FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
$381,900	$462,700	$393,300	$399,200	$405,100

Source: CSA 79 Sewer Rate Study (2017)

sources: Sewer Rate Study
CSA 79 Sewer System Master Plan
County Special Districts Department website
Capital Improvement Program
LAFCO files

Lake Arrowhead Community Services District — Lake Arrowhead

Agency Information			
Principal Act	Community Services District Law Government Code Title 6, Division 3: §61100 et. seq.	Year Formed	1978
Governance	5-member Board of Directors	Square Miles	13
Website	http://www.lakearrowheadcsd.com	Population full-time part-time	 12,579 2,404

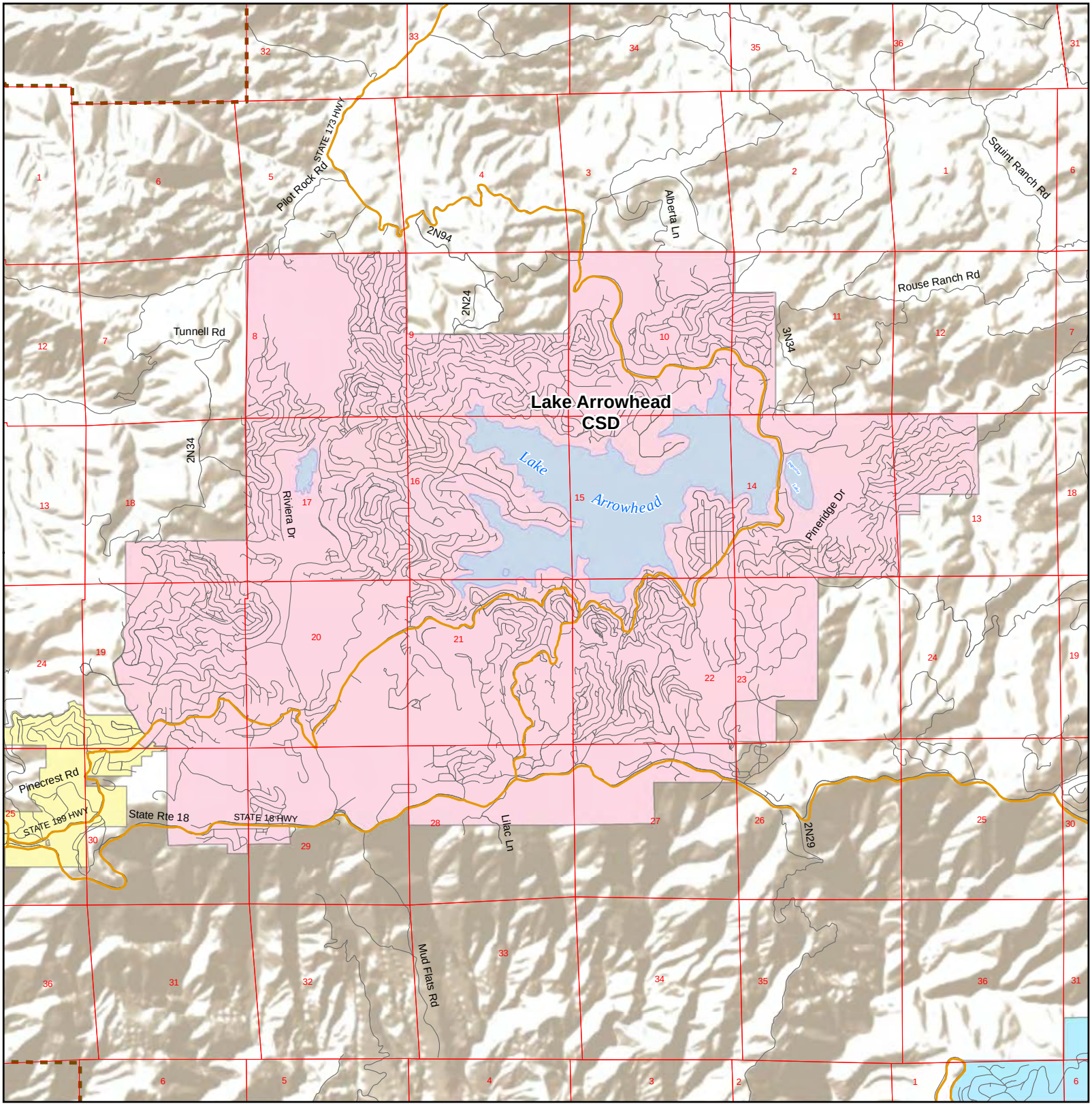
LAFCO Authority	
Authorized Functions	Water, sewer
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/LakeArrowheadCommunityServicesDistrict.aspx
Service reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/MountainRegion/LakeArrowhead.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	4		200			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	10,655		0			10,655 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	5%	20%	50%	20%	5%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$49.97

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($4,507,173)	$33,346	($3,375,154)	$1,651,607	$1,079,227
Cash & Equivalents, End of Year	$13,116,113	$13,149,459	$9,774,305	$11,425,912	$12,505,139

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Documents
Lake Arrowhead CSD website



Lake Arrowhead Community Services District

0 0.45 0.9 1.8 Miles

N

- Crestline Sanitation District
- Lake Arrowhead Community Services District
- Running Springs Water District
- Regions

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

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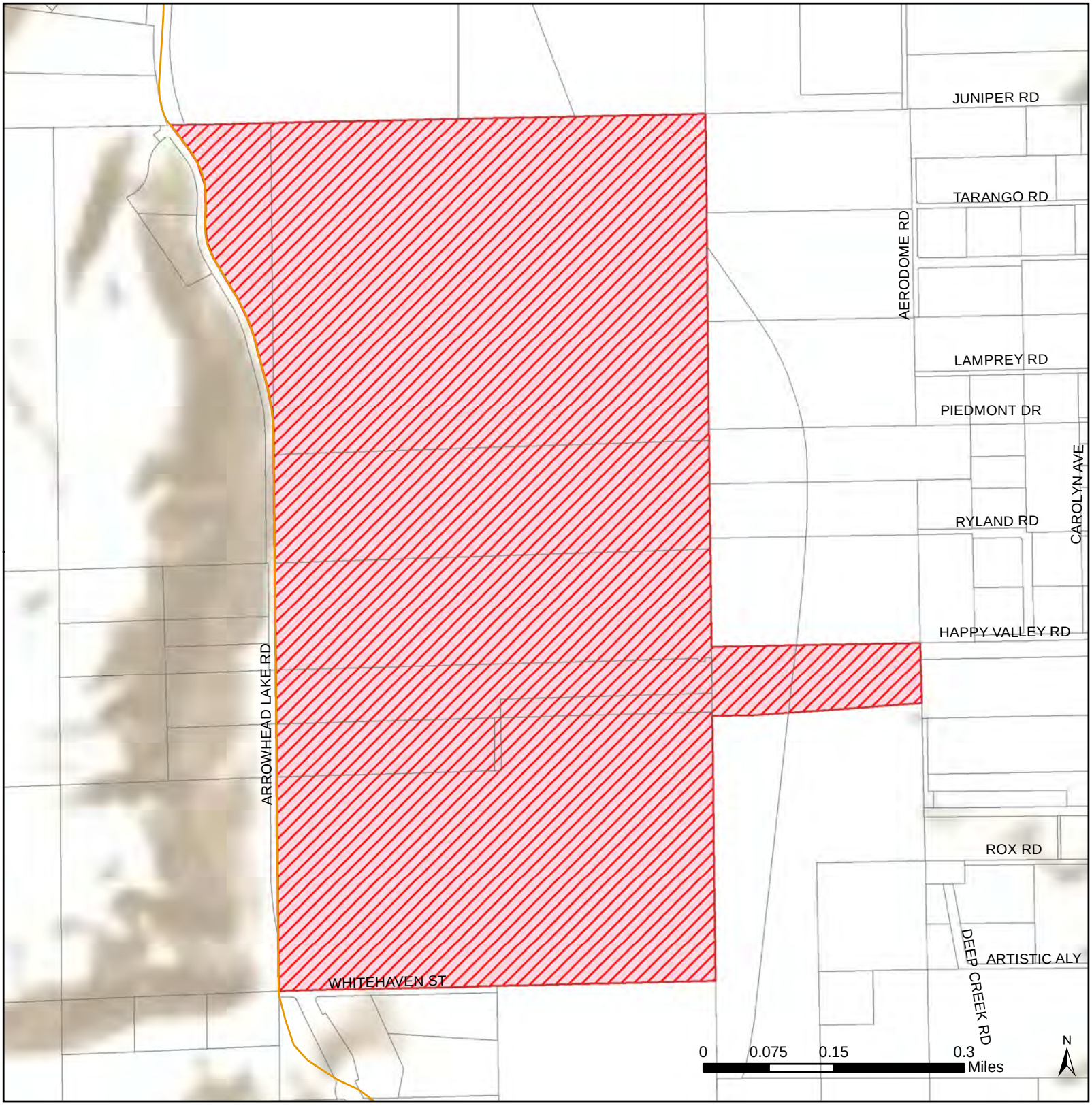
Date Created: 3/5/2018

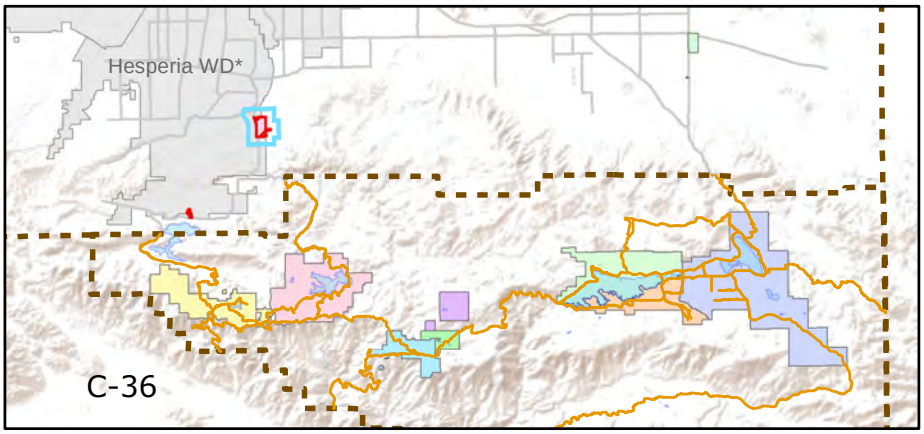


Lake Arrowhead Community Services District
Non-contiguous Property

Lake Arrowhead CSD

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.



Date Created: 3/1/2018

LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT

The Lake Arrowhead Community Services District, formed in 1978, provides water and wastewater treatment services to customers in Lake Arrowhead and surrounding mountain communities which range in elevation from 4,500 feet to over 6,000 feet and encompass approximately 15 square miles. During the 1920s and 1930s, the Lake Arrowhead area was mainly a resort sprinkled with summer cottages. Tourism and outdoor recreation have become the primary economic generators for the area, with the area hosting approximately 2.4 million visitors per year. Today, Lake Arrowhead includes commercial areas oriented to tourists, seasonal residents, as well as year-round residents. Approximately half of the residential dwelling units in the area are second homes. Sewer operations are funded primarily by utility fees, but are augmented by property tax revenue.

Population

In 2015, the permanent population was 12,579, with an additional 2,404 part-time population. This does not count tourists. Today, the District serves approximately 10,655 wastewater connections, serving all the population types previously identified.

Collection System

Wastewater from homes and businesses is transported through the District's sewer collection system, by 200 miles of gravity sewer and four miles of pressure sewer. Additionally, the Lahontan Regional Board identifies the District's collection system as susceptible to infiltration and inflow.

The unsewered area is comprised of subdivided tracts, government land and large, undeveloped parcels. In these areas, septic tanks are used for sewage treatment and disposal. Since 1983, the discharge of waste from "new" leaching or percolation systems is prohibited under Lahontan Water Board Order No. 6-84-93 for Lake Arrowhead.[1]

Treatment and Disposal

The District operates two wastewater treatment plants, the Grass Valley Wastewater Treatment Plant and the Willow Creek Wastewater Treatment Plant/Laboratory. The Grass Valley WWTP is the principal wastewater treatment facility for the District. According to the District's Urban Water Management Plan (2015), approximately 1 MGD of municipal sewage is treated at the plant. At the plant, wastewater flows undergo primary and secondary treatment processes, followed by denitrification. Wastewater flows between 2011 and 2015 are shown in Table C-7 below. On a daily average, wastewater flows feeding the Willow Creek and Grass Valley Plants are below rated capacities.

[1] The prohibitions in the unincorporated areas of the Lahontan Region are presented in the Water Quality Control Plan for the Lahontan Region. The County is authorized to issue OWTS building permits in these exemption areas, usually without Lahontan Water Board's approval. Exemptions to prohibitions may be granted by the Regional Board when it determines that an OWTS (on a particular parcel) will not individually or collectively, directly or indirectly, affect water quality from continued system operation, and/or maintenance.

Table C-7: Lake Arrowhead CSD Wastewater Flows

Year	Flows (MG)	WWTP Capacity (MGD)
2011	1,580	3.75
2012	1,231	3.75
2013	1,093	3.75
2014	1,142	3.75
2015	1,148	3.75
Avg:	1,239	---

Source: LACSD Urban Water Management Plan (2015)

Lake Arrowhead CSD operates with two discharge orders from the Lahontan Board.

1. Order R6V-2009-0037 authorizes disposal of secondary un-disinfected effluent to the Hesperia disposal sites. A portion of the secondary effluent is further treated as needed. The treated product is then pumped through a ten-mile outfall pipeline to the District's effluent management site in Hesperia. There, the treated effluent flows into percolation ponds, recharging underground aquifers of the Mojave River basin. Additionally, the Lahontan Regional Board identifies that the outfall line is aging and is nearing capacity.
2. Order R6V-2007-0022 authorizes the production and use of tertiary disinfected effluent within the Lake Arrowhead CSD boundary. Currently, the only user is the Lake Arrowhead Country Club. The tertiary wastewater plant is only operated when there is water demand.

Discharge above 3,200 feet

The District's Master Water Recycling Requirements Permit from the Lahontan Regional Board was approved in June 2007 (Board Order No. R6V-2007-0022). In the past, Federal and state laws administered by the Lahontan Regional Board prohibited the use of recycled water in the District service area because the rules governing discharge of waters of a waste origin were not permitted to be used in locations above 3,200 ft in elevation. This was specifically stated in the Waste Discharge Prohibitions contained in Section 4.1 of the Basin Plan. In January 2003, the District made a request for a Basin Plan amendment that would allow the discharge of waters that are of waste origin above the 3,200-ft elevation. In September 2003, the Lahontan Regional Board recommended approval of the Basin Plan Amendment. The amendment was reviewed and approved by the State Water Resources Control Board and by the US EPA in 2004. These changes have allowed the District to proceed with the implementation of a recycled water program to initially supply approximately 1-mgd of recycled water for outdoor irrigation in the Grass Valley Basin.

The Basin Plan states the following: "The Discharge of waste to land or water within the following areas is prohibited (Figure 4.1-23): (a) the Silverwood Lake watershed; (b) Deep Creek watershed above elevation 3,200 feet; and (c) The Grass Valley Creek watershed above elevation 3,200 ft."

Effective March 24, 2004 the prohibition for the Mojave Hydrologic Unit was amended in the Basin Plan as follows: "An exemption to this prohibition may be granted by the Regional

Board whenever the Board finds that the discharge of waste will not, individually or collectively, directly or indirectly, result in exceeding the water quality objectives or unreasonably affect the water for its beneficial uses."

Cash Flow Fluctuations

The District experienced gains in total cash flows for 2013, 2015, and 2016. Years 2012 and 2014 identify decreases of $4,507,173 and $3,375,154, respectively. These decreases are attributed to increases in capital assets which included collection system and lift station improvements as well as some final costs related to treatment plant improvements in 2012, and the wastewater fund's share of the purchase of an office building to house the District's headquarters in 2014.

Capital Improvement Plan

In March, 2014, the District's Board of Directors approved a five-year Water & Wastewater Infrastructure Plan which sets the priorities for the expenditure of capital funds. The Plan, which provides the basis for the Capital Improvements Section of the District's budget, includes goals for reducing sewer spills and complying with commitments the District has made to reduce inflow and infiltration. Major capital projects and expenditures identified in the FY 16/17 through FY 20/21 Capital Improvement Plan are summarized in Table C-8, below.

Table C-8:
Lake Arrowhead CSD Capital Improvement Plan

Wastewater CIP	16/17	17/18	FY 18/19	19/20	FY 20/21	5-Year Project Cost
Treatment Plant Improvements	577,000	1,047,000	1,600,000	1,750,000	942,000	5,916,000
Pump Stations	500,000	165,000	175,000	100,000	-	940,000
Pipeline Rehab & Replacement	2,050,000	2,050,000	2,050,000	950,000	950,000	8,050,000
Other Wastewater System Capital Improvements	707,500	3,835,000	-	-	-	4,542,500
Wastewater Equipment Purchases	199,000	359,000	200,100	205,950	160,900	1,124,950
Total Wastewater Capital Expenditures	**4,033,500**	**7,456,000**	**4,025,100**	**3,005,950**	**2,052,900**	**20,573,450**

source: FYs 2016/2017 and 2017/2018 LACSD Budget

sources: Urban Water Management Plan
Sewer Rate Study Report
Capital Improvement Plan
LAFCO files

Running Springs Water District — Running Springs

Agency Information			
Principal Act	County Water District Law Water Code Division 12 - §30000 et seq.	Year Formed	1958
Governance	5-member Board of Directors	Square Miles	5
Website	http://www.runningspringswaterdistrict.com	Population	5,632

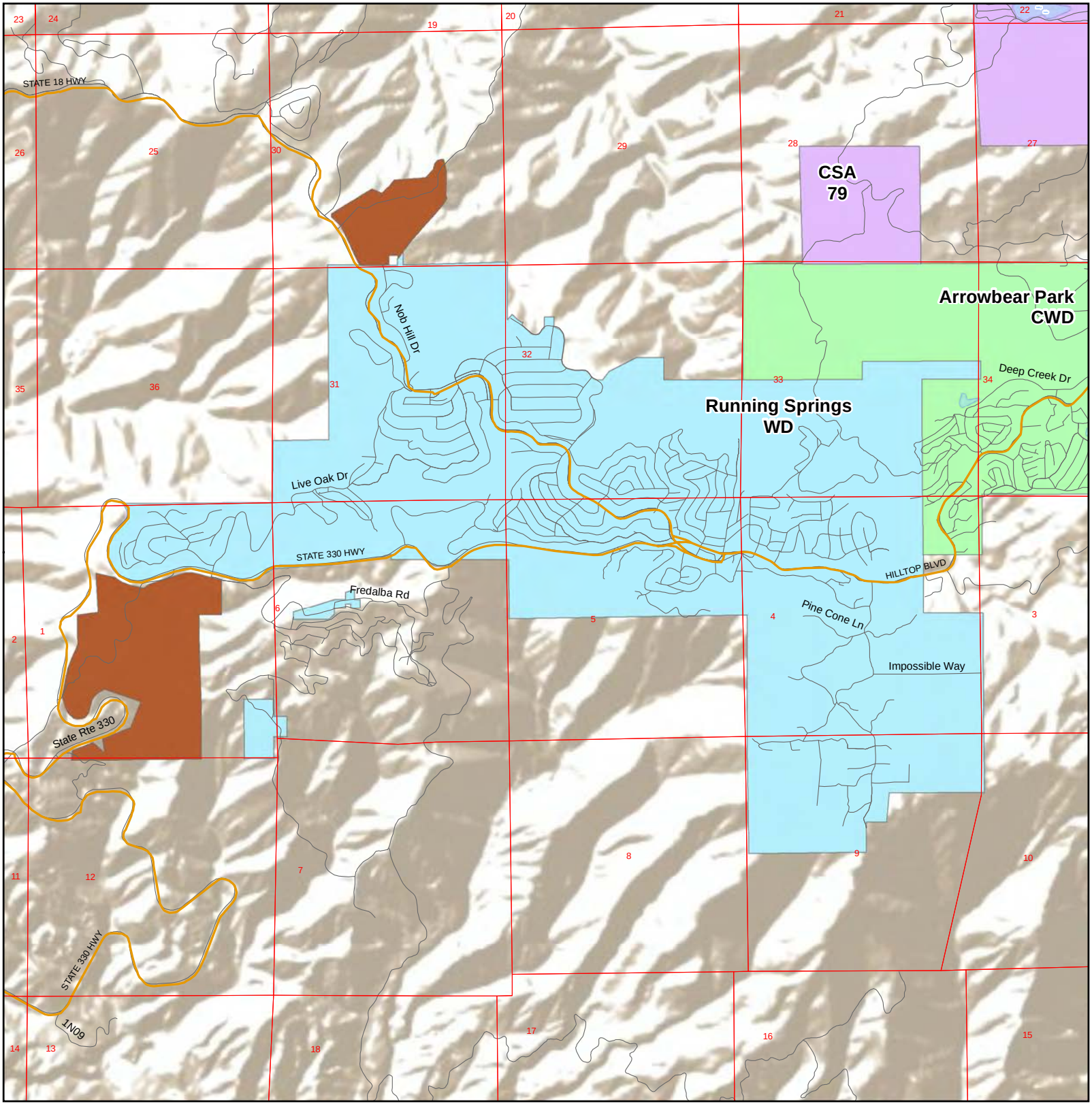
LAFCO Authority	
Authorized Functions	Water, sewer, fire protection (includes advanced life support and ambulance), park and recreation, and sanitation (not active)
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/RunningSpringsWaterDistrict.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/MountainRegion/Hilltop.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	2		59			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	2,861		6			2,867 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	1%	0%	99%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$53.54

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$399,876	($839,917)	($48,306)	$1,157,599	($429,588)
Cash & Equivalents, End of Year	$969,922	$130,005	$81,699	$1,239,298	$809,710

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Documents
Running Springs Water District website



Running Springs Water District

(Agency Service Area Shown, Not Boundary)

0 0.3 0.6 1.2 Miles

N

- Arrowbear Park County Water District
- County Service Area 79
- Running Springs Water District
- Running Springs Water District Service Contract

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 3/5/2018

RUNNING SPRINGS WATER DISTRICT

The Running Springs Water District ("RSWD") was formed in 1958. RSWD is a multi service agency that operates three departments: a water department that provides retail water distribution, a fire department that provides fire protection and ambulance/pre-hospital emergency medical aid service, and a wastewater department that collects, treats, and disposes of the area's wastewater.

Collection, Treatment, and Disposal Systems

Construction of the RSWD sewer collection system and treatment plant spanned seven years and was completed in 1975. The District's treatment plant was designated as a regional facility by the State Water Resources Control Board and currently provides wastewater treatment and disposal of wastewater generated in the Hilltop community, which includes various public and private entities within the Upper Deep Creek Watershed area and within the County Service Area 79, Arrowbear and Snow Valley areas (including Snow Valley Mountain Resort). RSWD has sole responsibility and authority over its treatment facility to include ownership, operations, and maintenance.[1]

In 2011, LAFCO determined that a single sphere of influence would be assigned for the Hilltop Community signaling the desire for a single service provider to serve the entire community.[2]

According to RSWD's Sewer System Management Plan (2017), the District's service area encompasses approximately five square miles with a service population of approximately 5,632. RSWD has seven assessment districts, one interceptor system, 59 miles of gravity sewer, and two miles of force main. The existing collection system consists of pipelines ranging in size from 6-inches to 15-inches and includes asbestos cement, PVC, and cement truss. Almost all of the sewer pipelines (99 percent) were constructed between 1960 and 1979. The RSWD service area lies within two watershed drainage areas, Deep Creek Mojave River (Lahontan Region) and the Santa Ana River (Santa Ana Region).

The District's 2017 Sewer System Management Plan ("SSMP") includes a Sanitary Sewer System Evaluation and Capacity Assurance Plan which projects sewer loads in the Running Springs area to the year 2028, evaluates capacities for existing and future sewer loads and recommends capacity improvement projects. Average daily sewer flow during the dry weather months is expected to increase from 0.507 MGD (2018) to 0.530 MGD under buildout (2028) conditions. Average daily flow during wet weather months is expected to increase from 1.519 MGD (2018) to 1.533 under buildout (2028) conditions.

RSWD's wastewater treatment plant is designed for a maximum flow of 1.0 million gallons per day ("MGD"). The treatment facility produces a tertiary treated effluent utilizing a Microfiltration Membrane Bioreactor ("MBR") system. The effluent from the treatment plant is discharged to ponds in the US Forest Service lands and used for spray irrigation of a greenbelt adjacent to the treatment plant. According to the District's SSMP, the treatment

[1] Agreement dated 21 March 2018 between RSWD and Arrowbear Park County Water District.

[2] In 2011, the LAFCO Commission defined the Hilltop community which includes Arrowbear Park, Green Valley Lake, and Running Springs.

facility can treat any instantaneous flows under 1.0 MGD. For flows exceeding 1.0 MGD, by using the plant's equalization basin, the District can defer treatment for up to 9.7 hours until the peak instantaneous flows have subsided to a more manageable rate. Under the worst case situation, the plant can employ additional options to reduce peak flow, including using the Anaerobic/Flow Equalization Tanks as a buffer, temporarily using the Aerobic Digestion Chamber to store the influence, and using the peak capacity of the MBR itself.

Cash Flow Fluctuations

Cash Flows as identified in the Statement of Cash Flows are for all enterprise functions (water, ambulance, sewer). As a result, a true understanding of the individual functions (water, ambulance, sewer) cannot be obtained. LAFCO staff recommends that the District segregate the enterprise functions in its financial statements. The District's financial statements describes the fluctuations in cash flows:

- 2013 - Acquisition and construction of capital assets totaling $975,616
- 2015
    - For the fiscal years ending 2015-2019 water rates were adjusted to increase revenue to cover operating expenses and fund operating and capital reserve funds. These rate increases were needed in order to fund several deferred capital replacement projects, to replace aging infrastructure and to fund cash reserves to the levels set forth in the District's Cash Reserve Policy.
    - Proceeds from installments payable of $670,078 and Capital contributions $504,223 are influxes of cash to be used for capital purchases.

Capital Improvement Plan

The District's FY 2017/18 budget includes a Five-Year Capital Improvements Plan (FY 2017/18 through FY 2021/22) for sewer system upgrades and improvements with expenditures totaling $773,500. Capital Improvements are to be funded primarily by approved wastewater charges to its customers as well as the revised charge formula for Arrowbear Park CWD and CSA 79. The budgeted improvements are summarized in Table C-9, below:

Table C-9:
Running Springs Water District Five-Year Capital Improvement Plan

Project Description	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total Cost
Collection System Improvements	$30,000	$58,000	$58,000	$58,000	$58,000	**$262,000**
Pump Stations Upgrades	-	$68,500	$36,000	-	-	**$104,500**
Pipeline Rehab & Replacement	$45,000	$100,000	-	$20,000	-	**$165,000**
Other Wastewater Improvements	-	$53,500	$143,500	$43,500	$1,500	**$242,000**
Total	**$75,000**	**$280,000**	**$237,500**	**$121,500**	**$59,500**	**$773,500**

source: Running Springs Water District FY 2017-18 Budget

sources: Sewer System Management Plan, FY 2017-18 Budget, website
LAFCO files

APPENDIX D
North Desert Service Review
Agency Updates

- Agency Profile
- Agency Map
- Narrative of Agency System

Baker Community Services District — Baker

Agency Information			
Principal Act	Community Services District Law Government Code Title 6, Division 3: §61100 et seq.	Year Formed	1956
Governance	5-member Board of Directors, elected at large	Square Miles	4.5
Website	http://www.bakercsd.org	Population	916

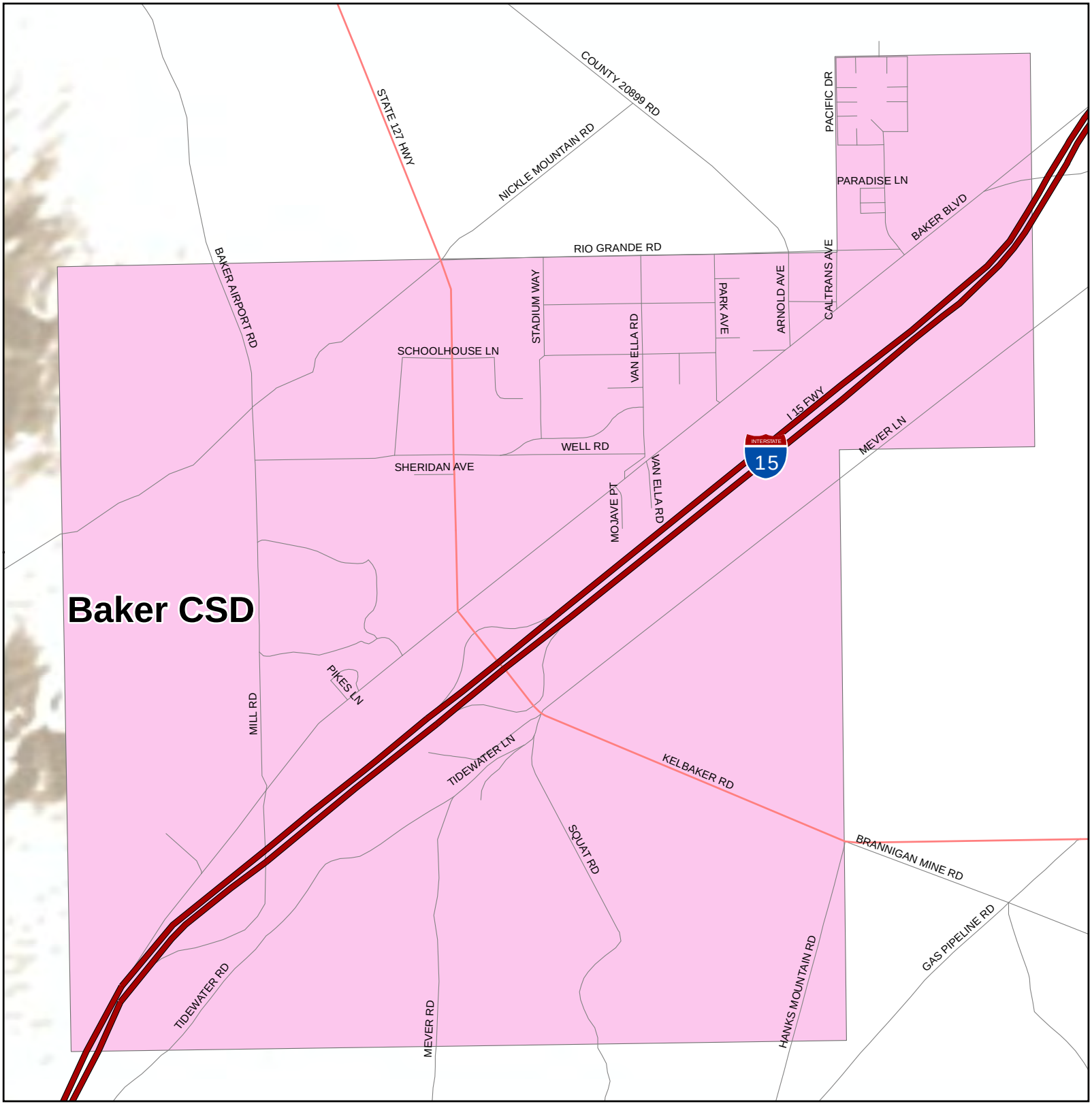
LAFCO Authority	
Authorized Functions	Water, sewer, solid waste collection, television translator, fire protection, road maintenance, street lighting, and park and recreation services.
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/BakerCSD.aspx
Service Review	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/SouthDesertRegion/Baker.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	1.5		5			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	150		0			150 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	15%	85%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$20.00

Cash Flows	2012	2013	2014	2015	2016
Net Cash from Operations	$7,611	$30,457	$12,100	$13,648	$35,044
Inter-fund Transfer Out to Governmental Fund for Fair Share	$0	$24,958	$1,645	$13,748	$35,044

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
Baker CSD website



Baker Community Service District

0 0.175 0.35 0.7 Miles

N

Baker Community Services District

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

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Date Created: 2/8/2018

BAKER COMMUNITY SERVICES DISTRICT

The Baker Community is located within the Lahontan Water Basin regulated by the Lahontan Regional Water Quality Control Board. A review of the Lahontan enforcement orders since 2003 does not identify any adopted orders regarding the Baker Community Services District. There are an unknown number of private systems as some properties may have multiple systems.

According to the *Preliminary Engineering Report on Water and Wastewater Systems* from 1990:

> *For a wastewater treatment plant, the CSD has constructed unlined stabilization ponds with a total design capacity of 0.15 mgd on a site approximately one-half mile south of the community. The initial facility was constructed in 1961 and modified in 1970. There are approximately 10 acres of ponds consisting of two ponds of approximately 2.5 acres each and a five-acre pond located on 73 acres of land owned by the CSD. The land was granted to the CSD in February 1963. The CSD domestic water wells are approximately two miles east of the ponds.*
>
> *The ponds function as evaporation/percolation ponds. The five-acre pond is not normally used. Its floor is covered with sage brush and other desert brush. The two 0.5 acre ponds alternately take the entire sewage flow. It takes four to six months to fill a pond to approximately four feet depth. This leaves three to four feet of freeboard. There is no discharge from the ponds except by evaporation or percolation. The groundwater is approximately 100 feet below and is poor quality with total dissolved solids (TDS) concentration over 1000 mg.*
>
> *It appears the existing wastewater treatment facilities could easily handle at least double the current wastewater flows. There is room for considerable expansion on the 73 acre site.*

The ponds are located in the southern portion of the district, just southwest of the Interstate 15/SR 127 junction, within the Mojave National Preserve. The Lahontan Regional Board recommends that Baker CSD install a lined aerated basin to stabilize solids and reduce odors.

Implementation of a treatment plant for the community seems unlikely since the population is low and the capital costs would be borne by the very limited population resulting in a cost that could not be paid by the community.

Sources: City of Barstow website
FY 2017-18 budget
SSMP
LAFCO files

City of Adelanto (Adelanto Public Utilities Authority) — Adelanto

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1996[1]
Governance	Adelanto City Council, as the Board of Directors	Square Miles	53.8
Website	http://www.ci.adelanto.ca.us	Population	33,080
Services	Retail water and wastewater		

LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/SubsidiaryDistricts/AdelantoPublicUtilityAuthority.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/Adelanto.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

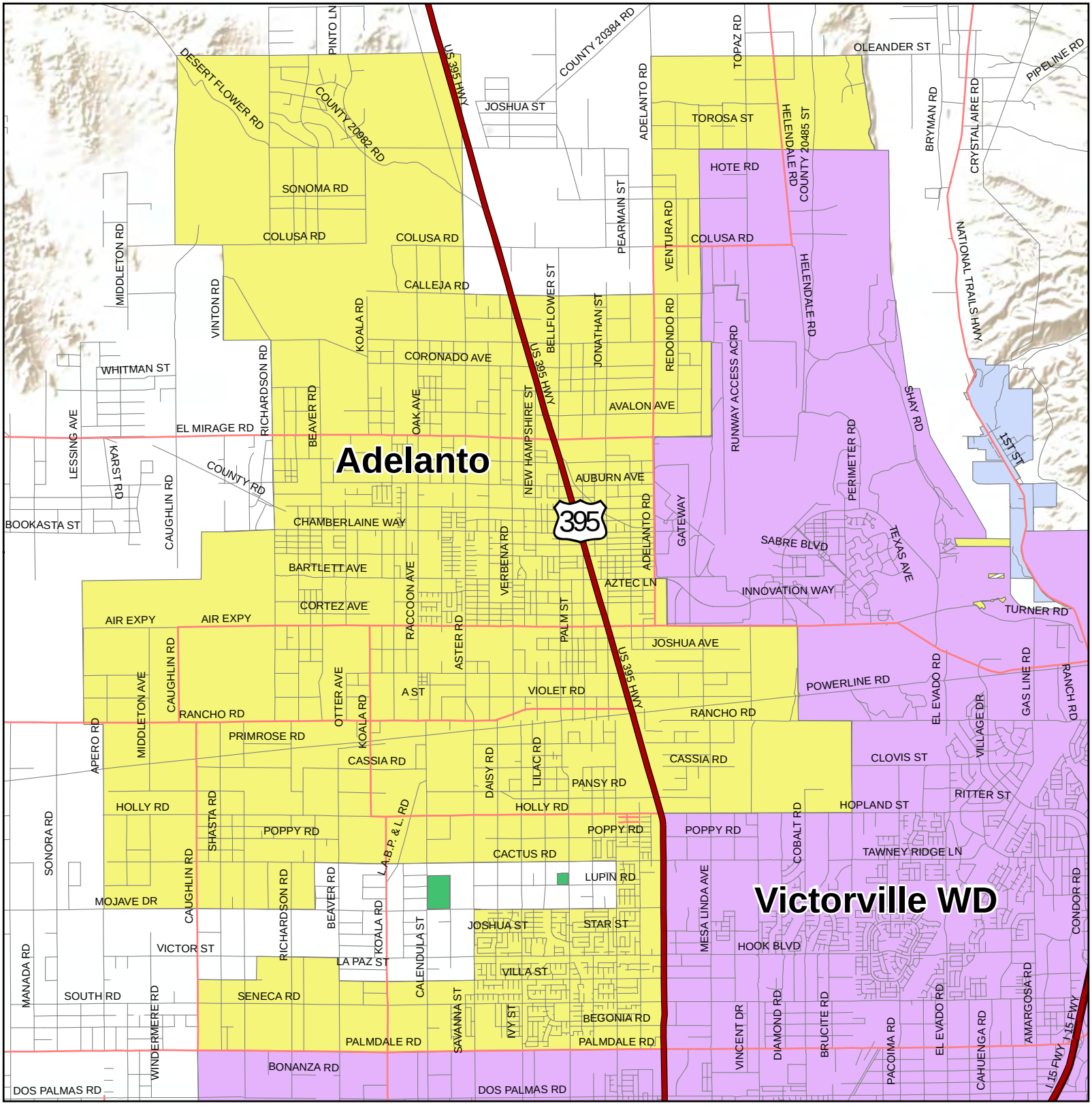
Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	6		88			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	7,441		2			7,443 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	40%	35%	25%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$61.06 (flat rate)

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($3,907,137)	($2,746,856)	($882,926)	$2,560,328	$2,051,828
Cash & Equivalents, End of Year	$9,471,894	$6,725,038	$5,842,113	$8,402,441	$10,454,269

Sources: CA State Water Resources Control Board CIWQS website
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Adelanto website

[1] The City was incorporated in 1970 and became a charter city in November 1992. The City provides water and wastewater services through the Adelanto Public Utilities Authority (APUA) formed by action of the City Council on 10-22-1996.



City of Adelanto

(Agency Service Area Shown, not Boundary)

0 0.75 1.5 3 Miles

N

- City of Adelanto
- County Service Area 42
- Victorville Water District
- City of Adelanto, LAFCO Reviewed Out-of-Agency Service

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 2/8/2018

CITY OF ADELANTO

The City of Adelanto, through its Adelanto Public Utilities Authority (Joint Powers Authority between the City and its dissolved Redevelopment Agency), provides wastewater services to over 30,000 people within its 54 square mile service area. The City operates and maintains the localized sewer collection pipelines that feed into the wastewater treatment plant. The City's sewer collection system includes over 87 miles of gravity sewer lines, one lift station, and associated force mains. There are also approximately 775 septic tank systems in the northern end of the City's service area. These septic systems could be connected to the City sewer system in the future.

Municipal wastewater is generated in Adelanto's service area from a combination of residential, commercial, and industrial sources. The quantities of wastewater generated are generally proportional to the population and water usage in the service area. It is estimated that Adelanto's customers generate wastewater roughly proportional to 60 to 70 percent of the City's water demand. The table below shows the total metered wastewater volume (2.297 MGD shown in AF) collected and treated for Adelanto in 2015.

Figure D-1:
City of Adelanto Historic and Projected Wastewater Collection (AFY)

	2015	2020	2025	2030	2035	2040
Potable Water Demand	4,049	4,578	4,872	5,292	5,737	6,195
Est. Volume of Wastewater Collected	2,573	2,976	3,167	3,440	3,729	4,027

Note: 2015 is actual demand from Table 4-1; wastewater collected is assumed equal to approximately 65% of potable water demand based on the City's Sewer Master Plan (December 2007).

source: City of Adelanto 2015 UWMP

Wastewater from Adelanto's service area is collected and treated at the City-owned 4.0 MGD activated sludge wastewater treatment facility through an operations and maintenance contract with the PERC Water Corporation. In addition to operations, PERC performs routine collection system cleaning, sewage spill response and cleanup, and industrial sewage pretreatment program. The wastewater treatment facility treats the wastewater to secondary level, and the effluent is discharged to percolation ponds in northern Adelanto. The beneficial reuse of treated wastewater is groundwater recharge.

Also, as identified in the City's 2015 UWMP, two sub-regional wastewater treatment plants (6.0 MGD and 3.0 MGD) are proposed to be constructed in incremental capacities. However, construction plans are not included in the foreseeable capital improvements plans of the City, and no recycled water projections are available in the planning horizon of the UWMP.

sources: City of Adelento website, FY 2017-18 budget, SSMP
LAFCO files
Interview with PERC Water
Mojave Water Agency UWMP

City of Adelanto
Financial Review

The following outlines the accounting practices of the City and reviews its financial operations in order to determine the financial ability to provide services. LAFCO staff obtained copies of the City's financial documents from the City and other information from public sources: San Bernardino County Auditor and the California State Controller's report for cities and special districts. This review is organized as follows:

A. Description of the Adelanto Public Utility Authority and its Water Enterprise
B. City and APUA Audits
C. Redevelopment Oversight Board Consolidation
D. Independent Auditor's Testing of Internal Controls
E. Review of Statement of Cash Flows
F. Long-term Liabilities
G. 2009 Service Review with 2016 Update
H. Conclusion

A. Description of the Adelanto Public Utility Authority and its wastewater enterprise

The City of Adelanto operates its wastewater system through its Adelanto Public Utility Authority ("APUA"), a component unit of the City. Although the City is the responsible entity, the APUA issues its own audit. The audits of the APUA report two major funds: the APUA fund for the sewer operations, and the Adelanto Water Authority fund for the APUA's water operations.

The APUA is a joint powers authority formed in 1996 between the City and the former Adelanto Redevelopment Agency for the purpose of purchasing from the City the wastewater operations and subsequently operating the system. The APUA does not have ad valorem taxing power, but it is authorized to issue revenue bonds for the purpose of financing water and wastewater capital improvement projects. In conjunction with the purchase of the City's wastewater operations, the APUA issued bonds to finance the down payment to the City and the construction of a wastewater treatment plant. The APUA also issued a note payable to the City to finance the purchase of the existing wastewater assets.

In 2000, the APUA entered into a purchase agreement with the Adelanto Water Authority (formed by the City in 1996) to purchase the Adelanto Water Authority's water system. The purchase price consisted of amounts sufficient to refund all of the outstanding prior water bonds and assumption of the Adelanto Water Authority's obligations under the original 1996 agreement under which the Water Authority was formed by the City.

B. City and APUA Audits

As of March 27, 2018, the most recent audit for the APUA is for FY 2015-16 (dated November 17, 2017) and FY 2013-14 for the City (dated May 13, 2016). In February 2018, the City informed LAFCO that it is finishing up the APUA 2016-17 audit and will

start the City 2014-15 audit soon after. Therefore, the financial picture of the City and APUA remains unclear due to the lack of current financial statements.

C. Redevelopment Oversight Board Consolidation

As stated identified above, the APUA is a JPA formed between the City and its former Adelanto Redevelopment Agency. Additionally, the Adelanto Public Financing Authority was established in 1989 pursuant to a Joint Powers Agreement by and between the City and the RDA for the purpose of providing financing for public capital improvements for the City and the RDA. The authority has the power to issue bonds to pay the cost of any public capital improvements. With the dissolution of redevelopment agencies effective 2014, the City voted and approved to become the successor agencies to the APUA and Adelanto Public Financing Authority with the City Council as the respective governing boards.

However, effective July 1, 2018, the redevelopment oversight boards in each county in the State of California will be consolidated into one seven-member board (Health & Safety Code § 34179(j)). In turn, come July 1, 2018 the City will no longer be the successor agency to the APUA and Adelanto Public Financing Authority – the newly created redevelopment oversight board will be the successor agency for the APUA. Therefore, both JPAs will extinguish and the APUA and Adelanto Public Financing Authority will wholly integrate into the City's reporting. This means that all long-term obligations of the JPA will become long-term obligations of the City. Lacking financial statements for the City beyond FY 2013-14, it is unclear as to the current long-term liabilities of the Adelanto Public Financing Authority.

D. Independent Auditor's Testing of Internal Controls

The FY 2015-16 independent auditor's report indicates that the APUA's flawed reporting could lead to financial misinformation, abuse, or fraud if not changed. In response to the auditor's findings, the City has provided statements that it will overhaul its procedures. Below are the items identified by the independent auditor:

<u>Material weaknesses:</u>

- The financial close and reporting process delayed completion of the audited financial statements and the potential that APUA is basing decisions on outdated financial information.

  APUA Response: The City's finance department is continuing to recommend the use of their outside accounting consultant in order to work towards timely year-end closings.

- There are no policies or manual to provide uniform guidance for the consistency and accounting treatment of transactions, which could lead to transactions being treated inconsistently while opening the door for errors and potential abuse.

APUA Response: The finance and human resource departments remain in the process of developing and implementing formal policies and procedures, estimated to be completed by June.

- The amount of utility billing outstanding checks, consisting of mostly un-cashed refunds to customers, are estimated and several are years old. Not all are kept track of, making it difficult to determine if the checks are still valid since most checks are time-sensitive to banks. The issue raises the possibilities of errors and the potential for fraud with the bank reconciliation since the amount can't be verified.

  APUA Response: The Finance Department is reviewing its bank reconciliation to apply an Unclaimed Funds Policy on outstanding and un-cashed checks.

- Bank reconciliations are being prepared by an individual who is also an authorized signer for APUA's bank accounts. Without the segregation of duties, cash is the most susceptible area for misappropriations and the possibility of fraud or errors.

  APUA Response: The individual reconciling the bank statements is no longer an authorized signor on APUA's bank accounts.

Significant deficiencies

- Current policies do not follow the limits set forth by the city's municipal code, and the policy hasn't been reviewed or updated for several years. A new accounting software system established limits to provide better controls over cash disbursements and purchasing but the change was not updated in the municipal code, meaning cash disbursement and purchasing practices are not formally approved in the municipal code.

  APUA Response: The finance department is reviewing the outdated cash disbursement and purchasing policies in the municipal code in order to recommend changes that are in line with those used in the software system.

- Reconciliations were completed several months after the close of each month, which could negatively impact financial reports. The delay occurred after staff assigned to prepare reconciliations was out for several months due to illness and there were no replacement workers.

  APUA Response: Alternative staff have been trained and all banking account reconciliations are now current with the exception of the city's Pooled Checking account.

- There was no indication that the capital asset valuation for the fiscal year 2016 had a comprehensive review and approval before the valuation was finalized.

APUA Response: The Council recently approved hiring additional accounting staff and APUA is bring capital asset evaluation in house.

- Minutes for public meetings were not prepared in a timely manner and are several months behind the most current meeting.

APUA Response: A current contract is in place with a consultant to get the public meetings up to date.

E. Review of Statement of Cash Flows

The following chart compiles the Statements of Cash Flows, and isolates the wastewater function, from 2012 through 2016.

	2012	2013	2014	2015	2016
CASH FLOWS FROM OPERATING ACTIVITIES:					
Receipts from customers & users	$ 6,018,336	$ 6,145,838	$ 7,180,939	$ 7,131,436	$ 6,909,758
Payments to suppliers for operations	(6,148,521)	(2,500,205)	(2,546,184)	(1,466,011)	(1,378,483)
Payments to employees for services			(36,418)	(63,432)	(3,599)
Net cash provided (used) by operating activities	(130,185)	3,645,633	4,598,337	5,601,993	5,527,676
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:					
Transfers to the City of Adelanto	(125,000)	(125,000)	(30,753)	(129,842)	(125,000)
Payments received (paid) to/from other funds or the City		3,691,875	(2,810,238)	(1,060,235)	137,700
Net cash provided (used) by noncapital financing activities	(125,000)	3,566,875	(2,840,991)	(1,190,077)	12,700
CASH FLOWS FROM CAPITAL & RELATED FINANCING ACTIVITIES:					
Purchase of capital assets	(1,410,231)	(7,313,376)			(125,351)
Proceeds from issuance of debt (wastewater portion)				4,197,400	
Payment to Ambac (wastewater portion)				(3,181,788)	
Principal paid on capital debt			(496,100)	(516,600)	(946,848)
Interest paid on capital debt	(2,322,287)	(2,725,255)	(2,299,976)	(2,427,580)	(2,462,547)
Net cash provided (used) by capital & related financing activities	(3,732,518)	(10,038,631)	(2,796,076)	(1,928,568)	(3,534,746)
CASH FLOWS FROM INVESTING ACTIVITIES:					
Net cash provided (used) by investing activities	80,566	79,267	155,804	76,981	46,199
Net increase (decrease) in cash & cash equivalents	(3,907,137)	(2,746,856)	(882,926)	2,560,329	2,051,829
CASH AND INVESTMENTS:					
Beginning of year	13,379,031	9,471,894	6,725,038	5,842,112	8,402,441
End of year	$ 9,471,894	$ 6,725,038	$ 5,842,112	$ 8,402,441	$ 10,454,270
source: Statement of Cash Flows					

As shown in the chart above:

- Due to rate increases, operating revenues substantially cover operating expenses.
- Operating revenues increased by 16.8% in 2014.
- Revenue gain from operations has not been adequate to support its capital and related financing activities until 2015, subsequent to the rate increase.
- Not until 2014 was principal paid on capital debt, subsequent to the rate increase.

- Investment revenue is minimal.
- Cash and cash equivalents at the end of 2016 are at their highest level in five years.

Cash and cash equivalents are the most liquid assets of an agency's assets and can be readily converted into cash. The indicator is calculated by dividing beginning cash and equivalents by change in cash and equivalents. A positive percent change indicates that cash position has improved.

F. Long-term Liabilities

The following is a schedule of changes in long-term liabilities of the APUA for the fiscal year ended June 30, 2016:

	Beginning Balance	Additions	Deletions	Ending Balance	Due Within One Year
Fixed Rate Refunding Revenue Bonds, 2009 Series A	$ 73,190,000	$ -	$ (1,315,000)	$ 71,875,000	$ 1,375,000
Unamortized Discount	(919,961)	-	38,328	(881,633)	-
Fixed Rate Revenue Bonds, 2014 Series A	14,130,00	-	(665,000)	13,465,000	700,000
Unamortized Premium	343,789	-	(13,752)	330,037	-
Water System Purchase Note (Note 6)	7,436,606	-	(1,536,611)	5,899,995	1,613,442
Wastewater System Purchase Note (Note 6)	6,431,169	-	-	6,431,169	-
Compensated Absences	9,803	-	(1,554)	8,249	-
Advances from the City of Adelanto	301,389	176,928 [1]	(2,730)	475,587	9,120
Total	$ 100,922,795	$ 176,928	$ (3,496,319)	$ 97,603,404	$ 3,697,562

1. Fixed Rate Refunding Revenue Bonds, 2009 Series A

This debt relates to bonds issued for both the water and wastewater systems. The following schedule from the 2016 audit illustrates the debt service requirements for bonds outstanding as of June 30, 2016:

Year Ending June 30,	Principal	Interest	Total
2017	$ 1,375,000	$ 4,589,244	$ 5,964,244
2018	1,445,000	4,518,744	5,963,744
2019	1,525,000	4,443,541	5,968,541
2020	1,605,000	4,361,328	5,966,328
2021	1,695,000	4,271,581	5,966,581
2022-2026	10,125,000	19,705,178	29,830,178
2027-2031	13,855,000	15,974,447	29,829,447
2032-2036	19,330,000	10,495,834	29,825,834
2037-2040	20,920,000	2,943,000	23,863,000
Total	$ 71,875,000	$ 71,302,897	$ 143,177,897

2. Fixed Rate Refunding Revenue Bonds, 2014 Series A

In December, 2014, the APUA issued $14,130,000 in Fixed Rate Revenue Bonds, 2014 Series A, to pay costs related to a legal settlement with Ambac Assurance Corporation and to finance certain capital improvements. Interest on the bonds is payable July 1st and January 1 of each year. Interest on the bonds accrues at rates of 4.00% and 5.00% per annum. Principal on the serial bonds are payable in annual installments, ranging from $265,000 to $1,045,000, commencing July 1, 2015 through July 1, 2039.

Legal Settlement

The United States District Court, Southern District of New York ruled against the APUA, awarding Ambac Assurance Corporation a $4,524,000 settlement payment (relating to or resulting from the alleged breach of the APUA of an interest rate swap agreement) plus interest and fees. The total settlement payable including interest and fees is estimated to be $7,760,459. According to the 2014 audit, the City did not have available funds to satisfy this settlement, and the APUA may not be able to continue as a going concern. The issuance of the 2014 bonds satisfied this settlement obligation, and the 2016 audit does not have any reference to being able to continue as a going concern.

3. Advances from the water fund to the wastewater fund

The Adelanto Public Utility Authority (wastewater) owes the Adelanto Water Authority (water) the net amount of $8,986,116. These amounts have been eliminated on the Statement of Net Position – due to this being an interfund loan. These amounts are shown as advances to/advances from Water Fund/Wastewater Fundon the Statement of Net Position-Proprietary Funds.

Due to the large amount, coupled with the fact that these water funds are subject to Proposition 218, LAFCO staff's position is this is a loan and not an advance. Therefore, even though the net amount owed is roughly $3 million less than in 2014, the audits should identify a repayment schedule.

G. 2009 Service Review

In 2009 LAFCO conducted a service review of the City and all of its services and operations. As a part of the service review, financial deficiencies were identified which impacted the solvency of the services. Below is an update of the items identified that relate to the wastewater service.

1. Revenues and Debt Payments

2009 Service Review

In general, the City through its component units has high debt and receives one of the lowest shares of the ad valorem property tax levied in the County. Whereas the total debt per capita is not atypical (around $3,500 per capita), the revenues generated present challenges to the City in providing adequate services and has resulted in the deferral of some of its long-term obligations. If the City were to issue annual payment on each long-term obligation, it would not have enough revenue to support its operations. Further, the business-type activities generate revenues in excess of operating expenditures and have adequate funds to pay debt annually.

2016 Update

This situation still remains. As identified above, operating revenues exceed operating expenses for the wastewater service. The remaining funds go to pay for long-term debt. However, the wastewater fund has only been paying the interest on its long-term debt until 2014. The chart below shows the debt payments since 2012.

Year	Debt Principal	Debt Interest
2012	$ 0	$ 2,322,287
2013	$ 0	$ 2,725,255
2014	$ 496,100	$
2015	$	$ 2,299,976
2016	$ 946,848	$ 2,462,547

2. Reserve levels

2009 Service Review

Reserves for the water and sewer funds are now close to depletion, and new service connections have halted due to the downturn in the residential construction market. As stated in the water and sewer rate increase notice, the City rate adjustment is to protect

the Adelanto Public Utilities Authority **"***against insolvency*". Publication of such a position by City staff illustrates the serious financial position of this enterprise activity.

2016 Update

For the APUA's wastewater function, total cash and investments, including those with fiscal agents, has substantially increased since 2011. This is mainly due to the substantial rate increase of 2014.

YEAR	Cash & Investments	Cash & Investments with Fiscal Agents	Total	% Change
2011	$1,863,914	$11,515,117	$13,379,031	--
2012	1,315,717	8,156,177	9,471,894	-29%
2013	2,839,466	3,885,573	6,725,039	-29%
2014	2,575,336	3,226,776	5,802,112	-14%
2015	4,785,950	3,616,491	8,402,441	45%
2016	6,993,629	3,460,640	10,454,269	24%

H. Conclusion

The wastewater operations of the APUA, a component unit of the City, are tied to the APUA's water service and the City. The water service (Water Authority) is in debt to the City, and the APUA is in debt to the Water Authority. A review of the APUA audits identifies that operating revenues substantially cover operating expenses - this is due to the large rate increases. However, revenue gain from operations has not been adequate to support its capital and related financing activities. Not until 2014 was principal paid on capital debt.

The auditors in the 2014 audit stated that the APUA may not be able to continue as a going concern due to the inability to secure financing to address the payment of an outstanding settlement. The APUA was able to satisfy this settlement obligation, but had to incur bond debt secured by water and wastewater rates to do so.

As of March 27, 2018, the most recent audit for the APUA is for FY 2015-16 (dated November 17, 2017) and FY 2013-14 for the City (dated May 13, 2016). In February 2018, the City informed LAFCO that it is finishing up the APUA 2016-17 audit and will start the City 2014-15 audit soon after. Therefore, the financial picture of the City and APUA remains unclear due to the lack of current financial statements.

City of Barstow

Barstow

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1947
Governance	Barstow City Council	Square Miles	33
Website	http://www.barstowca.org	Population	24,248
Services	Police, park & recreation, wastewater collection and disposal, solid waste disposal, and transit services.		

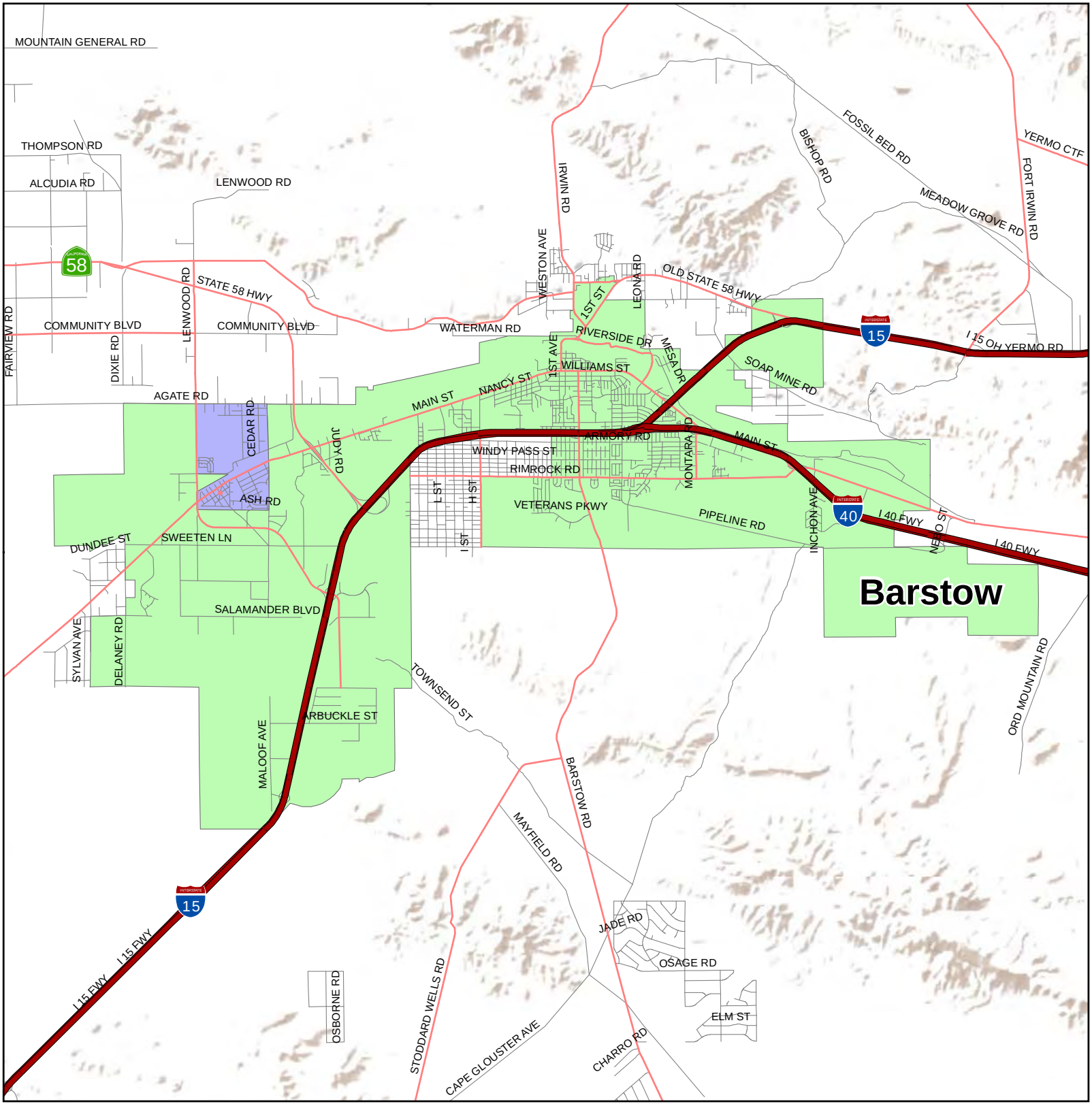
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/Barstow.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/Barstow.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	0		113			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	5,641		0			5,641	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	15%	25%	10%	50%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$31.00

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($2,724,188)	($931,535)	($2,124,534)	$93,777	($107,296)
Cash & Equivalents, End of Year	$3,070,187	$2,138,652	$14,118	$107,895	$599

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO files
Agency Financial Statements
City of Barstow website
City of Barstow Utilities Department – 11-29-17 phone call



City of Barstow

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City of Barstow

County Service Area 70 S-7, Contract for Treatment with the City of Barstow

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 2/8/2018

CITY OF BARSTOW

The City of Barstow provides wastewater collection and treatment within its boundaries as well as treatment for the wastewater collected by County Service Area 70 Zone S-7 (Lenwood). The Barstow Regional Wastewater Treatment Facility ("WWTF") is a modified biological nutrient removal activated sludge facility that provides primary and secondary treatment. The design capacity for the Barstow Regional WWTF is 4.5 MGD. Currently, Barstow Regional WWTF discharges the effluent into eight percolation ponds and a 60-acre reclamation field. The Barstow Regional WWTF does not treat any of the effluent to meet recycled water standards set forth in Title 22 of the California Code of Regulations.

The City maintains the sewer collection system and operates the wastewater reclamation facility which is currently operating at 2.3 million gallons per day but has a capacity of 4.5 million gallons per day. The reclamation facility was constructed in 1968 for primary level treatment, was expanded in 1975 to secondary level treatment, and upgraded in 2009 to tertiary treatment.

The City of Barstow's 2009 Draft Sewer Master Plan recommends that the Barstow Regional WWTF will require an expansion of 1.0 MGD when the projects within the Public Improvement District Scenario approach build-out. Expanding the existing WWTF could maximize the capacity of the existing interceptor sewer system. To address this limitation, the City of Barstow plans to construct a new 2.2 MGD West Side WWTP by the year 2020. The City plans to further expand the West Side WWTP to handle 4.6 MGD by the year 2030. This new facility would consist of secondary and tertiary treatment processes with the tertiary reclaimed water being treated to Title 22 standards and produced for local reuse.

Regional Board Actions

The Barstow community experiences challenges with the groundwater quality stemming from human-related activities. The contaminants are nitrates (City responsible) and perchlorate (City not responsible). The perchlorate pollution is now comingled with the nitrate plume.

For the nitrate plume, the Lahontan Regional Board directed the City continue to monitor the contaminants. The City was issued a series of Water Board enforcement orders requiring it to upgrade its wastewater treatment plant, clean up nitrate polluted groundwater in the Soapmine Road vicinity, and provide impacted residents well replacement water. The City completed upgrading its wastewater treatment plant and disposal percolation ponds in July 2015. Because perchlorate and nitrate in groundwater are comingled, the City has not begun groundwater cleanup. Replacement water continues as an alternative source.

For the perchlorate plume, the plan is to install and operate a perchlorate source area treatment system with SB 445 funds.

The following narrative is from the Lahontan Regional Board's staff report from January 18, 2018

> "The effluent disposal practices from the City's wastewater treatment plant caused nitrate groundwater pollution, discovered after 1994, on the north side of the Mojave River, east of Interstate 15, in the Soapmine Road area that impacted drinking water wells. The Water Board adopted various enforcement orders from 2004 through 2017 requiring the City to take a number of actions to address nitrate groundwater pollution. As a result, the City modified its effluent disposal practices to eliminate land spreading of sewage biosolids and upgraded the wastewater treatment plant to reduce effluent total nitrogen.
>
> In late 2010, perchlorate groundwater pollution was detected in a Golden State Water Company's supply well for the City of Barstow and Marine Corps Logistics Base, Nebo. This occurred as the City had begun preparing plans to clean up nitrate polluted groundwater. Perchlorate pollution is now comingled with the nitrate plume. The City is responsible for the nitrate pollution but is not responsible for the perchlorate pollution. This situation delayed groundwater cleanup efforts as the City and Water Board staff searched for the money and means to conduct a cleanup that would address both constituents. Since November 2010, Water Board staff conducted numerous public meetings and provided Fact Sheets to inform the public of the cleanup efforts regarding both perchlorate and nitrate in groundwater.
>
> There is perchlorate and nitrate groundwater pollution in the Soapmine Road area near Barstow. Water Board staff has obtained a $2.67 million grant to address cleanup at the perchlorate source area. Once the pilot-scale treatability study is complete, the Water Board will seek additional funding from the State Water Board for a long-term cleanup project to address the perchlorate source area as well as perchlorate groundwater pollution downgradient of its present location. To address nitrate and perchlorate in groundwater, BKT Consulting Engineers (BKT), in coordination with the City, applied for and received a $1.7 million dollar grant from the California Energy Commission (CEC) to install a bio-filtration system for contaminant removal."

<u>County Service Area 70 Zone S-7</u>

The Board of Supervisors formed County Service Area 70 Zone S-7 ("S-7") in 1977 to originally provide for a sewering study for the unincorporated Lenwood and Grandview communities. Attempts to form an assessment district at that time failed. This agency has evolved to provide a sewage collection system providing service generally to the Lenwood community. Service is limited to a collection of landowners of two assessment districts that approved assessments to pay the debt service in order to receive sewer service.

S-7 is a board-governed entity that is administered by the County Special Districts Department. It currently encompasses approximately 902 acres.

In 2002, the Commission approved LAFCO SC#184, authorizing the City of Barstow to contract with S-7 to provide wastewater treatment and connections to the City's wastewater

system. This contract was the result of problems related to the sewage disposal system in the High Desert Estates mobilehome subdivision located at the northeast corner of Jasper and Lenwood Road and severe septic tank problems within the larger Lenwood community. The only solution available was to connect a sewage system, and the only system available was through the City. The County and the City were approved for federal funding (loans and grants) from the U.S. Environmental Protection Agency and U.S. Department of Agriculture in the amount of $6,500,000 to complete the project. The project had two objectives:

- To provide gravity-flow sewer service to the 798 parcels (599 developed parcels and 199 undeveloped parcels) in Lenwood.
- To replace the existing non-functioning wet-well/force-main system and provide new gravity-flow sewer service to the 205 parcels in High Desert Estates.

According to the environmental assessment for the project, following construction, approximately 0.135 million gallons per day of sewage will be delivered to the City of Barstow's sewage treatment plant which has sufficient capacity to treat the additional flow.

sources: City of Barstow website
FY 2017-18 budget
SSMP
LAFCO files
Mojave Water Agency UWMP

County Service Area 42 — Oro Grande

Agency Information			
Principal Act	County Service Area Law Gov. Code Title 3, Div. 2, Part 2, Ch. 2.5 – §25210 et seq.	Year Formed	1965
Governance	San Bernardino County Board of Supervisors	Square Miles	1.0
Website	http://www.specialdistricts.org	Population	351

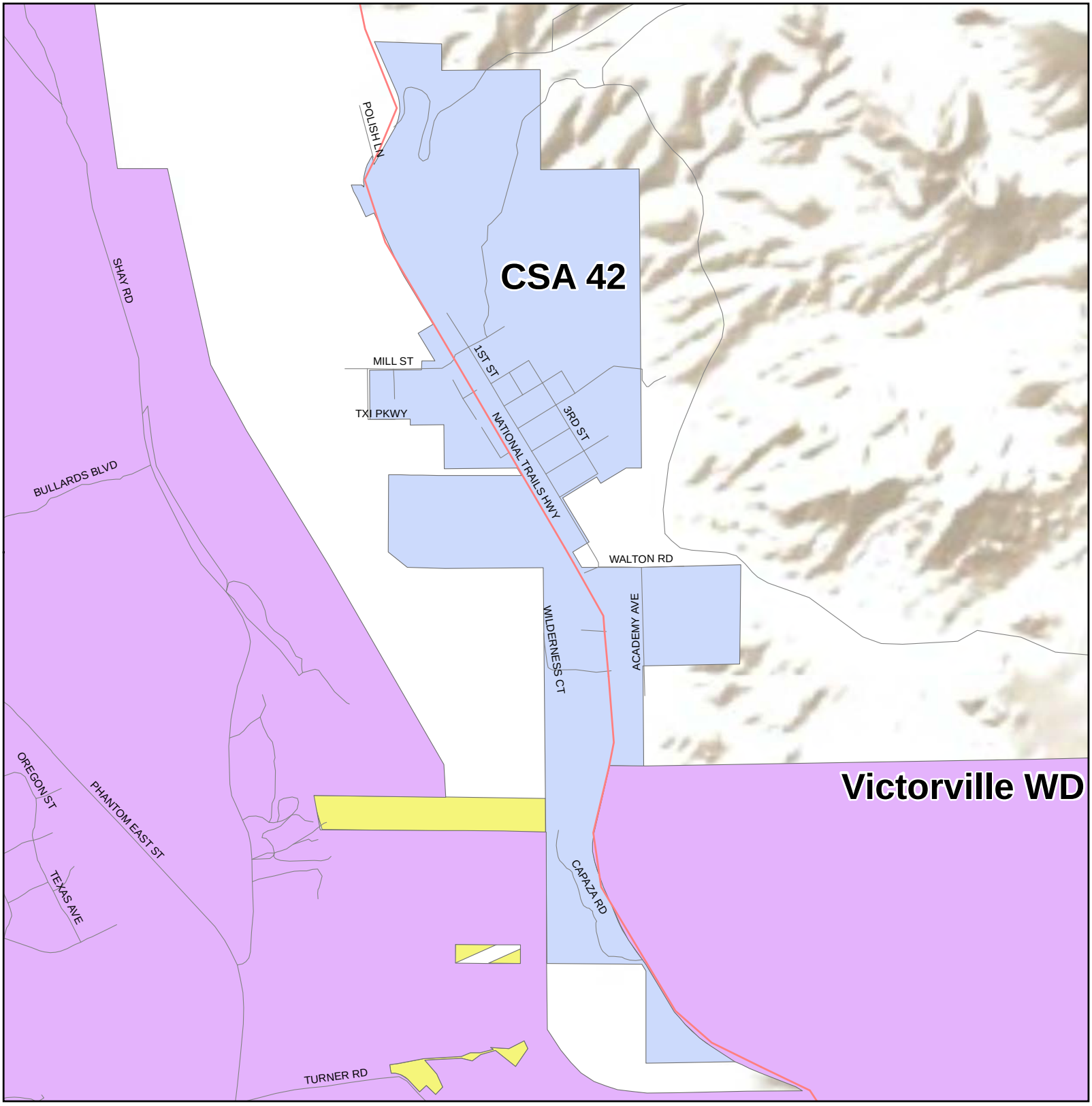
LAFCO Authority	
Authorized Functions	Sewer, water, park and recreation, and street lighting
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/BOS/CSA42.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/VictorvilleCommunity.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	0		1.4			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	96		0			96 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	0%	100%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$79.44

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$221,420	($16,016)	$209,612	$63,699	($194,509)
Cash & Equivalents, End of Year	$929,997	$913,981	$1,123,593	$1,187,292	$992,783

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
County Special Districts Department website



County Service Area 42

0 0.175 0.35 0.7 Miles

N

City of Adelanto
County Service Area 42
Victorville Water District

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 2/8/2018

COUNTY SERVICE AREA 42 (ORO GRANDE)

The community of Oro Grande is located in an unincorporated area five miles northwest of the City of Victorville. Oro Grande is located within the boundaries of County Service Area ("CSA") 42, a dependent special district governed by the County of San Bernardino Board of Supervisors.

Little, if any, growth is anticpated for CSA 42 over the next five years. As illustrated in Table D-1, below, the number of equivalent dwelling units ("EDUs") within CSA 42 is projected to experience a very slight growth rate of 0.5% per year from FY 2017-18 to FY 2018-19, and remain virtually flat from FY 2019-20 to FY 2021-22.

Table D-1:
CSA 42 EDU Estimates

EDU Estimates	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22
CSA 42 – Oro Grande	190	191	191	191	191

source: CSA 42 Oro Grande Sewer Rate Study (2017)

According to the County, the main portion of the sewer system serving the community was constructed in 1924 by J.B. Lippincott of Los Angeles. When the land and homes were sold to the Riverside Cement Company workers in 1965, the municipal type services, including sewer, were transferred to CSA 42. All of the system's main lines were constructed between 1960 and 1979.

According to the CSA's Sewer System Management Plan (2017), the Department has a proactive maintenance program for its sanitary sewer systems which is focused on critical and problematic areas. Preventive maintenance performed by staff includes, but is not limited to, the following: high velocity sewer cleaning, root control, FOG source control, inspection of sewer manholes and facilities, sewer smoke testing, sewer pump/lift station maintenance and inspection, valve exercising, and customer complaint investigation.

CSA 42 is funded by user fees and service charges from 194 Equivalent Dwelling Units (EDUs). According to the County's FY 2017-18 Budget, the CSA 42 budget includes $194,456 in Requirements to fund operations and maintenance costs, charges from VVWRA for waste processing, and transfers for allocated indirect costs. Sources of $187,667 are primarily from user fees and service charges. Net Position of $6,789 is being used to provide funding for capital improvement projects. The County Special Districts Department is reviewing operations in an effort to make adjustments to expenses and/or revenue in order to eliminate reliance on Net Position. The County's Capital Improvement Program for FY 2017-18 through FY 2021-22 allocates a total of $379,200 in capital needs.

There is no public document that provides year-end actuals of the CSA 42 wastewater service. Unlike the other agencies in the county, the various enterprise functions of CSA 42 are not separately identified in the audits, and the County's budget does not provide actuals from prior years for its county service areas.

sources: Sewer System Management Plan, Sewer Rate Study, 2017-18 budget, CIP
LAFCO files, Mojave Water Agency UWMP

County Service Area 64 — Spring Valley Lake

Agency Information			
Principal Act	County Service Area Law Gov. Code Title 3, Div. 2, Part 2, Ch. 2.5 – §25210 et seq.	Year Formed	1968
Governance	San Bernardino County Board of Supervisors	Square Miles	4.0
Website	http://www.specialdistricts.org	Population, 2015	9,541

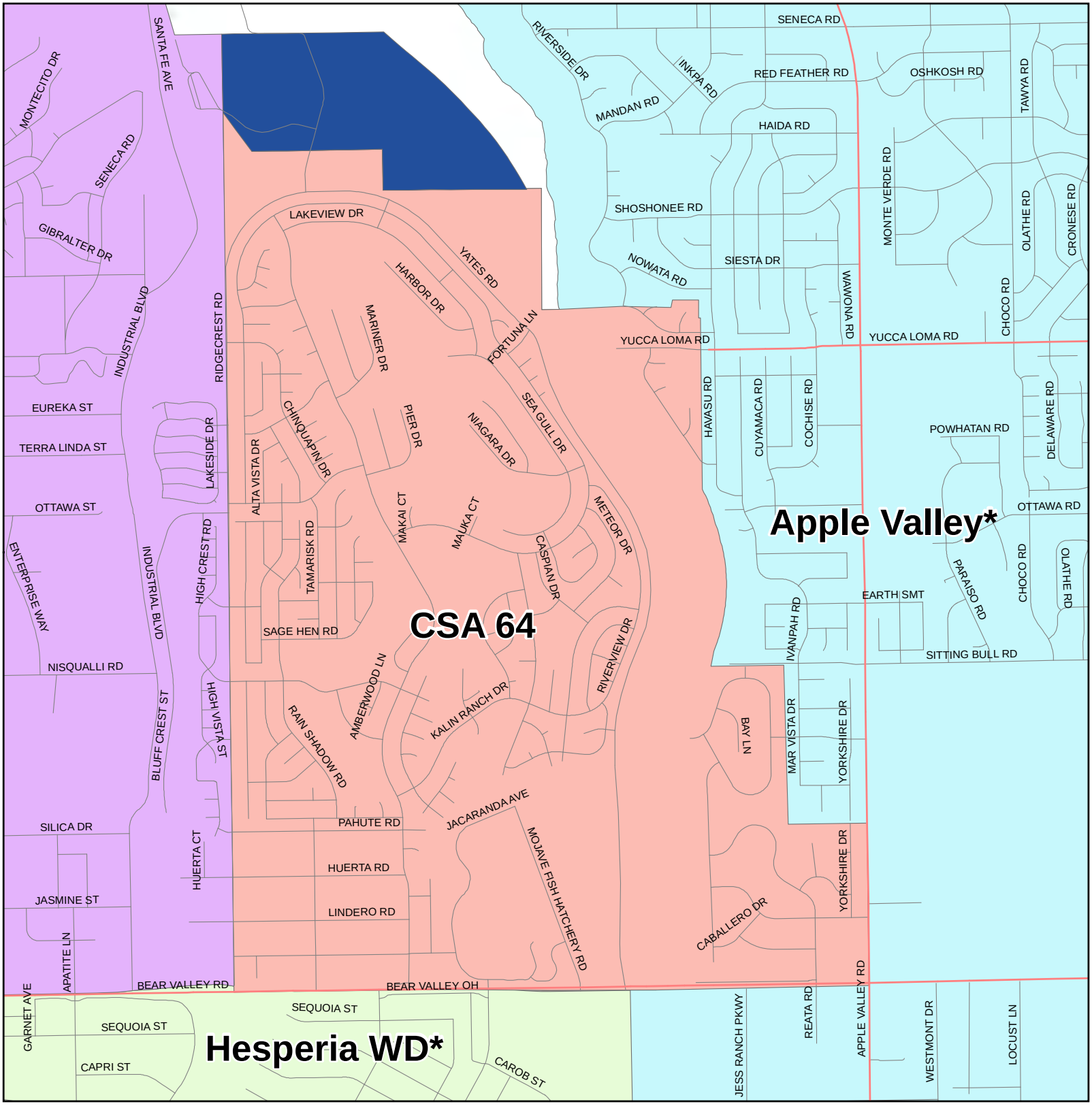
LAFCO Authority	
Authorized Functions	Water, sewer, roads, parkway maintenance, and street sweeping
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/BOS/CSA64.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/VictorvilleCommunity.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	0.5		35.6			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	3,837		1			4,228 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	10%	0%	90%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$45.90

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$9,633	$208,337	$468,207	$812,467	($311,353)
Cash & Equivalents, End of Year	$2,646,924	$2,855,263	$3,323,470	$4,135,937	$3,824,584

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
County Special Districts Department website



County Service Area 64

(Agency Service Area Shown, not Boundary)

0 0.225 0.45 0.9 Miles

N

- Town of Apple Valley*
- County Service Area 64
- Hesperia Water District*
- Victorville Water District
- County Service Area 64, LAFCO Reviewed Out-of-Agency Service

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 2/8/2018

COUNTY SERVICE AREA 64 (SPRING VALLEY LAKE)

Spring Valley Lake is a small unincorporated community located between the City of Victorville and the Town of Apple Valley, California. It is located within the boundaries of County Service Area ("CSA") 64, a dependent special district governed by the County of San Bernardino Board of Supervisors. The community, approximately four square miles in size, includes a 200-acre fresh water lake, residential, commercial, and retail uses, and a golf course. The southwest and southcentral portions of CSA 64 is within the jurisdiction of the City of Victorville but outside the boundary of its subsidiary Victorville Water District. Water and wastewater services are provided by CSA 64 in this area due to topography. Large activities in this area include Walmart and Victorville Valley College. The southeast portion of CSA 64 is within the Town of Apple Valley, and water and wastewater services are provided by CSA 64 in this area due to topography. Additionally, CSA 64 provides water delivery and wastewater collection outside its boundary, within its sphere, to the Mojave Narrows Regional Park.

Originally, the land was used for cattle ranching and farming. In 1969, the Boise Cascade Home and Land Corporation bought the property from Kalin Ranches and began development of the Spring Valley Lake community. According to the CSA 64 Urban Water Management Plan (2015), as shown in Table D-2, below, the community's population was 9,541 in 2015 and is expected to exceed 14,000 by 2040, an increase of 48 percent. These figures do not include the roughly 10,000 daily transients that visit the Victor Valley College.

Table D-2:
CSA 64 Population Estimates

CSA 64	2015	2020	2025	2030	2035	2040
Population	9,541	10,267	11,205	12,236	13,246	14,156

Source: CSA 64 (Spring Valley Lake) UWMP (2017)

CSA 64 does not contain any wastewater treatment facilities. The wastewater flow is delivered to the Victor Valley Wastewater Reclamation Authority Regional Treatment Plant located north of the service area.

A sewer collection system, owned and operated by CSA 64, collects all the wastewater from the customers that do not have septic systems. The collection system includes 0.5 miles of force main, 35.6 miles of gravity sewer, and 15 miles of lateral sewer. The sewer collection system has a total of 774 manhole structures and cleanouts and is designed to convey an average daily flow of 900,000 gallons per day of wastewater. The gravity mainlines are generally located in public roads. The sewer collection system also consists of three lift stations: Catalina Station, Spring Valley Parkway Station, and Lakeview Station.

According to the County's FY 2017-18 Budget, the CSA 64 budget includes $2.7 million to fund operations and maintenance costs. Charges from VVWRA for waste processing, capital equipment, transfers for allocated indirect costs and Operating Transfers Out to a replacement reserve fund future capital improvement projects. Sources of $2.2 million are primarily from taxes, user fees, and service charges. Net Position of $446,670 is being

used to provide funding for capital improvement projects. The County Special Districts Department is reviewing operations in an effort to make adjustments to expenses and/or revenue in order to eliminate reliance on Net Position.

At this time, no sewer-related infrastructure projects have been planned for the CSA 64 service area.

sources: CSA 64 UWMP, SSMP, FY 2017-18 budget, County Special Districts website
LAFCO files
Mojave Water Agency UWMP

County Service Area Zone 70 Zone S-7 — Lenwood

Agency Information			
Principal Act	County Service Area Law Gov. Code Title 3, Div. 2, Part 2, Ch. 2.5 – §25210 et seq.	Year Formed	1977
Governance	San Bernardino County Board of Supervisors	Square Miles	1.5
Website	http://www.specialdistricts.org	Population	1,411
Services	Sewer collection		

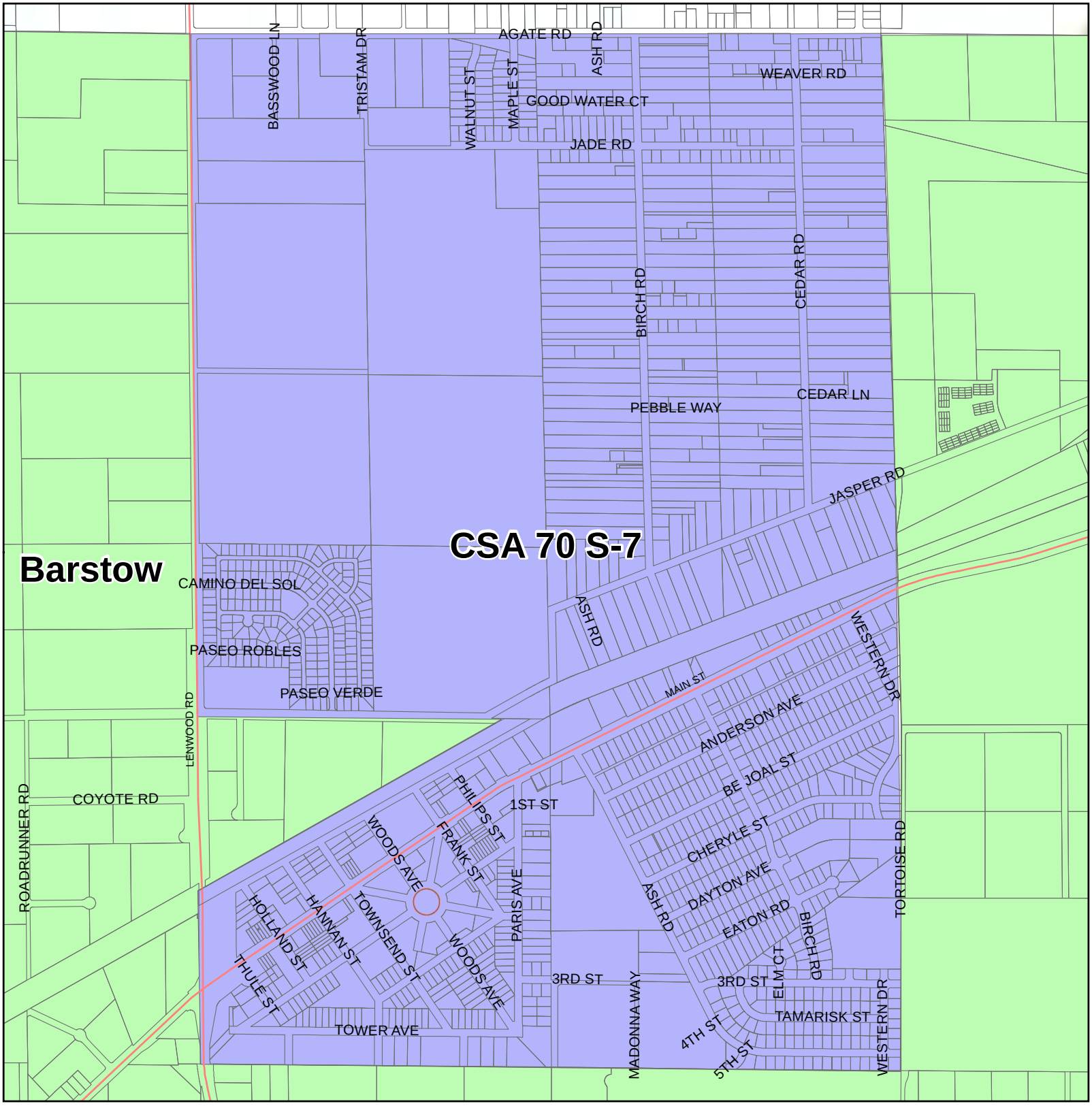
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/BOS/CSA70ZoneS7.aspx
Service Review	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/Barstow.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	0		12.03			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	623		0			623 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	100%	0%	0%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2018
$6.99

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($1,397)	$19,500	($78,490)	($22,293)	$127,466
Cash & Equivalents, End of Year	$641,077	$660,577	$582,087	$559,794	$687,260

Sources: LAFCO Files
Agency Financial Statements
County Special Districts Department website



County Service Area 70 S-7

0 0.1 0.2 0.4 Miles

N

City of Barstow

County Service Area 70 S-7, Contract for Treatment with the City of Barstow

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 2/8/2018

COUNTY SERVICE AREA 70 ZONE S-7 (LENWOOD)

The Board of Supervisors formed County Service Area 70 Zone S-7 ("S-7") in 1977 to originally provide for a sewering study for the unincorporated Lenwood and Grandview communities. Attempts to form an assessment district at that time failed. This agency has evolved to provide a sewage collection system providing service generally to the Lenwood community. Service is limited to a collection of landowners of two assessment districts that approved assessments to pay the debt service in order to receive sewer service. It currently encompasses approximately 902 acres.

In 2002, the Commission approved LAFCO SC#184, authorizing the City of Barstow to extend sewer service within the boundaries of S-7. This contract was the result of problems related to the sewage disposal system in the High Desert Estates mobilehome subdivision located at the northeast corner of Jasper and Lenwood Road and severe septic tank problems within the larger Lenwood community. The only solution available was to connect a sewage system, and the only system available was through the City. The County and the City were approved for federal funding (loans and grants) from the U.S. Environmental Protection Agency and U.S. Department of Agriculture in the amount of $6,500,000 to complete the project. The project had two objectives:

- To provide gravity-flow sewer service to the 798 parcels (599 developed parcels and 199 undeveloped parcels) in Lenwood.
- To replace the existing non-functioning wet-well/force-main system and provide new gravity-flow sewer service to the 205 parcels in High Desert Estates.

According to the environmental assessment for the project, following construction, approximately 0.135 million gallons per day of sewage will be delivered to the City of Barstow's sewage treatment plant which has sufficient capacity to treat the additional flow.

Since then, the City, through S-7, has been providing sewer treatment services within the unincorporated Lenwood and Grandview communities. S-7 provided the funding mechanism to install the necessary collection facilities. In 2010, the City and the County completed the construction of an eight-inch gravity flow sewer line to enhance sewer service in the Lenwood/Grandview areas. As a result, there is adequate sewer service capacity to serve any proposed development within the area.

According to the County's FY 2017-18 budget, the S-7 budget includes $17,304 in requirements to fund operating and maintenance costs and transfers for allocated indirect costs. Sources of $13,165 are primarily from revenues from an out-of-area service agreement with the City of Barstow. Net Position of $4,139 is being used to provide funding for capital improvement projects. The County Special Districts Department is reviewing operations in an effort to make adjustments to expenses and/or revenue in order to eliminate reliance on Net Position.

sources: CSA 70 S-7 Sewer System Management Plan
County 2017-18 budget, County CIP, Sewer Rate Study
LAFCO files
Mojave Water Agency UWMP

County Service Area 70 Zone SP-2 — High Country (Tract 11954)

Agency Information			
Principal Act	County Service Area Law Gov. Code Title 3, Div. 2, Part 2, Ch. 2.5 – §25210 et seq.	Year Formed	1985
Governance	San Bernardino County Board of Supervisors	Square Miles	0.84
Website	http://www.specialdistricts.org	Population	869
Services	Sewer collection		

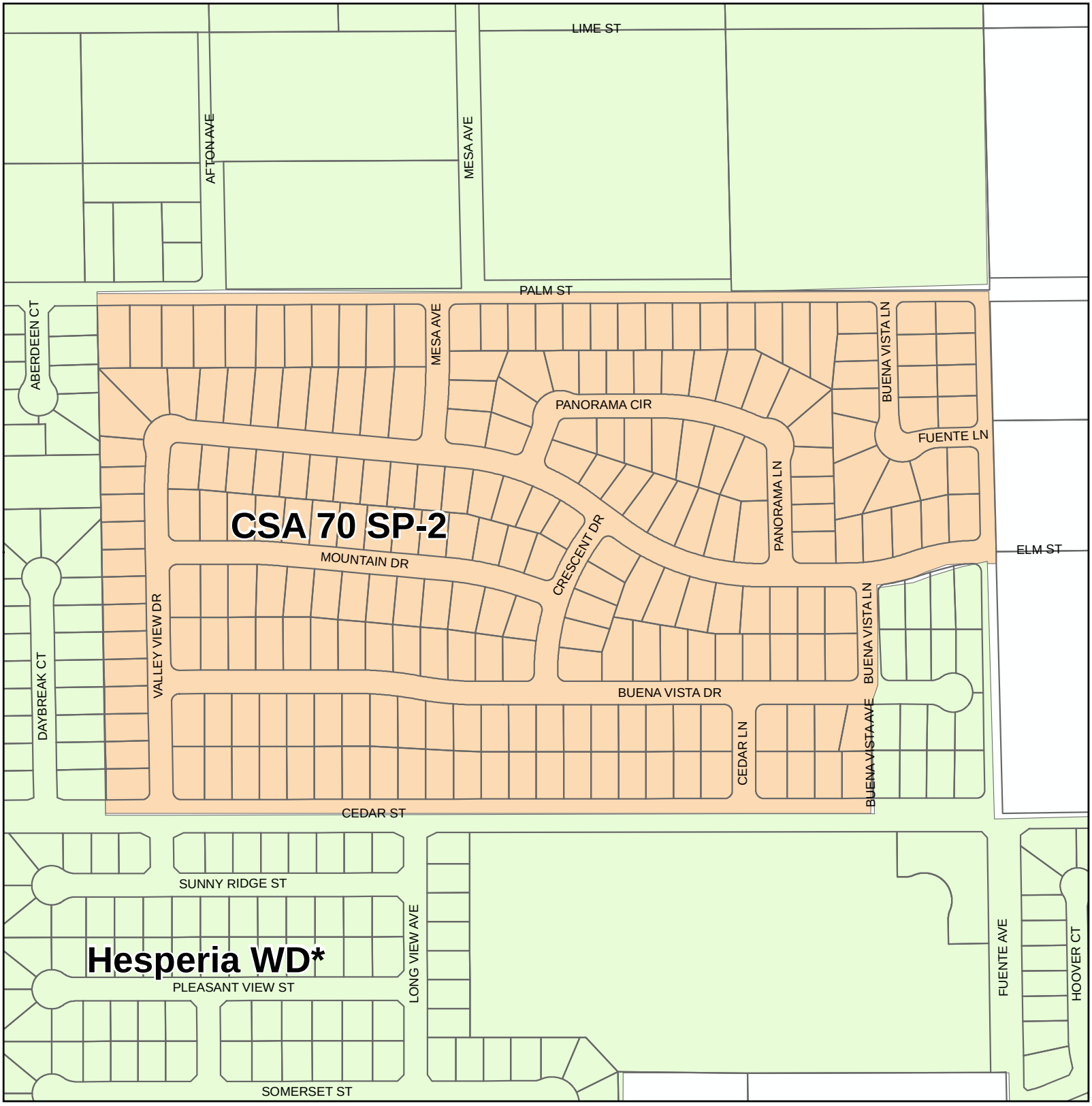
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/BOS/CSA70ZoneSP2.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/Hesperia.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	0		5.0			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	235		0			235 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	100%	0%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$47.15

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$62,155	($14,623)	$24,083	$96,874	($27,701)
Cash & Equivalents, End of Year	$769,347	$754,724	$778,807	$875,681	$847,980

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
County Special Districts Department website



County Service Area 70 SP-2

0 0.035 0.07 0.14 Miles

N

County Service Area 70 SP-2, Contract with Hesperia Water District for Transportation to VVWRA

Hesperia Water District*

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 2/8/2018

COUNTY SERVICE AREA 70 ZONE SP-2 (HIGH COUNTRY)

The Board of Supervisors formed County Service Area 70 Zone SP-2 ("SP-2") in 1985 to provide wastewater collection for the unincorporated High Country Development tract of homes in the Oaks Hills area. It currently encompasses approximately 64 acres and provides service to 235 connections. The entire collection system was constructed following the zone's formation.

In 1987, the County Board of Supervisors authorized the transportation of the wastewater collected by its dependent agency, SP-2, to VVWRA via the transportation system of Hesperia Water District. This agreement was approved by the Hesperia Water District and VVWRA members with SP-2 utilizing the membership status of the County to receive service. The original agreement was for 226 units known as Tract 11954 (High Country). This agreement was amended in 2004 to include service to Tract 13076 (approximately 231 units) and the facilities of Southern California Edison and the Hesperia Recreation and Parks District.

The zone does not receive general levy property tax revenue. According to the County's FY 2017-18 budget, the SP-2 budget includes $324,090 in requirements to fund operating and maintenance costs, and professional services including an agreement with the City of Hesperia for waste processing, and transfers for allocated indirect costs and Operating Transfers Out to a replacement reserve fund for future capital improvement projects. Sources of $268,732 are primarily from user fees and service charges. Net Position of $55,358 is being used to provide funding for capital improvement projects. The department is reviewing operations in an effort to make adjustments to expenses and/or revenue in order to eliminate reliance on Net Position.

sources: CSA 70 SP-2 Sewer System Management Plan
County 2017-18 budget
County CIP
Sewer Rate Study
LAFCO files
Mojave Water Agency UWMP

County Service Area 82 — Searles Valley

Agency Information			
Principal Act	County Service Area Law Gov. Code Title 3, Div. 2, Part 2, Ch. 2.5 – §25210 et seq.	Year Formed	1976
Governance	San Bernardino County Board of Supervisors	Square Miles	3.3
Website	http://www.specialdistricts.org	Population	2,268
Services	Park and recreation, street lighting, cemetery and sewer		

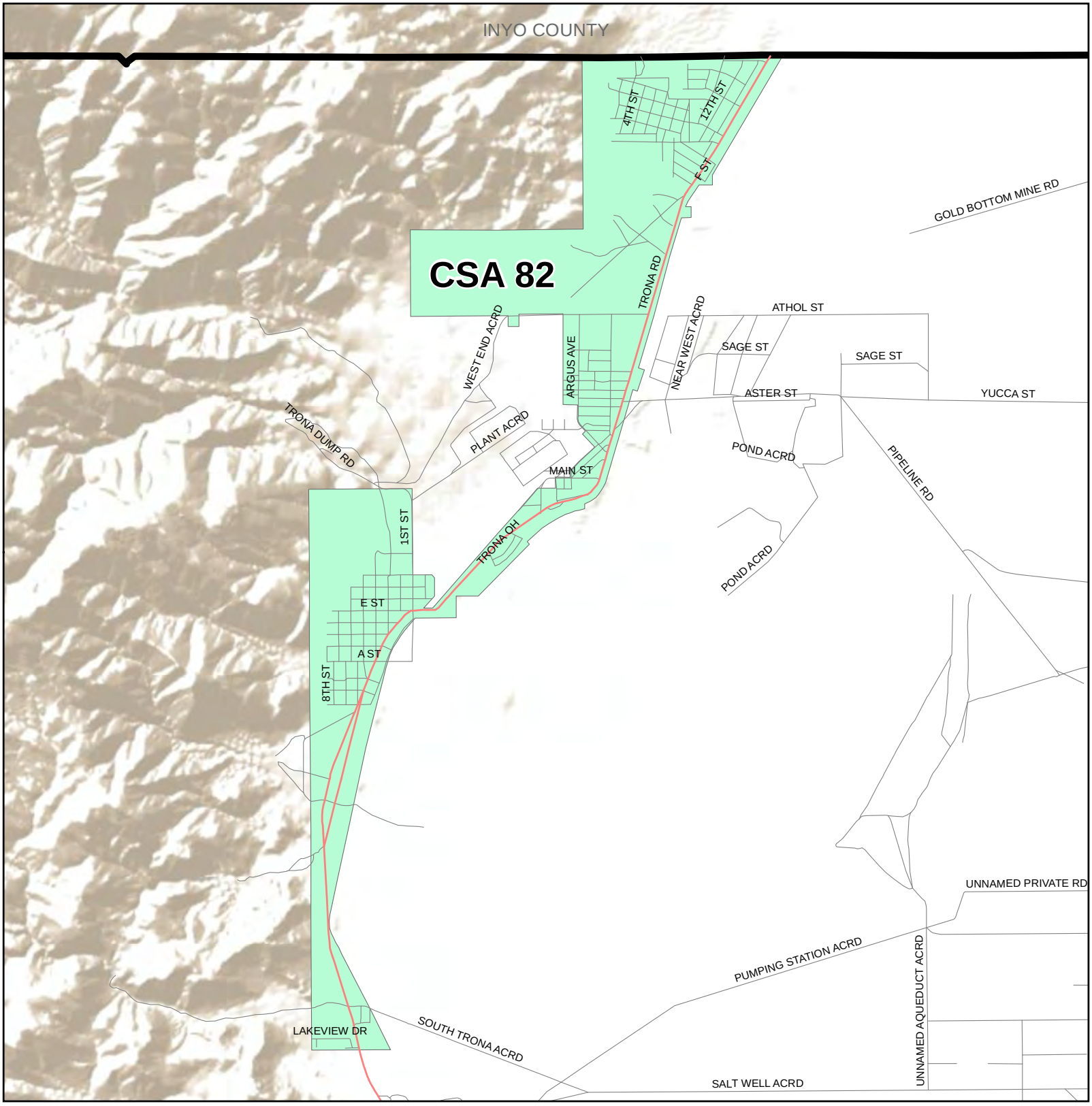
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/BOS/CSA82.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/RedMountain.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	0		11.26			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	613		0			613 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	0%	0%	100%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$50.12

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$1,707	$4,143	($5,944)	$369,373	($2,996)
Cash & Equivalents, End of Year	$356,391	$360,537	$354,593	$723,966	$720,970

Sources: CA State Water Resources Control Board CIWQS database
https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO North Desert Service Review (2010)
LAFCO files
Agency Financial Statements
County Special Districts website



County Service Area 82

0 0.425 0.85 1.7 Miles

N

County Service Area 82

San Bernardino County Line

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 2/8/2018

COUNTY SERVICE AREA 82 (SEARLES VALLEY)

County Service Area 82 ("CSA 82") was formed in 1976 as a reorganization of five overlapping or adjacent agencies in the Searles Valley area to provide sanitation and sewer, streetlighting, fire protection, cemetery, animal control, and parks and recreation service. CSA 82 is a dependent special district governed by the County of San Bernardino Board of Supervisors and operates under County Service Area Law (Government Code Section 25210 et seq.). CSA 82 encompasses approximately 3.5 square miles and has not altered its boundaries since its formation in 1976. The boundaries of CSA 82 generally follow the geography of the area, excluding the Searles Valley Minerals plants, and are enclosed by public lands.

CSA 82 is responsible for collection, treatment, and disposal of domestic wastewater and sewage generated within the community. Through the Water and Sanitation Division of the County Special Districts Department, CSA 82 operates and maintains 6.7 miles of sewer lines in Searles Valley and 4.9 miles in Pioneer Point. The sewer lines deliver the collected effluent to three large septic tank systems for wastewater treatment prior to disposing of the effluent in a recharge trench on the Searles Dry Lake bed. Effluent is pumped from the tanks at two to four year intervals and discharged to ponds and allowed to dry.

Disposal facilities consist of the recharge trench on the west side of Searles Dry Lake bed and sludge drying beds on the east side of the Searles Dry Lake bed. The North Pioneer Point system has a designed flow of 0.096 million gallons per day (mgd), the South Pioneer Point is 0.031 mgd, and the Searles Valley system is 0.12 mgd. The total combined effluent flow of wastewater is designed not to exceed 0.247 mgd. A review of the records on file since 2000 with the Lahontan Regional Water Quality Control Board does not identify any enforcement actions regarding CSA 82.

The flow to the septic systems is unmetered and has been estimated from potable water usage by Special Districts Department. Flow is estimated to be roughly 0.052 mgd for the North Pioneer Point system, 0.022 mgd for the South Pioneer Point system, and 0.11 mgd for the Searles Valley system. The combined effluent flow of wastewater is 0.184 mgd. Therefore, the present flow of 0.184 mgd is at 75% of the designed not-to-exceed flow of 0.247 mgd. Generally, the construction of additional capacity should be initiated when the existing facilities reach 80% of the current rated capacity in order for construction to be completed before the facilities reach 90% of rated capacity. However, given the negative growth trend, planning for additional capacity is not currently being conducted. Should the population return to its level from the 1970s, the existing system would not be able support the population and would require expansion.

Due to the Water and Sanitation Division being located in Victorville, the maintenance operators cannot respond to emergencies in this community in a timely manner. As a result, the County contracts with a private company to respond to emergencies. Such duties include responding to calls, clearing sewer line blockages, and other repair services.

sources: CSA 82 Sewer System Management Plan
County 2017-18 budget, County CIP, Sewer Rate Study
LAFCO files

Helendale Community Services District — Helendale

Agency Information			
Principal Act	Community Services District Law Government Code Title 6, Division 3: §61100 et seq.	Year Formed	2006
Governance	5-member Board of Directors, elected at large	Square Miles	92
Website	http://www.helendale.org	Population	5,800

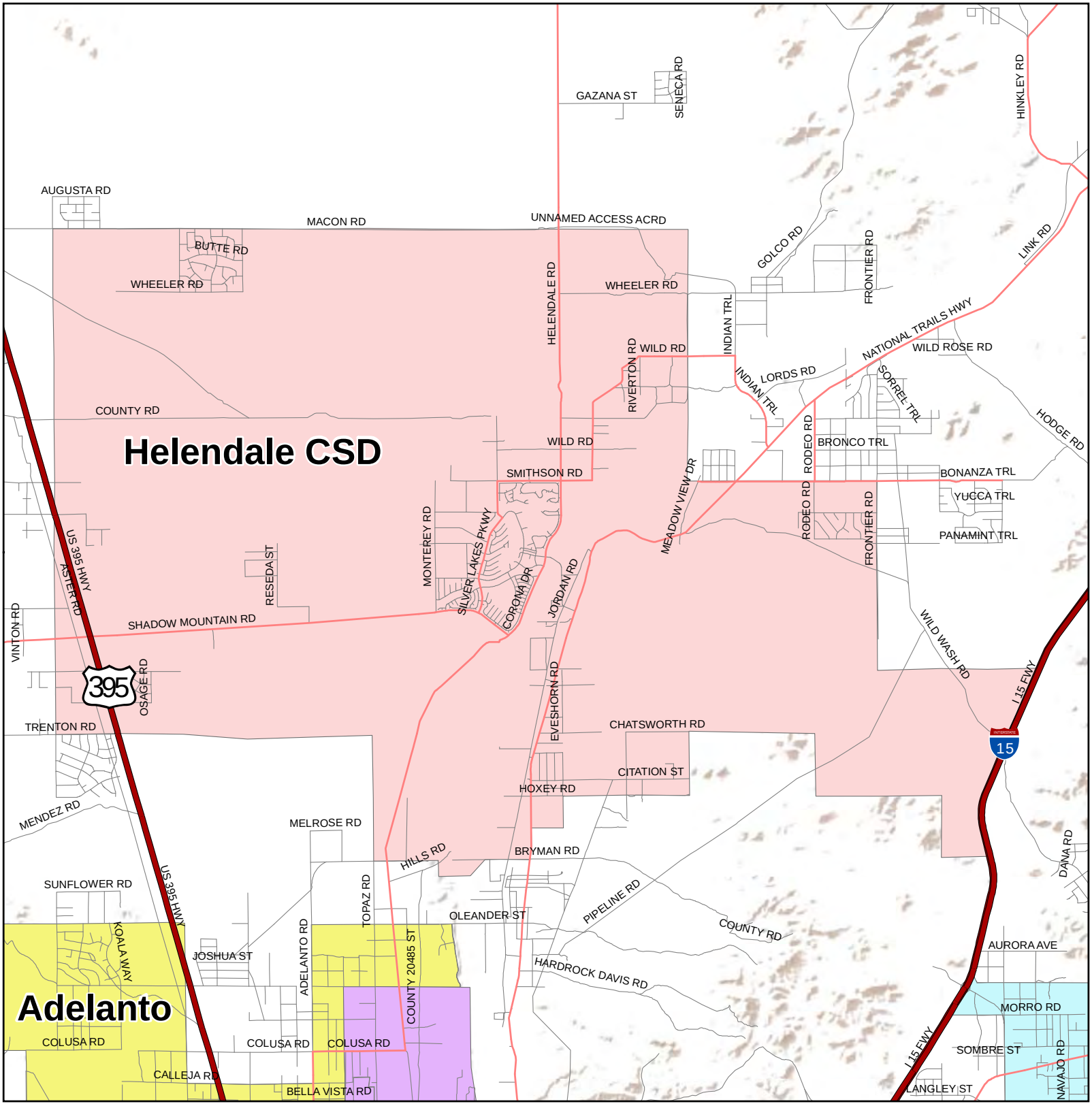
LAFCO Authority	
Authorized Functions	Water, sewer, street lighting, refuse collection, recreation and parks, graffiti abatement
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/HelendaleCSD.aspx
Service Reviews	
Round 1, by agency	http://www.sbcounty.gov/uploads/lafco/items/2010july/item 6.pdf (resolution) http://www.sbcounty.gov/uploads/lafco/items/2010july/item 8 ab.pdf (report)
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	1		27			8	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	2,700		0			2,700 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	5%	0%	95%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$36.64

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$502,816	($195,333)	$255,884	$728,911	$275,887
Cash & Equivalents, End of Year	$2,340,990	$2,145,657	$2,401,541	$3,130,452	$3,406,339

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
Helendale CSD website



Helendale Community Service District

0 1 2 4 Miles

N

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Adelanto
- Town of Apple Valley*
- Helendale Community Services District
- Victorville Water District

Date Created: 2/8/2018

HELENDALE COMMUNITY SERVICES DISTRICT

The Helendale Community Services District ("Helendale CSD") provides wastewater collection and treatment for the Silver Lakes community, which has an approximate population of 5,800. Helendale CSD was formed in 2006, and it succeeded to the services of the former County Service Area 70 Zones B and C.

Helendale CSD owns and operates a 1.2 MGD wastewater treatment plant. The plant has redundant primary and secondary clarifiers and trickling filters. Based on the 2002 County Service Area 70 Zone C Sewer Master Plan, it is anticipated that the treatment plant will have sufficient capacity until at least 2035.

Non-disinfected secondary effluent is discharged to two percolation ponds and a 60-acre agricultural field (existing). According to Lahontan Reginal Board files, based on 2012 – 2014 data the annual effluent water balance is 76.6% crop irrigation, 15.7% percolation pond groundwater infiltration, and 7.7% percolation pond evaporation. Additionally, the District is requesting Lahontan Regional Board approval for the addition of 35 acres of expanded agricultural fields for recycled water application to existing fields. Discharges of sludge occur to the biosolids drying beds, which are then disposed of offsite.

The collection system includes one mile of pressure sewer, 27 miles of gravity sewer, and eight laterals. Connections to the system are roughly 2,700, and the district does not provide any service outside its boundary. Ninety-five percent of the pipelines were installed between 1960 and 1979; the remaining five percent have been installed since 2000.

All of the residences connected to the Helendale CSD sewer system are charged a $36.64 monthly flat rate for services. The fees cover the costs of the treatment plant and sewer maintenance, plus any connection charges. Existing properties or new developments would be evaluated as to their feasibility to connect to the existing treatment plant, or to have new facilities built. The cost of extending these services to existing properties would be the responsibility of the affected property owners.

sources: Mojave Water Agency UWMP
FY 2015-16 audit
SSMP
LAFCO files
Lahontan Regional Board

Hesperia Water District — Hesperia

Agency Information			
Principal Act	County Water District Law Water Code Division 12 - §30000 et seq.	Year Formed	1988
Governance	Hesperia City Council, as the board of directors	Square Miles	74
Website	http://www.cityofhesperia.us	Population	92,117

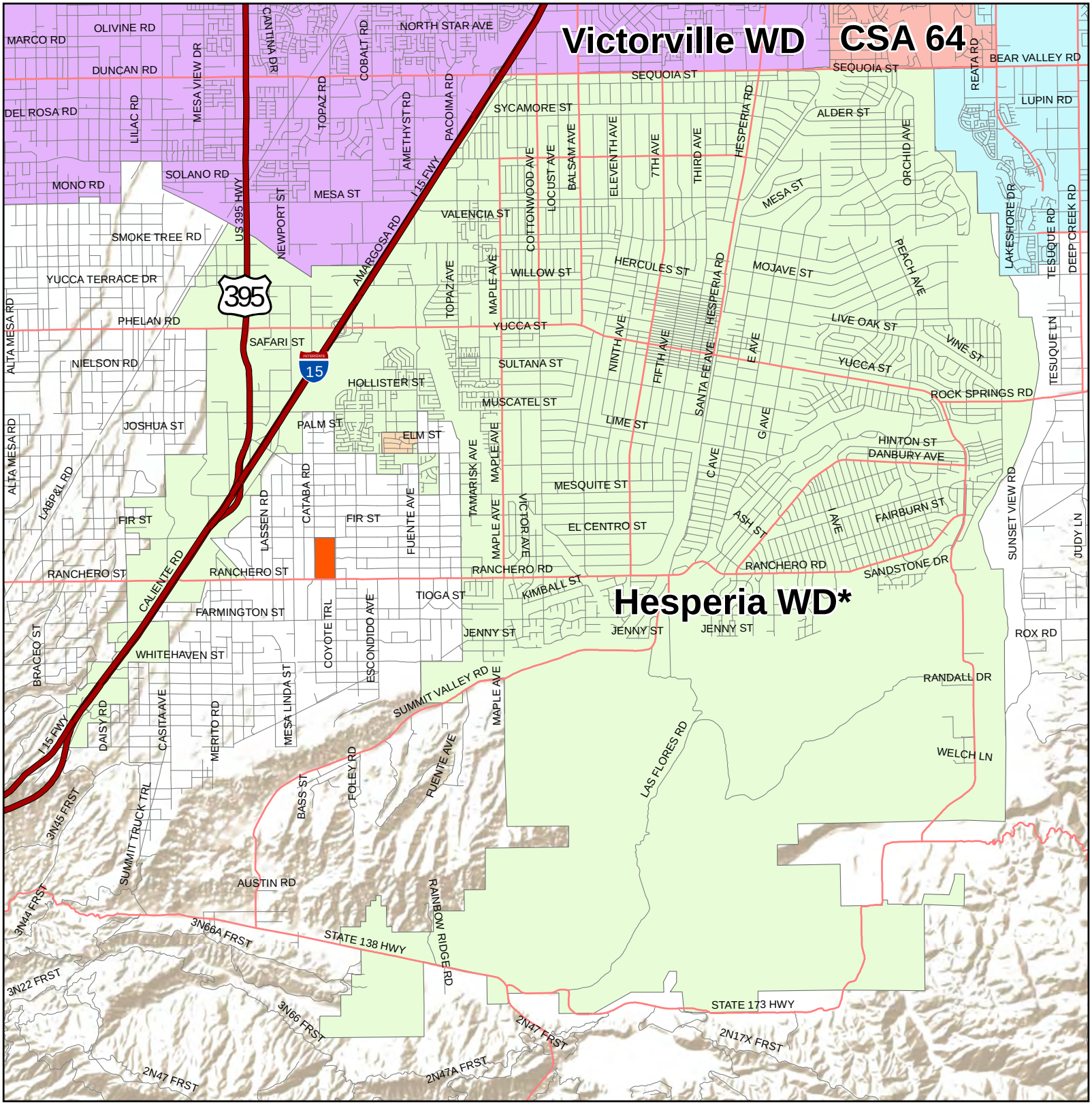
LAFCO Authority	
Authorized Functions	Water, sewer, park and recreation
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/SubsidiaryDistricts/HesperiaWD.aspx
Service Reviews	
Round 1, by service	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/Hesperia.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	1		130			30	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	5,500		0			5,500 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	40%	60%	0%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$49.97

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	$5,835	$1,072,775	$7,800	($628,222)	$2,124,239
Cash & Equivalents, End of Year	$2,125,760	$3,198,535	$4,553,409	$3,925,187	$6,049,426

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements
City of Hesperia website
City/District emailed dated February 21, 2018



Hesperia Water District*

(Agency Service Area Shown, not Boundary)

0 0.75 1.5 3 Miles

N

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- Town of Apple Valley*
- County Service Area 64
- County Service Area 70 SP-2, Contract with Hesperia Water District for Transportation to VVWRA
- Hesperia Water District*
- Victorville Water District
- Hesperia Water District Service Contract

Date Created: 2/8/2018

HESPERIA WATER DISTRICT

The town site that later became the City of Hesperia was originally laid out in 1891 by railroad company land developers. Hesperia was named for "Hesperus", the Greek god of the west. Promoted by the railroad land developers to become a potential metropolis, Hesperia actually grew relatively slowly until the completion of US Routes 66, 91 and 395 in the 1940s followed by Interstate 15 in the late 1960s. In the early 1950s, land developer M. Penn Phillips and his silent financial partner, boxer Jack Dempsey, financed the building of roads and land subdivisions, promoting lots sales on television.

The main wave of newcomers, however, arrived in Hesperia in the 1980s and suburban growth transformed the small town of 5,000 people in 1970 to a moderate-sized community of over 60,000 by the year 2000. Today, the City's population exceeds 94,000 residents. The predominant land use in Hesperia is residential which is largely concentrated in the City's center with lot densities ranging from rural estate to high density residential.

Collection and Treatment

Only about five percent of the City of Hesperia is currently served by sewers[1] which ultimately flow to a regional wastewater treatment plant owned and operated by VVWRA. The remaining areas of Hesperia are either served by on-site septic tanks or are undeveloped. The City's subsidiary district, the Hesperia Water District, is responsible for the wastewater collection system and serves an estimated 18,149 residents and includes approximately 130 miles of gravity sewer, one mile of force main, and 5,500 lateral connections. An estimated 60 percent of the system's pipelines were installed from 1980 – 1999, and the remaining 40 percent in year 2000 and later. The District's sewer system connects to VVWRA's three-mile interceptor that runs along the northeast boundary of the District.

County Service Area SP-2

In 1987, the County Board of Supervisors authorized the transportation of the wastewater collected by its dependent agency, County Service Area 70 Zone SP-2, to VVWRA via the transportation system of Hesperia Water District. This agreement was approved by the Hesperia Water District and VVWRA members with SP-2 utilizing the membership status of the County to receive service. The original agreement was for 226 units known as Tract 11954 (High Country). This agreement was amended in 2004 to include service to Tract 13076 (approximately 231 units) and the facilities of Southern California Edison and the Hesperia Recreation and Parks District.

Capital Improvements

In FY 2017-18, the District has budgeted $760,000 in sewer-related capital improvements which are summarized in Table D-3 below:

[1] City of Hesperia Wastewater Master Plan (2008)

Table D-3:
City of Hesperia Sewer Capital Improvement Projects (FY 2017/18)

CIP Project	Description	Cost
Maple Avenue Sewer Line Replacement	Replace failing sewer line.	$335,000
I-15 Corridor Sewer	Complete design specifications to construct water/sewer lines in Mariposa Road and Caliente Road from 395/I-15 junction to sourthern City limits.	$200,000
Main Street Sewer Improvements	Prepare study to address sewer capacity constraints on Main Street between "C" Avenue and "I" Avenue.	$100,000
Township Wastewater Improvements	Prepare preliminary engineering study for installation of sewer lines and analysis of sewer connection program.	$100,000
Golf Course Sewer Line	Replace existing septic system; install a package lift station to enable connection to existing sewer system.	$25,000
TOTAL		**$760,000**

source: Hesperia CIP 2017-18

Matters Related to VVWRA

During the fiscal year ended June 30, 2017, VVWRA has amounts due and receivable for user charges and connection fees amounting to $1,258,026 which were past-due since January 2016 from the City of Hesperia/Hesperia Water District.

On August 8, 2017, VVWRA was notified by the City that it has retained the payment over specific concerns pertaining to:

1) Increasing rates which the City believes are due to financial problems related to member actions,

2) Concerns over the timing of completion and operation of the Hesperia sub-regional water reclamation plant, in which revenues from the plant will be required to service the related State Revolving Loan, and

3) Disagreement with VVWRA's Board of Commissioners in resolving a diversion of flow matter from the City of Victorville, which the City of Hesperia believes has deprived VVWRA of amounts totaling more than $10 million.

   VVWRA management believes that continued withholding of amounts due to the Authority will have a negative impact on operations and cash flows.

Hesperia and Apple Valley Sub-Regional Plants

To mitigate future capacity issues, VVWRA has constructed two subregional water reclamation plants - one in Hesperia and one in Apple Valley. Funding for the plants is from State Revolving Fund loans and VVWRA reserves. VVWRA owns the land for the Hesperia Plant, and the Town of Apple Valley owns the land for the Apple Valley Plant with a VVWRA

easement. VVWRA owns both facilities and will be in charge of operations at both plants. According to VVWRA, the Apple Valley plant is currently in the start-up phase with a hope to be fully operational by July 2018. The Hesperia plant is currently in the start-up phase as well. It is hoped that the Hesperia plant will begin operating nominally by October but without discharge until the City of Hesperia completes its recycled water pipeline.
Both subregional plants are considered "scalping" facilities, meaning they treat a portion of the local wastewater while all solids and the rest of the wastewater continue to VVWRA's main treatment plant. The identical plants will employ membrane bioreactor ("MBR") technology to produce disinfected, tertiary recycled water as defined by California Code of Regulations ("CCR") Title 22. Once fully operational, these smaller plants will be capable of producing approximately 1 MGD of recycled water each. The recycled water will be used for local landscape irrigation near the site of treatment, reducing the treatment demand on VVWRA's regional treatment plant and the Hesperia and South Apple Valley interceptors.

For the Apple Valley plant, the Apple Valley Golf Course, public facilities, and parks will be the first users of the new system, utilizing recycled water for landscape irrigation. Eventually, it is anticipated that recycled water from the plant can be utilized for agricultural irrigation, construction, and other landscape irrigation. For the Hesperia plant, it is anticipated that the Hesperia Golf Course and Hesperia Civic Center will be the first users of the new recycled water supply, utilizing it for landscape irrigation.

The Apple Valley and Hesperia plants are designed to be a good neighbor facility. Much of the plants are below ground to deaden the sound of pumps and blowers. The aeration basins are enclosed and advanced odor control technology will virtually eliminate unwanted odors. The visible portion of the plants are no taller than a two story home and the surrounding grounds are landscaped to blend in with the rest of the area.

sources: City of Hesperia website
FY 2017-18 budget
Wastewater Master Plan
LAFCO files
Mojave Water Agency UWMP
VVWRA 2017-18 CIP, website

Town of Apple Valley

Apple Valley

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1988
Governance	Town of Apple Valley City Council	Square Miles	78
Website	http://www.applevalley.org	Population	22,500
Services	Wastewater collection, solid waste management, parks & recreation		

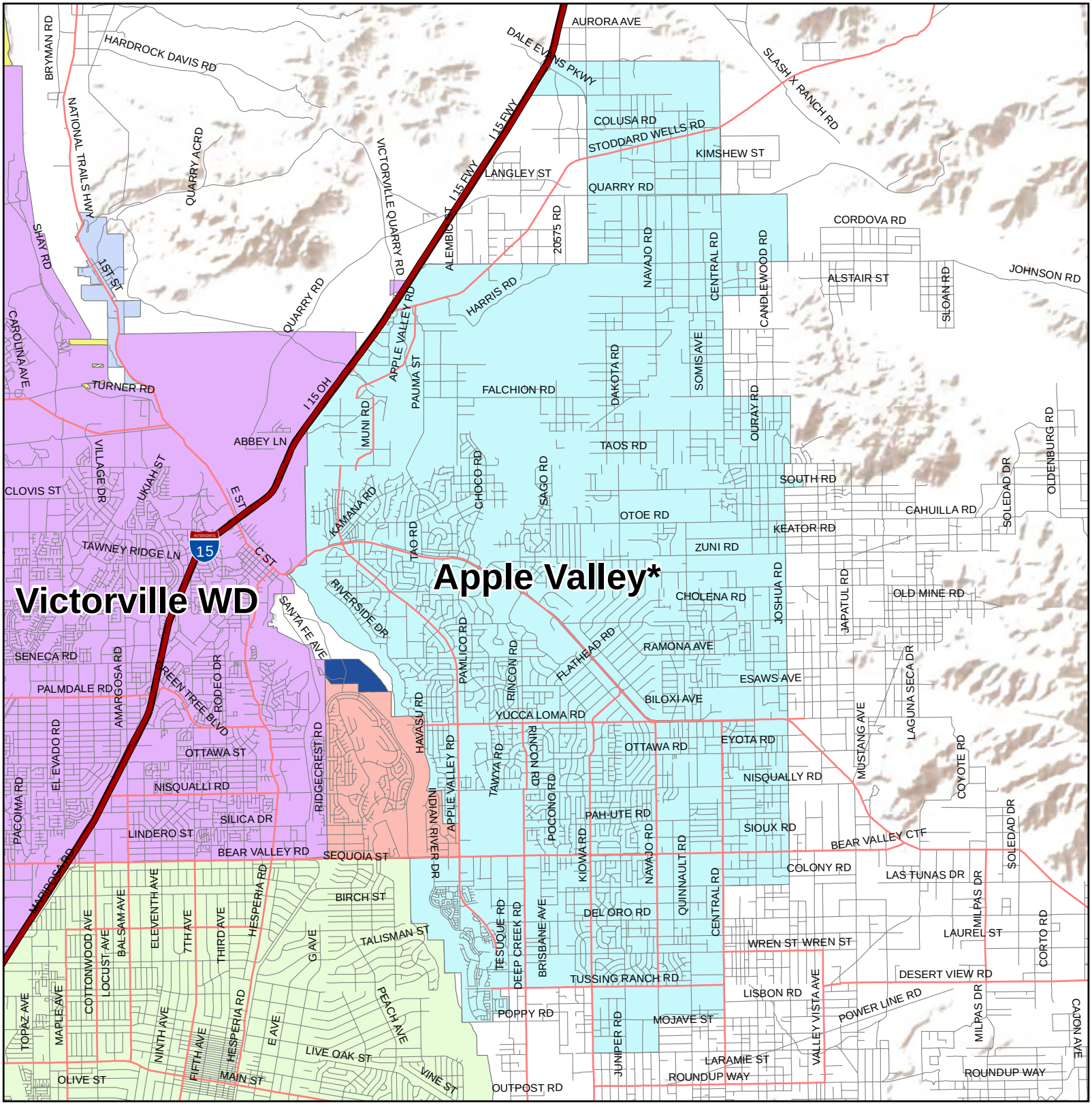
LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/AppleValley.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/AppleValley.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	6.3		141			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	8,956		0			8,956 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	47%	53%	0%	0%	0%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$31.43

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($3,240,006)	$165,613	$475,284	$119,098	$1,603,257
Cash & Equivalents, End of Year	$6,154,826	$6,320,439	$6,795,723	$6,914,821	$8,518,078

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
California State Department of Finance website
Town of Apple Valley website



Town of Apple Valley*

(Agency Service Area Shown, not Boundary)

0 1 2 4 Miles

N

- City of Adelanto
- Town of Apple Valley*
- County Service Area 42
- County Service Area 64
- Hesperia Water District*
- Victorville Water District
- County Service Area 64, LAFCO Reviewed Out-of-Agency Service

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 2/8/2018

TOWN OF APPLE VALLEY

The Town of Apple Valley ("Town") is located in the Victor Valley at an elevation of 3,000 feet. Apple Valley is located at the southern edge of the Mojave Desert approximately 90 miles northeast of the City of Los Angeles, 140 miles north of San Diego, and 185 miles south of Las Vegas. The predominant land use is low to very low density residential units. Commercial development is concentrated along major roads, and small pockets of industrial land uses are generally concentrated in the northern portions of the town. Neighboring cities include Hesperia to the southwest and Victorville to the west.

The Apple Valley Water District ("AVWD") was created in 1975 to provide residents and commercial users with a system to collect, treat, and dispose of wastewater. AVWD entered into an agreement with VVWRA in December 1977 transferring the responsibility for treating wastewater from the AVWD to VVWRA. Following the Town's incorporation, in 1993 AVWD was dissolved (LAFCO 2749) and the Town was named the successor agency with all its obligations and responsibilities and property tax revenues being transferred to the Town.

Collection and Treatment

The Town's trunk sewers consist of a system of 141 miles of gravity flow sewers and 6.3 miles of pressurized sewers (force mains) which convey wastewater flows to the sewer interceptor lines for the VVWRA. There are an estimated 8,956 service connections serving a population of approximately 22,500 residents.

There are a large number of septic tanks within Apple Valley. Some of the existing sewer system was put in place in areas where septic systems were determined infeasible due to geologic constraints, or due to groundwater protection and other constraints. The Town's General Plan estimates that approximately 70 percent of the developed residential areas are on septic systems. Overall population growth for the Town of Apple Valley, shown in Table D-4 below, is expected to exceed 100,000 residents by year 2030. From 2010 to 2030, the Town's population is expected to increase by 45 percent.

Table D-4:
Town of Apple Valley Projected Population

Town of Apple Valley	2010	2020	2030
Population	69,100	82,900	100,300

source: Information referenced from SCAG – Growth Forecast 2012-2035.

As the population continues to increase, there will be three primary sources of growth for the Town's sewer collection system: (1) previously undeveloped areas of town; (2) infill of undeveloped lots in existing subdivisions; and (3) connection of existing homes currently on septic systems.

As referenced in the Town's Sewer System Master Plan Update (2013), much of the sewer system is aging. The projected population increase creates a demand for new sewers. While many of these sewer systems will be constructed by the developers of the new communities, these systems will ultimately tie into the Town's existing sewer infrastructure.

The Town's Sewer System Master Plan Update (2013) summarizes key findings regarding the wastewater system's existing condition as follows:

- The existing system appears to have adequate capacity to convey flows under average dry weather conditions.
- The existing pump stations appear to have adequate pumping capacity.
- The system does not appear to have been heavily influenced by ingress of infiltration and inflow into the sewer system.
- Overall, the pipes appear to be in good condition with the exception of certain segments assessed in the CCTV evaluation.

The 2013 Sewer System Master Plan also evaluated sewer system needs under a "build-out" scenario for the Town of Apple Valley using the Town's current General Plan (2009) land uses and assuming all users are connected to sewer. Key findings are summarized as follows:

- The existing system piping has inadequate capacity to convey future buildout flows. Upgrades will be required to accommodate the future projected wastewater flows.
- The existing pump stations appear to have inadequate pumping capacity to convey future flows. Upgrades to the pump stations will be necessary to convey future projected wastewater flows.
- Inadequate capacity is projected in the VVWRA interceptor, AD 1, Jess Ranch, AD 3A and surrounding areas, and pipelines near LS AD 2B and LS AD 2A No. 2.

Capital Improvement Plan

The City's 2017-2024 Capital Improvement Program identifies five major wastewater projects within the next seven years. Funding has been budgeted through the City's Wastewater Fund which relies primarily on user fees and charges. The project summaries are as follows:

- Electrical Upgrades/New Pumps at Jess Ranch Lift Station #1. FY 2017-18. $92,000.
- Sewer Main Replacement, Various Locations. FY 2017-18. $100,000.
- Sewer Manhole Adjusting, Bear Valley Road. FY 2017-18. $12,000.
- Sewer Manhole Rehabilitation, Various Locations. FY 2017-18 - $100,000. FY 2018-19 - $100,000. FY 2019-20 - $100,000.
- Vault Covers for Sewer Lift Stations. FY 2017-18. $140,000.

Apple Valley and Hesperia Sub-Regional Plants

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easement. VVWRA owns both facilities and will be in charge of operations at both plants. According to VVWRA, the Apple Valley plant is currently in the start-up phase with a hope to be fully operational by July 2018. The Hesperia plant is currently in the start-up phase as well. It is hoped that the Hesperia plant will begin operating nominally by October but without discharge until the City of Hesperia completes its recycled water pipeline.
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sources: Sewer System Master Plan
2017-2024 CIP
SCAG Growth Forecast 2012-2035
Town website
LAFCO files
Mojave Water Agency UWMP
VVWRA CIP, website

Victorville Water District[1]/City of Victorville — Victorville

Agency Information			
Principal Act City District	 Government Code Title 4 - §34000 County Water District Law Water Code Division 12 - §30000 et seq.	Year Formed City District	 1962 2007
Governance	Victorville City Council Victorville City Council as the Board of Directors	Square Miles	85
Website	http://www.victorvilleca.gov	Population	128,005

LAFCO Authority	
Authorized Functions	Victorville Water District: Water and sewer
Fiscal Indicators City District	 http://www.sbclafco.org/FiscalIndicators/Cities/Victorville.aspx http://sbclafco.org/FiscalIndicators/SubsidiaryDistricts/VictorvilleWD.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/NorthDesertRegion/VictorvilleCommunity.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

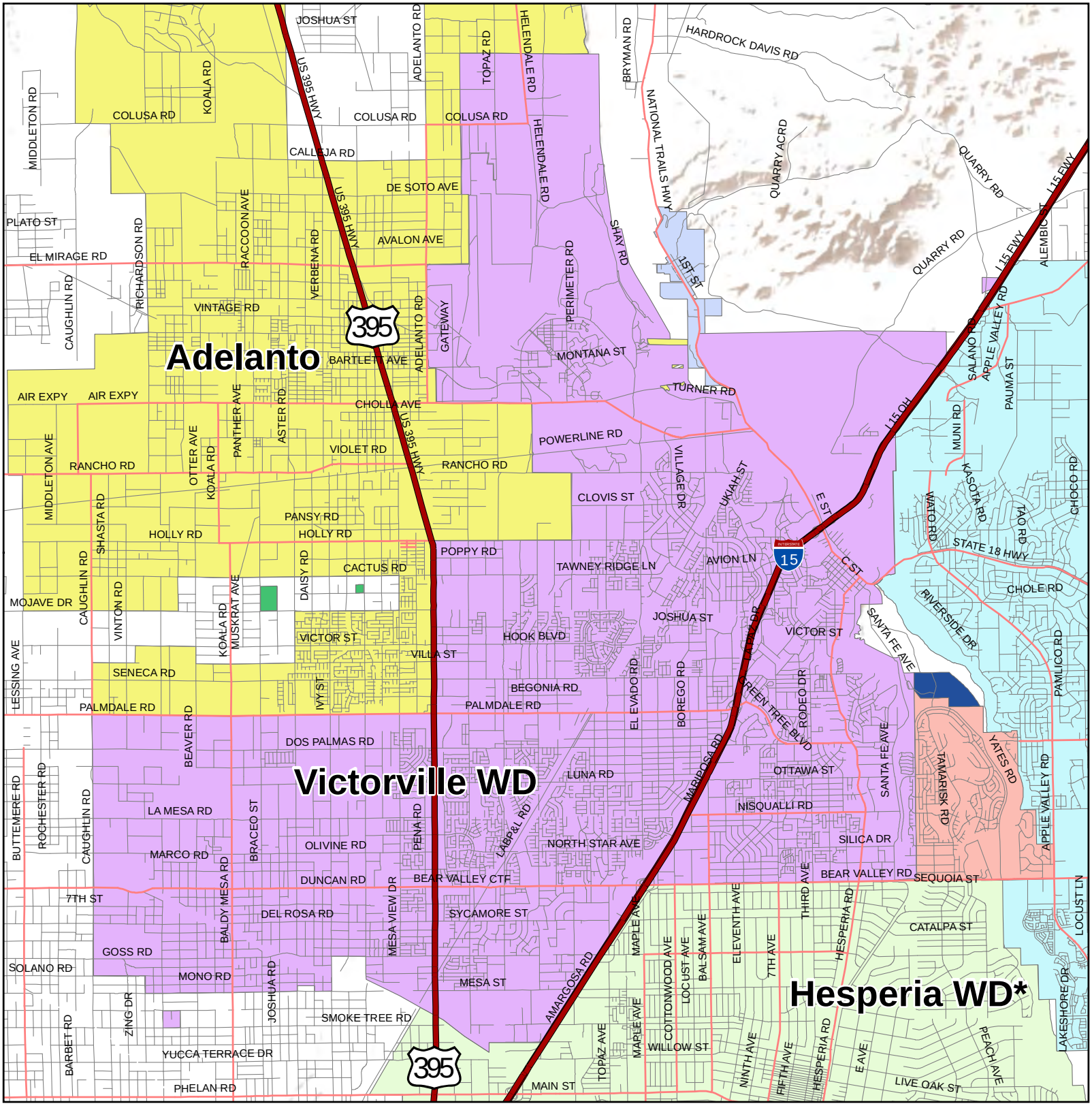
Infrastructure (City owns and operates the collection system)							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	1.1		438			121	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	27,604		0			27,604 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	37%	41%	18%	3%	1%	0%	0%

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$26.89

Cash Flows (Water District)	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($287,304)	$3,794,954	$4,270,991	$4,308,197	$2,746,040
Cash & Equivalents, End of Year	$1,554,775	$5,349,729	$9,620,720	$13,928,917	$16,674,957

Sources: Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017), LAFCO Files,
Agency Financial Statements, City of Victorville website, District email dated March 1, 2018

[1] The Victorville Water District was formed in 2007 by action of the Local Agency Formation Commission consolidating the City of Victorville Water Department, the Victor Valley Water District (formed in 1931) and the Baldy Mesa Water District (1965).



Victorville Water District

0 1 2 4 Miles

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*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- City of Adelanto
- Town of Apple Valley*
- County Service Area 42
- County Service Area 64
- Hesperia Water District*
- Victorville Water District
- County Service Area 64, LAFCO Reviewed Out-of-Agency Service
- City of Adelanto, LAFCO Reviewed Out-of-Agency Service

Date Created: 2/8/2018

VICTORVILLE WATER DISTRICT AND CITY OF VICTORVILLE

The City of Victorville is situated approximately 97 miles northeast of Los Angeles and 35 miles northeast of San Bernardino in the Victor Valley. The City was originally incorporated as a general law city on September 21, 1962 and reorganized as a charter city on July 18, 2008. According to the City's General Plan, the City is the region's most heavily populated urban area, consisting of residential land uses which range in density from one to 20 dwelling units per acre. Industrial land uses are generally concentrated within the northwestern corner of the City. Open space and some agricultural tracts are concentrated along the Mojave River corridor.

The City owns, operates, and maintains the collections lines which consists of 437 miles of gravity sewer lines, 1.1 miles of force mains, a population of roughly 97,000 with roughly 28,000 connections. The collected product flows to the VVWRA Wastewater Treatment Plant at six connection points or the Victorville Wastewater Treatment Plant. The sewer collection system sends an average of 10.7 MGD to the VVWRA and 1.5 MGD to the local treatment plant. The Victorville Wastewater Treatment Plant is owned, operated, and maintained by the City's subsidiary district, the Victorville Water District. The Victorville Water District was formed in 2007 by LAFCO action (LAFCO 2991) consolidating the City of Victorville's water operations), the Victor Valley Water District (formed in 1931) and the Baldy Mesa Water District (formed in 1965).

Local Treatment Plant

The Victorville Water District assumed operation of a 2.5-MGD wastewater treatment plant at the Southern California Logistics Airport ("SCLA") to process waste from three customers including Dr. Pepper Snapple Group, Plastipak, and the Federal Correctional Complex. The treatment plant is sized for treating 1.0 MGD of industrial wastewater flows and 1.5 MGD of sanitary flows from the City of Victorville. The treatment plant is designed in a modular fashion consisting of equalization, aeration and anaerobic sludge holding tanks and membrane bioreactor tanks. The effluent is discharged as recycled water (disinfected, tertiary recycled water as defined in California Code of Regulations (CCR), Title 22) for use as coolant at the High Desert Power Project and irrigation at Schmidt Park and ball fields at SCLA.

Capital Improvements

The District has embarked on an aggressive capital improvement plan for its sewer system. From 2008 to 2016, the following key projects have been completed:

- SCLA Sewer Trunklines – construction of 15 miles of trunkline sewer around the perimeter of the City's wastewater treatment plant, including an industrial trunkline from the Dr. Pepper/Snapple Group to the treatment plant. Cost: $8.5 million
- Mojave Sewer Emergency – repair two sections of trunkline sewer (between Brucite Rd and Cobalt Rd) with concrete encasements and new lines between manholes. Cost: $300,000

- La Mesa/Nisqualli Interchange – relocation of existing trunklines and construction of extended sewer lines surrounding the new La Mesa/Nisqualli Freeway interchange. Cost: $1.4 million
- Center Street Sewer – sewer line replacement of unreinforced concrete pipe with 2,000 feet of 12" PVC. Cost: $300,000

According to the City agenda Item 1 from its February 27, 2018 hearing, some of the major capital expenses that were incurred in FY 2016-17 and 2017-18 are:

• Sewer Collection System Condition Assessment	$4,199,270
• Line 2.2 miles of structurally deficient sewer main	$ 511,000
Total	**$4,710,270**

Also, some of the planned major expenses to correct existing deficiencies in the sewer collection system are:

• Structural deficiencies identified in Sewer Master Plan	$1,499,000
• Capacity deficiencies identified in Sewer Master Plan	$5,352,000
• Sewer Cleaning Truck in 2019	$ 700,000
Total	**$7,551,000**

• Structural deficiencies identified in Condition Assessment	$2,122,000/year
• Capital Replacement at City's Industrial Wastewater Treatment Plant	$1,065,000/year
• Sewer and Cleaning and CCTV Inspection	$ 443,000/year
Total	**$3,630,000/year**

The overall pipeline system is aging. An estimated one percent of the system's pipelines were installed from 1920 – 1939, three percent from 1940 – 1959, 18 percent from 1960 – 1979, 41 percent from 1980 – 1999, and the remaining 37 percent in year 2000 and later. However, the City has CCTV inspected the entire collection system in 2017 and has developed a five-year capital improvement plan to rehabilitate the collection system to correct structural deficiencies. The capital plan is incorporated into the sewer rate study and will be funded by sewer rates.

Matters with VVWRA

In January 2016, the District began diverting roughly a million gallons of wastewater flow per day from the VVWRA plant to its own plant. The flow diversion has resulted in a reduction of operating and capital income to VVWRA.

Additionally, in April 2016 the City of Victorville informed VVWRA of its intent to withdraw from the VVWRA Service Agreement per the 30-year notice requirement (in essence withdrawing the City from VVWRA). VVWRA management's opinion is that the flow diversion will have a negative impact on VVWRA's operations and cash flows.

Lahontan Regional Board

In July 2016, the Lahontan Regional Water Quality Control Board issued an Administrative Civil Liability Complaint (No. R6V-216-0042) to the City of Victorville. The Complaint alleges violations by the City as a result of six separate unauthorized discharges of raw sewage into the surface waters of the Mojave River and/or its tributaries between March 2014 and May 2016. The violations also allege the City's failure to clean up raw sewage debris in a timely manner from the September 2015 discharge and the City's failure to properly manage, operate, and maintain all portions of its sanitary sewer system between March 2014 and December 2015. The Complaint assessed an administrative civil liability against the City in the amount of $6,300,250 pursuant to California Water Code Section 13385. According to the Lahontan Executive Officer's Report from November 2017, settlement negotiations are underway.

According to the Lahontan Executive Officer's Report from November 2017, the City's system experienced an unauthorized waste discharge in September 2017 of 22,500 gallons. The raw sewage release was caused by a 10-inch stainless steel bracket that created a debris blockage in the sewer main. The release flowed into a nearby storm water catch basin, and subsequently beneath Hesperia Road and into a wash on the north side of Hesperia Road. City personnel were notified and stopped the flow through the wash by constructing a soil berm approximately 100 yards from the spill entry point into the wash. City personnel were able to recover 200 gallons of raw sewage from the wash and 22,300 gallons percolated into the wash soils. Signs were posted outside of Coad Road as a precautionary measure to alert the public, and the area was disinfected.

According to the Lahontan Executive Officer's Report from September 2017, the City of Victorville has verbally communicated with Water Board staff that they will not be submitting a LAMP. They plan to manage their OWTS program under the Policy's Tier 1 prescriptive siting and design requirements.

Review of Rates, Financial Statements, and Current Budget

LAFCO staff has reviewed the District's budgets, financial statements, and 2018 rate study and has identified the following areas of financial concern. The items below were identified prior to the approved rate increase of June 19, 2018 – the rate increase is anticipated to cover future capital expenses and eliminate reliance of reserve spending (more discussion on the rate increase is below).

- Since July 2012, the Water District has increased rates by 13.5% while VVWRA rates increased by 38.5%.

- The current VVWRA single-family-residential ("SFR") residential rate of $26.10 consumes practically all of the Water District's current rate of $26.89.

- As stated in the FY 2016-17 audit, …"circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern." These circumstances are described below.

- The routine practice of deficit spending has drawn down sewer fund reserves that currently total $17 million. However, sewer rates are proposed to be increased through the Proposition 218 process and have been calculated to resolve the fund reserve drawdown and fund planned capital replacement needs.

- The City has $22 million in capital improvement projects planned over the next five years that would be delayed without adequate funding. However, sewer rates are proposed to be increased to fund these capital projects.

Rates

LAFCO staff reviewed the City's wastewater rates since 2002. From 2002 to 2012, the City increased wastewater rates accordingly with the VVWRA rate increases, with one exception of an increase in 2008. Since July 2012, the Water District has increased rates by 13.5% while VVWRA rates increased by 38.5%, as shown in the table below.

The current VVWRA single-family-residential ("SFR") residential rate of $26.10 consumes practically all of the Water District's current rate of $26.89. The remainder of $0.79 per EDU pays for the operations, maintenance, and capital costs of the Water District system. It is clear that the former rate structure was not sustainable.

Table D-5:
Victorville Water District Rate History

Year	2009-10	2012-13	2014-15	2017-18
Victorville WD sewer rate	$23.70	$26.89	$26.89	$26.89
Portion that passed-through to VVWRA (EDU equivalent)	($15.65)	($18.84)	($20.54)	($26.10)
Victorville Water District rate increase, in comparison with VVWRA rate increase	Match	Match	None	None
Remainder for Victorville WD sewer	$8.05	$8.05	$6.35	$0.79

Cash Flows and Net Position

A review of the Water District's financial statements and FY 2017-18 budget identify that debt service and cash funded capital expenses are manageable under the current rate structure for the short-term. As shown, cash flows and net position have had annual increases through 2016. However, the annual increases generally were lower before 2016. The annual surplus was at the expense of deferring capital upgrades and lack of matching rate increase with VVWRA rates. Operations and maintenance and payments to VVWRA are increasing. If the June 2018 rate increases were not approved, then in due time, debt service and scheduled capital expenses would have been affected.

Table D-6:
Victorville Water District Cash Flows

Cash Flows	2013	2014	2015	2016	2017
Cash flows from operations	4,158,142	4,195,923	4,087,071	4,369,679	1,443,148
Cash flows from non-capital financing	(285,016)	108,243	387,294	(412,337)	(5,955,768)
Cash flows from capital financing	(92,440)	(49,571)	(176,547)	(1,221,961)	(2,401,408)
Cash flows from investments	14,268	16,396	10,379	10,659	93,922
Net increase in cash & cash equivalents	3,794,954	4,270,991	4,308,197	2,746,040	(6,820,106)
Cash & cash equivalents, end of year	**5,349,729**	**9,620,720**	**13,928,917**	**16,674,957**	**9,854,851**

Table D-7:
Victorville Water District Net Position

Net Position	2013	2014	2015	2016	2017
Operating Revenues	15,176,409	14,957,948	16,022,089	13,549,489	11,542,150
Operating Expenses	(10,871,801)	(12,398,323)	(13,403,121)	(10,896,249)	(12,448,583)
Non-operating Rev (Expenses)	(222,697)	65,572	(160,568)	(1,053,480)	(108,445)
Capital Contributions	518,120	(16,898)	662,797	-	
Transfers In				-	
Transfers Out				(824,820)	
Change in Net Position	4,600,031	2,608,299	3,121,197	774,940	(1,014,878)
Net Position, End of Year	**56,324,692**	**58,932,991**	**63,584,880**	**64,359,820**	**63,344,942**
Note: 2015 beginning balance restated					

Authorization of Wastewater Function for the Victorville Water District

On December 21, 2011, the Local Agency Formation Commission approved LAFCO 3168 and adopted Resolution No. 3151 that authorized the activation of sewer function and services within the boundaries of the Victorville Water District. According to the application documents from the City/District, the reason for the application to LAFCO was to enable a lease agreement between the City and the District for the District to operate the City-owned collection lines. In turn this would enable grant and loan eligibility for the District.

Counter to the City/District application and Commission approval, the lease agreement has not been signed between the entities, and the City remains the owner and operator of the collection lines. In response to the Draft Service Review, the City/District staff state that there is no plan for the Water District to assume wastewater collection services, nor is there any plan for the City to lease the collection system to the Water District. The City/District's comments are included a part of Attachment A.

Currently, the District owns and operates the Victorville Wastewater Treatment Plant. However, the financial statements for the Victorville Water District do not separate the Water District's water activities from its Victorville Wastewater Treatment Plant activities. Therefore, it would seem that the Water District's financial statements should include, or

identify separately, its authorized, and actively provided, wastewater activities. In response to the Draft Service Review, the City/District staff state that the activities are accounted for separately within that fund.

Additionally, in 2009 the City of Victorville Southern California Logistics Airport Authority loaned the Victorville Water District $20,000,000 to partially fund the Wastewater Treatment Facility Project. LAFCO Resolution No. 3151 determined, pursuant to Government Code Section 56824.14, that the wastewater service will be repaid for its costs in operating the SCLA Industrial Waste Water Treatment Plant and that the mechanism for repayment of the funds expended in the construction and development of the facility will be returned to the District. According to the City of Victorville June 30, 2016 financial statements, page 69, in February 2013 this loan was repaid in full.

City as a Whole

For the City as a whole, the FY 2016-17 audit identifies "emphasis of matters" in the Independent Auditor's Report. First, the Southern California Logistics Airport Authority has suffered recurring losses in recent years and has defaulted on a number of its recent debt payments. Second, the dissolution of redevelopment agencies creates additional uncertainty with respect to the SCLAA due to its dependence upon tax increment funding from the Victor Valley Economic Development Authority. Third, pension costs are expected to continue to rise annually. As stated in the audit, "These circumstances have significantly affected the City and raise substantial doubt about the City's ability to continue as a going concern."

Approved Rate Increase

On April 3, 2018, the City/Water District approved resolutions regarding proposed increases to its wastewater and refuse collection rates. For wastewater, due to the lack of rate increases to match VVWRA rate increases, deferral of capital upgrades, inflation, and scheduled capital upgrades and improvements, the City and Water District is proposing annual rate increases for single-family-residences as follows:

Table D-8:
Victorville Water District Proposed Rate Increase, single-family-residence

Year	2018-19	2019-20	2020-21	2021-22	2022-23
Percent Increase	22.8%	15.0%	7.5%	7.5%	7.5%
Rate	$33.03	$37.98	$40.83	$43.89	$47.18

According to the rate study, the rate increase is necessary to return reserves to minimum target levels. The estimated cash balance at the end of Fiscal Year 2017/2018 was approximately $8.0 million. The routine practice of deficit spending has drawn down sewer fund reserves that currently total at $17 million. In addition, the City has $22 million in capital improvement projects planned over the next five years that would be delayed without adequate funding. Even with the rate increase, reserves would continue to decline through 2020 (to $1.8 million) and would not meet the target reserve balance until 2023. According to the City/District, the recently approved five-year incremental sewer rate increase is

sufficient to fund five-year capital improvement costs, operation and maintenance costs, treatment costs, debt service, and maintain adequate reserves.

Sewer rate revenues also fund the Water District's wastewater treatment plant at Southern California Logistics Airport. The rate study recommended a unique annual permit fee for each of the four and other fees connected to the City's pre-treatment program due to unique wastewater needs of each customer.

sources: City of Victorville: website, General Plan, FY 2017-18 budget, financial statements
Victorville Water District: CIP, financial statements, Sewer Master Plan
LAFCO files
Mojave Water Agency UWMP
City of Victorville/Victorville Water District, Agenda Item 1 from 4-3-2018

Victor Valley Wastewater Reclamation Authority

(Portions of Victorville, Hesperia, Apple Valley, CSA 42, CSA 64 and CSA 70 SP-2)

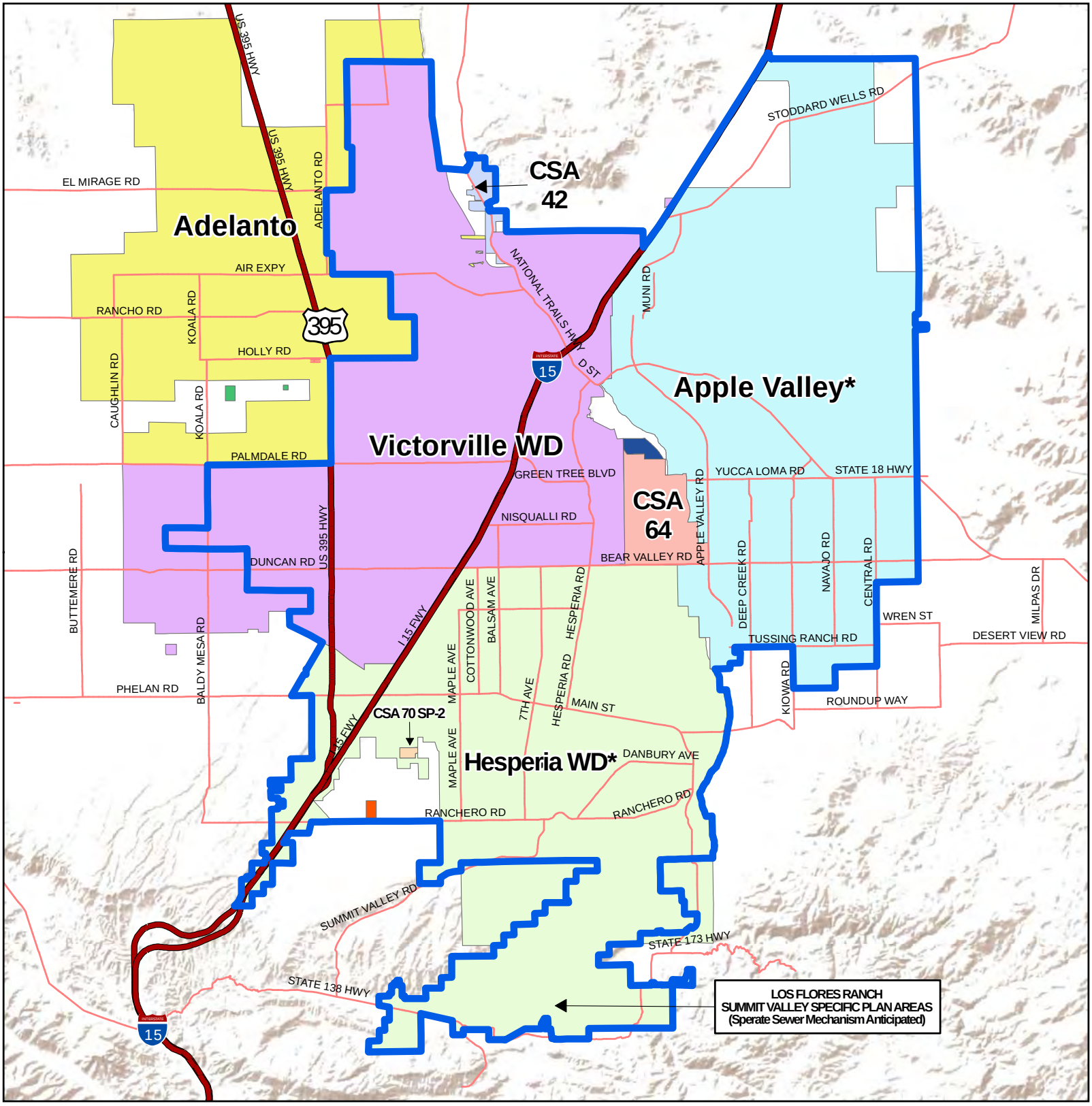
Agency Information			
Principal Act	Joint Exercise of Powers Act, Gov Code §6500 et seq.	Year Formed	1976
Governance	Board of Commissioners (appointed from each member agency)	Square Miles	279
Website	http://www.vvwra.com	Population	291,000
Services	Wastewater treatment and disposal		

LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/JPA/VictorValleyWRA.aspx
Service Reviews	
Round 1, by agency	http://www.sbcounty.gov/lafco/items/2009oct/item_9.pdf

Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	2		42			0	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	10%	10%	80%	0%	0%	0%	0%

Cash Flows	**2012**	**2013**	**2014**	**2015**	**2016**
Increase (Decrease) in Cash & Equivalents	($517,403)	$122,019	($684,756)	($617,703)	$1,814,446
Cash & Equivalents, End of Year	$9,165,612	$9,287,631	$8,602,875	$7,985,172	$9,799,618

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Files
Agency Financial Statements
Victor Valley Wastewater Reclamation Authority website



Victor Valley Wastewater Reclamation Authority

0 1.75 3.5 7 Miles

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In 1998, City of Adelanto withdrew itself from VVWRA

In 2016, City of Victorville issued 30-year notice requirement to withdraw from VVWRA

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

- Victor Valley Wastewater Reclamation Authority
- City of Adelanto
- Town of Apple Valley*
- County Service Area 42
- County Service Area 64
- County Service Area 70 SP-2
- Hesperia Water District*
- Victorville Water District
- City of Adelanto, LAFCO Reviewed Out-of-Agency Service
- County Service Area 64, LAFCO Reviewed Out-of-Agency Service
- Hesperia Water District Service Contract

Date Created: 2/15/2018

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY

As a regional wastewater treatment agency, Victor Valley Wastewater Reclamation Authority ("VVWRA") provides wastewater treatment and disposal services to four contracting agencies under its Sewerage Agreement. Following a review of VVWRA's activities, this report includes a review of each member collection system.

The Victor Valley Wastewater Reclamation Authority ("VVWRA") was created in 1976 by the Mojave Water Agency to meet the requirements of the Clean Water Act of 1972[1] and provide wastewater treatment services for large portions of the North Desert. VVWRA serves over 291,000 residents in a 279-square mile service area.

Originally, membership in the Authority was composed of five members: the City of Adelanto, Victorville Sanitary District, County Service Area 42, Apple Valley County Water District, and Hesperia County Water District. At some point between 1981 and 1998, County Service Area 64 was added as a member agency. In 1998, the Joint Exercise of Powers Agreement was amended and restated to reflect the changes in member agencies to reflect the Town of Apple Valley (successor to the Apple Valley County Water District), the City of Victorville (successor to the Victorville Sanitary District) and to correct the name of the Hesperia Water District. The City of Adelanto, a founding member, removed itself from the Authority in 1998. At some point between the 1998 JPA amendment and the 2005 Service Agreement amendment, the Hesperia Water District membership was transferred to the City of Hesperia. Membership is currently composed of four members:

- City of Hesperia (on behalf of its subsidiary Hesperia Water District)
- City of Victorville (on behalf of its subsidiary Victorville Water District)
- County of San Bernardino (on behalf of County Service Area 42 and County Service Area 64)
- Town of Apple Valley

VVWRA operates as Joint Powers Authority. A Joint Power Authority is a quasi-governmental agency of the State of California. The Authority is governed by elected/appointed leaders from each of the member agencies and collectively make up the VVWRA Board of Commissioners. The Board members are publicly elected for a four-year term. A joint powers agreement binds the Authority's affairs between the Authority and its four member local government agencies for the purpose of construction, operation, and maintenance of sewer treatment facilities within the service areas. The VVWRA General Manager is responsible for carrying out the policies and ordinances of the Board and for overseeing the day-to-day operations of the Authority. Following a review of VVWRA activities, this report includes a review of each its member agencies.

Regional System

The Authority's main treatment facility, which began operations in 1981, is located in Victorville (near the Southern California Logistics Airport). VVWRA conveys wastewater

[1] The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.

using 41.5 miles of interceptor sewer and two pump stations. Its treatment facility has a capacity of 18.0 MGD and is currently capable of treating all flow to a tertiary level and the remaining flow to a secondary level for percolation. Treatment processes include screening, grit removal, primary clarification, biological oxidation of wastes with complete nitrification and partial denitrification, secondary clarification, coagulation, flocculation, filtration and disinfection. An estimated 80 percent of the system's pipelines were installed between 1960 – 1979, ten percent between 1980 -1999, and the remaining ten percent in year 2000 and later.

A majority of the tertiary treated wastewater is used as cooling water for the Hi-Desert Power Project. The Lahontan Regional Water Quality Control Board (Order R6V-2013-0038, up for renewal in 2018) along with the National Pollutant Discharge Elimination System Permit (No. CA0102822) allow the facility to discharge up to 14 MGD of tertiary-treated effluent as surface water in the Mojave River bed. The remainder is discharged in to percolation basins. The Regional Board order covering this activity is R6V-2012-0058 WDID# 6B360109001, a state permit for discharges to groundwater.

According to VVWRA, the Authority is currently able to produce 90 percent of its own energy needs to operate its plant through the use of methane gas generated from on-site anaerobic digesters. The Authority has future plans to become 100 percent energy neutral.

According to the Mojave Water Agency Urban Water Management Plan (2015), the VVWRA flow of treated wastewater reached approximately 11.6 MGD in 2015[2]. The VVWRA regional plant's capacity to collect and treat wastewater is summarized in Table D-9, below, for 2015 through 2040.

Table D-9:
Projected VVWRA Capacity for Collected and Treated Wastewater

Service Area	Capacity (MGD)					
Year	2015	2020	2025	2030	2035	2040
VVWRA	18.0	20.0	20.0	20.0	20.0	20.0

Source: Mojave Water Agency UWMP (2015), page 4-8

Sub-Regional Plants

To mitigate future capacity issues, VVWRA has constructed two subregional water reclamation plants - one in Hesperia and one in Apple Valley. Funding for the plants is from State Revolving Fund loans and VVWRA reserves. VVWRA owns the land for the Hesperia Plant, and the Town of Apple Valley owns the land for the Apple Valley Plant with a VVWRA easement. VVWRA owns both facilities and will be in charge of operations at both plants. According to VVWRA, the Apple Valley plant is currently in the start-up phase with a hope to be fully operational by July 2018. The Hesperia plant is currently in the start-up phase as well. It is hoped that the Hesperia plant will begin operating nominally by October but without discharge until the City of Hesperia completes its recycled water pipeline.

[2] For Water Year 2014-2015 (October 2014 to September 2015); based on MWA Watermaster data.

Both subregional plants are considered "scalping" facilities, meaning they treat a portion of the local wastewater while all solids and the rest of the wastewater continue to VVWRA's main treatment plant. The identical plants will employ membrane bioreactor ("MBR") technology to produce disinfected, tertiary recycled water as defined by California Code of Regulations ("CCR") Title 22. Once fully operational, these smaller plants will be capable of producing approximately 1 MGD of recycled water each. The recycled water will be used for local landscape irrigation near the site of treatment, reducing the treatment demand on VVWRA's regional treatment plant and the Hesperia and South Apple Valley interceptors.

For the Apple Valley plant, the Apple Valley Golf Course, public facilities, and parks will be the first users of the new system, utilizing recycled water for landscape irrigation. Eventually, it is anticipated that recycled water from the plant can be utilized for agricultural irrigation, construction, and other landscape irrigation. For the Hesperia plant, it is anticipated that the Hesperia Golf Course and Hesperia Civic Center will be the first users of the new recycled water supply, utilizing it for landscape irrigation.

The Apple Valley and Hesperia plants are designed to be a good neighbor facility. Much of the plants are below ground to deaden the sound of pumps and blowers. The aeration basins are enclosed and advanced odor control technology will virtually eliminate unwanted odors. The visible portion of the plants are no taller than a two story home and the surrounding grounds are landscaped to blend in with the rest of the area.

Capital Improvement Projects

VVWRA's FY 2017-2018 Capital Improvement Program includes only those projects which will be completed during FY 2018-2019. These projects are funded by one or a combination of the following sources: operating cash reserves, State Revolving Funds, and federal and California grants. As shown in Table D-10, below, construction of the Hesperia and Victorville sub-regional water reclamation plants are priority projects in the Authority's CIP funding plan. In FYs 2016, 2017 and 2018 alone, VVWRA budgeted a combined total of $90.9 million for construction of the two sub-regional plants. Interceptor construction and realignment projects were allocated $8,500,638 in FY 2016, $5,381,000 in FY 2017, $240,000 in FY 2018 and $7,430,000 in FY 2019.

Table D-10:
VVWRA Capital Improvement Programs – FY 2017-2018

Capital Improvement Project	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total Wastewater Treatment Projects	$43,644,918	$42,730,352	$4,631,500	$125,000	-
Total Interceptor Projects	$ 8,500,638	$ 5,381,000	$ 240,000	$7,430,000	-
Total Energy Efficiency Projects	$ 1,400,000	-	-	-	-
Total Info Technology Projects	$ 100,000	-	-	-	-
TOTAL	**$53,645,556**	**$48,111,352**	**$4,871,500**	**$7,555,000**	**-**

Source: VVWRA Capital Improvement Programs – Expenditures by Project Fiscal Year 2017-2018

As a result of the current and planned projects, VVWRA has eight State Revolving Fund loans from the State Water Resources Control Board and two Southern California Edison loans. These loans are for the purpose of financing construction related costs for the 9.5 MGD Improvement Project, the 11 MGD Expansion Project, the North Apple Valley

Interceptor, the Phase III-A facility, the Sub-Regional facility construction projects in Hesperia and Apple Valley, the Upper Narrows Replacement construction project, and the Nanticoke Gravity Interceptor construction project. These low interest loans total $83.7 million as of June 30, 2017 are payable in 20 to 30 annual payments maturing in fiscal years 2020 through 2047.

Conditions and Events

According to the VVWRA 2016-17 audit, certain conditions and events have given rise to doubts about VVWRA's ability to continue as a going concern[3] for a reasonable period of time thereafter. VVWRA faces several issues that could, if unmitigated, negatively impact its revenue and necessary cash flows to fund ongoing operations and to service the debt obligations authorized by the governing Members of VVWRA. Among the issues are:

1) Current diversion of roughly a million gallons of wastewater flow per day by the City of Victorville to its own plant. The flow diversion has resulted in a reduction of operating and capital income.

   VVWRA states that the diversion, alone, has cost the agency at roughly $8 million. In 2016, VVWRA cut 28% of its workforce and in 2017 eliminated two executive positions, citing financial troubles. VVWRA currently receives sufficient funds to operate and maintain, but struggles to pay off debts.[4]

2) City of Hesperia's refusal to remit payment for wastewater flows that VVWRA processed.

   During the fiscal year ended June 30, 2017, VVWRA has amounts due and receivable for user charges and connection fees amounting to $1,258,026 which were past-due since January 2016 from the City of Hesperia (City).

   On August 8, 2017, VVWRA was notified by the City that it has retained the payment over specific concerns pertaining to: 1) increasing rates which the City believes are due to financial problems related to member actions, 2) concerns over the timing of completion and operation of the Hesperia subregional water reclamation plant, in which revenues from the plant will be required to service the related State Revolving Loan, and 3) disagreement with VVWRA's Board of Commissioners in resolving a diversion of flow matter from the City of Victorville, which the City of Hesperia believes has deprived VVWRA of amounts totaling more than $10 million.

   VVWRA management believes that continued withholding of amounts due to the Authority will have a negative impact on operations and cash flows.

[3] A going concern is an entity that functions without the threat of liquidation for the foreseeable future, usually regarded as at least within 12 months. It implies for the e the basic declaration of intention to keep running its activities at least for the next year. Hence, the declaration of going concern means that the entity has neither the intention nor the need to liquidate or curtail materially the scale of its operations.
[4] "VVWRA eliminates two executive positions, citing financial troubles". *Daily Press*. Johnson, Shea. 28 October 2018.

3) Pending determination by the Federal Emergency Management Agency ("FEMA") to disallow $32 million in grant awards as recommended in a draft report issued by the Department of Homeland Security's Office of the Inspector General ("OIG").

   The OIG found that VVWRA did not comply with federal regulations in the bidding and procurement of three contracts totaling $31.7 million. FEMA awarded the funds to VVWRA after its pipeline ruptured due to severe flooding, mud, and debris flows in December and January 2010, sending 42 million gallons of wastewater into the Mojave River.[5]

The VVWRA Board of Commissioners and management believe that each of these matters individually and in the aggregate would negatively affect operations and effectively cause VVWRA to default on servicing debt obligations in accordance with contractual agreements during fiscal year 2019. VVWRA's plan to mitigate these issues are as follows:

1) Member Entities are in mediation to resolve the wastewater flow dispute, and all parties are seeking resolution.

2) Outstanding balance owed to VVWRA by the City of Hesperia is expected to be collected in full based on the terms of the Joint Powers Agreement. VVWRA is vigorously attempting collection of the balance.

3) VVWRA anticipates a positive determination by FEMA with regard to grant awards to the Authority.

Additionally, in April of 2016 the City of Victorville informed VVWRA of its intent to withdraw from the Service Agreement per the 30-year notice requirement (in essence withdrawing the City from VVWRA). VVWRA management's opinion is that the flow diversion could have a negative impact on VVWRA's operations and cash flows.

sources: Mojave Water Agency UWMP
VVWRA website
VVWRA 2016-17 Audit
VVWRA 2017-18 CIP
LAFCO files

[55] "Victorville temp agency alleges shoddy record-keeping, improper pay practices, at VVWRA". *San Bernardino County Sun*. Nelson, Joe. 14 July 2017.

APPENDIX E
South Desert Service Review
Agency Updates

- Agency Profile
- Agency Map
- Narrative of Agency System

City of Needles

Needles

Agency Information			
Principal Act	Government Code Title 4 - §34000	Year Formed	1913
Governance	Needles City Council (charter city)	Square Miles	30
Website	http://cityofneedles.com/	Population	4,976
Services	Full range of municipal services except police (under contract with County Sheriff) and fire (within County Fire)		

LAFCO Authority	
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/Cities/Needles.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/SouthDesertRegion/Needles.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

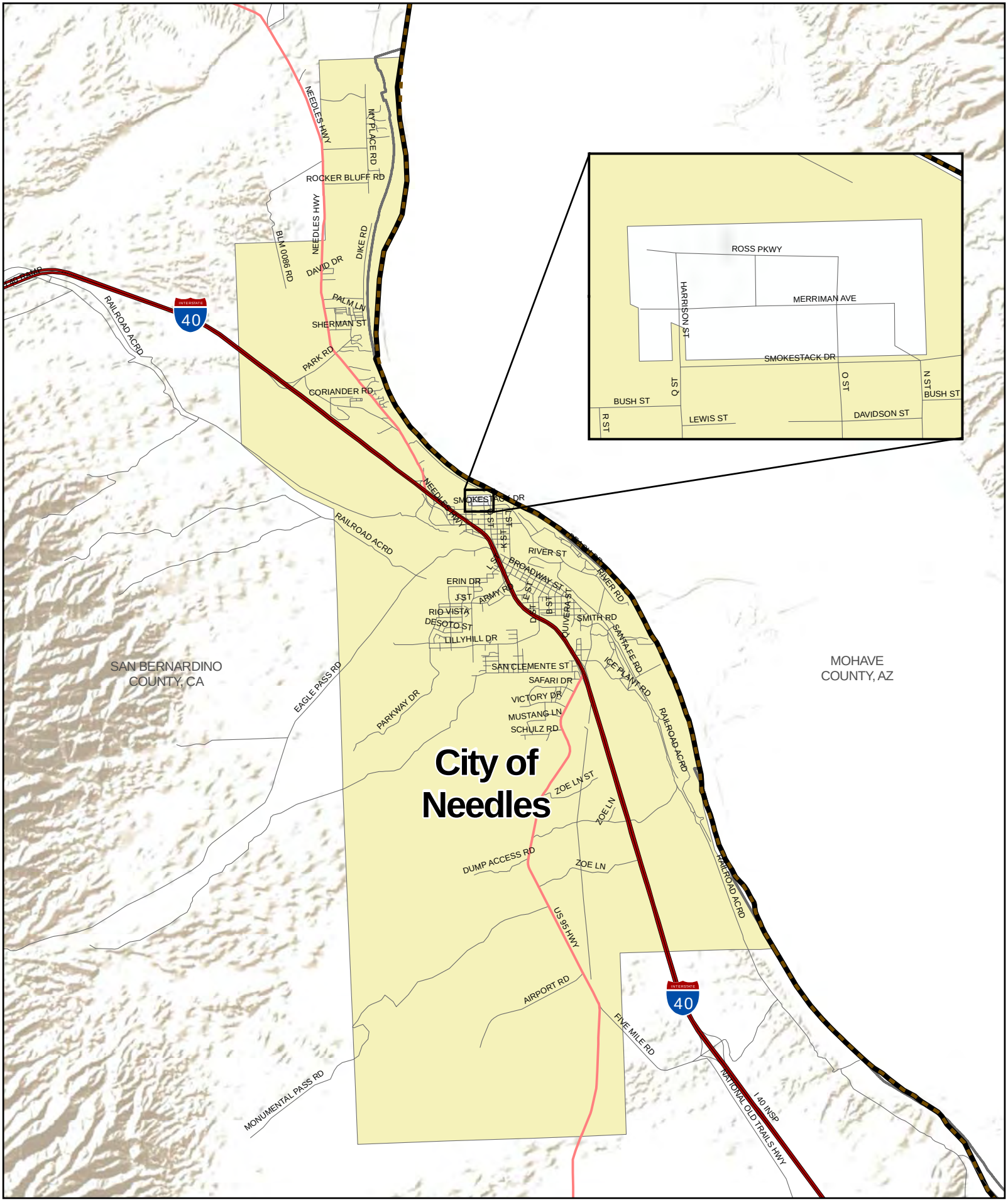
Infrastructure							
Miles of:	**Pressure Sewer**		**Gravity Sewer**			**Laterals**	
	3.6		19.2			0	
# of Sewer Connections	**Within Boundary**		**Outside Boundary**			**Total**	
	1,569		0			1,569 (lateral connections)	
Age of Pipelines	**2000 +**	**1980-1999**	**1960-1979**	**1940-1959**	**1920-1939**	**1900-1919**	**Before 1900**
	10%	10%	10%	70%	0	0	0

Typical Monthly Sewer Fee for Collection & Treatment (Equivalent Dwelling Unit or Single Family Home) as of July 2017
$41.54

Cash Flows	2012	2013	2014	2015	2016
Increase (Decrease) in Cash & Equivalents	($1,639,075)	$1,688,964	$1,070,259	$30,059	$535,055
Cash & Equivalents, End of Year	$2,058,742	$3,747,706	$4,817,965	$4,848,024	$5,766,712

The Cash Flows in the chart above are for the Needles Public Utilities Authority, which provides water, sewer, and electrical services.

Sources: CA State Water Resources Control Board CIWQS database
https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml
LAFCO Countywide Service Review for Water (2017)
LAFCO Files
Agency Financial Statements, website
City of Needles Utilities Department – 12-3-18 phone call



City of Needles

E-3

Map Created: 5/18/2017

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City of Needles
Regions
San Bernardino County Line

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

CITY OF NEEDLES

The City of Needles is located at the eastern edge of the county on the west bank of Colorado River, approximately 144 miles east of Barstow, 26 miles south of Laughlin, Nevada, and 42 miles north of Lake Havusu City, Arizona. Interstate 40, the third longest east-west interstate highway in the United States, is the major highway through Needles. One of the oldest cities in San Bernardino County, the city was incorporated on October 13, 1913 and became a charter city on January 28, 1959.

The City owns a wastewater collection, treatment and disposal system that provides sewer service to City of Needles residents. The City's sewer system was first installed in 1950. According to the City, the collection system currently consists of 3.6 miles of pressure sewer, 19.2 miles of gravity sewer, four lift stations, 390 manholes, and a wastewater treatment plant. The system's pipelines are aging, with 70 percent of the lines installed between 1940 and 1959. Within the City, sewer service generally extends on the south side of the City to Victory Drive and Cherry, and on the north side to Pashard Avenue. Development not connected to sewer is served by septic tank disposal systems.

The City's wastewater treatment plant ("WWTP") opened in 1999 and has a design capacity of 1.2 million gallons per day ("MGD"). The WWTP consists of a mechanical bar screen, an aerated grit removal chamber, two sequencing batch reactors, an equalization basin, 24 sludge drying beds and four evaporation/percolation ponds. In December 2012, the City contracted to EUSI, LLC to operate the wastewater collection system and treatment facilities.

The City has approximately 1,569 sewer connections serving a population estimated at 4,976. Based on its current population, the City treats 400,000 to 650,000 GPD of sewage. According to the City, population is projected to grow at a modest 14 percent (689 persons) through 2040. The City reviews capital improvement plans for the wastewater department on an annual basis. If a hydraulic deficiency is noted in the future, it will be added to the capital projects list and assigned the appropriate priority.

Sources: Sewer System Master Plan (2011)
City of Needles website
LAFCO Water Service Review (2017)
LAFCO files

High Desert Water District — Yucca Valley, Yucca Mesa

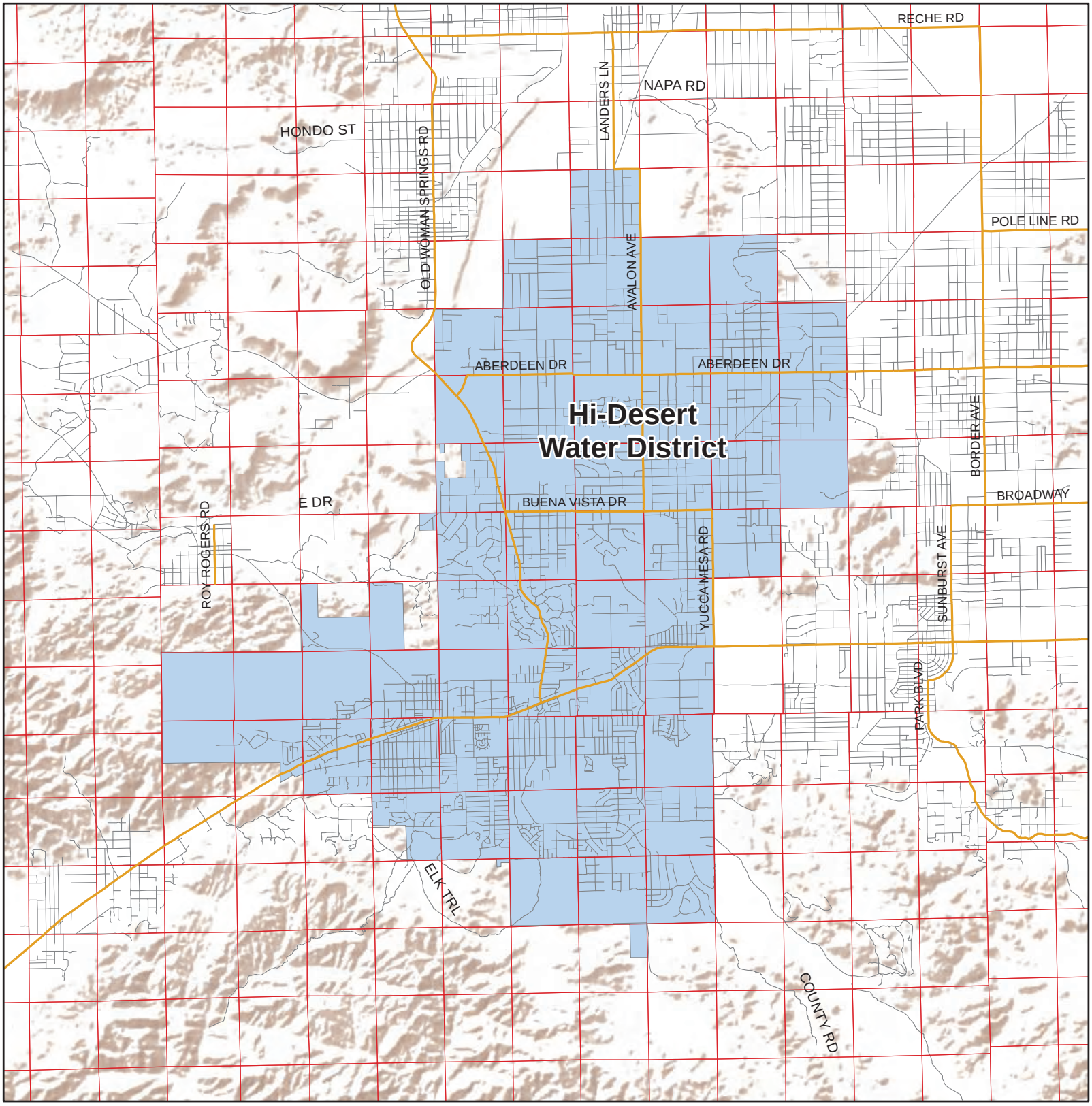
Agency Information			
Principal Act	County Water District Law Water Code Division 12 - §30000 et seq	Year Formed	1962
Governance	5-member board of directors	Square Miles	57
Website	www.hdwd.com	Population	24,520

LAFCO Authority	
Authorized Functions	Water, sewer, park and recreation At this time, sewer collection and treatment are not actively provided. The wastewater collection and treatment systems are under construction.
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/HiDesertWD.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/SouthDesertRegion/YuccaValley.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Net Position	2012	2013	2014	2015	2016
Increase (Decrease) in Net Position	($568,267)	($567,203)	($102,278)	$2,048,893*	$317,813
Net Position, End of Year	($1,052,959)	($1,620,162)	$2,194,815*	$4,243,708*	$4,561,521

* restated in FY 2015-16 financial statements

Sources: Phone call to District (1/3/2018)
LAFCO Water Service Review (2017)



Hi-Desert Water District

0 1 2 4 Miles

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Hi Desert Water District

LAFCO

*In instances of overlapping agencies, the boundary of the underlying agency is reduced.

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Date Created: 4/27/2018

HI-DESERT WATER DISTRICT

State Septic Discharge Prohibitions

In 2011, the California Regional Water Quality Control Board passed a resolution that will prohibit discharge from septic tanks in parts of Yucca Valley starting with Phase One on June 30, 2021, with Phases Two and Three to follow on May 19, 2019 and December 31, 2025. If residents continue to discharge, they may be fined up to $5,000 daily by the State Board.

A wastewater collection and treatment system is needed to protect groundwater quality, and comply with a State mandate prohibiting discharge from septic tanks in the Yucca Valley area. Septic system discharge has been slowly degrading local water quality for decades. Nitrates and other contaminants from septic system discharge are currently reaching groundwater. Hi-Desert Water District ("HDWD") relies on groundwater from the aquifer to deliver water to its customers.

Sewer Project

HDWD assumed lead in a comprehensive solution that will ensure compliance and protect groundwater quality at the lowest possible cost, while giving HDWD customers access to a reliable and affordable sewer system. This project would replace septic systems and their negative environmental impacts on water quality with a sewer system that collects wastewater and delivers it to a treatment plant, where it will be processed and treated until it is clean enough to be recharged into the aquifer without compromising water quality.

There are three phases of the Sewer Project. Construction of Phase 1 will run from January 2017 – December 2021. Construction started the furthest point east of the project and is working toward the west end of town. Phase 2 and 3 construction will follow in December 2021 – 2025.

Construction on the Wastewater Treatment and Reclamation Facility is scheduled to start in fall of 2017. It will take approximately 18 months to construct. The facility is expected to treat and reclaim 1.2 million gallons of wastewater a day. Once the facility is completed in spring of 2019, private property connections will begin. The time-frame in which all Phase 1 developed properties will connect to the system is from Fall 2019 to June 2021. All customers within the phase boundaries will be required to connect to the sewer system when it becomes available. For an average single-family residence, the connection cost is estimated at $3,000.

On May 13, 2015, property owners approved forming Assessment District 2014-1 by mail-in ballot to finance the cost to construct Phase 1 of the Sewer Project. Property owners will finance the cost to construct Phase 1 of the Sewer Project through a loan from the State Revolving Fund. Payments will be made over 30 years on the property taxes with a low interest rate of 1%. Starting in December 2018, charges will be reflected in the 2018/2019 property tax installments. The total estimated cost for a Phase 1, single-family property is approximately $100/month. After a full year's cost is collected, a 25%-30% discount will be applied for the following ten years as part of a successful sales tax initiative. There will be

subsequent assessment district formations by vote at a later date to secure funding to construct Phases 2 and 3.

HDWD has secured millions of dollars in federal, state and local grants in addition to debt forgiveness and low interest loans to help finance the project as cost-effectively as possible. Funding sources include:

- U.S. Bureau of Reclamation Grant – HDWD has a $20 million allocation from the U.S. Bureau of Reclamation and as the District receives the monies it will be deducted from the annual assessment.
- State Revolving Fund – HDWD secured a loan from the State Water Resources Control Board State Revolving Fund by securing a low interest rate of 1%. This low interest rate dramatically reduces payments and financing costs.
- Community Development Block Grants – HDWD is applying for these grants to help support a low-income assistance program.
- Other Resources – HDWD is working to identify sources of funding that would support a low income assistance program.

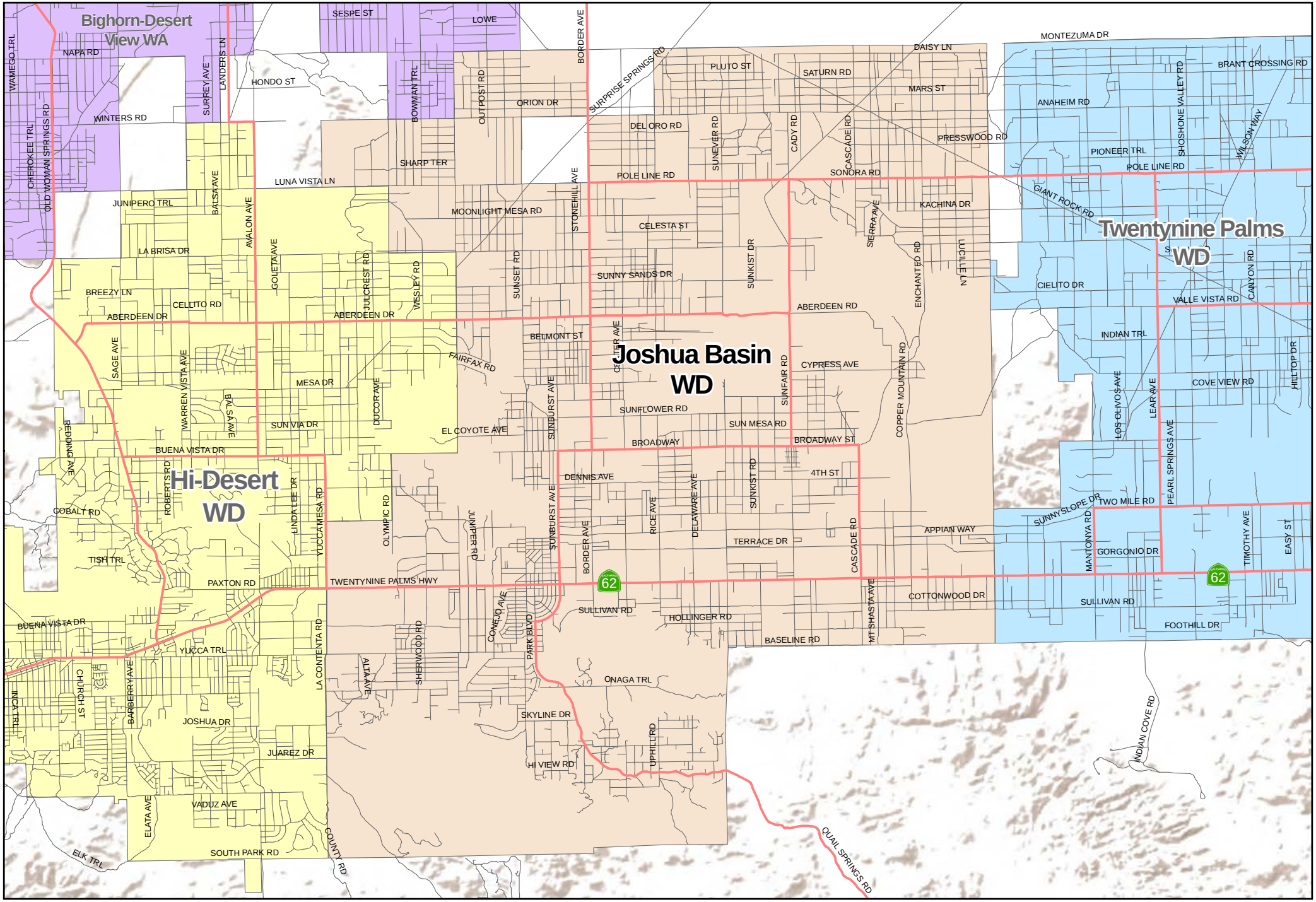
Sources: HDWD website, LAFCO files

Joshua Basin Water District — Joshua Tree

Agency Information			
Principal Act	County Water District Law Water Code Division 12 - §30000 et seq	Year Formed	1963
Governance	5-member board of directors	Square Miles	97
Website	http://www.jbwd.com/	Population	9,830

LAFCO Authority	
Authorized Functions	Water, sewer (limited to operation of package treatment plant and planning)
Fiscal Indicators	http://sbclafco.org/FiscalIndicators/IndependentDistricts/JoshuaBasinWD.aspx
Service Reviews	
Round 1, by agency	http://www.sbclafco.org/Proposals/ServiceReviews/SouthDesertRegion/JoshuaTree.aspx
Round 2, Countywide Water	http://www.sbclafco.org/Proposals/ServiceReviews/WSR.aspx

Sources: LAFCO Water Service Review (2017)



Joshua Basin Water District

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

Map Created: 5/17/2017

0 0.75 1.5 3 Miles

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- Joshua Basin Water District
- Twentynine Palms Water District
- Hi Desert Water District
- Bighorn-Desert View Water Agency

LAFCO
For San Bernardino County

JOSHUA BASIN WATER DISTRICT

The Joshua Basin Water District was formed in 1963 to provide retail water to the Joshua Tree community. The District is an independent special district with a five-member board of directors and operates under *County Water District Law*, Water Code Section 30000 et seq.

Regional Board

Currently, for larger, non-residential systems, the Regional Board requires that "no part of the subsurface disposal systems shall be closer than 150 feet to any water well or closer than 100 feet to any stream, channel, or other water source." The Regional Board also requires that a sufficient amount of land shall be reserved for a possible 100 percent replacement of the septic system. There is no density restriction at the present time, but it is under review by the Regional Board. The County Department of Environmental Health utilizes the requirements developed by each particular Regional Board.

The Regional Board has issued directives regarding the use of septic systems and the preservation of the groundwater basin in this region. The Regional Board has adopted waste discharge requirements which have resulted in the requirement for installation of package treatment plants for developments approved within the District's boundaries and in other areas under its jurisdiction.

Sewer Authorization

In response to the regional discharge requirements, in 2006 the District requested that the Commission authorize it the "Sewer" function. In 2007 the Commission authorized the District the "Sewer" function but limited the services of that function to operation of wastewater package treatment plants and planning and engineering related to regional sewer service (LAFCO 3074). Currently, the District operates and maintains the package plant at the Hi-Desert Medical Center and has a program where it collects development fees marked for a future collection and treatment system.

LAFCO staff and the Commission did not believe that the sewer function and service should include the ability to operate a regional wastewater facility at that time based upon the direction of the Community Plan and that such a requirement should be considered on a regional basis and not until such a requirement is mandated in the future. Further consideration by the Commission is required for the District to expand the services to include the actual provision of collection, treatment and disposal of wastewater.

Wastewater Treatment Strategy

In 2009, the District adopted its Wastewater Treatment Strategy ("WTS"). It has been estimated that recharge from individual septic systems may currently represent as much as 80% of the annual recharge within the District's groundwater basins. These septic return flows result in increased nitrate and total dissolved solids degradation of the groundwater. The long-term cumulative impact of wastewater discharges continues to be a primary concern for the District. Prohibition of new individual septic systems will gradually be required, replaced by local package treatment facilities that provide better treatment - thus protecting the District's local groundwater resources.

The study area encompasses approximately 35 square miles of the District's 96 square miles, draining from the west to the east along the 29 Palms Highway corridor. The existing development is predominantly residential with smaller areas of commercial and institutional development. Existing developed parcels are assumed to be safely treating and discharging wastewater flows through use of septic tanks in accordance with existing environmental law. More importantly, the cost of implementing the WTS is assumed to be borne by future development, and not existing customers. Ultimate wastewater flow from the study area, for new developments only, is projected to be approximately 3.8 mgd.

Development pressure will determine the wastewater treatment requirements on a case by case basis. In addition, the development conditions will impact the wastewater treatment decision process. For example, if development progresses in smaller, geographically diverse tracts, the District will be required to evaluate the size and number of package treatment facilities it is managing. Minimizing the number of individual treatment plants will be beneficial from a cost and maintenance standpoint for the District. However, if a large development is proposed that facilitates construction of the regional collection and treatment facilities, the District will benefit through elimination of multiple package treatment plant construction.

Ultimately, the WTS projects the need for construction of a regional wastewater treatment facility and interceptor sewer system to limit the proliferation of small package treatment plants throughout the District. A regional plant provides cost benefits and economies of scale that lower overall cost to the customers. The projected cost of these regional facilities is approximately $91,000,000. The WTS proposes use of connection fees to collect the funding for construction of these regional facilities. Current projections result in a connection fee for new development of approximately $5,200 per equivalent dwelling unit.

The WTS provides the District with a timely strategy for planning its wastewater collection and treatment future. More importantly, the WTS establishes a mechanism whereby the District can protect its long-term water supplies from potential degradation. The WTS implementation is further enhanced by eliminating the need for existing residents to participate in payment for the needed facilities, at least until such time as they may need to abandon their septic systems and connect to the regional wastewater system.

Although the District adopted its wastewater capacity fees in September 2009, there was no purchase of a water meter in the wastewater area, until FY 2010-11. Further, there were no purchases of water meters in the wastewater area in FY 2014-15 or 2015-16. The fee collected in excess of $1M in FY 2013-14 is for the Hi-Desert Medical Center package treatment plant. As of June 2018, the wastewater capacity fee fund totals $1,349,725.

The wastewater fee is applicable to only the high-density areas of the water district (closest to the downtown area.) Most of the new development is not occurring in those areas, so wastewater capacity fees are not due at this time.

APPENDIX F

Listing of:
Treatment Systems and
Municipal Collection Agencies

VALLEY REGION

Treatment Systems and Municipal Collection Agencies	Function	Location in SB County	Approx. Pop.	Lateral Connections	Area (sq. miles)	Address
CA Institution for Men, Chino (West)	Collection, Treatment	Chino	10,667	--	<1	14901 S. Central Ave. Chino, CA 91710
City of Chino	Collection	Chino	80,676	20,046	31	13220 Central Avenue Chino, CA 91710
City of Chino Hills	Collection	Chino Hills	77,596	19,624	46	14000 City Center Drive Chino Hills, CA 91709
City of Colton	Collection, Treatment	Colton	45,496	14,457	14	650 N. La Cadena Drive Colton, CA 92324
City of Fontana	Collection	Fontana	210,000	42,997	42	8353 Sierra Ave. Fontana, CA 92335
City of Grand Terrace	Collection	Grand Terrace	12,100	4,736	4	22795 Barton Rd, Grand Terrace, CA 92313
City of Loma Linda	Collection	Loma Linda	23,298	5,281	11	25541 Barton Road Loma Linda, CA 92354
City of Montclair	Collection	Montclair	36,664	9,182	6	5111 Benito Street Montclair, CA 91763
City of Ontario	Collection	Ontario	168,777	30,306	50	303 East "B" Street Ontario, CA 91764
City of Redlands	Collection, Treatment	Redlands	85,276	14,291	36	35 Cajon Street Redlands, CA 92373
City of Rialto	Collection, Treatment	Rialto	101,740	19,750	89	150 S. Palm Avenue Rialto, CA 92376
City of San Bernardino	Collection, Treatment	San Bernardino, Muscoy	199,657	38,406	81	P.O. Box 710 San Bernardino, CA 92402
City of Upland	Collection	Upland, San Antonio Heights	75,787	18,222	16	460 N. Euclid Avenue Upland, CA 91786
County Service Area 70 Zone BL	Collection	Bloomington	400	4	1	12402 Industrial Blvd, D-6 Victorville, CA 92395
County Service Area 70 Zone GH	Collection, Treatment	Glen Hellen	7,141	1,930	5	12402 Industrial Blvd, D-6 Victorville, CA 92395

Treatment Systems and Municipal Collection Agencies	Function	Location in SB County	Approx. Pop.	Lateral Connections	Area (sq. miles)	Address
County Service Area 70 Zone S-3	Collection, Treatment	Lytle Creek	1,465	397	7	12402 Industrial Blvd, D-6 Victorville, CA 92395
Cucamonga Valley Water District	Collection	Rancho Cucamonga	200,466	37,712	46	10440 Ashford St. Rancho Cucamonga, CA 91730
East Valley Water District	Collection	Highland	104,457	20,506	30	31111 Greenspot Road Highland, CA 92346
Inland Empire Utilities Agency	Treatment	West Valley	875,000	--	239	6075 Kimball Avenue Chino, CA 91708
Yucaipa Valley Water District	Collection, Treatment	Yucaipa	44,745	16,000	40	12770 Second Street Yucaipa, CA 92399

Sources: CA State Water Resources Control Board CIWQS database, LAFCO Countywide Service Review for Water (2017), agency websites, Urban Water Management Plans

MOUNTAIN REGION

Treatment Systems and Municipal Collection Agencies	Function	Location in SB County	Approx. Pop.	Lateral Connections	Area (sq. miles)	Address
Arrowbear Park County Water District	Collection	Hilltop	1,350	921	2	P.O. Box 4045 Arrowbear Lake, CA 92382-4045
Big Bear Area Regional Wastewater Agency	Treatment	Bear Valley	21,000	300	125	121 Palomino Dr PO Box 517 Big Bear City, CA 92314
Big Bear City Community Services District	Collection	Bear Valley	12,411	11,700	22	139 East Big Bear Blvd. Big Bear City, CA 92314
City of Big Bear Lake	Collection	Bear Valley	5,094	9,281	8	39707 Big Bear Blvd. P.O. Box 10000 Big Bear Lake, CA 92315
Crestline Sanitation District	Collection, Treatment	Crestline	9,000	6,478	8	24516 Lake Drive P.O. Box 3395 Crestline, CA 92325-3395
County Service Area 53 Zone B	Collection	Bear Valley	3,125	1,443	12	12402 Industrial Blvd, D-6 Victorville, CA 92395
County Service Area 79	Collection	Hilltop	2,577	1,222	2	12402 Industrial Blvd, D-6 Victorville, CA 92395
Lake Arrowhead Community Services District	Collection, Treatment	Lake Arrowhead	12,579	10,655	13	P.O. Box 700 Lake Arrowhead, CA 92352
Running Springs Water District	Collection, Treatment	Hilltop	5,632	2,867	4	P.O. Box 2206 Running Springs, CA 92382

Sources: CA State Water Resources Control Board CIWQS database, LAFCO Countywide Service Review for Water (2017), agency websites

NORTH DESERT REGION

Treatment Systems and Municipal Collection Agencies	Function	Location in SB County	Approx. Pop.	Lateral Connections	Area (sq. miles)	Address
Baker Community Services District	Collection, Treatment	Baker	916	150	5	72730 Baker Boulevard Baker, CA 92309
Barstow/Daggett Airport	Collection, Treatment	Daggett	--	--	1	39500 National Trails Hwy, Box 3 Daggett, CA 92327
Calico Ghost Town	Collection, Treatment	Calico/Yermo	--	--	2	12402 Industrial Blvd, D-6 Victorville, CA 92395
City of Adelanto Public Utilities Authority	Collection, Treatment	Adelanto	33,080	7,443	54	11600 Air Expressway Road Adelanto, CA 92301
City of Barstow	Collection, Treatment	Barstow	24,248	5,641	33	220 East Mountain View Street, Suite A, Barstow, CA 92311
County Service Area 42	Collection	Oro Grande	351	96	1	12402 Industrial Blvd, D-6 Victorville, CA 92395
County Service Area 64	Collection	Spring Valley Lake	9,541	3,837	4	12402 Industrial Blvd, D-6 Victorville, CA 92395
County Service Area 70 SP-2	Collection	High Country	869	235	0.84	12402 Industrial Blvd, D-6 Victorville, CA 92395
County Service Area 70 S-7	Collection	Lenwood	1,411	623	2	12402 Industrial Blvd, D-6 Victorville, CA 92395
County Service Area 82	Collection, Treatment	Searles Valley	2,268	613	3	12402 Industrial Blvd, D-6 Victorville, CA 92395
Helendale Community Services District	Collection, Treatment	Helendale	5,800	2,700	92	26540 Vista Road, Suite B Helendale, CA 92342
Hesperia Water District	Collection	Hesperia	92,117	5,500	74	9700 Seventh Avenue Hesperia, CA 92345
Town of Apple Valley	Collection	Apple Valley	22,500	8,956	78	14955 Dale Evans Parkway, Apple Valley, CA 92307
U.S. Army National Training Center, Fort Irwin	Collection, Treatment	Fort Irwin	16,000	6,163	3	P.O. Box 105085, Bldg. 602 Fort Irwin, CA 92310
U.S. Marine Corps Logistics Base, Barstow: Nebo and Yermo Annexes	Collection, Treatment	Barstow, Yermo	800	416	1	P.O. Box 110570 Barstow, CA 92311

Treatment Systems and Municipal Collection Agencies	Function	Location in SB County	Approx. Pop.	Lateral Connections	Area (sq. miles)	Address
Victor Valley Wastewater Reclamation Authority	Treatment	Victor Valley (except Adelanto)	291,000	0	279	20111 Shay Rd. Victorville, CA 92394
Victor Valley Wastewater Reclamation Authority (Apple Valley)	Treatment	Apple Valley	22,500	--	78	20111 Shay Rd. Victorville, CA 92394
Victor Valley Wastewater Reclamation Authority (Hesperia)	Treatment	Hesperia	92,117	--	74	20111 Shay Rd. Victorville, CA 92394
Victorville Water District	Collection	Victorville	128,005	27,604	85	P.O. Box 5001 Victorville, CA 92393-5001
Victorville Water District/Southern California Logistics Airport	Collection, Treatment	So Cal Logistics Airport	--	--	4	P.O. Box 5001 Victorville, CA 92393-5001

Sources: CA State Water Resources Control Board CIWQS database, LAFCO Countywide Service Review for Water (2017), agency websites

SOUTH DESERT REGION

Treatment Systems and Municipal Collection Agencies	Function	Location in SB County	Approx. Pop.	Lateral Connections	Area (sq. miles)	Address
City of Needles	Collection, Treatment	Needles	4,976	1,569	30	817 Third Street Needles, CA 92363
Hi-Desert Water District	Construction of Wastewater Treatment and Collection System	Yucca Valley	24,520	--	57	55439 29 Palms Hwy Yucca Valley, CA 92284
Joshua Basin Water District	Operate & maintain package plant	Joshua Tree	9,830	--	97	P.O. Box 675 Joshua Tree, CA 92252
U.S. Marine Corps Air Ground Combat Center, Twentynine Palms	Collection, Treatment	Twentynine Palms	25,000	--	--	Bldg. 1418 MCAGCC, P.O. Box 788110 29 Palms, CA 92278

Sources: CA State Water Resources Control Board CIWQS database, LAFCO Countywide Service Review for Water (2017), agency websites