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Water Supply Assessment

Project Title: Chevron Tank Farm Remediation and Development Project

Project Summary: The proposed project includes the following components:

Business Park	Business Park (Offices)	348,000 sf
	Printing and Publishing	10,000 sf
	Hotel (115 rooms)	70,000 sf
	Specialized Education/Training Facility	5,000 sf
Service-Commercial	Light Manufacturing	170,000
	Industrial Research and Development	50,000 sf
	General Retail	15,000 sf
	Vehicle Services Repair and Maintenance -Major	20,000 sf
	Veterinary Clinic/Hospital, Boarding, Large Animals	5,000 sf
	Photo and Film Processing Lab	10,000 sf
	Warehousing, Indoor Storage	50,000 sf
	Wholesaling and Distribution	50,000 sf
	Public-Facility	Public Transit Maintenance and Storage Facility
Public Fire Station and Training Facility		5,000 sf
Recreational Fields		15 acres
Roads, etc.		

Determination: The determination below is based on the following Water Supply Assessment and supporting information in the records of the City of San Luis Obispo.

- The water demand for the project was included in the City’s adopted *Urban Water Management Plan* (2010). A sufficient water supply is available to serve the project.
- Based on additional information, a sufficient water supply is available for the project. The Safe Annual Yield available to the City within a 20-year projection will meet the projected water demand of existing and planned future uses.
- A sufficient water supply is not available for the project. *[Plan for acquiring and developing sufficient supply attached. Water Code § 10911 (a)].*

Signature

Date

Title

Water Supply Assessment

BACKGROUND & APPLICABILITY

This Water Supply Assessment was prepared by the City of San Luis Obispo Utilities Department for the proposed *Chevron Tank Farm Remediation and Development Project* pursuant to the requirements of Section 10910 of the State Water Code, as amended by Senate Bill No. 610, Chapter 643 (2001).

Senate Bill No. 610 (Costa), effective January 1, 2002, requires a city or county which determines that a “project” (as defined in Water Code § 10912) is subject to the California Environmental Quality Act (CEQA) to identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water supply assessment. The assessment is required to include an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts. The assessment must be approved by the governing body of the public water system supplying water to the project.

If the projected water demand associated with the project was included as part of the most recently adopted *Urban Water Management Plan*, the public water system may incorporate the requested information from the *Urban Water Management Plan* in the water supply assessment. The bill requires the city or county, if it is not able to identify any public water system that may supply water for the project, to prepare the water supply assessment after a prescribed consultation. If the public water system concludes that water supplies are, or will be, insufficient, plans for acquiring additional water supplies are required to be submitted to the city or county. The city or county must include the water supply assessment in any environmental document prepared for the project pursuant to the act. It also requires the city or county to determine whether water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

A “project” under Section 10912 includes the following:

- a. A proposed residential development of more than 500 dwelling units.
- b. A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- c. A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- d. A proposed hotel or motel, or both, having more than 500 rooms.
- e. A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- f. A mixed-use project that includes one or more of the projects specified in this subdivision.
- g. A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

As described later in this report, the proposed *Chevron Tank Farm Remediation and Development Project* includes over 800,000 square feet of building space over several land use categories; therefore, the requirements of Section 10910 of the California Water Code apply to the proposed project.

Water Code Section 10910(b) requires the identification of the public water system that may serve the project. The City is the sole water purveyor within the city limits. Upon annexation, water would be provided to the proposed *Chevron Tank Farm Remediation and Development Project* by the City of San Luis Obispo.

Water Code Section 10910(c)(1) requires a determination of whether or not the project was included in the City's most recently adopted *Urban Water Management Plan*. The City's *Urban Water Management Plan* was adopted on June 21, 2011. The *Plan* provides a description of the City's service area, demographics, multi-source water supply, treatment, and conveyance/distribution facilities. The *Plan* also includes historical and future water demand to serve the buildout of the City consistent with the General Plan.

Since 1987, the City's General Plan has included a Water and Wastewater Management Element. The water section of the Element includes policies related to present water demand and overall projected water demand. The Element also addresses water conservation, water resource availability, accounting for siltation, multi-source water supply, and recycled water. The City's General Plan Water and Wastewater Management Element was updated in 2010. An update of the Land Use and Circulation Element is planned to start during 2011.

WATER SERVICE AREA DESCRIPTION

San Luis Obispo is located half way between Los Angeles and San Francisco situated in a coastal valley approximately ten miles inland from the Pacific Ocean. The City's climate provides for mild, dry summers and cool winters with an annual average of about 23 inches of precipitation. Table 1 provides data on the average monthly evapotranspiration rate, average maximum high temperature and average precipitation for the City.

**Table 1: City of San Luis Obispo
Evapotranspiration Rate/Average Temperature & Precipitation**

	Standard average ETo (in)	Average Rainfall (in)	Average Temperature (F)
January	2.21	5.09	63.1
February	2.50	4.83	64.9
March	3.80	3.63	65.6
April	5.08	1.71	68.4
May	5.70	0.42	70.8
June	6.19	0.07	74.9
July	6.43	0.03	78.3
August	6.09	0.05	79.3
September	4.87	0.33	79.5
October	4.09	0.90	76.7
November	2.89	2.47	70.4
December	2.28	3.84	64.5
Annual	52.13	23.35	71.4

Source: Department of Water Resources, CIMIS Station #53, 2011.

SOURCES OF SUPPLY

The City is the sole water purveyor within the city limits. This allows the City to maintain uniformity of water service and distribution standards, and to be consistent in developing and implementing water policy. As the sole water purveyor, the City maintains control over water quality, distribution, and service to users of the system, as well as ensuring consistency with the City's 2010 General Plan policies and goals.

The Water and Wastewater Management Element of the General Plan (WWME), first adopted in 1987 and most recently updated in 2010, identifies multiple water projects to meet projected short and long-term water demand. Having several sources of water avoids dependence on any one source that may not be available during a drought or other water supply reduction or emergency. There is usually greater reliability and flexibility if sources are of different types (such as surface water and groundwater) and if the sources of one type are in different locations (such as reservoirs in different watersheds). With the update of the WWME in 2010, the City Council reaffirmed the policy for a multi-source water supply.

Consistent with the multi-source water supply concept, the City obtains water from five sources: Salinas Reservoir (Santa Margarita Lake), Whale Rock Reservoir, Nacimiento Reservoir, recycled water from the City's Water Reclamation Facility (WRF), and a limited amount of groundwater. The following sections discuss each of the City's water sources.

Salinas Reservoir (Santa Margarita Lake)

The Salinas Dam was built in 1941 by the War Department to supply water to ensure an adequate water supply for Camp San Luis Obispo, as well as the City of San Luis Obispo. Santa Margarita Lake captures water from a 112 square mile watershed and can store approximately 23,800 acre-feet. The dam and appurtenances were declared surplus by the War Department on April 14, 1947 and the U.S. Army Corps of Engineers assumed responsibility for the facilities. On July 11, 1947, the Corps entered into an agreement with the San Luis Obispo County Flood Control and Water Conservation District (District) for the operation and maintenance of the dam and related facilities. The City has an agreement with the Corps for the water from the reservoir. As part of this agreement, the City pays to the District all operation and maintenance costs associated with the water delivery and dam facilities (City of San Luis Obispo, *Urban Water Management Plan*, 2011). Water from the reservoir is pumped through the Cuesta Tunnel (a one mile long tunnel through the mountains of the Cuesta Ridge) and then flows by gravity to the City's Water Treatment Plant on Stenner Creek Road.

The Corps of Engineers owns the dam and property surrounding the Lake. Since the facilities are not utilized to supply water to Camp San Luis Obispo, the Corps has expressed interest for many years in relinquishing ownership of the facilities. The discussions concerning which local agency, either the City or County of San Luis Obispo, should ultimately own the facilities has been debated for many years. In the early 1990's the City Council agreed to allow the property to transfer to the County Flood Control and Water Conservation District with appropriate agreements in place to protect City interests.

Whale Rock Reservoir

Whale Rock Reservoir is formed by an earthen dam and was able to store an estimated 40,662 acre-feet of water at the time of construction. The project facilities consist of a 30-inch pipeline, two

pumping stations, 2.1 miles of trails and a fishing access facility, maintenance facility and offices, and a structure previously used as a private residence.

City staff are responsible for ongoing maintenance and operation of the reservoir, including the inlet and outlet structures, reservoir structural instrumentation, access roads, daily reservoir level readings and climatological data, reservoir patrol and security, pipelines and pumping stations, water meters, cathodic protection system, and other associated duties. Staff also monitors public fishing access to the lake during trout season (April to November).

Whale Rock Reservoir is located on Old Creek approximately one half mile east of the community of Cayucos. The project was planned, designed, and constructed under the supervision of the State Department of Water Resources. Construction took place between October 1958 and April 1961. The reservoir is jointly owned by the City, the California Men's Colony, and the California Polytechnic State University at San Luis Obispo. These three agencies form the Whale Rock Commission which is responsible for operational policy and administration of the reservoir. Day-to-day operation is provided by the City. The City owns 55.05 percent of the water storage rights at the reservoir. The remaining water storage rights are divided between the two State agencies with Cal Poly owning 33.71 percent and the California Men's Colony owning 11.24 percent (City of San Luis Obispo, *Urban Water Management Plan*, 2011).

Recycled Water

The City began construction of a Water Reuse Project in August 2003. The Project was funded by a State Revolving Fund loan and a Water Recycling Construction Program grant. The project was designed and constructed in two parts which included eight miles of distribution pipelines and improvements at the Water Reclamation Facility (WRF) including a new 600,000 gallon buried concrete recycled water storage tank to provide the storage necessary for operation of the distribution system and a pump station to deliver recycled water into the distribution system. The Water Reuse Project was completed in October of 2006.

The recycled water distribution system extends east, west, and south from the WRF in the southern portion of the City. The distribution system was designed to supply irrigation water to several existing City parks, the City's Laguna Lake Golf Course, a middle school, Caltrans landscape medians, and four future annexation/development areas. Recycled water is provided to Caltrans from a metered connection near the WRF, which is adjacent to U.S. Highway 101. Caltrans utilizes recycled water to irrigate landscape areas along the highway corridor, which were previously supplied with potable water.

With an average influent flow of approximately 5.0 million gallons per day in 2010, the WRF produces over 5,500 acre-feet of disinfected tertiary-treated effluent per year. The City is required to maintain a minimum average daily release, year-round, of treated effluent to San Luis Obispo Creek at a rate of 2.5 cubic feet per second (cfs), or approximately 1.6 million gallons per day (mgd) to provide a flow volume adequate to support habitat for anadromous fish species within San Luis Obispo Creek. This rate totals a minimum of 1,807 acre feet per year of creek discharge. The City monitors the release of effluent through an effluent meter at the WRF and a stream gauge in San Luis Obispo Creek. The balance, nearly 3,800 acre feet in 2010, makes up the City's available recycled water resource. Based on the premise that landscape irrigation would continue to be the primary use of recycled water, the City estimates that demand will exist for approximately 1,000 acre-feet of recycled water annually.

Nacimiento Lake

In 1959, the San Luis Obispo County Flood Control and Water Conservation District (District) entered into an agreement with Monterey County Flood Control and Water Conservation District (now Monterey County Water Resources Agency) to secure rights to 17,500 acre-feet of water per year from Nacimiento Reservoir. Nacimiento Reservoir is located entirely within San Luis Obispo County, California (County), and was built by Monterey County Flood Control and Water Conservation District, now Monterey County Water Resources Agency, who continues to control reservoir ownership and operations. The reservoir has a storage capacity of 377,900 acre-feet and serves the purpose of abating seawater intrusion in the groundwater aquifers of the Salinas River Valley. The Nacimiento Reservoir also provides flood protection and is a source of water supply for groundwater recharge for the Salinas Valley. Approximately 1,750 AFY of the County’s entitlement have been designated for uses around the lake, leaving 15,750 AFY for allocation to other areas within the County of San Luis Obispo.

The “dependable yield” from Nacimiento Reservoir is the contractual amount of water that the City has rights to from Nacimiento Reservoir. This amount is 3,380 acre-feet per year. Engineering studies, environmental impact reports, dependable yield analyses, and preliminary design reports were undertaken in an effort to meet the various water needs within the County. In 2004, the County requested interested agencies to approve the contractual agreements for participation in the Nacimiento Project. The four initial project participants included the cities of San Luis Obispo and Paso Robles, the Atascadero Mutual Water Company, and the Templeton Community Services District. All of these agencies executed participation agreements with San Luis Obispo County for entitlements of water which totaled 9,630 acre feet. On June 29, 2004, the City Council authorized participation in the Nacimiento Water Project for the delivery of 3,380 acre-feet of water. In 2004, the County Service Area 10 in Cayucos became a project participant (25 AFY).

The County began construction in 2007 on a 45-mile pipeline project to deliver water from the Nacimiento Reservoir to participating agencies and cities. The facilities consist of a multi-port intake structure, three pump stations, three storage tanks, 45 miles of pipeline, four turnouts, a control center, and a Supervisory Control and Data Acquisition (SCADA) and Project control system. The Project budget was \$176-million, including design, construction, construction management, environmental permitting, and right-of-way. Pipeline construction and related water delivery facilities were completed in the fall of 2010 with water deliveries to the City beginning in January of 2011.

Groundwater

Prior to 1986, most groundwater in the area of the City was used by agriculture with very little used for domestic consumption. With the onset of the drought in 1986, resulting in decreasing surface water supplies, the City activated groundwater wells in 1989 to meet the City's water demand. In the 2010 update of the General Plan’s Water and Wastewater Management Element, groundwater was eliminated from the City’s water supply calculation as a basis for meeting long-term water demands. The decision was based on the water quality and availability issues which deemed groundwater as a potentially unreliable source. The City will continue to utilize limited amounts of groundwater in the future when the resource is available and the water quality is appropriate for potable purposes.

WATER RESOURCE AVAILABILITY

In order to document an adequate water supply is available to serve the water demand of both existing uses and planned future uses for the next 20 years, consistent with the requirements of SB 610, the City determines the availability annually of its water sources, as shown in Table 2. Estimates

of the City’s future population conclude that approximately 48,200 people will reside in the City in 2030, as shown in Table 3. The City’s buildout population is estimated at 57,200 in the General Plan.

Table 2: City Water Resource Availability

Water Resource	2010 Annual Availability	
Salinas Reservoir (Santa Margarita Lake) and Whale Rock Reservoir	6,940 AF	Safe Annual Yield
Nacimiento Reservoir	3,380 AF	Contractual Limit
Recycled Water	130 AF	2009 Annual Usage
Siltation to 2060	(500 AF)	Policy A 4.2.2
	TOTAL 9,950 AF	

Note:

1. “Safe Annual Yield” is the quantity of water that can be utilized consistently and reliably over an extended period of time. The extended period of time must be long enough to establish patterns that would include a worst case drought scenario.
2. The quantity of recycled water included as part of the City’s available water resources identified above, is the actual prior year’s recycled water usage (2009), per General Plan Policy A 7.2.2.

Source: City of San Luis Obispo Utilities Department, 2010.

TABLE 3: City Population

	2010	2015	2020	2025	2030
Population	45,119	44,910	46,110	47,010	48,200

Source: Economic Research Associates for San Luis Obispo Council of Governments; California Department of Finance with 2010 updated for US Census Count.

The City accounts for water supplies necessary to meet three specific community needs:

Primary water supply is the amount needed to meet the General Plan build-out of the City. The quantity of water needed for the City’s primary water supply needs is calculated using a ten-year average of actual per-capita water use and the City’s build-out population.

Reliability reserve provides a buffer for future unforeseen or unpredictable long-term impacts to the City’s available water resources such as loss of yield from an existing water supply source and impacts due to climate change.

Secondary water supply is the amount needed to meet peak water demand periods or short-term loss of City water supply sources. The City’s secondary water supply is identified as any water supply resources above those needed to meet the primary water supply and reliability reserve.

In order to support growth projections and other goals of the General Plan, the City projects how much water will be needed to serve residents, businesses, and other users. The City’s historical per capita water use has ranged from a high of 182 gallons per capita per day (gpcd) in 1987 to a low of 86 gpcd in 1991 during mandatory water rationing. The City uses an average per capita water use

rate, moderated by the use of the ten-year running average to normalize weather events to project the City’s primary water supply and reliability reserve into the future. In 2010, the ten-year average was 123.2 gpcd. This water use rate is used with the City’s build-out population and current population to project the primary water supply and reliability reserve. The City’s remaining water resources make up the secondary water supply.

Table 4: 2010 Water Supply Accounting

Total ¹	Primary Water Supply ²	Reliability Reserve ³	Secondary Water Supply ⁴
9,950 acre-feet	7,894 acre-feet	1,241 acre-feet	816 acre-feet

Notes:

1. The “Total” water supply for 2010 is identified in Table 2. It includes safe annual yield from Salinas and Whale Rock Reservoirs, contractual amount from Nacimiento Reservoir, annual recycled water usage for 2009, and deducts siltation losses at Salinas and Whale Rock Reservoirs to 2060.
2. *Primary Water Supply* was calculated using the City’s buildout population (57,200, per Land Use Element, Table 2, Anticipated City Population Growth, 2006) and the water use rate of 123.2 gallons per capita per day (a ten-year running average of the City’s actual per capita water use), per General Plan policy A 5.2.2.
3. *Reliability Reserve* was calculated using the City’s 2010 population (44,948, per CA Dept. of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2010, with 2000 Benchmark. Sacramento, CA, May 2010) and 20 percent of the water use rate of 123.2 gallons per capita per day (a ten-year running average of the City’s actual per capita water use), per policy A 5.2.3.
4. *Secondary Water Supply* includes the remaining water resources available in 2010, identified in Table 1, per General Plan policy A 5.2.4.

Source: City of San Luis Obispo, General Plan, Water and Wastewater Management Element, Table 4, 2010.

WATER SUPPLY RELIABILITY

The above discussion provided information on water resource availability in order to document an adequate water supply is available to serve the water demand of both existing uses and planned future uses for the next 20 years. This section includes additional information on the reliability of the City’s water supply.

In order to ensure water supply reliability, the City tracks the amount of water available from these water resources on an annual basis. The method to determine the available yield from each resource varies based on water rights, contractual agreement, or the amount of water actually supplied. For Salinas and Whale Rock Reservoirs the term “safe annual yield” is used to define the quantity of water which can be withdrawn every year, under critical drought conditions. The two reservoirs are operated in a coordinated manner to increase the available water. In contrast, the “dependable yield” from Nacimiento Reservoir is the contractual amount of water to which the City has rights. Since Nacimiento Reservoir is operated as a water supply project for Monterey County, the concept of safe annual yield is not used for the City’s contractual water supply from this source. For recycled water, the annual amount delivered is used in the water availability calculation. Though groundwater is part of the City’s water portfolio, due to the limitations on its availability and use, the City will not consider this supply in estimating available water resources to meet community needs.

Salinas and Whale Rock Reservoirs

In the past the City received the majority of the water supply necessary to meet citywide water demands from the Santa Margarita Lake (Salinas Reservoir) and Whale Rock Reservoir. The City uses these two sources in a coordinated manner to increase the City's overall water supply. Although coordinated operation of the two reservoirs has provided a reliable water supply to date, over time siltation will continue to reduce the storage capacity of the reservoirs and thereby reduce the safe annual yield available from these two sources. The City accounts for losses due to siltation at these two reservoirs as discussed in the City's General Plan (Chapter 8, Water and Wastewater Element).

Nacimiento Lake

In 1959, the San Luis Obispo County Flood Control and Water Conservation District (District) executed an agreement entitling the District to 17,500 acre-feet of annual supply from Nacimiento Reservoir. The District has long recognized its entitlement in Nacimiento Reservoir as a significant, viable element in San Luis Obispo's regional water supply planning. To better define Nacimiento Reservoir's role in the County of San Luis Obispo's regional water supply plan, the District retained a consultant to perform a three-phase engineering evaluation of the Nacimiento supply (Boyle Engineering Corp., 1992).

A review of existing agreements led to the conclusion that the Monterey County Water Resources Agency is bound to maintain a minimum pool of 12,000 acre-feet above the elevation of the low level outlet works as of September 30th each year for the benefit of San Luis Obispo. Additionally, the evaluation determined that per the agreement, San Luis Obispo County has contractual rights to the first 17,500 af that flows into the lake each year. It is these provisions for minimum pool and first in right to the inflow that makes the San Luis Obispo District's Nacimiento entitlement highly reliable source of water for the City.

The 1992 *Reliability Evaluation* documents a review of the agreements described above and concludes that Nacimiento Reservoir represents a viable, reliable source of water supply to San Luis Obispo County for three key reasons:

1. Considering the contractual agreements affecting the San Luis Obispo Water District,
2. Historic inflow into Nacimiento Reservoir, and
3. Historic reservoir operational patterns.

Recycled Water

As described earlier in this report, the City has the potential to provide 1,000 acre feet per year of recycled water for appropriate non-potable uses including landscape irrigation, construction water for dust control and some industrial purposes. Recycled water is viewed as a reliable non-potable water supply due to the following considerations:

- this non-potable water source is created at the City's Water Reclamation Facility which has a fairly consistent and reliable flow rate,
- the components of the Water Reclamation Facility necessary to produce the recycled water are new facilities brought on-line in 2006,
- the recycled water distribution system was designed to deliver recycled water to large volume customers, and
- the recycled water distribution system is sized to allow for future expansion.

WATER USAGE

Water use in the City includes single-family, multi-family, commercial (includes institutional and industrial), and irrigation customers. No agricultural uses are supplied by City water and the City does not sell water to other agencies. The number of connections and deliveries to the City's customers by category are presented for 2005 (past), 2010 (current) and future scenarios in Table 5. The projected deliveries take into account water use reduction required by the Water Conservation Act of 2009 and the City's General Plan land use projections and population estimates.

Table 5: Past, Current, and Projected Water Deliveries

		Water Use Sectors				
		Single Family	Multi-family	Commercial, Industrial, and Institutional	Irrigation	Total
2005	# of metered accounts	10,582	1,589	1,895	474	14,540
	Water Deliveries	2,483 afy	1,182 afy	1,668 afy	551 afy	5,884 afy
2010	# of metered accounts	10,680	1,760	1,695	524	14,812
	Water Deliveries	2,193 afy	1,093 afy	1,408 afy	524 afy	5,218 afy
2015	# of metered accounts	10,940	1,800	1,730	540	15,010
	Water Deliveries	2,391 afy	1,192 afy	1,535 afy	571 afy	5,689 afy
2020	# of metered accounts	11,200	1,840	1,770	550	15,360
	Water Deliveries	2,455 afy	1,224 afy	1,577 afy	587 afy	5,843 afy
2025	# of metered accounts	11,500	1,890	1,810	560	15,760
	Water Deliveries	2,503 afy	1,247 afy	1,607 afy	599 afy	5,956 afy
2030	# of metered accounts	11,780	1,940	1,600	570	15,890
	Water Deliveries	2,567 afy	1,280 afy	1,648 afy	614 afy	6,109 afy
2035	# of metered accounts	12,070	1,990	1,640	590	16,290
	Water Deliveries	2,627 afy	1,309 afy	1,687 afy	628 afy	6,251 afy

Source: City of San Luis Obispo, *Urban Water Management Plan*, 2011.

CHEVRON TANK FARM REMEDIATION AND DEVELOPMENT PROJECT

Although the site of the proposed Chevron Tank Farm Remediation and Development Project is presently within the unincorporated County, it also lies within the City's sphere of influence and is designated for annexation in accordance with the City's 2005 Airport Area Specific Plan (AASP). The central focus of the City's AASP is to restore and remediate the site to include a permanent ecological preserve and facilitate new development, renovation, and redevelopment of existing development in the planning area. The proposed land uses in the Chevron Tank Farm Remediation and Development Project include:

- 27 acres of business park development (BP-SP) with approximately 433,000 square feet of floor space for business park land, located at the northeastern portion the Project Site.
- 26 acres of Service-Commercial development (C-S-SP) with approximately 370,000 square feet for Service Commercial uses located mostly within the Tank Farm Road Corridor.

- 15 acres of Public Facilities (PF-SP) zoning intended for recreational ball fields.
- 14 acres of public right-of-way (e.g., streets), and
- 250 acres designated as open space on both sides of Tank Farm Road (C/OS-SP).

Projected Water Demand

Based upon the project's proposed land uses the projected water demand for the proposed Chevron Tank Farm Remediation and Development Project has been calculated using water use factors for each land use category as shown in Table 6.

**Table 6: Chevron Tank Farm Remediation & Development Project
Proposed Land Use**

Land Use Category	Water Use Factor (acre feet year)
General Retail	0.008
Public Transit Maintenance and Storage Facility	0.023
Warehousing, Indoor Storage, Wholesaling and Distribution	0.029
Vehicle Services -Repair and Maintenance-Major	0.03
Public Fire Station and Training Facility	0.064
Business Park (Offices), Specialized Education/Training Facility	0.066
Light Manufacturing, Photo and Film Processing Lab, Printing and Publishing	0.071
Industrial Research and Development	0.1
Veterinary Clinic/Hospital, Boarding, Large Animal	0.2
Hotel (115 rooms, plus Restaurant, Shop and Meeting Rooms)	0.43
Recreational Fields	1.4 afy/acre

Source: City of San Luis Obispo, Utilities Department, 2011.

As shown in Table 7, estimated water demand for the Chevron Tank Farm Remediation and Development Project would be approximately 117 acre feet per year with the land uses and water use factors described above.

**Table 7: Chevron Tank Farm Remediation & Development Project
Land Use Mix and Projected Water Demand**

Zoning Designation	Possible Land Use	Square Footage	Water Demand (afy)
Business Park	Business Park (Offices)	348,000	22.97
	Printing and Publishing	10,000	0.71
	Hotel (115 rooms)	70,000	49.45
	Specialized Education /Training Facility	5,000	0.33
Service-Commercial	Light Manufacturing	170,000	12.07
	Industrial Research and Development	50,000	5.00
	General Retail	15,000	0.12
	Vehicle Services Repair and Maintenance -Major	20,000	0.60
	Veterinary Clinic/Hospital, Boarding, Large Animals	5,000	1.00
	Photo and Film Processing Lab	10,000	0.71
	Warehousing, Indoor Storage	50,000	1.45
	Wholesaling and Distribution	50,000	1.45
Public-Facility	Public Transit Maintenance and Storage Facility	10 acres	0.23
	Public Fire Station and Training Facility	5,000	0.32
	Recreational Fields	15 acres	21.00
		TOTAL	117.41

Source: City of San Luis Obispo Community Development Department, 2011.

CONCLUSION

Adequate water supply for the Chevron Tank Farm Remediation and Development Project was included in the City's *Urban Water Management Plan* (adopted July 21, 2011). Based on the information provided in this Water Supply Assessment and adopted *Urban Water Management Plan*, the City has a sufficient water supply available to meet the water supply demand (171.4 afy) of the Chevron Tank Farm Remediation and Development Project as represented here.

REFERENCES

City of San Luis Obispo Community Development Department, *General Plan*, 2010.

City of San Luis Obispo, *Urban Water Management Plan*, July 2011.

City of San Luis Obispo, Utilities Department, *Utility Billing*, July 2011.

City of San Luis Obispo, *Water Use Factors*, July 2011.