

WATER SUPPLY

SUMMARY

The proposed project would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause a significant environmental effect.

The City of Camarillo Water Division has sufficient water supplies to serve the project as a result of water savings it has obtained from City-owned facilities.

The project would be provided with potable water from the Camarillo Water Division's existing water supplies. The project would not require an increase in the use of groundwater supplies beyond what is already obtained by the Camarillo Water Division.

ENVIRONMENTAL SETTING

The City of Camarillo is served by a total of six water purveyors. These purveyors are listed in Table 14. The majority of the City, however, is served by the Camarillo Water Division, which operates within the City of Camarillo Department of Public Works, and the Camrosa Water District. The Camarillo Water Division supplies nearly 60 percent of the City with potable water while the Camrosa Water District supplies nearly 40 percent of the City.

The proposed project site is located within the service area of the Camarillo Water Division, which provides potable water for urban and agricultural uses.

TABLE 14 - WATER PURVEYORS WITHIN CAMARILLO

Water Purveyor	Service Area
Camarillo Water Division	City of Camarillo, west of Calleguas Creek
Camrosa Water District	City of Camarillo, east of Calleguas Creek
Crestview Mutual Water Company	Las Posas Estates, northwest section of City of Camarillo
Cal-American Water Company	City of Camarillo, northwest portion
Pleasant Valley Mutual Water Company	City of Camarillo, northern area, north of Las Posas Road
Pleasant Valley County Water District	Agricultural uses only, Camarillo and Oxnard Plain

Source of table data: Carollo Engineers, May 2011.

City of Camarillo Urban Water Management Plan

State Water Code Sections 10610-10657 require every urban water supplier providing water for municipal purposes for more than 3,000 customers, or providing more than 3,000 acre-feet of water annually, to prepare and adopt an Urban Water Management Plan (UWMP). The Water Code also requires urban water suppliers to update their UWMP in years ending in five and zero using a 25 to 30-year planning horizon. The original City of Camarillo UWMP was prepared in 1985 and updates prepared every five years through 2010. In 2016, the City approved the 2015 update to its UWMP.

The purpose of the City of Camarillo 2015 UWMP is to provide a comprehensive assessment of the City of Camarillo's water resource needs for a 25-year planning period. The assessment provides supply and demand of water resources during normal and multi-year drought conditions. It considers such items as water sources, reliability planning, supply and demand comparison, demand management measures, water shortage contingency planning and water recycling. The plan also addresses the requirements of SBx7-7 which sets an overall goal of reducing per capita urban water use by 20% by December 31, 2020.

Camarillo Water Division Water Sources

The Camarillo Water Division serves its customers a blend of groundwater and imported water for potable use, and recycled water for agriculture and some landscaping. Historically, the blended water has consisted of approximately 42% groundwater and 58% imported water and has been necessary to manage the concentration of dissolved solids in the groundwater. The groundwater is obtained from the Fox Canyon Aquifer while the imported water is obtained from the Calleguas Municipal Water District (CMWD), which in turn receives its deliveries from the Metropolitan Water District (MWD) of Southern California. These sources of water are described below.

Imported Water from the Calleguas Municipal Water District

The City of Camarillo has imported water from the Calleguas Municipal Water District (CMWD) since April, 1996. The CMWD receives treated water from the State Water Project via the Saint Joseph Jensen Treatment Plant in Granada Hills and supplies the Cities of Camarillo and Oxnard and the unincorporated area of Somis through its Santa Rosa feeder. Each of Camarillo's eight turnouts has a rated capacity of 2,000 gallons per minute. These are generally operated at around 85% of their maximum capacity. The amount of imported water available to the City at Tier 1 rates is capped at 5,300 acre-feet of imported water per year. This means that any additions to the City's water supplies must be obtained from increases in groundwater extraction, through water use conservation, or through the purchase of additional imported water at Tier 2 rates.

On January 17, 2014, Governor Brown officially proclaimed a State of Emergency to exist due to drought conditions and called on Californians to reduce their water usage and directed state officials to take all necessary actions to alleviate drought impacts throughout the state. On April 25, 2014 Governor Brown

issued a second Executive Order asking Californians to redouble their efforts to reduce statewide water use by at least 20 percent. The MWD has responded to these Executive Orders by adopting Resolution No. 1845 on July 2, 2014, which declares that a State 3 Shortage exists within its service area and urges area water users to 1) implement extraordinary water conservation measures in an effort to reduce water consumption by a minimum of 20 percent and extend available water resources, and 2) vigorously explore and participate in the numerous water saving tips and rebate programs offered through www.bewaterwise.com.

Groundwater from the Fox Canyon Aquifer

The following information regarding the groundwater basin and water quality is excerpted from the Water Sources chapter of the City of Camarillo 2015 UWMP.

The City and the surrounding area rest on a alluvial deposit approximately 1,000 feet thick, which is comprised of several aquifers inter-bedded with gravel, sand, and clay lenses. The clay lenses preclude any significant groundwater movement from one aquifer to the next. The service area of the City of Camarillo lies entirely in the Pleasant Valley Basin, but there are also several separate groundwater basins in the area, separated by a series of faults or folds, which reduce groundwater movement from one basin to another. Groundwater in the region generally flows southeast.

The Pleasant Valley Basin historically has been replenished by subsurface inflows from the Oxnard Plain Basin, East and West Las Posas Basins, and the Santa Rosa Basin. Subsurface inflow over the past several years has been limited to only the Oxnard Plain and the East Las Posas Basins. Over-pumping in the other basins has lowered their water tables and prevented subsurface inflows into the Pleasant Valley Basin.

Most of the groundwater within the basin is contained within alluvial deposits and within the Fox Canyon and Grimes Canyon aquifers. The Fox Canyon Aquifer is the major water bearing unit in the Pleasant Valley Basin. The upper strata of the basin are alluvial deposits, which average 400 feet in thickness and consist of water bearing sands and gravels separated by clay lenses. The Fox Canyon aquifer is within the bottom of the San Pedro formation, which underlies the alluvial deposits. It varies in thickness from 400 to 1,500 feet and is effectively sealed from percolation of water from above by impervious materials located at the bottom of the alluvial deposits. Beneath the San Pedro formation lies the Santa Barbara formation containing the Grimes Canyon aquifer.

The Camarillo Water Division obtains its groundwater from the Fox Canyon Aquifer via a series of four wells. Pumping from this source, as well as the other confined and unconfined aquifers within several groundwater basins underlying the southern portion of Ventura County, is managed by the Fox Canyon Groundwater Management Agency (FCGMA), which is an independent special district separate from the

County of Ventura or any city government. The FCGMA was created by the California Legislature in 1983 to manage the groundwater in both overdrafted and potentially seawater-intruded areas within Ventura County. The primary objectives and purpose of the FCGMA are to preserve groundwater resources for agricultural, municipal, and industrial uses in the best interests of the public and for the common benefit of all water users.¹

One of the earliest programs produced by the FCGMWA was its initial Groundwater Management Plan, which was published in 1985. The main focus of the initial Groundwater Management Plan was to contain seawater intrusion in the South Oxnard Plain Basin. One of the strategies established by the FCGMA was a historical groundwater pumping allocation program in 1991 for those stakeholders (municipal and agricultural users) that were pumping groundwater during the mid-1980s, and allowed groundwater credit accumulation for future use if those allocations were not pumped in a particular year. For the City of Camarillo in 1991, the historical groundwater allocation was about 4,082 acre-feet. The FCGMA program also allowed the transfer of historical groundwater allocations in those instances when agricultural uses were converted to municipal uses and the City has obtained about 696 acre-feet through this scenario. For those instances when the agricultural uses were not pumping groundwater during the mid-1980s but the lands were being used for agricultural purposes, the FCGMA would allow groundwater pumping transfers between agriculture and municipal through a “baseline” which was to be used annually without the ability to accumulate groundwater credits. The City has obtained about 576 acre-feet through this scenario. In response to the condition of the overdrafted groundwater basins, the FCGMA has required a 25 percent reduction of pumping for those users which own historical groundwater pumping allocations. This has reduced the City’s overall municipal pumping entitlements to 4,279.1 acre-feet per year during normal (non-drought) years. The Groundwater Management Plan has since been updated and additional information regarding current groundwater management strategies may be reviewed in the 2007 Update to the FCGMA Groundwater Management Plan that is available on the agency’s website (www.fcgma.org).

The City obtains its groundwater from four wells; A, B, D (well C was abandoned), and Airport 3. Wells A and B are located in the northeastern area of the service area near Antonio Avenue and Las Posas Road. Well D is located north of U.S. Highway 101 and west of Las Posas Road and Airport 3 is located at Camarillo Airport. The four wells are capable of pumping up to 8.6 million gallons of groundwater per day. Wells B and D operate year-round while well A and Airport 3 are used as standby sources.

Saline intrusion from surrounding sediments and salinity associated with high groundwater levels are the primary water quality concern in the Pleasant Valley Basin.² Within the northern part of Camarillo, groundwater levels have increased more than 250 feet to historic highs from levels in the early 1990. Coincident with this rise in groundwater levels has been a degradation in water quality, especially for the

¹ Water Systems Consulting, Inc., 2016.

² Fox Canyon Groundwater Management Agency, et al., May 2007.

constituents sulfate, chloride, iron, and manganese. This is evident in wells A and B , which also have high concentrations of total dissolved solids. The City is, therefore, required to blend the groundwater with imported water in order to meet California Department of Public Health Drinking Water Standards. In addition to using imported water to meet applicable standards, the City has also been purchasing imported water to accumulate additional groundwater credits which would be used in the case of prolonged drought conditions or natural disaster emergency conditions where imported water deliveries would be severely reduced over a long period of time.

Groundwater supply allocations to the City will generally increase as agricultural sites within the service area are converted to municipal and industrial uses. This will generally be the primary source of additional water supplies available to the City. In recent years, the City has received about two acre-feet per year of increased groundwater allocation for each acre that is converted from agricultural uses, but this amount was further reduced by 25 percent pursuant to the FCGMA Ordinance Code. The actual allocation transfer does not occur until the new development is ready to connect to the City's water system.

The FCGMA has responded to the current drought conditions affecting California by adopting Emergency Ordinance E, which temporarily reduces groundwater extraction allocations for all municipal and industrial operators within southern Ventura County. During the time that Emergency Ordinance E is in effect, conservation credits may not be obtained and may not be used to avoid paying surcharges for groundwater extractions. The FCGMA has also suspended all agricultural groundwater allocation transfers as part of Emergency Ordinance E.

In late 2014, the California Legislature enacted the Sustainable Groundwater Management Act (SGMA) which requires that groundwater basins within California be managed sustainably. The FCGMA was designated the groundwater Sustainability Agency (GSA) for the Fox Canyon management area. The SGMA requires that GSAs prepare groundwater sustainability plans (GSPs) for groundwater basins that do not meet objectives related to groundwater levels and quality, subsidence, and sea water intrusion. The FCGMA is currently preparing a GSP which will include strategies for allocating groundwater pumping. The GSP adopted will replace Ordinance E. It is unknown whether groundwater allocation transfers from agricultural operations would resume once a GSP is adopted.

Recycled Water

The Camarillo Sanitary District (CSD) provides wastewater collection and treatment for the City's water service area. The CSD also treats wastewater for areas within the City boundary but outside the water service area and areas north of the City served by Cal American Water Company, Pleasant Valley Mutual Water Company, Crestview Mutual Water Company, and Pleasant Valley County Water District.

The CSD treats the wastewater collected within its service area at the Camarillo Water Reclamation Plant (Camarillo WRP), which is located in the southeast portion of the City adjacent to Conejo Creek. The

Camarillo WRP was initially designed with a capacity of 2.75 million gallons per day (mgd) and currently treats an average of 3.77 mgd or 4,220 AFY of wastewater and has a peak capacity of 7.25 mgd (4). Tertiary treatment processes were added as a part of the Camarillo WRP's most recent expansion in 2005.

CSD also maintains approximately 158 miles of underground sewer lines and four lift stations as a part of its wastewater collection system. The CSD currently recycles a portion of its wastewater through agricultural irrigation of nearby farmlands and landscape irrigation in the vicinity of Camarillo WRP. RW not used for agricultural and landscape purposes is discharged into Conejo Creek.

In 2016, a total of 372.5 acre-feet of recycled water was provided by the Camarillo Water Division.

Camarillo Water Demand Management

The City of Camarillo has implemented water conservation measures for more than two decades. In 1991, the City became a signatory to the Memorandum of Understanding regarding Urban Water Conservation in California and is, therefore, a member of the California Urban Water Conservation Council (CUWCC). The City currently implements all of the required Best Management Practices (BMPs) of the CUWCC, which are as follows:

- BMP 1 Water Survey Programs for Residential Customers.** The City of Camarillo conducts interior and exterior water audits for residential customers. These audits include the installation of low-flow shower heads, aerators on kitchen and bathroom faucets, and water displacement bags where needed. Exterior audits are also performed for residences with landscape irrigation systems. Interior and exterior audits are available to all governmental and institutional customers as well.
- BMP 2 Residential Plumbing Retrofit.** The low-flow shower head exchange programs provides customers the opportunity to exchange their high-flow shower heads for low-flow shower heads at no cost.
- BMP 3 System Water Audits, Leak Detection, and Repair.** Due to an extremely low unaccounted-for water loss of 2.4 percent, the City does not provide a comprehensive system leak detection program. However, the City is conscientious about locating and repairing main and service connection leaks when they occur. The City also provides assistance in locating leaks on private property and the Camarillo Municipal Code (discussed below) prohibits leak durations of more than 72 hours.
- BMP 4 Metering with Commodity Rates.** All service connections are metered for tiered rate billing.
- BMP 5 Large Landscape Conservation Programs and Incentives.** Large landscape water audits have been conducted at all schools and parks, and monthly irrigation schedules have been

- provided. Temporary rate reductions have been implemented as an incentive for customer retrofits. Audits are available to new commercial and industrial landscape partners.
- BMP 6 High-Efficiency Washing Machine Rebate Programs.** CMWD have provided rebates for City customers.
- BMP 7 Public Information Programs.** The City of Camarillo newsletter (CityScene) is distributed quarterly and periodically discusses water issues. The City has distributed water information in its monthly bills, at special events, and on its internet homepage.
- BMP 8 School Education Programs.** Brochures are distributed on various water issues and the City participates in programs to promote student water awareness. A number of teachers have included water conservation discussions as part of their curriculum.
- BMP 9 Commercial, Industrial, and Institutional Water Conservation Programs.** The City targets commercial, industrial, and industrial water accounts with large monthly consumption levels for water audits.
- BMP 10 Wholesale Agency Programs.** This BMP does not apply to the City of Camarillo.
- BMP 11 Conservation Pricing.** The City implements a tiered rate structure which applies a uniform standby rate on most of the fixed costs of supplying water, which does not vary with the amount of water used. Most of the variable costs are applied as the commodity portion of the rate, which is proportional to the amount of water used and purchased from the more expensive importer.
- BMP 12 Water Conservation Coordinator.** The City employs one full time water conservation technician, a water conservation coordinator, and budgets for an annual water conservation program.
- BMP13 Wastewater Prohibition.** The Camarillo Municipal Code (discussed below) prohibits wasteful water practices.
- BMP 14 Residential Ultra-Low Flush Toilet (“ULFT) Replacement Program.** The City has distributed several thousand ULFTs through rebate and direct distribution programs.

As a result of the six year drought from 1987 through 1992, the City of Camarillo adopted the No Waste Ordinance No. 715, which has since been superseded by the City’s Water Conservation Ordinance (City Municipal Code Chapter 14.12) to prohibit wasteful water practices such as:

- The watering of turf or landscape in a manner that is allowed to run to waste;
- Allowing leaks or breaks to continue for more than 72 hours;

- The use of a hose without a workable positive shutoff nozzle for the washing of automobiles, trucks, boats, or other mobile equipment;
- The washing of sidewalks, driveways, patios, decks, building exteriors, or other hard surface by hose;
- The watering of lawns between the hours of 8 a.m. and 6 p.m.; or
- The serving of water in any area where food is sold without the customer initiating the request.

On July 22, 2009, the Camarillo City Council amended the Water Conservation Ordinance to provide additional water use regulations in response to the statewide drought emergency condition and declared a Stage 1 Water Supply Alert. The following additional water conservation requirements apply during a declared Stage 1 water supply condition, which has a 10% reduction goal:

- Watering is restricted to Monday, Wednesday, Friday, and Sunday.
- Applicants for new potable water service must prepare a water impact study. In order for new such service to be approved, the water impact study must demonstrate that the proposed project will not create additional demand on the City's water system. An example of such non-impact would be if the proposed project does not require an increase in water usage from that historically used on the same site.

As of March 31, 2010, City customers had reduced their overall water consumption by 20 percent.

On January 13, 2010, the Camarillo City Council adopted Ordinance No. 1050 to amend the City's Water Conservation Ordinance to require water efficient landscaping in new landscape installations or landscape rehabilitation projects over a minimum size. For new residential and non-residential projects, these standards apply to new landscape installations or landscape rehabilitation projects with a landscaped area including water features, but excluding hardscape, equal to or greater than 2,500 square feet and which are subject to a discretionary approval of a landscape plan, or which otherwise require a ministerial permit for a landscape or water feature.

New development projects constructed within Camarillo after January 1, 2014 are also subject to the mandatory water efficiency and conservation measures of the California Green Building Standards (CALGreen) Code (California Code of Regulations, Title 24, Part 11). The outdoor water use standards of the CALGreen Code are already addressed by the City's Water Conservation Ordinance. With regard to indoor water use, new residential developments must use water closets (toilets) that do not exceed 1.28 gallons per flush, shower heads that have a maximum flow rate of not more than 2.0 gallons per minute, lavatory faucets that have a maximum flow rate of not more than 1.5 gallons per minute, and kitchen faucets that have have a maximum flow rate of not more than 1.8 gallons per minute.

In response the ongoing drought conditions affecting the City's water supplies, the City Council adopted Resolution No. 2014-71, which declared the existence of a Stage 2 water supply condition and imposed

additional water conservation measures in order to reduce customer demand by at least 20%. The City Council adopted Resolution No. 2015-126 on November 4, 2015, which re-declared the State 2 water supply condition and continued the imposition of additional water conservation measures. The City Council also adopted Ordinance No. 1116, which amended sections of the City of Camarillo Municipal Code pertaining to the City's water conservation measures under its water shortage conservation plan. The following additional water conservation requirements now apply during a declared Stage 2 water supply condition:

- Watering is limited to three days per week.
- Leaks in distribution, irrigation, or plumbing systems must be promptly corrected after discovery and in no event more than 48 hours after receiving notice from the City.
- Filling or refilling of ornamental lakes is prohibited except to the extent needed to sustain aquatic life provided that such aquatic life is of significant value and has been actively managed within the water feature prior to declaration of the stage 2 condition.
- Refilling of more than one foot and initial filling of residential swimming pools is prohibited unless the applicant makes a payment to the City's water conservation credit program in an amount necessary to offset the proposed water demand.
- Reclaimed water must be used for construction activities if available.
- No new potable water service connections will be provided, no new temporary meters or permanent meters will be provided, and no statements of immediate ability to serve or provide potable water service (such as will-serve letters or letters of water verification) will be issued except under the following circumstances:
 - A valid will-serve letter has already been issued;
 - A valid, unexpired building permit has been issued for the project;
 - The project is a City capital project;
 - The project is necessary to protect the public health, safety, and welfare;
 - The project is a temporary use that will not cumulatively use more than one-quarter acre-foot of water; or
 - The applicant provides to the satisfaction of the City and in accordance with the City's water conservation credit program substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a will-serve letter. The applicant may satisfy this requirement through any one or combination of the following methods: (i) modifications to the project to provide non-required water saving features; (ii) agreements with

existing water users to retrofit existing improvements and facilities with water saving features; (iii) by making a payment to the City's water conservation credit program; or (iv) by transferring groundwater rights that are immediately available for use by the City in an amount necessary to offset the project's water demand.

- The City will withhold the issuance of any grading permit subject to a City-issued will-serve letter.
- The City will suspend consideration of annexations to its service area unless the annexation will not result in any increased use of water.

On July 29, 2016, the City Council adopted Resolution No. 2016-91 declaring a State 1 Water Supply Condition under the City's Water Shortage Contingency Plan. This resolution is still in effect at the time that this EIR was prepared. The City Council also adopted resolutions amending and restating the Chapter 14.12 water conservation measures of the Municipal Code, amending and restating the water demand credit program adopted pursuant to Chapter 14.12, and establishing a water demand offset program pursuant to Chapter 14.12.

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G to the CEQA Guidelines, a potentially significant impact on water supply could occur if a project would:

- (a) Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause a significant environmental effect; or
- (b) Not have sufficient water supplies available to serve the project from existing entitlements and resources.

In addition, a potentially significant impact on groundwater could occur if a project would:

- (c) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

PROJECT IMPACTS AND MITIGATION MEASURES

Water Supply Facilities

Threshold: Would the proposed project require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause a significant environmental effect?

Impact: The proposed project would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause a significant environmental effect. Therefore, no impact would occur.

Impact Analysis

The project development would connect to an eight-inch water main located within, Las Posas Road, a 12-inch main located within Ventura Boulevard, and/or an eight-inch water main located within the old Ventura Boulevard right-of-way for potable water use. The proposed hotel and commercial uses would obtain their potable water supplies from these same pipelines. Therefore, the infrastructure needed to serve the proposed project is already in place. As such, the proposed project would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause a significant environmental effect. No impact would occur.

Project Water Demand

Threshold: Would the proposed project not have sufficient water supplies available to serve the project from existing entitlements and resources?

Impact: The City of Camarillo Water Division has sufficient water supplies to serve the project as a result of water savings it has obtained from City-owned facilities. The impact of the project would be less than significant.

Impact Analysis

The City of Camarillo Water Division estimates that the proposed project would demand an average of approximately 33.75 acre-feet per year based on 17.01 acre-feet for the Embassy Suites (including conference facility), 14.95 acre-feet for the Home2 Suites, restaurants, and retail, and 1.79 acre-feet for landscaping.³ The Water Division has enough water to supply the project from water savings that it has obtained from City-owned facilities such as Ponderosa Drive and Carmen Drive median landscaping, and recycled water infrastructure.⁴ Therefore, the impact of the project would be less than significant.

Groundwater Supplies

Threshold: Would the proposed project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

³ Lucia McGovern, September 11, 2017.

⁴ Ibid.

Impact: The project would be provided with potable water from the Camarillo Water Division's existing water supplies. The project would not require an increase in the use of groundwater supplies beyond what is already obtained by the Camarillo Water Division. Therefore, a less than significant impact would occur.

Impact Analysis

As discussed previously, the Camarillo Water Division has enough water to supply the project from water savings that it has obtained from City-owned facilities such as Ponderosa Drive and Carmen Drive median landscaping, and recycled water infrastructure. The project would not require an increase in the use of groundwater supplies beyond what is already obtained by the Camarillo Water Division. Therefore, the impact of the project would be less than significant.

CUMULATIVE IMPACTS

As discussed previously, the City of Camarillo currently requires the applicants for new potable water service to prepare water impact studies that demonstrate that the proposed project will not create additional demand on the City's water system. Implementation of this requirement ensures that cumulative development does not increase the demand for potable water beyond existing water supplies. Based on this program, the City of Camarillo Water Division would have adequate water supplies to serve related projects and the potential cumulative impacts related to water supply would be less than significant. The City of Camarillo is also planning to construct a new groundwater treatment facility in the northeastern area of the service area near wells A and B. The new groundwater treatment facility is proposed to restore groundwater production from wells A and B to past levels, fully utilize the existing groundwater allocation from the Pleasant Valley Groundwater Basin, and reduce dependence of the City on imported potable water along with providing benefits to the quality of the groundwater basin.

UNAVOIDABLE SIGNIFICANT IMPACTS

The proposed project would not create any unavoidable significant water supply impacts.