

**Excerpt from 2012 Service Review
for the Twentynine Palms Community
related to the
Twentynine Palms Water District**

Attachment 4

TWENTYNINE PALMS WATER DISTRICT

Service Review and Sphere of Influence Update

INTRODUCTION:

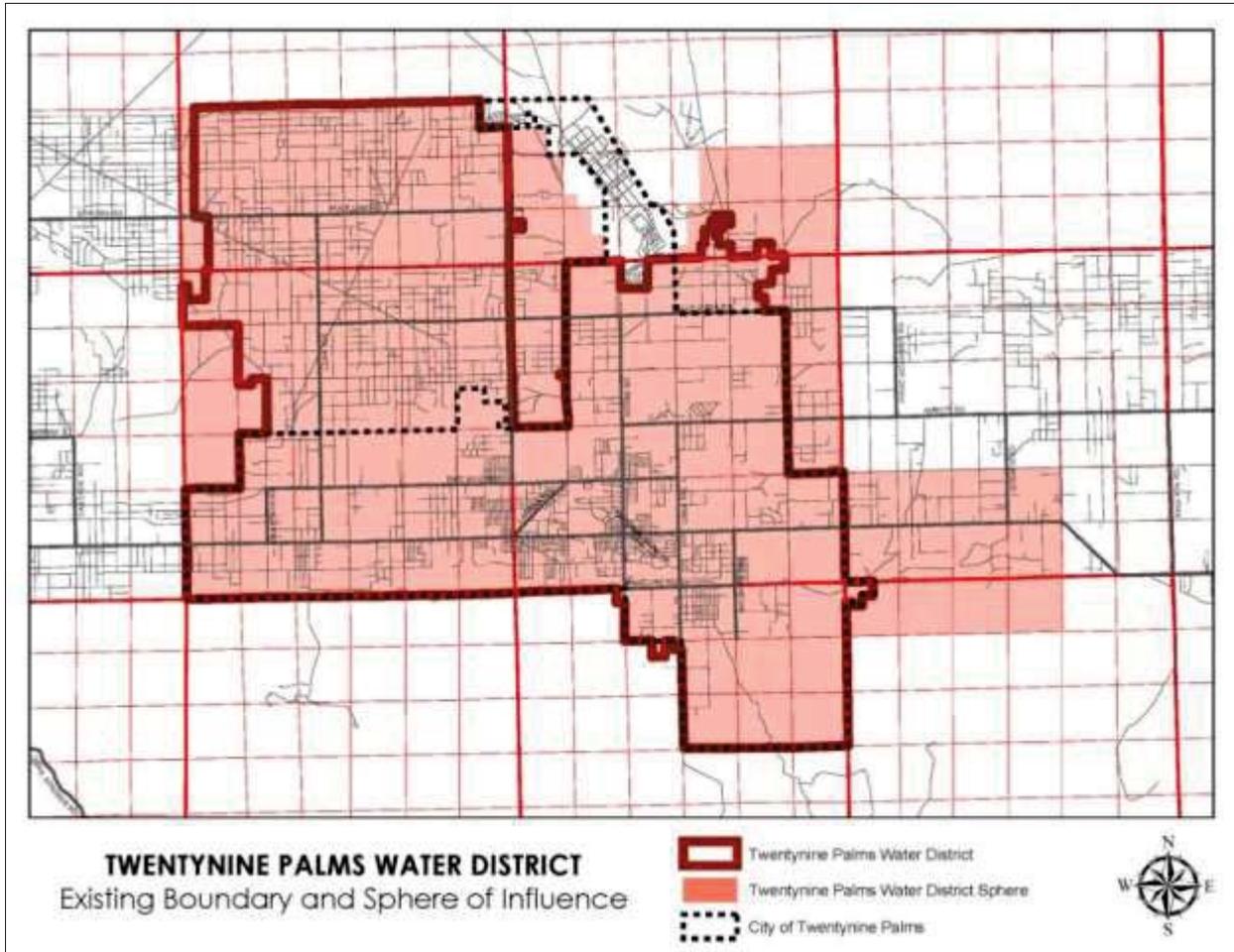
LAFCO 3104 consists of a service review pursuant to Government Code Section 56430 and sphere of influence update pursuant to Government Code 56425 for the Twentynine Palms Water District (“Water District” or “District”).

The Twentynine Palms Water District was formed in 1954 under the County Water District Law, for the purpose of supplying potable water and for other statutory purposes, including fire protection. The Water District is an independent special district with a five-member board of directors and operates under County Water District Law (Division 12 of the Water Code, Sections 30000 et seq.). Currently, the Water District is authorized by LAFCO to provide the functions of water, sewer (limited to planning) and fire protection pursuant to the *Rules and Regulations of the Local Agency Formation Commission of San Bernardino County Affecting Functions and Services of Special Districts*.

As discussed in the Sphere of Influence Update section in this report for the Water District, staff is recommending modification to the District’s sphere of influence to coincide with the Commission’s definition for the Twentynine Palms community (sphere reduction of approximately 39.5 acres).

LOCATION AND BOUNDARIES:

The service review and sphere of influence update study area encompasses approximately 121 square miles. The service review and sphere study area is located in the south desert region of the County and is generally bordered by the Joshua Tree National Park on the south, the Joshua Basin Water District on the west, the Twentynine Palms Marine Corps Base on the north, and the Wonder Valley community, defined by County Service Area 70 Zone M, on the east. A map of the District and its current sphere are shown below and is included as a part of Attachment #3.



TWENTYNINE PALMS WATER DISTRICT SERVICE REVIEW

In 2003, LAFCO adopted the Governor's Office of Planning and Research (OPR) Municipal Service Review Guidelines by reference for its use during the conduct of service reviews. These Guidelines provide a step-by-step approach to understanding the service review process as set forth by Government Code Section 56430 as well as factors that LAFCO may wish to address in its service review of an agency.²⁶

At the request of LAFCO staff, the District prepared a service review pursuant to San Bernardino LAFCO policies and procedures. The response to LAFCO's original and updated requests for materials includes, but is not limited to, the narrative response to the factors for a service review, response to LAFCO staff's request for information, and financial documents (included as Attachment #3). LAFCO staff responses to the mandatory factors

²⁶ State of California, Governor's Office of Planning and Research. "Local Agency Formation Commission Municipal Service Review Guidelines", August 2003.

for consideration for a service review (as required by Government Code 56430) are identified below and incorporate the district’s response and supporting materials.

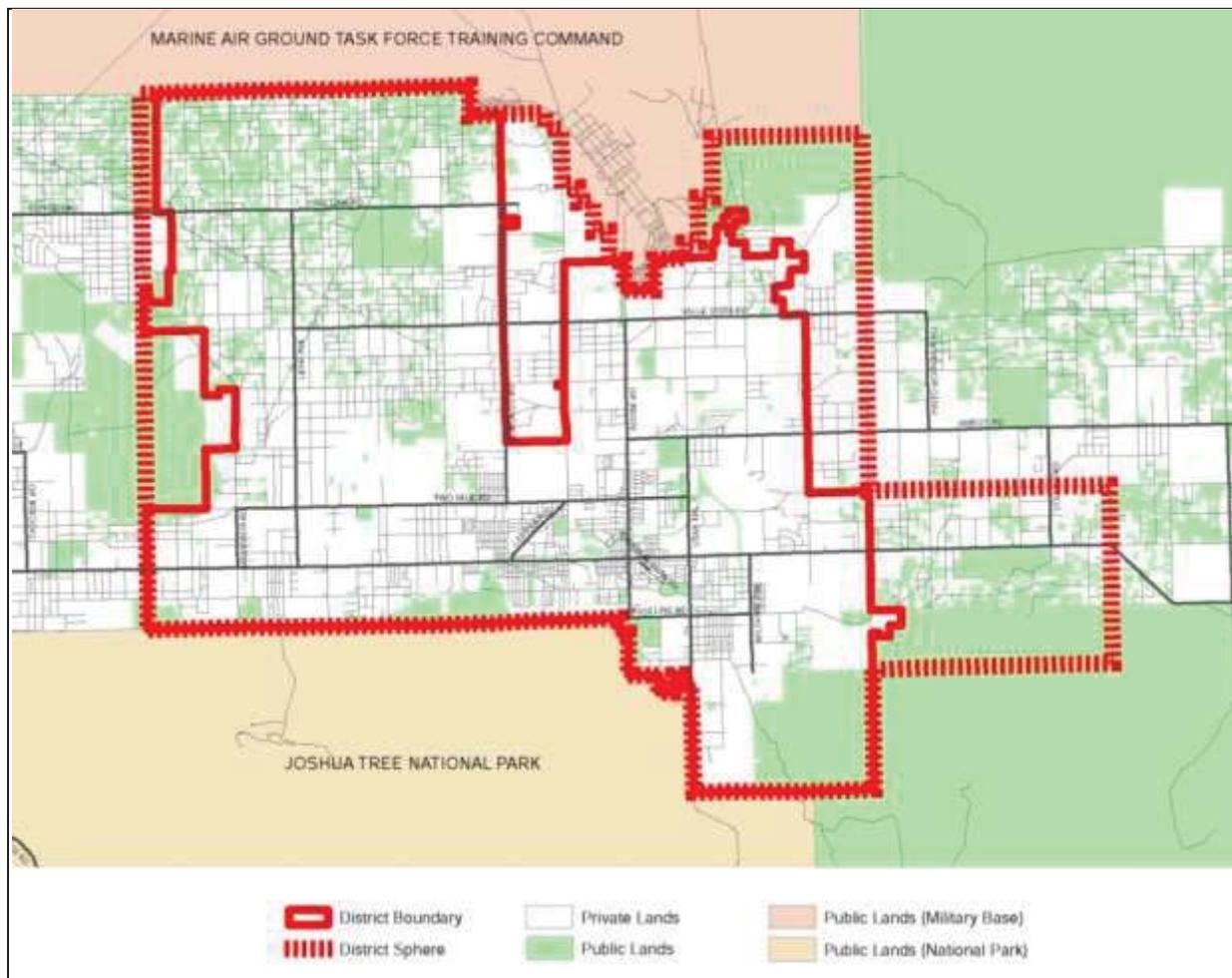
I. Growth and population projections for the affected area.

Land Ownership

The land ownership distribution and breakdown within the District’s boundary and current sphere are identified on the map below. Within its entire sphere, roughly 73% of the land is privately owned and the remainder, 27%, is public, which are devoted primarily to resource protection and recreational use.

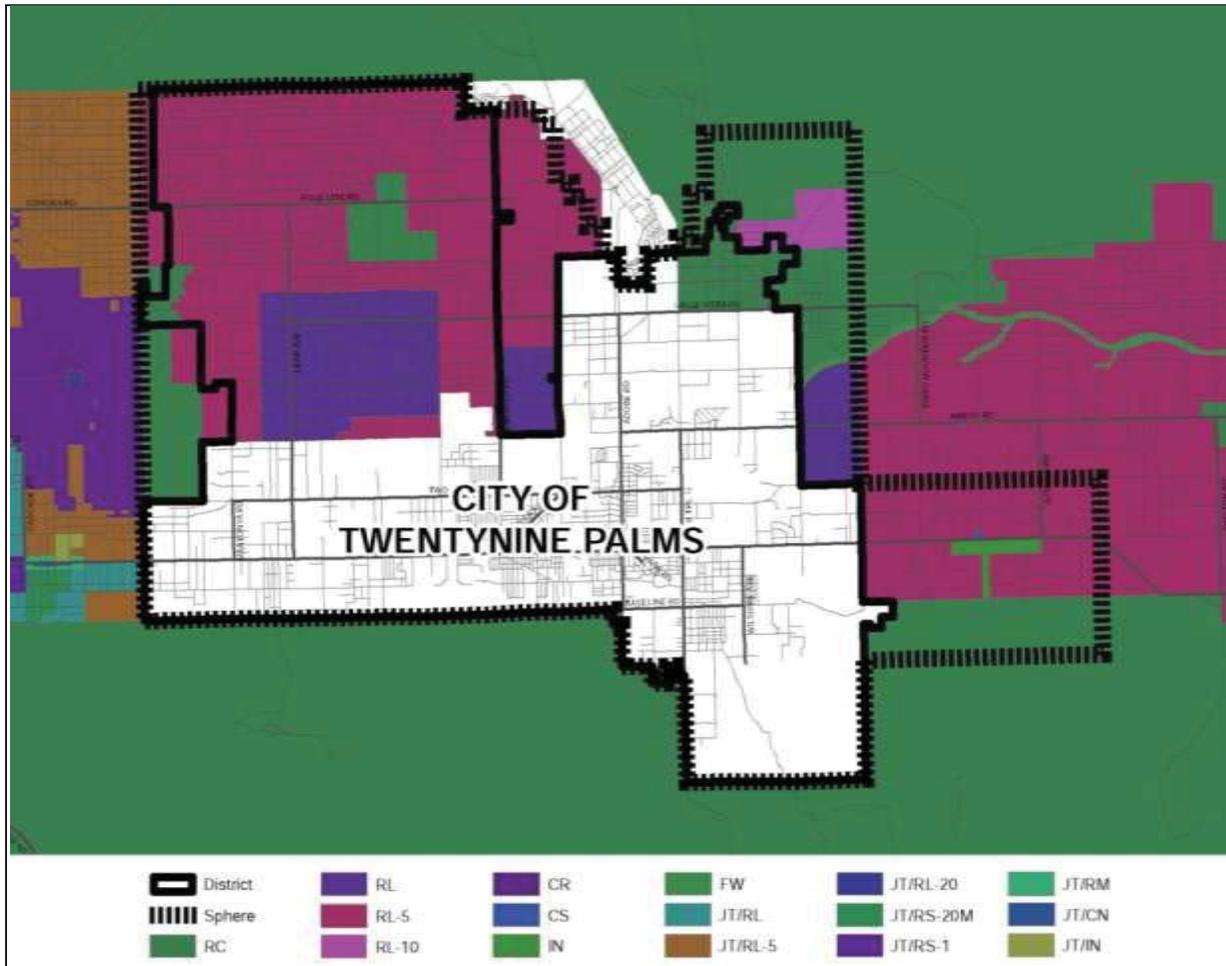
**Land Ownership Breakdown (in Acres)
 Within Twentynine Palms Water District**

Ownership Type	Boundary	Sphere (outside boundary)	Total Area
Private	45,250	11,611	56,861
Public Lands – Federal (BLM), State, & others	11,669	8,888	20,557
Total	56,919	20,499	77,418



Land Use

The study area includes territory within the City of Twentynine Palms (portion) and the unincorporated County. Below is a map that identifies the County of San Bernardino's land use designations within the study area.



**General Plan Land Use Districts (In Acres)
 Within Twentynine Palms Water District**

Land Use	Boundary	Sphere (outside boundary)	Total Area
City's Land Uses	35,184		35,184
County Land Use Designations			
Resource Conservation (RC)	2,680	7,821	10,501
Rural Living (RL)	4,444	2,228	6,672
RL-5	14,571	9,128	23,699
RL-10	40	930	970
Floodway (FW)		79	79
Service Commercial (CS)		10	10
Institutional (IN)		303	303
Total	56,919	20,499	77,418

Within the study area, approximately 40% is designated Rural Living, 14% Resource Conservation, and 1% a mix of Commercial, Institutional, and Floodway land uses. The remainder 45% is within the City of Twentynine Palms.

Incorporated Portion of the Study Area

Within the City boundaries, approximately 46% is Rural Living, 34 % Single-Family Residential, 7% Open Space Residential, 3% Multi-Family Residential, 4% Commercial, 3% Industrial, 3% Public and Floodway. The only portion within the City that is not a part of the study area is the portion within the Marine Corps Air Ground Combat Center identified in the City's General Plan as Military (approximately 2,450 acres). For a complete breakdown of the land uses with the City, please refer to the City's service review section related to land use (City's service review growth and population projections section, page 71).

Population

Population Projections

In 2000, the population within the Water District's boundaries was 15,827. Based on the 2010 Census, the current population for the area is 17,974. This represented an average annual growth rate of approximately 1.3 percent within the given period.

The projected growth for the Water District's boundaries was calculated utilizing a combination of the growth rates identified in the Regional Council of the Southern California Association of Governments (SCAG) Draft 2012 Regional Transportation Plan (RTP) Integrated Growth Forecast for the City of Twentynine Palms and the County's unincorporated area for the given periods, and the use of average annual growth rate (including a revision made by LAFCO staff related to City's population and the assumption of a constant population within to the Marine Corps Base). By 2040, the population within the Water District is estimated to reach 31,946. This represents a projected annual growth

rate of approximately 1.9 percent between 2010 and 2040, which also represents a total population increase of 78 percent from 2010.

**Population Projection 2010-2040
 Within the Twentynine Palms Water District**

Census		Population Projection					
2000	2010	2015	2020	2025	2030	2035	2040
15,827 ²⁷	17,974 ²⁸	20,063 ²⁹	22,410	24,486 ³⁰	26,755	29,235	31,946

The population projections shown above may represent an unattainable growth trend based on the historic growth experienced in the region. In addition to the marginal growth experience in the last 10 years, there are other circumstances in the region that tend to restrict growth (i.e. water quality issues, potential for development restrictions related to the use of septic systems, etc.). Based on these issues, actual growth is expected to be much lower than projected.

Build-out

The table below provides the potential build-out within the Water District's territory. This build-out scenario takes into consideration the existing land use designations assigned for the area and the dwelling unit densities assigned for each residential land use³¹.

**Land Use Maximum Build-Out
 Within the Twentynine Palms Water District**

Land Use	Acreage	Density (D.U. Per Acre)	Maximum Build-out (DU's)
County Area Residential Land Use			
Resource Conservation	2,680	0.025	67
RL-10 (Rural Living 10 acres)	40	0.1	4
RL-5 (Rural Living 5 acres)	14,571	0.2	2,914
RL (Rural Living 2.5 acres)	4,444	0.4	1,778
City Area Total Residential Land Use (land use breakdown on page 23)	31,446		45,965
Water District Total Residential	53,181		50,728

²⁷ 2000 population data was derived from the 2000 Census for the Twentynine Palms Water District area.

²⁸ 2010 population data was derived from the 2010 Census for the Twentynine Palms Water District area.

²⁹ 2015 and 2020 projections were calculated using Average Annual Growth Rate based on the growth rate from SCAG's 2012 RTP Revised Draft Integrated Growth Forecast (published May 2011) for the City of Twentynine Palms and the unincorporated County area between 2010 and 2020 data.

³⁰ 2025, 2030, 2035 and 2040 projections were calculated using Average Annual Growth Rate based on the growth rate from SCAG's 2012 RTP Revised Draft Integrated Growth Forecast (published May 2011) for the City of Twentynine Palms and the unincorporated County area between 2020 and 2035 data.

³¹ The information related to densities does not take into consideration the housing units within the Marine Base.

The population projections identified earlier indicates that the population within the Water District's territory will be 31,946 by 2040. Based on the maximum residential build-out within the Water District's territory, the projected maximum population is anticipated to reach 149,546³². Likewise, based on the projected population for 2040, it is anticipated that the number of households within the Water District's territory will be 10,836 with a maximum potential build-out to reach approximately 50,728. These imply that the study area will reach 21 percent of its potential household and population capacity by 2040.

**Population and Household Projection
 Within the Twentynine Palms Water District**

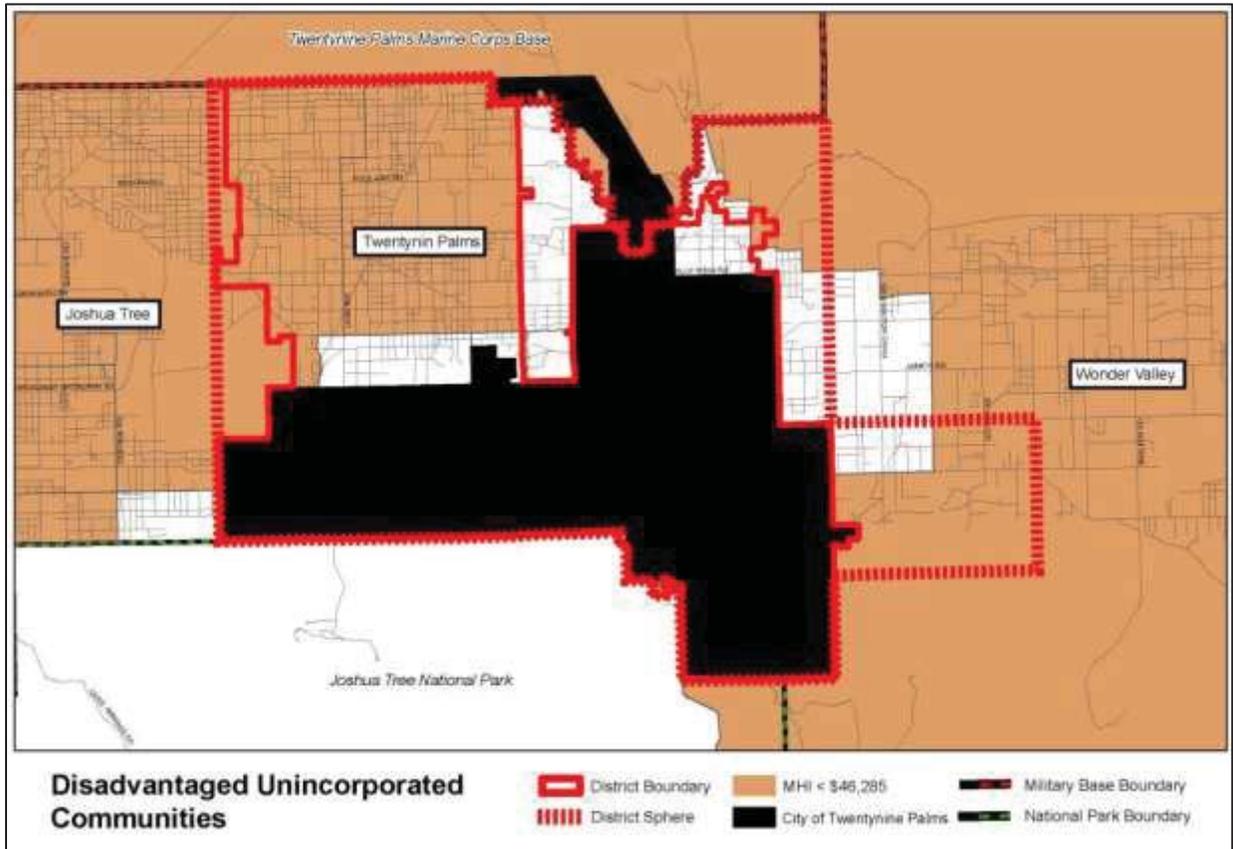
	Projection 2040	Maximum Build-out	Ratio of 2040 Projection with Maximum Build-out
Population	31,946	149,546	0.21
Households	10,836	50,728	0.21

II. The location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere of influence.

Disadvantaged unincorporated communities are those communities that have an annual median household income that is less than 80 percent of the statewide annual median household income, which is under \$46,285. Based on the census data³³, the map below illustrates the areas within and around the Water District's sphere of influence that are classified as disadvantaged unincorporated communities.

³² Source: Persons per household @ 2.948 based on the ratio for the City of Twentynine Palms as identified in the State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2010, with 2000 Benchmark. Sacramento, California, May 2010.

³³ Median Household Income data is taken from the American Community Survey 5 year (2006-2010) summary using the block group level.



As shown on the map, portions of the Water District's unincorporated sphere of influence are considered disadvantaged unincorporated communities. The communities of Wonder Valley and Joshua Tree are communities considered disadvantaged unincorporated communities that are contiguous to the District's sphere of influence.

Within the Water District's unincorporated sphere of influence, the areas identified as disadvantaged unincorporated communities are comprised of sparse rural residential development with large lot residential development (primarily Rural Living, 5-acre lots).

The unincorporated community of Wonder Valley extends into (portion) and is adjacent to the Water District's eastern sphere of influence. The community is also very rural in nature with large lot residential development (primarily Rural Living, 5-acre lots).

The unincorporated community Joshua Tree is adjacent to the Water District's western sphere of influence. The community is characterized by an abundance of open space and natural resources. The community is also rural in nature with residential development primarily with a Rural Living (2.5-acre lots) land use designation. Located between the Town of Yucca Valley and the City of Twentynine Palms, Joshua Tree also serves as the entry point to the Joshua Tree National Park.

III. Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies including needs and deficiencies related to sewers, municipal and industrial water, and structural fire protection in any disadvantaged, unincorporated communities within or contiguous to the sphere of influence.

This determination cites and incorporates excerpts from the following sources: 2010 Urban Water Management Plan, 2010 Consumer Confidence Report, 2008 Groundwater Management Plan Update, 1989 Fire Master Plan, the District's narrative response to the factors for a service review, and City of Twentynine Palms Draft 2010 General Plan Update. Other materials have been referenced but not cited.

A. Water

Managing and conserving water resources is critical in sustaining cities and population centers, and this is especially true for desert communities receiving marginal precipitation. Currently, the District is the sole retail water provider within the community, actively providing retail water service via a pressurized system to incorporated and unincorporated areas. The District provides limited hauled water opportunities for residents within its boundaries.

Groundwater Basins

The District currently relies solely on groundwater as its source. The District overlies three non-adjudicated groundwater basins: the Twentynine Palms Valley Basins (Mesquite Springs Basin), Joshua Tree Basin, and Dale Valley Basin. Within the Joshua Tree Basin are three subbasins: the Indian Cove, Fortynine Palms, and Eastern Subbasins. The District does not produce from the Dale Valley Basin.

Twentynine Palms Valley Groundwater Basin

The Twentynine Palms Valley Groundwater Basin encompasses 97.5 square miles and underlies most of the northern portion of the District's service area. Water is produced from this basin through the TP1 production well, which provides water for the Fluoride Removal Water Treatment Plant. Groundwater levels in the basin are generally stable. No water level declines have been observed in the basin.

Storage capacity of the entire Twentynine Palms Valley Basin, also known locally as the Mesquite Basin, is estimated in the Department of Water Resource's Bulletin 118 (last updated February 2004) as 1,420,000 AF. The basin is considered to be in overdraft, as the estimated annual rate of groundwater depletion is 1,500 AF while recharge is only 300 AF. Additionally, the Colorado River Basin Plan identifies the Twentynine Palms Valley Subunit of the Dale Hydrologic Unit as being an area where overdraft and increase of mineral content (particularly fluoride) of the groundwater are concerns. The District overlies and only pumps from the southern portion of this basin.

Joshua Tree Groundwater Basin

The Joshua Tree Groundwater Basin encompasses 53.8 square miles and underlies an area south of the Pinto Mountain fault beneath the town of Joshua Tree, eastward to immediately south of the town of Twentynine Palms. DWR Bulletin 118 estimates total storage capacity of the Joshua Tree Basin to be 2,540,000 acre-feet (AF). This estimate applies to the entire groundwater basin, and not just the overlying area which the District manages. Groundwater in storage was estimated to be 1,010,000 AF. Actual groundwater extractions in the Joshua Tree Basin are measured by the Joshua Basin Water District. Data suggest that extractions between 1985 and 1995 were over 50 percent more than natural recharge and that groundwater levels have dropped by an average of 1 foot per year since about 1973.

Indian Cove Subbasin

The Indian Cove Subbasin encompasses 20 square miles and is located southwest of the City of Twentynine Palms in the Joshua Tree Basin. Five of the District's production wells are in this subbasin. The stream valley rarely floods, suggesting that a significant part of the runoff is infiltrating into the groundwater. Water level declines of less than 10 feet have been observed in this subbasin.

Fortynine Palms Subbasin

The Fortynine Palms Subbasin is the smallest of the District's Subbasins in volume and watershed. Three of the District's production wells are in this Subbasin. Water level declines of nearly 50 feet have been observed in the Fortynine Palms Subbasin.

Eastern Subbasin

The Eastern Subbasin has the largest watershed and sediment volume of the District's Subbasins. One of the District's production wells is in this subbasin. Water level declines of between 10 and 25 feet have been observed in the Eastern Subbasin. Water in the Eastern Subbasin has higher fluoride levels than any of the other subbasins.

Current Supply, Demand, and Facilities

Connections

The District currently serves 7,983 connections, all of which are metered accounts. Approximately 94 percent of the service connections are residential. Commercial connections account for approximately 4.5 percent, landscape irrigation connections account for less than one percent, and fire protection/non-potable connections account for the remaining 1.4 percent of the District's total connections. Records going back to 1994 indicate the relatively similar percentage distributions amongst the land use types. The Marine Corps base provides its own water supply and is not associated with any of the numbers and projects in the Urban Water Management Plan.

Supply and Demand

Potable water is scarce in the District for several reasons:

- 1) The area receives an average of only four inches of annual rainfall.
- 2) There is negligible infiltration of direct precipitation in areas where the alluvial deposits are thick.
- 3) A substantial amount of runoff is lost to evaporation after flowing into the basin.
- 4) Some of the water is unsuitable for drinking water due to naturally-occurring soluble minerals, such as fluoride.

Water provided by the District is derived solely from groundwater pumped from supply wells located along the southern limit of the service area. As of 2010, the District has ten active production wells. The remaining wells are inactive and/or used for groundwater monitoring. Available information indicates that more than 400 private wells have also been constructed within the District's service area. Most of these wells are not currently operated.

Historic pumping and water deliveries by the District have steadily increased since its formation in the mid-1950s. Annual pumping in the 1990s regularly exceeded 900 million gallons (approximately 2,760 acre-feet per year [AFY]), with average daily delivery per service connection slightly under 400 gallons. Total water demand in the District was 2,674 acre-feet (AF) in 2010, with a projected demand of 3,119 AF in 2035.

In 2008, the District identified to LAFCO that current annual water delivery within the District is 1,084,760 gallons. Average daily flow is approximately 2.97 million gallons or approximately 43% (6.897 mg) of system capacity. The District is at approximately 43% capacity with about 8,000 connections. At the current average daily demand, the system could accommodate an additional 10,374 connections until full capacity is reached (approximately 18,000 connections). As for storage, there are 12 storage tanks for a total storage capacity of 17 million gallons. At an average daily use of 2.97 million gallons, this represents approximately 5.7 days of water usage.

In April of 2002, the District completed source water assessments for all active drinking water wells. Wells 4, 14 and 16 are considered most vulnerable to the following activities associated with the contaminants detected in the water supply: septic systems, high density housing, office buildings/complexes, schools and parks.

Bulk Hauled Water

In remote areas of the south desert, the hauling of domestic water is the sole means for water acquisition. In a joint letter to county planning and building departments in 2003, the California Department of Health Services³⁴ and the California Conference of Directors of Environmental Health specify that, "bulk hauled water does not provide the equivalent level of public health protection nor reliability as that provided from a

³⁴ The California Department of Health Services has been reorganized since 2003 and water related health issues are coordinated under the California Department of Public Health.

permanent water system or from an approved onsite source of water supply.” This statement is based on five potential public health risks for hauled water:

1. The potential for contamination exists when water is transferred from tanker trucks to water storage tanks.
2. Storage tanks are often the source of bacterial contamination.
3. There is no assurance that licensed water haulers follow State guidelines at all times.
4. The future reliability of hauled water is susceptible to economic conditions.
5. There is generally a higher risk for contamination.

The letter further states that hauled water for domestic purposes should only be allowed to serve existing facilities due to a loss of quantity or quality and where an approved source cannot be acquired. A copy of this letter is on-file at the LAFCO staff office.

The County of San Bernardino recognizes the potential health hazards with hauled water. Future development will be restricted unless there is access to an individual well or domestic water system. Therefore, new development could not be approved without verification of access to a domestic water system. However, existing units without connection to a domestic water system or without individual wells on their property must rely on hauled water for domestic and other uses. County Code of San Bernardino Section 33.0623 (last amended in 1996) under Health and Sanitation and Animal Regulations reads:

Water furnished by a domestic hauler shall not be used as a source of water by any public water supply system unless it has been demonstrated to DEHS (Department of Environmental Health Services) that there are no reasonable means of obtaining an acceptable quality and quantity of groundwater, and that water treatment methods have been approved by DEHS. Exception: During an officially declared state or local emergency, a public water system may utilize hauled water as a temporary source of supply.

Section 31023 of the California Water Code, within County Water District Law, states that a district may sell surplus water for use outside its boundaries. The District has identified that it does have a small amount of bulk water hauling activity within the community but does not have a declared surplus of water. The District maintains one site where private individuals and a small number of commercial water haulers purchase water that is used both inside and outside District boundaries. Generally, this water is consumed by households where infrastructure is not available. These sales amount to approximately four million gallons per year.

Water Quality

The quality of water in the community is typically good, besides a few areas with high fluoride and total dissolved solids levels, per the District Urban Water Management Plan. Another contaminant to groundwater quality is effluent from septic tanks which is used throughout the community due to a lack of a centralized sewer system. The region has

generally a low density population and minimal industry; therefore, the aquifers are not expected to be impacted significantly.

The District's 2009 Consumer Confidence Report indicates the groundwater meets federal and state MCL standards. Source Water Assessments for nine active wells were completed in April 2002. The newest (tenth) well was installed in 2009 and a Source Water Assessment was performed in 2007.

Fluoride

The current State limit for fluoride in drinking water permits an MCL (Maximum Contaminant Level) of 2.0 milligrams per liter (mg/L). On January 21, 1993, the District was granted a variance from the California Primary Drinking Water Standard for fluoride, which states, "The District shall not serve water containing fluoride levels in excess of 3.0 milligrams per liter (mg/L) or 75% of the U.S. Environmental Protection Agency Primary Drinking Water Standard (currently at 4.0 mg/L), whichever is higher." This variance was granted due to the elevated levels of naturally occurring fluoride in the District's source water. The variance from the Primary Drinking Water Standard for fluoride will be in effect for a period of up to 30 years from the date of issuance subject to the following provisions:

1. Every five years, beginning in January 1998, the District shall submit a report to the Department of Health Services evaluating community acceptance of the fluoride levels being served.
2. The Department of Health Services advises the District in writing of its findings that there is no significant public opposition from the community served by the District and that the variance does not pose an unreasonable risk to the consumer's health.
3. Other provisions to the variance include:
 - a. That the variance may be withdrawn upon reasonable notice by the Department of Health Services, if the Department determines that the community no longer accepts the fluoride level authorized by the variance.
 - b. The District shall provide quarterly consumer notification of the variance in accordance with Section 64464.6 of the California Domestic Water Quality and Monitoring Regulations.
 - c. A fluoride monitoring plan, approved by the Department of Health Services, that monitors and reports all fluoride levels in the distribution system and water produced by all sources.

The District maintains acceptable levels of fluoride through the use of wells with lower levels of fluoride being pumped as much as possible when water demand on the system dictates. In April 2004, the Department of Health Services issued a permit to the District allowing full operation of the Fluoride Removal Plant, which currently is producing approximately one million gallons a day (1 MGD) of potable drinking water. The plant extracts water from the Mesquite Springs aquifer to remove high levels of naturally occurring fluoride. This aquifer is a significant source of water for the District and on-going studies will determine future production rates from the plant to better manage its groundwater resources.

Future Supply, Demand, and Facilities

No additional sources of water are anticipated to be available to the District in the future. As shown below, the District also has a pumping capacity of 490 gpm (790 AFY) from the Eastern Subbasin. This amount along with the 2,100 gpm capacity (3,395 AFY) in Mesquite Lake Subbasin yields a total of approximately 6,985 AFY of available future groundwater supply. There is the potential to expand the Mesquite Lake Subbasin facilities to include another well if needed in the future. This additional well would improve reliability by allowing for redundancy in the Mesquite Lake Subbasin as well as increasing pumping capacity.

Basin Name	Pumping Capacity (gpm)	Pumping Capacity (AFY)
Mesquite Springs Basin ^(a)	2,100	3,395
Joshua Tree Basin		
Fortynine Palms Subbasin ^(b)	870	1,400
Eastern Subbasin ^(a)	490	790
Indian Cove Subbasin ^(b)	870	1,400
Total	4,330	6,985

Notes:
 (a) Pumping capacity of Twentynine Palms Water District
 (b) DWR recommended pumping limit to prevent overdraft

Source: 2010 UWMP

Twentynine Palms is dependent on groundwater and to maintain reliability of that source, the District must implement the Best Management Objectives (BMOs) to meet demand. The District expects growth, albeit slow. Overdraft is considered a challenge for reliability of supply and is addressed in the Groundwater Management Plan.

These BMOs establish the water level and water quality conditions that are acceptable in the basin and address conditions that need to be remedied. The BMOs established for the Twentynine Palms Water District are:

- BMO #1 - Minimize long-term drawdown of groundwater levels
- BMO #2 – Maintain groundwater quality
- BMO #3 – Monitor and track groundwater levels, quality, and storage
- BMO #4 – Reduce water consumption through water conservation
- BMO #5 – Facilitate groundwater replenishment projects
- BMO #6 – Identify and obtain funding for groundwater projects

In order to reduce groundwater overdraft, the amount of recharge experienced by the District’s Subbasins could be increased through “artificial recharge.” Since the District does not have access to imported surface or recycled water sources, the only source of water for replenishment is the impoundment or collection of runoff. Therefore,

groundwater replenishment should be increased by maximizing the use of the only source of recharge available (precipitation) by providing recharge enhancement.

Better management of the District's groundwater supplies alone does not provide a complete solution to declining water levels in the District's service area. While the District's residential water use is relatively low at 0.31 AFY per household, savings in residential water use could be accomplished through additional conservation efforts. The District could implement more aggressive water conservation efforts to reduce demand for groundwater resources and pumping in the region.

The District does not have access to imported water sources, and is restricted in its ability to recharge its basins. Connection to imported water from either the Metropolitan Water District of Southern California ("Metropolitan" - Colorado River supplies) or the Mojave Water Agency ("MWA" - State Water Project supplies) does not appear to be a viable option for the District as the District is not within the service area of either agency. Annexation to either agency would be required to receive water supplies through a limited allocation of supplemental water. Metropolitan's closest facilities are more than 45 miles southwest of the District; MWA's facilities extend no closer than Yucca Valley, approximately 23 miles west of the District. The District Board has on two occasions voted against extending imported water service to the District. However, a regional project with the potential to alter this scenario is the "Cadiz Project" for storing water in the Cadiz groundwater basin. The District would still need to acquire water for storage from the Colorado River, but its proximity is much closer to the District's existing service area than other options.

Recycled Water

The District does not have a municipal sewer system or a wastewater treatment plant. At this time all residential and non-residential accounts use septic tank systems for the disposal of wastewater. The construction of a centralized system has been deemed infeasible by local jurisdictions; however, the use of package wastewater treatment plants has been approved. LAFCO staff understands that at least three plants are operational within the District and City of Twentynine Palms and several others have been approved but not yet constructed. Alternatively, the District has considered partnering with other agencies; however, the nearest water agency is 25 miles away and an intertie is cost prohibitive at this time. Therefore, at this time there are no opportunities for water recycling or programs that include recycled water.

In 2008 the City of Twentynine Palms commissioned a report to study the feasibility of a centralized wastewater system. The report recommended a decentralized system that relies on the Marine Corps Station sewage facilities. The cost of the system was estimated between \$55 and \$80 million in capital costs. As the District is rural and has slow growth, the cost was deemed prohibitive. The study proposed a phased approach with final completion of sewage system in 2040 to mitigate the cost.

The District recognizes the importance of recycled water and water reliability; however, due to the small size of the system, low annual demand and the use of individual septic systems, a recycled water system is not a feasible solution. As an alternative the

District will invest in water conservation approaches to reduce demand and compensate for the lack of recycled water. As water is primarily used on landscape, the District has developed approaches to emphasize outdoor water conservation.

Landscaping and Irrigation

The Water District currently does not have an adopted landscape ordinance and is using the “Let’s Go Native...with our Landscaping” guidelines developed by Twentynine Palms Groundwater Guardian Team. The guidelines recommend the planting of climate appropriate drought tolerant landscaping to minimize water usage for landscaping throughout the City. Also the City does has an adopted Model landscape ordinance and includes California Green Standards for development. The District has adopted a resolution of concurrence for this program.

Capital Improvement Budget

The District in its FY 2011-12 Water Budget identifies the following projects through FY 2015-16. The largest project, totaling \$10 million, will provide for an additional three million gallons per day of treated water. The District has identified that the funding for the future expansion of the treatment plant and an additional reservoir associated with this project will come from new debt (existing District debt is scheduled to be paid off in 2015).

FY 2011-12 Water Capital Budget

<i>Capital Improvement Projects</i>					
<u>PROJECT:</u>	<u>Fiscal 2011-12 Budget</u>	<u>Estimated Fiscal 2012-13</u>	<u>Estimated Fiscal 2013-14</u>	<u>Estimated Fiscal 2014-15</u>	<u>Estimated Fiscal 2015-16</u>
<i>a. Engineering, Treatment Plant Expansion</i>	500,000	0	0	0	0
<i>b. Additional Reservoirs</i>	0	1,000,000	800,000	0	0
<i>c. Updates to Regulatory Plans</i>	0	80,000	0	0	80,000
<i>d. Treatment Plant Expansion, Additional 3 MGD</i>	0	0	0	10,000,000	0
<i>Total Capital Improvement Projects</i>	\$500,000	\$1,080,000	\$800,000	\$10,000,000	\$80,000

Source: FY 2011-12 Water Capital Budget

Water Rates

Due to the limited size and type of outdoor landscaping that is prevalent throughout the South Desert, the average water usage is comparatively lower than other water agencies in San Bernardino County. A comparison of the residential water rates charged by the agencies within the Morongo Basin is identified in the chart below. As shown in the footnotes, some agencies receive a share of the one percent general levy property tax and/or assessments or additional charges.

Water Agency Rate Comparison (as of July 2011)
 (rates measured in units, or one hundred cubic feet)

Agency	Water Use Fee				Monthly Meter Charge (3/4" Meter)	Monthly Average Cost (10 units of water)
	Tier One	Tier Two	Tier Three	Tier Four		
Bighorn-Desert View Water Agency ¹	\$3.00	-	-	-	\$27.50	\$57.50
CSA 70 Zone F (Morongo Valley) ¹	\$4.51	\$5.02	\$5.73	-	\$57.25	\$102.35
CSA 70 Zone W-1 (Landers) ¹	\$3.87	\$4.31	\$5.54	-	\$23.87	\$62.57
CSA 70 Zone W-3 (Morongo Valley) ¹	\$3.21	\$3.57	\$3.65	-	\$40.84	\$72.94
CSA 70 Zone W-4 (Pioneertown)	\$5.86	\$7.31	\$9.88	\$10.87	\$31.05	\$89.65
Golden State Water Company (Morongo)	\$2.47	-	-	-	\$28.15	\$52.85
Hi-Desert Water District ^{1,2}	\$3.59	\$5.69	\$6.89	\$9.08	\$11.80 ⁴	\$60.30
Joshua Basin Water District ^{1,3}	\$2.14	\$2.39	\$2.57	\$2.75	\$23.82	\$46.47
Twentynine Palms Water District ³	\$2.33	-	-	-	\$11.00 ⁵	\$34.30

¹ Receives a share of the one percent ad valorem general tax levy
² District also charges monthly a pipeline surcharge and capital replacement charge
³ District also charges a standby charge
⁴ Charge is for 5/8" and 1" meter with 5/8" demand
⁵ Charge is for 5/8" meter

Note: Standby charges are not included or referenced in this chart as they are not related to active connections.

Disadvantaged, Unincorporated Communities

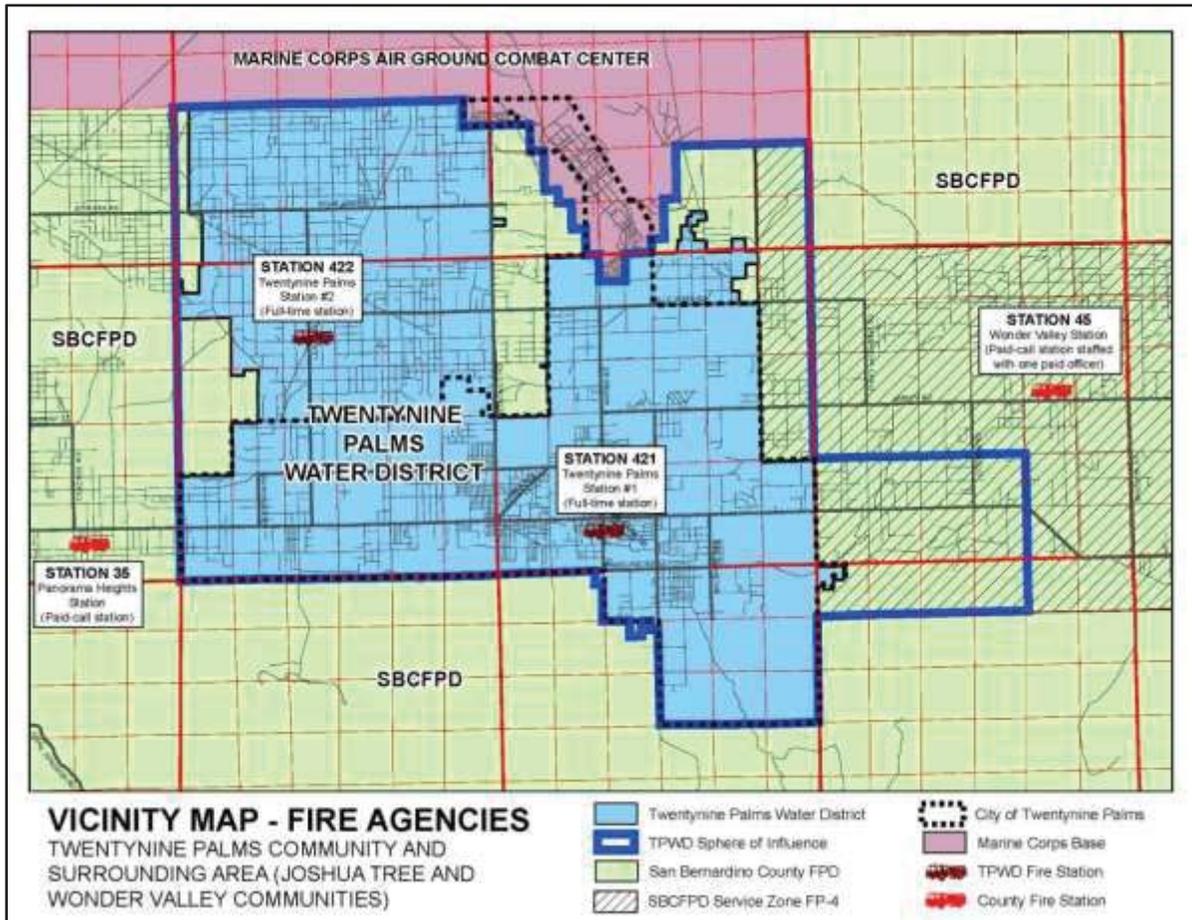
The disadvantaged, unincorporated communities within or contiguous to the District's sphere lack a pressurized water system. Any community contiguous to the District's sphere desiring connection to any potential system would require at a minimum inclusion within the District's sphere and most likely annexation. Further, any potential connection would most likely include installation and connection fees/charges/taxes. However, the implementation of a water system would be too costly based upon existing land use patterns and types of use. Population densities are so low that there are not enough customers to financially support the construction of a water system.

B. Fire

1. Community Overview

The District Fire Department ("Twentynine Palms Fire") was created by District Ordinance #14 on August 7, 1958 after the California Department of Forestry ceased providing local fire protection. Since the incorporation of the City in 1987, Twentynine Palms Fire serves the City and areas outside of the City. The services provided by Twentynine Palms Fire include fire prevention, fire suppression, emergency, medical aid, hazardous materials containment, and protection from excessive property damage.

Fire protection services for the areas of the City's Sphere of Influence, which are not served by Twentynine Palms Fire, are to be provided by the San Bernardino County Fire Protection District ("County Fire") - South Desert Service Zone. County Fire provides administration and support along with other services such as hazardous materials regulation, dispatch communication and disaster preparedness.



There are two County Fire stations located near the Twentynine Palms community. One station is in the Wonder Valley community, Wonder Valley Station 45 located at 80526 Amboy Road, which is a paid-call station that is staffed with two paid-call firefighters (another station in Wonder Valley, Station 47, is currently unmanned). The other station close to the study area is a Joshua Tree community fire station, Panorama Heights Station 35, located at 6562 Sierra Avenue, which is currently unmanned (the closest manned station in Joshua Tree, Station 36, is at 6715 Park Boulevard).

The Marine Corps Air Ground Combat Center Fire Department, known as the Combat Center Fire Department ("CCFD"), provides fire and emergency medical services to both military and civilian personnel on the base, and also to the surrounding local communities. The CCFD responds to emergency calls in the City

of Twentynine Palms and surrounding areas as part of mutual joint response agreements with other fire departments.

Twentynine Palms Fire also enhances fire safety in the community through coordination of education programs designed to increase community involvement. The CCFD provides public education by teaching children home fire safety and what to do in the event of a fire. It also provides monthly training in First Aid and CPR, and free EMT recertification classes to the public.

Several State and Federal agencies have roles in fire hazard mitigation, response and recovery, depending on the type of incident and its location. These agencies include the Office of Emergency Services, Office of Aviation Services, National Weather Service, the Department of the Interior and, in extreme cases, the Department of Defense. The CCFD provides assistance as needed to the Twentynine Palms Fire Department. In forest and open areas, agencies that often assist with fire suppression include the National Park Service, US Forest Service, National Association of State Foresters, Fish and Wildlife Service, the Department of Agriculture and the California Department of Forestry and Fire Protection.

Unincorporated Peninsula

Referencing the map above, in the center of the community there is a one mile wide unincorporated peninsula that extends five and half miles in a north/south direction bordered by the Water District and the Marine Corps Combat Center. This peninsula is within the boundaries of County Fire and is within the Water District's sphere of influence. The closest County Fire station is Station 45 in Wonder Valley, the CCFD is immediately to the east, and the nearest Water District fire stations are Station 421 and/or Station 422, depending on the specific incident location.

County Fire, as the agency responsible for service to this area, has existing mutual aid agreements with the Water District and the CCFD. Therefore, Twentynine Palms Fire responds to this area for the majority of incidents. LAFCO staff understands that the Twentynine Palms Fire Department desires a contractual arrangement for payment to serve this area since County Fire has service contracts in other parts of the county. County Fire, in its response to the draft staff report, states that it believes that the existing aid agreement and a proposed update to the agreement are appropriate without monetary terms and that a new contract is not necessary.

2. District Resources and Activities

Staffing and Equipment

Twentynine Palms Fire provides the following services to an 87 square mile service area covered by two fire stations (as shown on the map above);

- Station 421 – 6560 Adobe Road (Headquarters)

This station is staffed 24-hours a day by a 3-person engine company consisting of a career (paid) company officer and two volunteer reserve firefighters.

Station 421 equipment:

- Engine 421: 1993 E-One, 1500 gallons per minute (GPM), 500 gallon tank
- Reserve Engine 421: 1988 Smeal, 1250 GPM, 500 gallon tank
- Truck 421: 1997 Pierce, 75' aerial, 1500 GPM, 300 gallon tank
- Brush Patrol 421: 2002 4x4 Pierce/Ford, 500 GPM, 250 gallon tank
- Chief 5000: 2003 4x4 Ford F150, Command Vehicle
- Utility 421: 2001 4x2 Ford F150

- Station 422 – 3834 Lear Avenue (Desert Heights)

This station is staffed 24-hours a day by a 3-person engine company consisting of a career (paid) company officer and two volunteer reserve firefighters.

Station 422 equipment:

- Engine 422: 2007 Pierce, 1500 gallons per minute (GPM), 750 gallon tank
- Reserve Engine 422: 2000 Pierce, 1250 GPM, 500 gallon tank
- Rescue 422: 1986 E-One/Ford, CAL EMA light rescue, lighting, air support
- Captain 421/422: 2008 4x4 Ford F150, Command Vehicle

Operational command is handled by a career duty officer (Fire Chief or Captain) who is either in station or on-call within the district.

- Fire Suppression
- Emergency Medical Response (Basic Life Support)
- Victim Rescue
- Hazardous Material Emergency Response – Operational Level
- Fire Investigation (Basic Cause and Origin)
- Fire Prevention and Plan Review
- Public Safety Education

The career full-time staff consists of the Fire Chief and six company officers (two Captains and four Engineers). They are assisted by one part-time administrative assistant and 30 volunteer reserve firefighters. The company officers work 72 hours per week and are trained in all the diverse aspects of today's fire service. Besides training in structural and wildland firefighting and as emergency medical technicians, these company officers have additional training, in hazardous materials and

technical rescue (vehicle extrication, swiftwater, high-angle, trench, and confined space), required to lead the reserve firefighters.

According to the Twentynine Palms Fire, the reserve firefighters are men and women seeking full-time careers in the fire service. They have received basic training as firefighters and emergency medical technicians at community colleges throughout Southern California including the Fire Technology Program at Copper Mountain College. These reserve firefighters normally stand one 24-hour shift per week at a fire station. Many of them travel 100 miles or more, one way, from their homes in Southern California to stand duty in Twentynine Palms. Their service allows Twentynine Palms Fire to maintain daily staffing at both fire stations and they gain valuable experience and additional training as they pursue the goal of a full-time career in the fire service.

Calls and Response Times

In general, the District's responses within its boundaries for the past five years has been relatively even for number of calls and average response time. In 2011, the overall average response time was six minutes and 29 seconds for all calls within the 87 square mile district. The first unit arrived on scene in eight minutes or less 85% of the time.

29 Palms Fire Department Incident Response in District (5 Year History)					
(does not include "dispatched and canceled enroute)					
January 1, 2007 to December 31, 2007			January 1, 2008 to December 31, 2008		
Category	Number of Calls	Average Response Time	Category	Number of Calls	Average Response Time
Medical	1546	06:21	Medical	1566	07:06
Fire	82	06:46	Fire	92	07:10
Traffic	145	05:37	Traffic	127	05:54
Other	377	07:29	Other	349	06:56
Total	2150	06:31	Total	2134	07:00
January 1, 2009 to December 31, 2009			January 1, 2010 to December 31, 2010		
Category	Number of Calls	Average Response Time	Category	Number of Calls	Average Response Time
Medical	1634	06:06	Medical	1612	06:18
Fire	82	06:09	Fire	65	08:02
Traffic	118	06:33	Traffic	116	06:29
Other	335	07:37	Other	325	07:26
Total	2169	06:22	Total	2118	06:32
January 1, 2011 to December 31, 2011					
Category	Number of Calls	Average Response Time			
Medical	1687	06:18			
Fire	69	06:56			
Traffic	104	06:02			
Other	320	07:29			
Total	2180	06:29			

The chart below shows the Twentynine Palms Fire's incident volume outside of its boundaries. For the five year span, 6.2% of Twentynine Palms Fire's calls were to areas outside of its boundaries. Specifically, in 2011 Twentynine Palms Fire was requested 37 times to respond east of its jurisdiction (Wonder Valley) with the majority of the responses being for traffic collisions and structure fires.

29 Palms Fire Department Incident Response out of District (5 Year History)							
OODE - Wonder Valley, Amboy and areas east of 29 Palms							
OOD29 - County pocket in 29 Palms							
OODW - Yucca Valley, Joshua Tree, Copper Mountain Mesa, Landers, and Morongo Valley							
OOMB - Areas outside the Morongo Basin							
JTNP - Joshua Tree National Park							
MCT - 29 Palms Marine Corps Base							
January 1, 2007 to December 31, 2007							
Category	OODE	OOD29	OODW	OOMB	JTNP	MCT	Total
Medical	10	3	5	0	6	0	24
Fire	8	2	4	4	0	0	18
Traffic	17	2	2	0	1	0	22
Other	4	3	8	1	0	0	16
*D/CER	89	0	21	10	4	2	126
Total	128	10	40	15	11	2	206
*Dispatched and Cancelled Enroute							
January 1, 2008 to December 31, 2008							
Category	OODE	OOD29	OODW	OOMB	JTNP	MCT	Total
Medical	1	4	7	0	10	0	22
Fire	5	1	4	0	1	0	11
Traffic	7	1	1	0	4	0	13
Other	3	0	6	0	1	0	10
*D/CER	41	0	17	5	2	1	66
Total	57	6	35	5	18	1	122
*Dispatched and Cancelled Enroute							
January 1, 2009 to December 31, 2009							
Category	OODE	OOD29	OODW	OOMB	JTNP	MCT	Total
Medical	1	3	4	0	6	0	14
Fire	2	0	6	0	1	0	9
Traffic	6	0	4	0	2	0	12
Other	2	2	5	0	2	0	11
*D/CER	44	1	39	1	2	1	88
Total	55	6	58	1	13	1	134
*Dispatched and Cancelled Enroute							
January 1, 2010 to December 31, 2010							
Category	OODE	OOD29	OODW	OOMB	JTNP	MCT	Total
Medical	0	1	6	0	12	0	19
Fire	0	0	3	0	1	0	4
Traffic	8	2	2	0	2	0	14
Other	0	1	2	0	3	1	7
*D/CER	25	2	37	4	2	1	71
Total	33	6	50	4	20	2	115
*Dispatched and Cancelled Enroute							
January 1, 2011 to December 31, 2011							
Category	OODE	OOD29	OODW	OOMB	JTNP	MCT	Total
Medical	0	1	4	1	17	1	24
Fire	10	0	6	0	1	0	17
Traffic	5	2	2	0	3	0	12
Other	2	1	4	1	1	0	9
*D/CER	20	2	43	3	4	1	73
Total	37	6	59	5	26	2	135
*Dispatched and Cancelled Enroute							

Capital Improvement Budget

The department maintains an Apparatus Reserve Fund for equipment replacement and the fund currently has \$245,000. The replacement of Engine 421 is currently planned for FY 2014-2015. The District in its FY 2011-12 Fire Budget identifies the following projects through FY 2015-16. Of note, the expansion and rehabilitation of the downtown station totaling roughly \$1 million is an unfunded project to date.

FY 2011-12 Fire Capital Budget

PROJECT:	Fiscal 2011-12 Budget	Estimated Fiscal 2012-13	Estimated Fiscal 2013-14	Estimated Fiscal 2014-15	Estimated Fiscal 2015-16
a. Asbestos Removal, Old Downtown Station (Unfunded)	0	0	0	0	0
b. Replacement Command Pickup	0	0	0	0	45,000
c. Replacement of Engine 421	0	0	0	500,000	0
d. Firefighting and Rescue Equipment	0	0	0	25,000	0
e. Turnout Gear Replacement	6,000	6,000	15,000	15,000	15,000
f. Rescue Equipment, Grant Funded	22,000	0	12,000	12,000	12,000
g. Replacement Radios, Grant Funded	100,000	0	0	0	0
<i>Total Expenditures</i>	128,000	6,000	27,000	552,000	72,000
UNFUNDED PROJECTS:					
Expansion and Rehabilitation of Downtown Station		\$975,000			
Asbestos Removal, Old Downtown Station		10,000			
<i>Total Unfunded Projects</i>		\$985,000			

3. Parcel tax charge by County Fire Zone FP-4

Parcel 0592-021-19 was historically charged the County Fire FP-4 special tax and CSA 70 Zone M service charges for park and roads, even though it is in the Twentynine Palms Water District (which does fire) and the City (which does parks and roads). This area was annexed to the Water District and the City through LAFCO 2805, and that action removed the area from the County Service Area 70 Zone M (predecessor agency for Wonder Valley fire). The action was memorialized through a State Board of Equalization (BOE) "Statement of Boundary Change". This statement was forwarded by the BOE to the County Assessor for implementation. The tax rate area code (19016) indicates that the parcel is in the City and not within CSA 70, County Fire, or any of their zones. As a part of this service review process, County Fire and the District were informed of this issue.

The County Special Districts Department has notified LAFCO staff that the circumstance has been corrected, the sole parcel has been removed from the CSA 70 Zone M and County Fire Zone FP-4 listings, and that a refund will be issued to the property owner of the tax payments in error. Additionally, Special Districts

Department indicates that the assessment listings for CSA 70 M and Fire Protection Zone FP-4 will be audited this year to verify their accuracy.

4. County Fire Reorganization and County Service Area 70 Tax Share

As a condition of approval for the reorganization of the county board-governed fire agencies, the ad valorem property tax revenues associated with CSA 70 Zone M were transferred to the South Desert Service Zone and the special tax was transferred to the newly formed Service Zone FP-4. However, during the processing of this service review it was discovered that at least a portion of the ad valorem property taxes associated with Zone M were from the detachment of the territory from the Twentynine Palms Park and Recreation District and were provided to Zone M for park purposes. At this time, LAFCO staff is unclear as to when these revenues were converted for fire purposes and by what action of the Board of Supervisors as the governing body.

5. Disadvantaged, Unincorporated Communities

The disadvantaged, unincorporated communities within or contiguous to the District's sphere are within the boundaries of County Fire and its South Desert Service Zone. The Wonder Valley community is also within Zone FP-4 of County Fire whereby residents pay a special tax for service.

C. Sewer

There is no community sewage system and waste water is disposed through individual septic tanks and tile field disposal systems³⁵. The District is authorized by LAFCO a Sewer function, although its service is currently limited to planning.

In 2007, the District and the City met in a joint session to discuss the need for oversight of packaged treatment plants, since such oversight is mandated by the Regional Water Quality Control Board. Through a joint resolution, the City was designated as the lead agency in the oversight of packaged treatment plants within the City limits, and the District will be provided the opportunity to make recommendations on the standards to be established by the City.

A joint committee (two members each from the City and the Twentynine Palms Water District) has been formed to assess the development of a wastewater management plan and solid nutrient plan.

Disadvantaged, Unincorporated Communities

The disadvantaged, unincorporated communities within or contiguous to the District's sphere are also currently on septic systems and leach fields. The Regional Water

³⁵ Subsurface drainage removes excess water from the soil profile, usually through a network of perforated tubes installed 2 to 4 feet below the soil surface. These tubes are commonly called "tiles" because they were originally made from short lengths of clay pipes known as tiles. Water would seep into the small spaces between the tiles and drains away.

Quality Control Board has expressed concern over the potential contamination of groundwater resources by nitrates from the improper installation and maintenance of septic systems in Twentynine Palms. There are no plans at this time for construction of a water treatment plant and collection system. Additionally, the City is taking the lead for conducting studies to explore the possibility for a wastewater treatment system. Any community contiguous to the City's sphere desiring connection to any potential system would require at a minimum inclusion within the City's sphere and most likely annexation. Further, any potential connection would most likely include installation and connection fees/charges/taxes. However, the implementation of a water system would be too costly. Population densities are so low that there are not enough customers to financially support the construction of a water system.

IV. Financial ability of agencies to provide services.

For this section of the report, staff has reviewed the District's budgets, audits, State Controller reports for cities, and County filing records.

A. General Operations and Accounting

The governmental activities of the District include only fire protection. The business-type activities of the District include only Water operations.

Component Unit

The reporting entity "Twentynine Palms District" includes the activities of the District and the Twentynine Palms Water District Financing Corporation ("Corporation"). The District and the Corporation have a financial and operational relationship which meets the reporting entity definition criteria of the Government Accounting Standard Board ("GASB") Statement No. 14, "The Financial Reporting Entity", for inclusion of the Corporation as a component unit of the District. Accordingly, the financial activities of the Corporation have been included in the financial statements of the District. The Corporation is governed by a five-member board appointed by the District board. Although it is legally separated from the District, the Corporation is reported as a blended component unit of the primary government because its sole purpose is to provide financing assistance to the District for construction and acquisition of major capital facilities.

B. Cash and Investments

The chart below shows cash and investments for the past three fiscal years. The District has identified that it experienced a 28% decrease in Temporary Investments at the end of FY 2009-10 due to the completion of a significant number of capital projects and capital purchases during that year. The expenditures included the completion of a reservoir, a production well, a transmission pipeline, as well as other equipment and infrastructure projects. These items were included in the District's capital budget for that year or were carried over from prior year's capital budgets.

Cash and Investments

	2008-09	2009-10	2010-11
Statement of Net Assets			
Cash	\$114,203	\$132,000	\$138,729
Temporary Investments	6,921,798	5,017,151	4,474,529
Restricted *			
Cash	356,750	357,285	357,776
Temporary Investments	300,000	550,000	550,000
Total Cash & Investments	7,692,751	6,056,536	5,521,034

* Restricted cash and temporary investments are temporarily restricted as to withdrawal or use for other than current operations. The District has temporarily restricted these deposits and investments for the acquisition or construction of non-current assets and the liquidation of long-term debt.

C. Water Fund (Business-Type Activity)

Long-Term Debt

At the end of the current fiscal year, the Twentynine Palms Water District had total bonded debt outstanding of \$2,108,231, including the portion that is due within one year. All of the District's debt represents bonds secured solely by specified revenue sources (i.e., revenue bonds) of the Water Fund. All outstanding debt was incurred for the benefit of the Water Fund and accordingly is the sole responsibility of the Water Fund.

2002 Refunding Certificates of Participation

On October 9, 2002, the District issued \$2,386,090 in 2002 refunding certificates of participation with an interest rate of 4.27% due through 2012. The purpose of the issuance was to advance refund \$2,810,000 of outstanding 1992 certificates of participation with interest rates ranging from 5.00% to 7.10%. Net revenues of the District are pledged to retirement of the certificates of participation. The certificates were paid off based on the prepayment price plus accrued interest and the refunded certificates are no longer outstanding.

State of California, Department of Water Resources Loan

The District contracted with the State of California, Department of Water Resources, for a loan under the Water Conservation and Water Quality Bond Law. Proceeds from the loan were used for the Phase I District Pipeline Replacement. As of June 30, 2011, the District had received \$4,872,379 of \$5,000,000 approved under the loan agreement. Interest is payable semiannually at 3.4375% per annum from the date loan drawdowns are received from the State, over a loan amortization period of 20 years. The District has agreed to provide for the accumulation of necessary reserves in accordance with Section 12 of the Contract to assure that funds will be available to make the semiannual payments when due.

Net Assets

Most of the District's net assets are invested in water capital assets. The Water Fund's net assets have steadily increased for the past five years, by 8%. As of June 30, 2011, the Water Fund had \$30.1 million in net assets. Of this amount \$4.5 million is unrestricted.

Net Assets – Business-Type Activities (Water)

	2006-07	2007-08	2008-09	2009-10	2010-11
Net Assets – Business Activities					
Invested in capital assets – net of related debt	\$21,258,368	\$21,609,970	\$22,270,807	\$29,752,139	\$25,270,287
Restricted for: Debt Service	159,815	330,961	57,695	357,285	357,776
Restricted for: Construction	267,262	0	215,082	208,466	0
Unrestricted	6,296,464	6,588,637	6,507,097	4,462,262	4,497,865
Net Assets	27,981,909	28,529,568	29,050,681	29,752,139	30,125,928

Revenues and Expenditures

The District's largest revenue types are typically Water Sales and Ready-to-Serve charges, which together represent 80 percent of the Water Fund's total revenue for the year. Water Sales are based on the amount of water delivered to the customer while the Ready-to-Serve rates are the meter charge based on meter size. Water rates increased in July 2010 and again in July 2011. At this time, LAFCO staff is unaware of any proposed rate increase for July 2012.

The Water Fund receives water availability assessments (Water Standby) of \$30 for each parcel that is one acre or less, whether serviced or unserved. These amounts are increased by amounts ranging from \$7.50 (for each acre > five-acres) to \$8.00 (for each acre from 1 to 5 acres). The maximum that can be assessed per parcel is \$1,200. This assessment helps pay the capital costs incurred by the District to make water available (for any purpose) throughout the District, whether the water is actually used or not. This assessment is levied on all parcels within the District boundaries excepting lands receiving "fire only" service or those owned by the Bureau of Land Management.

For FY 2010-11, water sales were \$2,544,757 for the year and represent 55 percent of total revenue. Other revenue sources included Ready-to-Serve Charges of \$1,151,870; Water Availability Assessments – \$602,246; Investment Interest and Penalties - \$103,160; Capital Impact Fees - \$38,752; and Property Leases - \$104,427. Salaries and benefits saw increases primarily from higher retirement and medical benefits. The increase in depreciation was the result of significant capital assets being placed in service during the year while the use of additional bulk chemicals during the year was the primary reason for the increase in Supplies Expense. That increase in volume was the result of the District treating a higher volume of water in FY 2010-11 compared to the prior year. Salaries and

Benefits represent 34 percent of total expenses while Depreciation accounts for 30 percent of expenses.

The figure below is taken from the FY 2011-12 Water Budget and identifies the actual and estimated revenues and expenditures for four fiscal years.

	Fiscal 2010-11 Projected	Fiscal 2011-12 Budget	Fiscal 2012-13 Estimated	Fiscal 2013-14 Estimated
<u>REVENUES:</u>				
Water Sales and Ready to Serve Charges	\$3,643,000	\$3,826,000	\$3,826,000	\$4,055,000
Other Operating Revenues	221,000	212,200	212,200	212,200
Water Availability Assessment	601,000	601,000	601,000	601,000
Interest Revenues	20,000	20,000	20,000	20,000
Other Non-Operating Revenues	178,000	129,600	129,600	129,600
Grant Funds	0	0	0	0
TOTAL REVENUES	\$4,663,000	\$4,788,800	\$4,788,800	\$5,017,800
<u>OPERATING EXPENDITURES</u>				
Salaries and Benefits	\$1,474,130	\$1,678,657	\$1,805,887	\$1,915,866
Materials and Supplies	614,500	668,500	695,240	723,050
Outside Services	354,500	401,500	413,545	455,951
Equipment Costs	135,000	130,000	130,000	130,000
Telephone and Utilities	398,800	421,000	442,050	464,153
Insurance and Workers' Compensation Ins.	64,000	87,620	92,001	96,601
Permits and Fees	31,000	33,000	33,825	34,671
Uncollectable Accounts	50,000	50,000	50,000	50,000
Training, Seminars, Certifications, Travel, Dues & Subscriptions	44,500	50,000	51,000	52,020
Fire Department Reimbursements	(40,554)	(41,823)	(43,078)	(44,370)
TOTAL OPERATING EXPENDITURES	\$3,125,876	\$3,478,454	\$3,670,471	\$3,877,941
<u>NON-OPERATING EXPENDITURES AND TRANSFERS</u>				
Debt Service	\$632,477	\$632,477	\$485,811	\$339,145
Capital Improvements	220,000	500,000	1,080,000	800,000
Replacement & Rehabilitation Expenditures	510,000	485,000	155,000	175,000
Transfer To (From) Debt Reserve-Internal	0	0	0	0
Proceeds From Debt Offering	0	0	0	0
Debt Retirement	0	0	0	0
TOTAL NON-OPERATING EXPENDITURES & TRANSFERS	\$1,362,477	\$1,617,477	\$1,720,811	\$1,314,145
TOTAL EXPENDITURES & TRANSFERS	\$4,488,353	\$5,095,931	\$5,391,282	\$5,192,086
INCREASE (DECREASE) IN FUND BALANCE	\$174,647	(\$307,131)	(\$602,482)	(\$174,286)

D. Fire Fund (Governmental Activity)

Long-Term Debt

There is no debt for the fire activities of the District.

Net Assets

The Fire Fund's net assets have steadily increased for the past five years, by 11%. As of June 30, 2011, the Fire Fund had \$2.7 million in net assets. Of this amount \$1.6 million is unrestricted.

Net Assets – Governmental Activities (Fire)

	2006-07	2007-08	2008-09	2009-10	2010-11
Net Assets – Governmental Activities					
Invested in capital assets – net of related debt	\$1,173,754	\$1,093,406	\$1,071,449	\$960,193	\$1,106,690
Restricted for: Debt Service	0	0	0	0	0
Unrestricted	1,274,192	1,402,378	1,407,089	1,680,684	1,603,347
Net Assets	2,447,946	2,495,784	2,478,538	2,640,877	2,710,037

	2006-07	2007-08	2008-09	2009-10	2010-11	4-yr Var.
ASSETS						
Temp. Investments	\$ 1,274,038	\$ 1,299,731	\$ 1,261,515	\$ 1,253,791	\$ 1,193,207	-6%
Accounts Receivable	93,572	144,192	188,499	465,302	509,977	445%
Other	43,904	29,554	33,561	17,897	24,497	-44%
Total Assets	1,411,514	1,473,477	1,483,575	1,736,990	1,727,681	
LIABILITIES						
Deferred Revenue	-	-	158,585	424,472	477,632	
Other	137,322	71,099	43,029	22,704	75,014	-45%
Total Liabilities	137,322	71,099	201,614	447,176	552,646	302%
FUND BALANCE						
Unassigned (Unreserved)	1,274,192	1,402,378	1,281,961	1,289,814	930,035	-27%
Apparatus Reserve					245,000	
Total Fund Balances	\$ 1,274,192	\$ 1,402,378	\$ 1,281,961	\$ 1,289,814	\$ 1,175,035	-8%
REVENUES						
Fire Special Tax	\$ 1,219,777	\$ 1,233,297	\$ 1,183,804	\$ 1,216,897	\$ 1,196,705	-2%
Other	121,848	90,840	138,627	58,008	49,110	-60%
Total Revenues	1,341,625	1,324,137	1,322,431	1,274,905	1,245,815	-7%
EXPENDITURES						
Staff Payroll & Benefits	604,812	658,878	748,093	750,157	806,418	33%
Volunteer Payroll & Ben.	112,802	107,866	123,934	122,254	154,047	37%
Communications	98,100	104,210	116,003	87,580	102,913	5%
Capital Outlay	86,623	75,386	143,790	38,683	31,907	-63%
Other	242,863	249,611	236,008	268,378	265,309	9%
Total Expenditures	1,145,200	1,195,951	1,367,828	1,267,052	1,360,594	19%
Revenue less Expenditure	\$ 196,425	\$ 128,186	\$ (45,397)	\$ 7,853	\$ (114,779)	
Fund Balances, Beginning	1,077,767	1,274,192	1,327,358	1,281,961	1,289,814	20%
Fund Balances, Ending	\$ 1,274,192	\$ 1,402,378	\$ 1,281,961	\$ 1,289,814	\$ 1,175,035	-8%

Moving beyond the FY 2010-11 audit year, the figure below was provided by the District identifying budget projections through FY 2013-14 following the defeat of its special tax election on April 25, 2012. For FY 2011-12 and FY 2012-13, the estimated deficit of expenditures over revenues is \$168,134 and \$244,202, respectively. According to the Twentynine Palms Fire Chief, the reduction in Contingency and Apparatus Reserves in FY 2012-2013 is for the transfer of those funds to Unrestricted Fund Balance to provide enough working capital to begin FY 2013-2014. This is how the District would achieve two more years of providing the current service level before the Fire Fund becomes insolvent. This continuing decrease in fund balance prompted the District to put forth a measure on the special mail election this April (Measure H) to increase the District's special fire tax

from \$80 to \$120 per unit and allow for a \$6 annual tax increase for ten years following 2013. The FY 2013-14 estimate previously provided to LAFCO staff includes a revenue, of roughly \$536,000. Passage of the measure required 2/3 approval of votes cast, however the measure only received 48% "Yes" votes.

FY 2012-13 Fire Budget

	Fiscal 2010-11	Fiscal 2011-12	Fiscal 2012-13	Fiscal 2013-14
	Actual	Projected	Proposed Budget	Estimated
<u>REVENUES</u>				
Operating Revenues	\$ 1,199,080	\$ 1,217,000	\$ 1,201,000	\$ 1,206,000
Donations and CPR Training Revenues	4,790	2,500	7,000	7,000
Grant Revenue	0	114,298	0	0
Non-Operating Revenues	41,944	45,000	33,000	31,000
Total Revenues	\$ 1,245,814	\$ 1,378,798	\$ 1,241,000	\$ 1,244,000
<u>EXPENDITURES</u>				
Salaries & Benefits, Paid Staff	\$ 780,256	\$ 855,400	\$ 901,527	\$ 953,200
Volunteer Operations	132,444	130,600	133,000	133,000
Materials and Supplies	29,967	23,900	30,200	30,804
Governmental Charges, SBCO	1,800	26,800	16,800	2,136
Utilities	30,833	26,800	29,700	30,591
Dispatching Fees	100,708	101,024	92,000	96,600
Repair and Maintenance	99,682	86,800	104,500	111,590
Insurance, Bonds and Workers Compensation	62,031	62,400	64,000	65,920
Overhead Allocation	40,554	41,708	45,375	46,963
Training, Travel & Conferences	11,610	11,000	14,600	14,892
Dues, Subscriptions, Books & Films	2,195	2,500	2,500	2,550
Legal Services and Professional Services	30,840	50,000	40,000	30,000
Total Expenses Before Capital Expend.	\$ 1,322,920	\$ 1,418,932	\$ 1,474,202	\$ 1,518,246
<u>NON-OPERATING EXPENDITURES</u>				
Capital Expenditures		128,000	6,000	6,000
Expenditures From Donated Funds - General		0	5,000	5,000
Total Expenditures		\$ 1,546,932	\$ 1,485,202	\$ 1,529,246
Total Revenue Less Total Expenditures		\$ (168,134)	\$ (244,202)	\$ (285,246)
Addition (Reduction) To Contingency Reserve		0	(56,713)	0
Addition (Reduction) To Apparatus Reserve		0	(245,000)	0
Change in Working Capital Balance		\$ (168,134)	\$ 57,511	\$ (285,246)
Beginning Working Capital Balance		\$ 846,298	\$ 678,164	\$ 735,675
Ending Working Capital Balance		\$ 678,164	\$ 735,675	\$ 450,429
Working Capital Required at Start of Year to Meet Cash Flow Needs, Based on \$1,518,246 Budget				\$ 632,603

At this rate, with all things remaining constant, the Fire Fund is projected to exhaust its fund balance by the end of FY 2014-15. Unfortunately, the County's first distribution of taxes occurs in November/December. Therefore, the beginning fund balance would need to have enough funds to operate for five months, or roughly \$600,000. Without a proper beginning fund balance, funds would be exhausted a few months into FY 2013-14. The figure below compares Revenues, Expenditures, and Fund Balance from FY 2006-07 through FY 2013-14. As shown, Expenditures are estimated to increase by 34% while Revenues are estimated to decline by 7%. The estimated result will be decrease in fund balance by 65% within seven years, thereby resulting in service delivery and sustainability challenges.

Seven Year Variance

	2006-07	2013-14	7-yr Var.
Revenues	\$ 1,341,625	\$ 1,244,000	-7%
Expenditures	1,145,200	1,529,246	34%
Rev less Exp	196,425	(285,246)	
Fund Balance End	\$ 1,274,192	\$ 450,429	-65%

Appropriation Limit (Gann Limit)

Under Article XIII B of the California Constitution (the Gann Spending Limitation Initiative)³⁶, the District is restricted as to the amount of annual appropriations from the proceeds of taxes, and if proceeds of taxes exceed allowed appropriations, the excess must either be refunded to the State Controller, returned to the taxpayers through revised tax rates or revised fee schedules, or an excess in one year may be offset against a deficit in the following year. Furthermore, Section 5 of Article XIII B allows the District to designate a portion of fund balance of general contingencies to be used in future years without limitation.

Section 1.5 reads that the annual calculation of the appropriations limit for each entity of local government shall be reviewed as part of an annual financial audit. A review of the financial statements for the past five fiscal years does include a review of the annual calculation of the appropriations limit.

Government Code Section 7910³⁷ expands upon the Gann Initiative and requires each local government to annually establish its appropriation limits by resolution. For FY 2011-12, the District adopted an appropriation limit of \$1,621,187 related to its special tax only.

D. Post-Employment Benefits

³⁶ In 1979 the voters amended the California Constitution by passing Proposition 4 (the Gann Initiative), requiring each local Government to set an annual appropriations limit (the Gann Limit).

³⁷ Added by Stats.1980, c. 1205, p. 4059, § 2. Amended by Stats.1988, c. 1203, § 1; Stats.2007, c. 263 (A.B.310), § 25.

Pension

The Twentynine Palms Water District contributes to the California Public Employees Retirement System (PERS).³⁸ PERS provides retirement and disability benefits, annual cost-of-living adjustments, and death benefits to plan members and beneficiaries. PERS acts as a common investment and administrative agent for participating public entities within the State of California. The contract offers a “3% at 60” for Miscellaneous Plan Members and “3% at 55” for Safety Plan Members. The most recent financial statements for the District identify that it has contributed 100% of its annual pension cost for at least the past three years.

Other Post-Employment Benefits

The District’s defined benefit post-employment healthcare plan, (Twentynine Palms Water District Post-Retirement Medical Benefits Program, “TPPRMBP”), provides medical benefits to eligible District employees and spouses. TPPRMBP is a single employer defined benefit healthcare plan administered by the District. A menu of benefit provisions are established through the District’s group health insurance plan, which covers both the active and retired members.

The contribution requirements of plan members and the District are established and may be amended by the Board. The District contributes 90% of the employee’s and 75% of the spouse’s medical insurance premiums until age 65. The District is required to contribute the annual required contribution of the employer (ARC), an amount actuarially determined. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. ARC current rate is 5.7% of the annual covered payroll. The plan is financed on a pay-as-you-go basis.

At June 30, 2010, the Net OPEB Obligation was \$68,818. For FY 2010-11, the OPEB cost (expense) was \$81,187 (\$79,469 plus interest on the Net OPEB Obligation) for the year the District contributed 15%, or \$12,194. At June 30, 2011, the Net OPEB Obligation increased to \$137,811, as shown below:

Annual Required Contribution	\$ 79,469
Interest on net OPEB Obligation	5,333
Adjustment to Annual Required Contribution	(3,615)
Annual OPEB Cost (Expense)	<u>81,187</u>
Contributions Made	<u>(12,194)</u>
Increase in Net OPEB Obligation	68,993
Net OPEB Obligation - Beginning of the Year	68,818
Net OPEB Obligation - End of the Year	<u>\$ 137,811</u>

³⁸ PERS issues a Comprehensive Annual Financial Report (CAFR). The CAFR is issued in aggregate and includes the sum of all CalPERS plans. Copies of the CalPERS CAFR may be obtained from the CalPERS Executive Office, 400 P Street, Sacramento, California 95814.

E. Filing Requirements

Government Code Section 26909 requires districts to file a copy of its annual audit with the county auditor within 12 months of the end of the fiscal year. According to records from the County Auditor, the last audit received was in October 2011 for FY 2010-11.

V. Status of, and opportunities for, shared facilities.

There are no shared or duplication of facilities.

VI. Accountability for community service needs, including governmental structure and operational efficiencies.

The District is an independent special district governed by a five-member board of directors elected at-large. Membership elections are held in odd years as a part of the general district mail ballot election. Five board members are elected at large to four-year overlapping terms. For the August 2009 general election, there were 5,884 registered voters within the District with a 28% voter turnout for that election. Two seats were up for election in 2011. However, since the number of candidates who filed a declaration of candidacy did not exceed the number of seats a scheduled election was not held in 2011. Therefore, the two seats were appointed in-lieu of election. Below is the composition of the current council, their positions, and terms of office:

Board Member	Title	Term	Appointed/Elected
Philip C. Cisneros	President	2013	Elected
Kerron E. Moore, Jr.	Vice-President	2015	Appointed
Chancey Chambers	Director	2013	Elected
Nicholas Bourikas	Director	2015	Appointed
Roger Shinaver	Director	2013	Elected

Regular Board of Directors Meetings are held on the fourth Wednesday of each month at 6 p.m., in the District's administration building located at 72401 Hatch Road in Twentynine Palms. Board meetings are also televised on cable channel 10 at 10 a.m. on the first Saturday and 5 p.m. on the first Sunday of the next month following the meeting.

Operational Efficiencies

Operational efficiencies are realized through several joint agency practices, for example:

- A joint committee (two members each from the City and the Water District) has been formed to assess the development of a wastewater management plan and solid nutrient plan.

- The City purchased a fire ladder truck during FY 2010-11 from the Fire Development Impact Fees Capital Projects Fund. The Water District operates and maintains the truck and is contracted to repay the purchase cost to the City.
- The District is a participant in the Association of California Water Agencies Joint Powers Insurance Authority ("JPIA"), which was organized for the purpose of providing liability insurance for the member agencies. The JPIA is a risk-pooling self-insurance authority.
- The District is a participant of the Worker's Compensation Program of the Special District's Risk Management Authority (the "Authority"). The Authority was created for the purpose of providing workers' compensation insurance to its member agencies.

Government Structure Options

There are two types of government structure options:

1. Areas served by the agency outside its boundaries through "out-of-agency" service contracts;
2. Other potential government structure changes such as consolidations, reorganizations, dissolutions, etc.

Out of Agency Service Agreements

There are no out-of-agency service agreements approved by LAFCO authorizing the District to provide service outside of its boundaries. The District has identified that it does have a small amount of bulk water hauling activity within the community. The District maintains one site where private individuals and a small number of commercial water haulers purchase water that is used both inside and outside District boundaries. Generally, this water is consumed by households where infrastructure is not available. Further, through state-mandated mutual aid agreements, the fire department responds to calls outside of its boundaries.

Government Structure Options:

The State has published advisory guidelines for LAFCOs to address all of the substantive issues required by law for conducting a service review³⁹. 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.

³⁹ State of California. Governor's Office of Planning and Research. "Local Agency Formation Commission Municipal Service Review Guidelines", August 2003.

In some cases, functional consolidation or integration can reduce costs so that services can be maintained and improved with fewer dollars. The following scenarios are not being presented as options for the Commission to consider for action as a part of this service review. Rather, a service review should address possible options, and the following are theoretical, yet possible, scenarios 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 studies deemed necessary.

Fire

The information presented in the Financial section of this report for the District concludes that the District's Fire operations are unsustainable as presently configured. Therefore, a change in governance for its Fire service will need to be considered. Given this, options regarding District expansion cannot be considered (such as expanding into Wonder Valley). Any scenario concerning the transfer of the District's fire function needs to consider service within the City and to the unincorporated portion of the District.

1. City as the agency responsible for fire protection. Removal of the District's fire function would require the City to become responsible for fire protection within its boundaries as mandated by state law.⁴⁰ The City would then succeed to the Water District's special fire tax and fire assets and liabilities within the city as well as any fire assets purchased with City funds. Being the agency responsible for this service, the City would have two options:
 - a. The City could provide the service directly, or
 - b. The City could contract with another agency (San Bernardino County Fire Protection District or CalFire) for the provision of the service. In this scenario, the City remains as the agency responsible but contracts for the service level that it can afford.

As for the unincorporated portion, the remainder of the Water District's fire service area would be unsustainable as a stand-alone agency since the majority of the property tax that supports the fire function is derived from within the City. Therefore, it would have to annex to the San Bernardino County Fire Protection District ("County Fire") and its South Desert Service Zone as there would be no other agency able to continue service. County Fire would then succeed to the Water District's assets and special fire tax and fire assets and liabilities within the unincorporated area. Additionally, County Fire would need to form a zone to isolate the special tax revenues which would require an annual budget and audit.

2. County Fire as sole agency responsible. Should the City desire not to be responsible for fire protection within its boundaries, the territory of the Water District could annex to County Fire. This would require the expansion of the County Fire sphere of influence, the City's consent to the annexation of the City by County Fire,

⁴⁰ Government Code Section 38611.

which would remove the City's service responsibility.⁴¹ In that case, County Fire would succeed to all of the Water District's assets and liabilities and special tax. Additionally, County Fire would need to form a zone utilizing the Water District's boundaries to isolate the special tax revenues generated which would require an annual budget and audit.

Water

3. Twentynine Palms Water District becoming a subsidiary district of the City. In order for the Water District to become a subsidiary district of the City, at least 70% of registered voters in the District must reside in the City **and** at least 70% of the District's territory must be within the boundaries of the City.
 - a. For the August 2009 election (the most recent election for the District) the District contained 5,884 registered voters and approximately 5,332 voters of the District were within the City.⁴² At 91%, the District meets the threshold for territory within the boundaries of the City.
 - b. The District encompasses 56,919 acres (88.9 square miles) and 35,144 acres (54.9 square miles) of the District is within the boundaries of the City. The District does not meet the territory threshold because only 61.7% of the District's territory is within the boundaries of the City.

⁴¹ Government Code Section 38611.

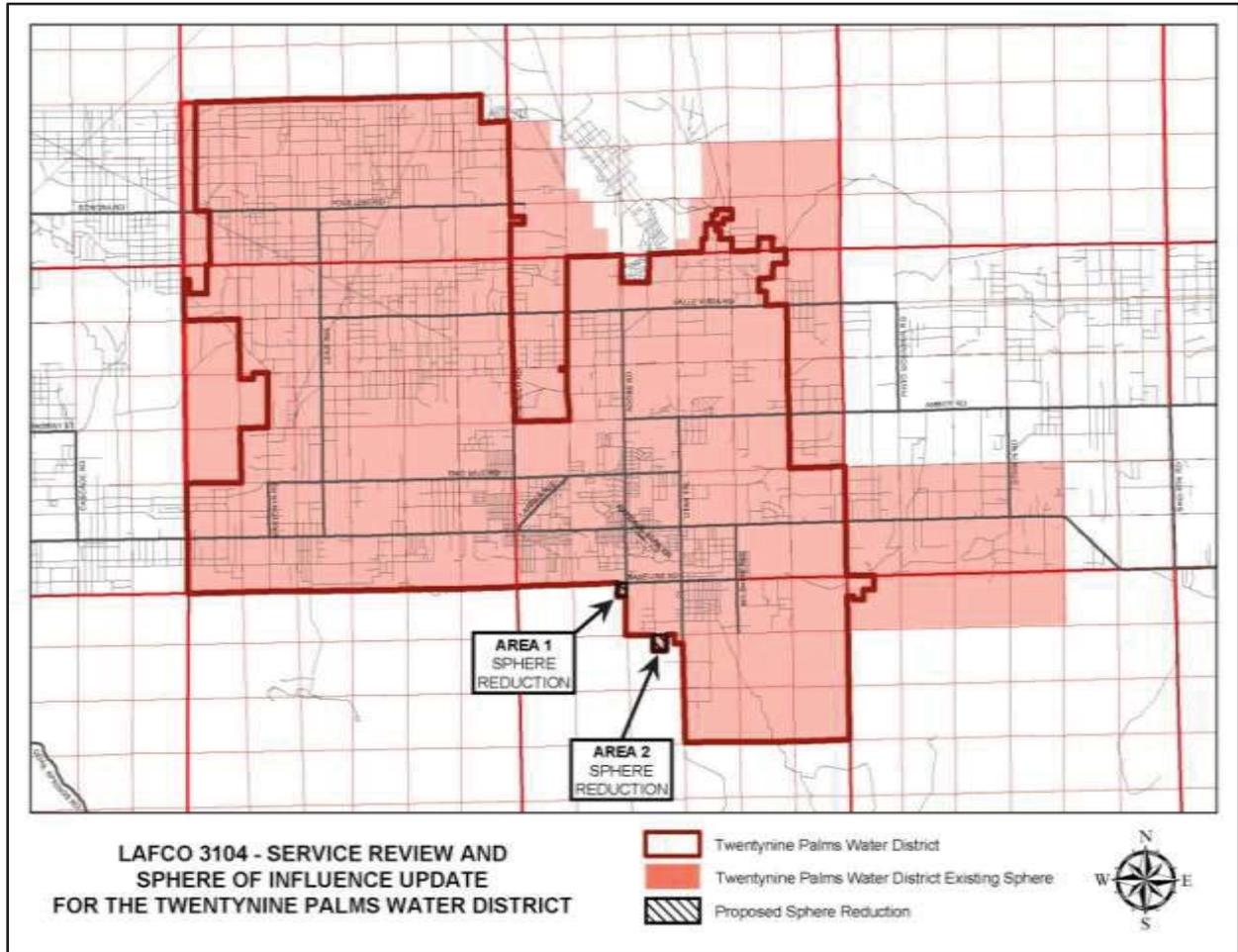
⁴² County of San Bernardino Registrar of Voters, Statement of Votes Cast, General District Election, August 2009.

TWENTYNINE PALMS WATER DISTRICT SPHERE OF INFLUENCE UPDATE

Sphere of Influence

In 1972, the Commission established the sphere of influence for the Twentynine Palms Water District. Since that time, there have been few changes to the District's sphere. As discussed in the "Community Discussion" section of this report, staff is reconfirming the Commission's historical Twentynine Palms community definition as the sphere of the Twentynine Palms Water District – with minor modifications. The following are staff's recommended minor modifications for the Water District's existing sphere:

- Reduce the District's existing sphere by approximately 9.5 acres (Area 1) to exclude a portion of its existing sphere along the south, currently within the District's boundaries, comprised of previously privately-owned parcels that are now generally public lands within the Joshua Tree National Park; and,
- Reduce the District's existing sphere by approximately 30 acres (Area 2) to exclude a portion of its existing sphere along the south, currently within the District's boundaries, comprised of previously privately-owned parcels that are now public lands within the Joshua Tree National Park;



Authorized Powers

When updating a sphere of influence for a special district, the Commission is required to establish the nature, location, and extent of any functions or classes of services provided by the district (Government Code §56425(i)).

Staff recommends that the Commission modify the service descriptions for the Sewer and Fire Protection function to accurately describe the services provided (changes identified in strikeout and underline below):

FUNCTION	SERVICE
Water	Retail, agricultural, domestic, replenishment
Sewer	Planning <u>and engineering</u>
Fire Protection	Structural, watershed, <u>first aid, rescue, prevention, inspection</u>

FACTORS OF CONSIDERATION

Government Code Section 56425 requires the Commission to make four specific determinations related to a sphere of influence update. The staff's responses to those factors are as follows:

I. Present and Planned Uses in the Area, Including Agricultural and Open-Space Lands.

Within the District's boundary and sphere of influence, roughly 73% of the land is privately owned and the remainder, 27%, is public, which are devoted primarily to resource protection and recreational use.

Within the District's entire sphere area, approximately 40% is designated Rural Living, 14% Resource Conservation, and 1% a mix of Commercial, Institutional, and Floodway land uses. The remainder 45% is within the City of Twentynine Palms. Of the 45% District territory that is within the City's boundaries, approximately 46% is Rural Living, 34 % Single-Family Residential, 7% Open Space Residential, 3% Multi-Family Residential, 4% Commercial, 3% Industrial, 3% Public and Floodway.

The areas being proposed for reduction from the District's current sphere of influence (Areas 1 and 2) is designated as RC (Resource Conservation) and have no development potential since these are public land within the within the Joshua Tree National Park.

II. Present and Probable Need for Public Facilities and Services in the Area.

Water

Currently, the District is the sole retail water provider within the community, actively providing retail water service via a pressurized system to incorporated and unincorporated areas. The District provides limited hauled water opportunities for residents within its boundaries.

Groundwater Basins

The District currently relies solely on groundwater as its source. The District overlies three non-adjudicated groundwater basins: the Twentynine Palms Valley Basins (Mesquite Springs Basin), Joshua Tree Basin, and Dale Valley Basin. Within the Joshua Tree Basin are three subbasins: the Indian Cove, Fortynine Palms, and Eastern Subbasins. The District does not produce from the Dale Valley Basin.

Potable water is scarce in the District for several reasons:

- 1) The area receives an average of only four inches of annual rainfall.
- 2) There is negligible infiltration of direct precipitation in areas where the alluvial deposits are thick.
- 3) A substantial amount of runoff is lost to evaporation after flowing into the basin.
- 4) Some of the water is unsuitable for drinking water due to naturally-occurring soluble minerals, such as fluoride.

No additional sources of water are anticipated to be available to the District in the future. As shown below, the District also has a pumping capacity of 490 gpm (790 AFY) from the Eastern Subbasin. This amount along with the 2,100 gpm capacity (3,395 AFY) in Mesquite Lake Subbasin yields a total of approximately 6,985 AFY of available future groundwater supply. There is the potential to expand the Mesquite Lake Subbasin facilities to include another well if needed in the future. This additional well would improve reliability by allowing for redundancy in the Mesquite Lake Subbasin as well as increasing pumping capacity.

The District, in its FY 2011-12 Water Budget, identifies projects through FY 2015-16. The largest project, totaling \$10 million, will provide for an additional three million gallons per day of treated water. The District has identified that the funding for the future expansion of the treatment plant and an additional reservoir associated with this project will come from new debt (existing District debt is scheduled to be paid off in 2015).

Fire

The District provides the following services to an 87 square mile service area covered by two fire stations; Station 421 (Headquarters) located at 6560 Adobe Road and Station 422 (Desert Heights) located at 3834 Lear Avenue.

- Fire Suppression
- Emergency Medical Response (Basic Life Support)
- Victim Rescue
- Hazardous Material Emergency Response – Operational Level
- Fire Investigation (Basic Cause and Origin)
- Fire Prevention and Plan Review
- Public Safety Education

Operational command is handled by a career duty officer (Fire Chief or Captain) who is either in station or on-call within the District.

The career full-time staff consists of the Fire Chief and six company officers (two Captains and four Engineers). They are assisted by 1 part-time Administrative Assistant and 30 volunteer reserve firefighters. The company officers work 72 hours per week and are trained in all the diverse aspects of today's fire service. Besides training in structural and wildland firefighting and as emergency medical technicians, these company officers have additional training, in hazardous materials and technical

rescue (vehicle extrication, swiftwater, high-angle, trench, and confined space), required to lead the reserve firefighters.

The District's ballot measure to increase the fire special tax failed to pass. The future sustainability of this service is now in jeopardy due to the projected inability to start the Fiscal Year 2013-14 with sufficient fund balance to pay expenses until its special tax revenues are received. The department currently maintains an Apparatus Reserve Fund for equipment replacement and the fund currently has \$245,000 and was anticipated to replace Engine 421 in FY 2014-2015. However, the Fire Chief has identified that these reserves will need to be used during FY 2013-14 to fund service.

III. Present Capacity of Public Facilities and Adequacy of Public Services that the Agency Provides or is Authorized to Provide.

Water

The District currently serves 7,983 connections, all of which are metered accounts. Approximately 94 percent of the service connections are residential. Commercial connections account for approximately 4.5 percent, landscape irrigation connections account for less than one percent, and fire protection/non-potable connections account for the remaining 1.4 percent of the District's total connections. Records going back to 1994 indicate the relatively similar percentage distributions amongst the land use types. The Marine Corps base provides its own water supply to their facility and is not associated with any of the numbers and projects in the Urban Water Management Plan.

Water provided by the District is derived solely from groundwater pumped from supply wells located along the southern limit of the service area. As of 2010, the District has ten active production wells. The remaining wells are inactive and/or used for groundwater monitoring. Available information indicates that more than 400 private wells have also been constructed within the District's service area. Most of these wells are not currently operated.

Historic pumping and water deliveries by the District have steadily increased since its formation in the mid-1950s. Annual pumping in the 1990s regularly exceeded 900 million gallons (approximately 2,760 acre-feet per year [AFY]), with average daily delivery per service connection slightly under 400 gallons. Total water demand in the District was 2,674 acre-feet (AF) in 2010, with a projected demand of 3,119 AF in 2035.

In 2008, the District identified to LAFCO that current annual water delivery within the District is 1,084,760 gallons. Average daily flow is approximately 2.97 million gallons or approximately 43% (6.897 mg) of system capacity. The District is at approximately 43% capacity with about 8,000 connections. At the current average daily demand, the system could accommodate an additional 10,374 connections until full capacity is reached (approximately 18,000 connections). As for storage, there are 12 storage

tanks for a total storage capacity of 17 million gallons. At an average daily use of 2.97 million gallons, this represents approximately 5.7 days of water usage.

Section 31023 of the California Water Code, within County Water District Law, states that a district may sell surplus water for use outside its boundaries. The District has identified that it does have a small amount of bulk water hauling activity within the community but does not have a declared surplus of water. The District maintains one site where private individuals and a small number of commercial water haulers purchase water that is used both inside and outside District boundaries. Generally, this water is consumed by households where infrastructure is not available. These sales amount to approximately four million gallons per year.

Fire

The District serves the City and areas outside of the City. The services provided by District include fire prevention, fire suppression, emergency, medical aid, hazardous materials containment, and protection from excessive property damage.

The District maintains two fire stations:

- Station 421 – 6560 Adobe Road (Headquarters)

This station is staffed 24-hours a day by a 3-person engine company consisting of a career (paid) company officer and two volunteer reserve firefighters. Equipment for Station 421 includes the following:

- Engine 421: 1993 E-One, 1500 gallons per minute (GPM), 500 gallon tank
- Reserve Engine 421: 1988 Smeal, 1250 GPM, 500 gallon tank
- Truck 421: 1997 Pierce, 75' aerial, 1500 GPM, 300 gallon tank
- Brush Patrol 421: 2002 4x4 Pierce/Ford, 500 GPM, 250 gallon tank
- Chief 5000: 2003 4x4 Ford F150, Command Vehicle
- Utility 421: 2001 4x2 Ford F150

- Station 422 – 3834 Lear Avenue (Desert Heights)

This station is staffed 24-hours a day by a 3-person engine company consisting of a career (paid) company officer and two volunteer reserve firefighters. Equipment for Station 422 includes the following:

- Engine 422: 2007 Pierce, 1500 gallons per minute (GPM), 750 gallon tank
- Reserve Engine 422: 2000 Pierce, 1250 GPM, 500 gallon tank
- Rescue 422: 1986 E-One/Ford, CAL EMA light rescue, lighting, air support
- Captain 421/422: 2008 4x4 Ford F150, Command Vehicle

In 2011, the overall average response time was six minutes and 29 seconds for all calls within the District. The first unit arrives on scene in eight minutes or less 85% of the time. In 2011, the district was requested 37 times to respond east of its jurisdiction

(Wonder Valley) with the majority of the responses being for traffic collisions and structure fires.

IV. Existence of any Social or Economic Communities of Interest in the Area.

Social and economic communities of interest include the City of Twentynine Palms, the Marine Corps Base, Joshua Tree National Park, Twentynine Palms Highway, and the Morongo Unified School District.

CONCLUSION FOR TWENTYNINE PALMS WATER DISTRICT:

The information presented in the Financial section of this report for the Twentynine Palms Water District concludes that the Water District's fire operations are unsustainable. Therefore, the community and regional service providers need to consider a change in governance for the fire service. A number of options have been identified in this report and LAFCO staff remains ready to work with the agencies to seek a solution for this service. This report does not make a choice of option for the future provision of this service.

Staff is recommending that the Commission make the following sphere determinations for the Twentynine Palms Water District:

1. Reduce its existing sphere of influence by a total of approximately 39.5 acres (Areas 1 and 2) to exclude the portions of its existing sphere along the south, currently within the District's boundaries, comprising of previously privately-owned parcels that are now public lands within the Joshua Tree National Park; and,
2. Modify the service description to its Fire Protection function by adding "first aid, rescue, prevention, inspection"; modify the service description to its Sewer function by adding "engineering"; and affirm the remainder of the functions and service descriptions for the District.