precipitation, and subsurface underflow. Basin discharges occur through surface outflow, springs, groundwater pumpage, and ETo (RMC Geoscience, 2007).

Regionally, groundwater flow directions reflect topography and geologic structure; generally from northeast to southwest. Groundwater in the San Luis Obispo groundwater basin is structurally controlled (Plate 3).

Water from the alluvium is generally of good quality with relatively low concentrations of dissolved constituents. Generally, water quality from the Pismo Formation is good in shallow wells and poor in deeper wells. Water quality from the Monterey Formation is not well documented but likely affected by naturally occurring tar and oil (EMCON, 1992).

LOCAL HYDROGEOLOGY

Hydrogeologic conditions at the site were determined based on data from the drilling and installation of monitoring wells on the existing and proposed expanded site (Golder, 2007). The drilling, installation, pump testing, and regular sampling of the network of monitoring wells at the site have allowed determination of water level data, hydraulic gradient, flow direction, water quality, and aquifer characteristics.

The fractured bedrock of the Monterey Formation underlies approximately 35 percent of the current and proposed expanded CCL. Surface fractures indicate that there are two dominant bedrock fracture trends, both of which strike north-south subparallel to groundwater flow. Surface and subsurface connectivity of the fractures increases to the north towards the Indian Knob fault zone. Hydraulic conductivity is approximately 0.18 feet per day (ft/d) or 6.3 x 10^{-5} centimeters per second (cm/sec) (Golder, 2007). The effective porosity of the formation at the site is approximately 20 percent (Golder, 2007).

The Pismo Formation underlies approximately 65 percent of the entire CCL and most of the proposed expansion area. The Pismo Formation is predominantly massive bedrock at the site, but exists in the undifferentiated Pismo Formation north of the CCL as approximately 55 percent fractured bedrock and 45 percent massive bedrock. Fractures are typically present as discrete zones (15 to 25 feet thick). The hydraulic conductivity of the Edna Member of the Pismo Formation (the only member present below the site) was determined based on a constant-discharge test within well P-1B to be approximately 0.65 ft/d or 2.3 x 10^{-4} cm/sec (Golder, 2007). The effective porosity of the formation is estimated to be 25 percent (Golder, 2007).

Bedding in the Pismo and Monterey Formations are generally consistent across the site. Beds dip from 30 to 45 degrees to the southwest and strike from 50 to 75 degrees to the northwest (refer to Plate 3).

Groundwater occurs in the Pismo and Monterey formations at the site, both of which are water-bearing materials that appear to be hydraulically connected (ERCE, 1991). Locally, groundwater flows generally from northeast to southwest at a gradient of 0.04 to 0.05 feet per foot (EMCON Associates, 1992). Generally, shallow groundwater elevations within the

Monterey Formation vary between 180 and 210 feet above mean sea level (MSL). Water levels in MW-5 vary between 260 and 280 feet above MSL. The locations of the monitoring wells are presented as Plate 4 - On-Site Groundwater Well Location Map. Groundwater hydrographs for the site monitoring wells are presented on Plate 5 - Groundwater Hydrographs. The most recent groundwater contour map from May 2006 is representative of pumping conditions and is presented on Plate 6 - Typical Groundwater Contour Map. Groundwater extraction from Supply Well Nos. 1 and 2, to be discussed later, appears to have created an artificial depression in the potentiometric surface, creating a localized area of groundwater flow to the north and east, toward the supply wells.

Groundwater occurrence beneath the proposed expansion area is described by Golder (2007) based on data obtained through the drilling of new Monitoring Wells P-10 through P-14 and temporary Observation Wells B-1 and B-2. A total of 15 monitoring wells were present at the site prior to the installation of monitoring wells P-10 through P-14, after which, there are 20 monitoring wells. The depth to the water surface varies between approximately 7 feet in well P-11 to 93 feet in Well B-1. Groundwater elevations range between approximately 230 feet above MSL in the northern well (P-14) and 180 feet above MSL in the southern well (P-11). Groundwater elevations are measured quarterly in the site monitoring wells as presented on Plate 5 - Groundwater Hydrographs. The hydrographs indicate that MW-2 and P-5 (Monterey Formation wells) have an extended period of seasonal variability. The same seasonal variability may be evident in limited-duration hydrographs (not presented) for the newer monitoring wells (P-11, P-12 and P-13). For the five-event period of record for the newer monitoring wells, groundwater levels have varied between 0.14 feet (Well B-1) and 7.27 feet (Well P-13) (Golder, 2007).

San Luis Obispo County Public Works Department maintains a database of groundwater levels throughout the County (San Luis Obispo County Water Resources Unit, 2008). However, water Resources Unit staff does not measure water levels in any well within the study area.

GROUNDWATER SUPPLY

On-Site Supply

The hydrogeologic site characterization report (EMCON, 1992) and personal communications with CCL general manager, Mr. Bruce Rizzoli (2007) are the main sources of data related to groundwater supply at the CCL and within the surrounding area.

Six on-site low-capacity wells are located on the property with an estimated total source capacity of approximately 88 gallons per minute (gpm) (Rizzoli, 2007). The wells, as with all wells within the hydrogeologic study area, pump from an area that is not within a defined groundwater basin (RWQCB, 2007), but near the San Luis Obispo groundwater basin and lower Pismo groundwater basin. None of the on-site wells have meters to document groundwater production. The locations of the wells are presented on Plate 4. Photographs of the wells are presented in Appendix C - Site Photographs.

In the westernmost corner of the site are three wells known as the "Shop Wells," and are located adjacent to the shop. Two of these wells (PW-1 and PW-2), which operate as a single water source produce an estimated 10 gpm. Except for the recycling operation, the two wells satisfy demand associated with the landfill operation and all non-potable uses. Well PW-1 was constructed in 1986 to a depth of 205 feet, with perforations placed between 65 and 205 feet. The well is surface sealed to 24 feet and produces water from the Monterey Formation. The well consists of a 6-inch diameter PVC casing and is gravel packed. According to the Water Well Drillers Report, the well is equipped with a 1-horsepower submersible pump that reportedly produced approximately 50 gpm at the time it was drilled. The actual production rate from the well is much less, likely several gpm, but unknown because of the lack of a flow meter.

The other shop well (PW-2) was installed in 1987 to a depth of 400 feet, with perforations placed between 320 and 400 feet. The well is located 10 feet from Well PW-1. The well is surface sealed to 20 feet and produces water from the Monterey Formation. The well consists of a 6-inch diameter PVC casing and is gravel packed. The well is equipped with a submersible pump that produced approximately 8 gpm at the time it was drilled according to the Water Well Drillers Report.

A third shop well (PW-3) located near the other two, is completed to a depth of 367 feet. A Water Well Drillers Report does not exist for this well. Although the well is equipped with a 1-1/2-horsepower pump, it is believed that it does not contribute water to the system and is not used. The three shop wells will be destroyed as part of the CCL expansion (Rizzoli, 2007).

Three wells are located along the southeastern edge of the site that contains the expansion area on the so-called Weir property. The "Weir" wells, designated as Wells #1, #2 and #3 on Plate 4, produce water from the Pismo Formation and consist of 5-inch-diameter PVC casing and are gravel packed. Well No. 1 is 186 feet deep. Well No. 2 is 156 feet deep. Well No. 3 is 245 feet deep. Each well is equipped with a 5-horsepower (Well No. 1) or 2-horsepower (Well Nos. 2 and 3) submersible pump. Currently, only Well Nos. 1 and 2 are connected and in use. Well No. 3 could be reactivated in the future. State well completion reports, which document the design and age of the wells, do not exist for these wells. Mr. Rizzoli believes that one of the wells (Well No. 1) may have been installed when the adjacent house was built around 1956. The other well (Well No. 2), may have been installed around 1975. Well No. 3 is reportedly more recent, but the date of installation is unknown (Rizzoli, 2007). Other than State well completion reports and Mr. Rizzoli's opinion, we have no way to confirm the age or condition of the wells.

The two active Weir wells satisfy water demand associated with site operations on the southeastern portion of the site, the Sort facility, and fire suppression. The produced groundwater is pumped directly to an 86,000-gallon steel tank behind the Sort Facility (65,000 gallons of which are maintained for fire suppression) or to a pond adjacent Well P-14 where it is stored for site operational needs (Golder, 2007) (Plate 4). During the expansion, these wells will be the only remaining water supply wells on-site. The three Weir wells would have a combined source capacity of 78 gpm, although the current capacity from the wells is 62 gpm because Weir Well No. 3 is not active (Rizzoli, 2007).

A summary of the on-site groundwater supply well data is presented as Table 1 - Summary of On-Site Water Well Data. Well Completion Reports and Well Summary Sheets for the wells for which this data exists are provided in Appendix D - On-Site Well Information.

Table 1. Summary of On-Site Water Well Data

Well	State Well Completion Report	Status	Formation Aquifer	Capacity (gpm)	Future Use
Shop Wells (PW-1 and PW-2)	Yes	Active	Monterey	10 (combined)	To Be Destroyed
Shop Well PW-3	No	Inactive	Monterey	0	To Be Destroyed
Weir Well No. 1	No	Active	Pismo	40	To Remain
Weir Well No. 2	No	Active	Pismo	22	To Remain
Weir Well No. 3	No	Inactive	Pismo	16	To Remain

Private and Public Water Companies

The Department of Public Health (DPH) Drinking Water Program for the Santa Barbara District regulates water systems for San Luis Obispo, Santa Barbara and Ventura counties for water systems with greater than 15 connections or 25 people. The only DPH-regulated water system in the general area is the Golden State Water Company, Edna Road System. The system is located approximately 2 miles northwest of the CCL, generally along County Club Drive (personal communication with DPH staff). This water system is outside of the hydrogeologic study area that could potentially be impacted by the landfill expansion project. The extent of the area to be evaluated for potential impact analysis is presented as Plate 7 - Hydrogeologic Study Area.

The San Luis Obispo County Environmental Health Services Division regulates Small Water Systems (15 to 199 service connections, regularly serving 25 or more individuals at least 60 days per year) and State Small Water Systems (5 to 14 service connections, serving more than an average of 25 individuals daily for more than 60 days per year). A single Small Water System and a single State Small Water System are located immediately outside of the hydrogeologic study area. H_2O Incorporated is a Small Water System with 24 connections located slightly more than a mile northeast of the CCL expansion area. Camino Edna is a State Small Water System located north of Corbett Canyon Road approximately 1 mile northwest of the existing CCL. This State Small Water system serves 10 connections.

WATER DEMAND

Current On-Site Water Demand

Estimates of current and future on-site water demand were acquired through an interview with Mr. Bruce Rizzoli (2007). Water demand at the landfill has historically varied seasonally and between phases of site operations. The existing landfill uses water for dust control purposes, irrigation of compost, Materials Recovery Facility (MRF) uses (excluding potable use), and for the yard/office area (excluding potable use). No on-site groundwater has historically been used as a potable water source. Groundwater is pumped from four on-site wells, two of which (Weir Well Nos. 1 and 2) will provide all non-potable water for the project during expansion.

For landfill-related dust control, water produced from the shop wells is conveyed by water truck and spread as needed around the heavily-trafficked areas. Approximately two to three loads, each consisting of a volume of 4,300 gallons (for a total of 8,600 to 12,900 gallons) is used for these purposes each weekday (Monday through Friday). No dust-suppression water is needed following rainfall events. Conversely, on exceedingly dry, warm, or windy days up to four loads of water (17,200 gallons) is used per day for dust control (Rizzoli, 2007). Based on a field visit to the CCL during active landfill operations, these estimates seem reasonable.

The compost operation irrigates approximately 16 compost windrows daily. Each windrow is between 200 and 600 feet long and approximately 7 feet high. The facility currently maintains 18 aisles for the windrows, but in leaving room to turn each windrow, has room for only 16 filled windrows at any time. Each windrow requires approximately 8,000 gallons of water per week during the weekdays, or on average of approximately 25,600 gallons per day (gpd). The compost operation also requires an average of 2 loads per day for dust suppression (8,600 gpd). In total, approximately 34,200 gallons are used each weekday for this operation. Demand increases in warm weather up to as much as 40,000 gpd. Demand decreases during and following rainfall periods.

Other than for employee water use, the MRF uses water only for periodic washing down of the facility. Less than 1,000 gpd is used during the weekdays, and 300 gpd on the weekends for these operations (Rizzoli, 2007). These estimates seem reasonable.

According to the County of San Luis Obispo's Environmental Health department report that light-industrial workers use an average of about 15 gpd for non-potable uses (personal communication with Mr. Brad Pryor). Currently, a total of 40 people work at the MRF on weekdays. No employees work at the MRF on weekends. Approximately 14 employees work at the landfill operation on weekdays, decreasing to 7 employees on weekends. In total 79 employees currently work in all components of the CCL including administrative, landfill, scalehouse, MRF, compost, resource recovery park, household hazardous waste, and universal and electronic waste components (Morro Group, 2007). The entire CCL staff is estimated to use about 1,185 gpd on weekdays and 105 gpd on weekends. Total current on-site water demand is summarized in Table 2 - Summary of Estimated Current On-Site Water Demand.

Table 2. Summary of Estimated Current On-Site Water Demand

Operation	Typical Weekday Use		Typical Weekend Use		Maximum Use	
	gpd	afy	gpd	afy	gpd	afy
Landfill (dust control)	8,600	6.9	4,300	1.4	17,200[1]	10.1[2]

Composting (compost irrigation)	34,200	27.3	0	0	40,000[1]	30.1[2]
MRF (toilets, hand washing, cleaning, facility maintenance)	1,000	0.8	300	0.1	1,000[3]	0.9[3]
Non-Potable Use (toilets, hand washing, cleaning)	1,185	0.9	105	0.03	1,185[3]	1[3]
Total	44,985	35.9	4,705	1.5	59,385	42.1[2]

Note: Total average groundwater demand: 31,500 gpd or 35.2 afy
[1] Landfill and composting maximum use values represent hot and dry conditions
[2] Number of days of hot and dry conditions are unknown but estimated to be 60 per year
[3] MRF and employee use values represent weekdays

Total water use at the CCL ranges between approximately 45,000 and 59,000 gpd on weekdays. Weekend water use is about 10 percent of the typical weekday water use, averaging about 4,700 gpd. Average water demand is approximately 33,000 gpd (37.4 acre-feet per year [afy]). During exceedingly hot and dry years, on-site demand could be as great as approximately 37,600 gpd (42.1 afy). Of this total water demand, approximately 700,000 gallons per year (2.1 afy) are satisfied by application of leachate for dust control purposes. Therefore, total groundwater demand is currently approximately 31,500 gpd on average (35.2 afy). Past water demand associated with cell development is not included in the current groundwater demand estimates but is discussed more thoroughly later. Following rainfall events, neither dust-control nor composting irrigation demand exists. During and following rainfall, on-site water demand can be as low as 5,000 gpd. During the dry months, the wells have typically pumped for 48 hours per week to satisfy demand (Golder, 2007).

Future On-Site Water Demand

Daily Operations

As part of the expansion, the landfill will begin accepting greater quantities of waste. Daily tonnage limits will increase at the resource recovery park (450 tons per day, up from 0 tons per day), the compost operation (450 tons per day, up from 300 tons per day) and the MRF (400 tons per day, up from 120 tons per day). A summary of the current and future tonnage limits is presented in Table 3 - Summary of Existing and Proposed Daily Tonnage Limits.

Table 3. Summary of Existing and Proposed Daily Tonnage Limits

Component	Permitted Tonnage Limit (tons per day)	Proposed Tonnage Limit (tons per day)
Landfill	1,200	1,200
Resource Recovery Park	Included in landfill	450
Compost	300	450
MRF	120	400
Total	1,620	2,500

The increase in tonnage to be processed as part of the recovery park will result in no additional water demand. The 50 percent increase in compost generation will result in a total demand of 38,400 gpd, up from 25,600 gpd. At the MRF, the increase in tonnage is best quantified by the increase in employee water use. According to the project description, a total of 120 people will be employed at the expanded CCL, an increase from the current employment of 79 people. The total future on-site water demand is presented in Table 4 - Summary of Estimated Future On-Site Water Demand.

Table 4. Summary of Estimated Future On-Site Water Demand

Operation	Typical Weekday Use		Typical Weekend Use		Maximum Use	
	gpd	Afy	gpd	afy	gpd	afy
Landfill (dust control)	8,600	6.9	4,300	1.4	17,200[1]	10.1[2]
Composting (compost irrigation)	47,000	37.5	0	0.0	60,000[1]	42.3[2]
MRF (toilets, hand washing, cleaning, facility maintenance)	1,000	0.8	300	0.1	1,000[3]	0.9
Non-Potable Use (toilets, hand washing, cleaning)	1,800	1.4	105	0.03	1,800[3]	1.5
Total	**58,400**	**46.6**	**4,705**	**1.5**	**80,000**	**54.8**[2]

Note: Total average groundwater demand: 39,200 gpd or 44.0 afy
[1] Landfill and composting maximum use values represent hot and dry conditions
[2] Number of days of hot and dry conditions are unknown but estimated to be 60 per year
[3] MRF and employee use values represent weekdays

Following expansion, water use at the CCL is estimated to range between 58,400 and 80,000 gpd on weekdays. Weekend water use will be less than a tenth of the weekday water use, averaging about 4,700 gpd. Throughout the year, the average water demand will be approximately 42,900 gpd (48.1 afy). During exceedingly hot and dry years, on-site demand could be as great as approximately 48,900 gpd (54.8 afy) to accommodate increases in dust-control operations. Leachate applied for dust control will satisfy approximately 700,000 gallons per year (2.1 afy).

Module Construction

Construction of the landfill cells (modules) will entail a significant short-term increase in water demand associated with excavation and construction of the cells. The proposed expansion would entail construction of seven additional cells with a total area of approximately 46 acres and a total disposal capacity of 13.1 million cubic yards (Morro Group, 2007). According to Mr. Rizzoli (2007), the excavation and construction of each cell will likely occur for approximately 6 to 7 months and require approximately 4,000 gpd. The water demand for construction of each cell is proportional to the volume of material to be excavated. Assuming a typical cell requires 6 months to construct (Rizolli, 2007), approximately 87,000 gallons of water would be required per month or 522,000 gallons (1.60 acre-feet) per cell. Construction of each of the past three cells was performed by three different contractors, each of whom was required to provide water for the construction. Each contractor obtained off-site water from the adjacent Corbett Canyon Winery (now Vintage Wine Trust) through methods that included a combination of placing temporary pipelines directly from a well to a cell area, or to a pond with use of water trucks.

Landscaping

As part of the proposed expansion, additional short-term water demand will be needed for re-landscaping associated with the relocation of a new scalehouse and entrance amenities to be located approximately 2,800 feet south of the existing entrance on State Highway 227. The extent of this water demand is included in the Landscape Plan as the Maximum Applied Water Allowance (Wallace Group, 2008). The Maximum Applied Water Allowance constitutes a worst-case water demand estimate for re-landscaping. The Landscape Plan focuses on southwestern, southern, and southeastern boundaries of the property and will consist of planting natives or plants adapted to the Central Coast climate. A summary of the estimated water demand associated with the Landscape Plan is presented in Table 5 - Summary of Estimated Landscape Water Demand. The values presented in Table 5 have not been adjusted for precipitation, which would offset some portion of the landscaping demand. The extent of the area to be re-landscaped is not contained in the Maximum Applied Water Allowance document, therefore, correction for precipitation could not be made.

Table 5. Summary of Estimated Landscape Water Demand

Planting Type	Water Demand First Year (afy)	Water Demand Second Year (afy)[1]	Water Demand Third Year (afy)[2]
Screen Planting	2.86	1.43	0.71
Wetland Enhancement	3.89	1.94	0.97
Bioswale	0.83	0.42	0.21
Bioretention	0.61	0.31	0.15
Oak Trees	0.09	0.04	0.02
Total	**8.27**	**4.14**	**2.07**

1. Second year demand is calculated as half of first year demand
2. Third year demand is calculated as quarter of first year demand

For the first year of the re-landscaping project, approximately 8.3 afy will be required. In the second year, approximately half of that amount would be required, or approximately 4.1 afy. If the landscaping is planted during dry years, it is conceivable the plants would need a little water during the third summer; approximately 25 percent of the first year's water demand or 2.1 afy (Wallace Group, 2008). Because this demand will only occur during the first 3 years, landscaping demand will increase total groundwater demand above current demand (Table 1, estimate of 35.2 afy), not the total future water demand (Table 2, estimate of 44.0 afy). Therefore, total groundwater demand will increase to 43.5 afy during the first year of the expansion project, decrease to 39.4 afy, then decrease further to 37.2 afy during the third year. Presumably, irrigation water will only be needed to establish the native plants in the 3 years, after which they will survive on precipitation alone.

Proposed On-Site Supply

Proposed Onsite Production

During the expansion, the three Weir wells will be the only remaining water supply wells on-site, with a combined source capacity of 78 gpm. Well Nos. 1 and 2 will be required to pump approximately 15 hours per day to satisfy average future weekday demand. If additional water is required, it is possible to reactivate Weir Well No. 3 to obtain an additional 16 gpm (Rizzoli, 2007). Activation of Well No. 3 would decrease the required pumping duration to approximately 12.5 hours per day. If additional supply is required, additional well(s) could be drilled for short-term demand on-site. Any additional wells should be completed within the Pismo Formation due to the relatively higher transmissivity values of the Pismo relative to the Monterey Formation. The Weir wells are completed within the Pismo Formation that is located in two areas at the site; south of the MRF along the southeastern edge of the site and in the northern portion of the site. Water produced from the Pismo Formation is more likely to be of potable quality than water from the Monterey Formation, due to a lack of hydrogen sulfide present in many wells completed in the Monterey Formation.

Proposed Imported Water

To supplement water supplies, the CCL has reached an informal agreement with the adjacent Vintage Wine Trust to purchase water from their wastewater ponds. The quantity, quality, and time during which such water would be available for purchase is unknown. This additional water source, if available, could decrease demand from on-site groundwater operations to approximately 39,200 gpd (44.0 afy) if the additional water source proves dependable. Because the supplemental water is described as wastewater, and generally because it will be applied to the landfill, the use of the water for dust control may need to be approved by the RWQCB pending analysis of the water source. The nature of the water-use agreement between the CCL and Vintage Wine Trust is not known. Without the supplemental water supply, the proposed groundwater supply is sufficient to satisfy future demands. We gather or assume:

- The quantity of water available may be as much as 2 afy,
- The water would be conveyed through a small diameter pipe from a wastewater pond at the vineyard to the pond adjacent Well P-14,
- The water would be available for the expansion project (module construction) and on a regular basis throughout the year,
- The quality of the water will meet RWQCB standards for dust-control water.

Currently, the CCL provides employees with potable drinking water from bottled sources. According to Mr. Brad Pryor of the San Luis Obispo County Environmental Health Department (2008), certain non-community water systems, such as schools and small offices that have either poor water quality or an unreliable supply, are allowed to use bottled water for potable uses. However, the CCL is not currently permitted by the Environmental Health Department to supply water to its employees, by bottled sources or otherwise. Because the CCL employs more than 25 people, they will need to be permitted by the Environmental Health Department to supply potable water to its employees. The CCL would become a non-transient, non-community water system. The source of potable water for employees is not known, but may include bottled sources or water from the Weir wells. Whatever the source of drinking water, the CCL will be required to submit chemical and bacterialogical analyses of all water sources that could come in contact with employees to prove that the water is potable including each well that provides water to the restroom areas. We have asked for, but have not received, water quality data from the Weir wells to determine if the water, with disinfection, is potable. Prior to the CCL's acquisition of the Weir property, the Weirs used the water for drinking (Rizzoli). As part of the process of permitting the water system with the Environmental Health Department, the CCL will be required to submit water quality data for the water sources or, if no water quality data exists, collect and analyze samples.

The on-site Weir wells (Nos. 1, 2, and if needed, 3) have sufficient capacity to supply the groundwater demand associated with the proposed landfill expansion of approximately 58,000 gpd on average during weekdays. Total groundwater demand will be approximately 39,200 gpd on average (44.0 afy). Possible importation of water from the adjacent winery could provide approximately 5 percent of the daily water demand. Such water could possibly be imported through a pipe or water truck for the proposed module construction. Potable water could be supplied by bottled sources.

Water Demand Within The Study Area

The scope of work of this study included an assessment of water demand within a defined study area surrounding the CCL based on the assumption that the existing, largely fallow land uses of nearby properties would be converted to agriculture. Such a "build-out" projection of water demand entailed a number of assumptions, such as the area to consider, type of agriculture, density of agriculture, and the suitability of soils, slopes, and drainage to accommodate agriculture. Groundwater was assumed to be the source of water for such future build-out. The extent of the defined study area is presented on Plate 7.

Currently, groundwater wells surrounding the CCL are used for domestic and livestock purposes. The locations of some of the wells were determined based on review of approximately 200 Well Completion Reports for the area provided by the DWR. Additional water supply wells, for which records were not included in DWR files, were identified through a field survey. The locations of surrounding wells are presented on Plate 8 - Surrounding Land Use and Water Well Location Map.

Potential water demand resulting from "build out" within the study area was estimated based on the assumption that: 1) parcels not currently developed with intensive agriculture, but within the agriculture land use category would be developed with vineyards, and 2) within the designated hydrogeologic study area, second dwellings would be built on parcels classified in the residential rural (RR) land use category. Plate 8 shows parcels within the study area where water consumption may increase significantly due to vineyard planting and/or residential development (Morro Group, 2008). Currently, and into the foreseeable future, the predominant