

# **OCTOBER 2015 UPDATED DRAFT** **WATER RESOURCES ELEMENT** **OF THE TUOLUMNE COUNTY GENERAL PLAN**

## **CHAPTER 19: WATER RESOURCES**

### **INTRODUCTION**

An adequate and high quality water supply is considered a basic need, and the use and quality of water has long been regulated by government. Since water moves easily across jurisdictional boundaries, much of the regulation is at the regional, state and federal levels. However, since cities and counties have legal authority over development and land use, they must consider the adequacy of water supplies and how development affects the quantity and quality of water available for other beneficial uses, [such as domestic, agricultural, industrial, biological and wildlife](#). The long term adequacy of groundwater and surface water resources has become a major public concern in California. Water related issues include lowered groundwater levels, increased stormwater runoff, sediment and pollutants in runoff, the water needs of fish and wildlife, the rates of water usage, conservation methods, water storage limitations, the [growing](#) re-use of water and continuing changes in State and Federal regulations. [Goals, Policies, and Implementation Programs regarding water related catastrophes, such as flooding and droughts, are discussed in the Safety Element. \(WPAC\) \(BOS\)](#)

Much of Tuolumne County's urban water needs are met through a network of local water providers, including utility districts, mutual water companies, investor-owned utilities, systems serving a small number of connections and special districts. In Tuolumne County there are over 130 State regulated water agencies/companies that provide water to customers in Tuolumne County.

[It is the County's commitment to support actions that provide adequate water on a Countywide basis, and to balance the needs, for current residents, agriculture, new development and other users.](#)

### **TUOLUMNE COUNTY WATER AGENCY**

The Tuolumne County Water Agency was reactivated on May 21, 2013, to ensure adequate safe water and sewer services for the citizens of Tuolumne County, now and in the future, and to protect, enhance and expand water resources throughout Tuolumne County. The goals of the Tuolumne County Water Agency are to assure access to County water; diversification of the County water portfolio; [stewardship conservation](#); achieve adequate water storage; and ensure secure, safe, and sustainable water and sewer infrastructure. The driving force is to ensure adequate water supplies to meet the diverse needs of a healthy and economically viable community. Such water supply needs include, but are not limited to: domestic consumption; fire protection; economic development; base industries, such as recreation and agriculture; and habitat protection. [\(WPAC\)](#)

### **WATER RIGHTS**

The California Constitution requires that water be used in a reasonable and beneficial manner and prohibits misuse and waste of water. Water is used beneficially when, for example, it is used to drink or grow crops. What is reasonable water use depends on the circumstances. For example, it could be unreasonable to wash cars during a severe drought. All types of water rights are subject to this constitutional policy, and a State agency, the State Water Resources Control Board, is authorized to take action to prevent unreasonable uses of water.

There are two principal types of surface water rights in California, riparian rights and appropriative rights.

## **Riparian Water Rights**

A riparian water right allows a landowner bordering a watercourse to share the water flowing past their property with other riparian landowners. Riparian rights are not defined by California statutes but have been established by common law and court decisions. Permits or other government approvals are not required to exercise riparian rights. However, a permit from the Army Corps of Engineers or some other regulatory agency, or an agreement with the California Department of Fish and Wildlife, may be necessary to construct diversion facilities needed to exercise riparian or appropriative rights.

Riparian rights extend only to natural flow and do not apply to water imported into a stream system or water released from storage in an upstream reservoir. Riparian rights do not allow a water user to store water in a reservoir during the wet season for use during the dry season. In times of shortage, riparian rights are entitled to share the supply before any appropriators may divert water. The water from riparian rights can only be used on the riparian lands and cannot be transferred or exported for use on other properties or outside the watershed.

Riparian rights ordinarily cannot be lost through non use and generally remain with the property when it changes hands. However, a riparian right may be impaired or lost if a parcel is subdivided or land is otherwise severed from its water source, if the State Water Resources Control Board approves a prescriptive appropriative right, or if a court approves allocation of a stream's water among users.

## **Appropriative Water Rights**

Since 1914, all new appropriations of surface water have required a permit from the State. The permits are issued by the State Water Resources Control Board and specify the amount of water that may be diverted, purposes for the water use, seasons of diversion, and the locations of diversion, storage (including underground storage) and use. An appropriative water right permit may allow the use of water at locations outside the watershed. When the State Board considers an application for a permit, it evaluates whether water is available during the requested season and potential environmental impacts, including any impacts on the rights of the public to use the waterway for navigation, commerce, fishery, recreation, aesthetic enjoyment and the preservation of open space, ecological study areas and wildlife habitat. Based on this evaluation, the State Board decides whether or not to issue a permit, and, if it issues a permit, what conditions to include in the permit.

Appropriative rights are limited to the amount of water that may be put to beneficial use, and a right may be lost after a period of nonuse. Appropriative water rights are based on a "first come, first served" principle; the first to take water has a superior right over later appropriators. In times of shortage, all appropriators must stop diverting water, if necessary to satisfy riparian rights. There is no sharing of a shortage among appropriators; instead, senior appropriators are entitled to exercise their rights to satisfy all of their reasonable needs before junior appropriators may divert any water.

Water flowing in subterranean streams through known and defined channels is subject to diversion, use and regulation under riparian and appropriative rights as described above. Water is considered to be flowing in a subterranean stream through a known and definite channel if it is in contact with surface water and moving in the same direction in a relatively defined channel. Groundwater not flowing in any subterranean stream through a known and defined channel is known as "percolating groundwater" and is not subject to surface water rights.

## **TUOLUMNE COUNTY WATER QUALITY PLAN**

The Tuolumne County Water Quality Plan (Plan) was adopted by the Board of Supervisors on February 13, 2007 to establish a watershed-based planning framework. The Plan was identified as a need by County staff to address storm water runoff and non-point source pollution impacts on water quality within Tuolumne County's watersheds to improve the quality of the County's water resources over a 20-year planning horizon.

Urban development projects, grading, failing septic systems, marina operations, mine site runoff, certain agricultural and forestry practices, and public works projects all have cumulative effects on water quality in Tuolumne County. Conditions or ~~mitigating~~ mitigation measures, best management practices, and monitoring programs were developed as part of the Plan as a first step in addressing cumulative impacts to water quality. The Plan focused on three principal non-point sources of water pollution water quality concerns: pathogens and nutrients, urban contaminants (leaking underground storage tanks, disposal practices, and pH uncertainties), and erosion and sedimentation. Although several new programs were adopted under this Plan, their subsequent implementation is contingent on new funding sources. In addition, without a stable funding source, the implementation of the Plan and associated improvement projects are ultimately grant driven. The County's continued active pursuit of grant funding is critical to the success of the Plan and achieving long-term goals.

## URBAN WATER MANAGEMENT PLANS

Urban Water Management Plans (UWMP) are prepared by California's urban water suppliers to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands. Every urban water supplier that either provides over 3,000 acre-feet of water annually or serves more than 3,000 ~~or more~~ connections is required to assess the reliability of its water sources over a 20-year planning horizon considering normal, dry, and multiple dry years. This assessment is to be included in its UWMP, which ~~are~~ is to be prepared every 5 years and submitted to the Department of Water Resources. Department of Water Resources then reviews the submitted plans to make sure they have completed the requirements identified in the Urban Water Management Planning Act (Division 6 Part 2.6 of the Water Code §10610 - 10656).

In addition to some changes in the Urban Water Management Planning Act ~~since the last UWMPs were submitted in 2005~~, Governor Schwarzenegger in his 20x2020 Plan determined that for California to continue to have enough water to support its growing population, it needs to reduce the amount of water each person uses per day (Per Capita Daily Consumption, which is measured in gallons per capita per day). This reduction of 20 percent per capita use by the year 2020 is supported by legislation passed in November 2009, Senate Bill X7-7. Tuolumne County's 2020 target ~~reduction~~ is 149 gallons per capita day. (WPAC)

## GOALS, POLICIES AND IMPLEMENTATION PROGRAMS

### WATER SUPPLY

This Water Supply Section addresses the stewardship conservation, development, and utilization of water resources, and the protection of the quality and quantity of these essential resources. Water quality is a concern in the County where contamination has degraded water. Water contamination can come from various sources, including soil erosion, ground leaching from septic tanks, runoff from impervious surfaces, and discharge from agricultural activities. Impacts on water quality can be mitigated by using proper management practices for agricultural, industrial, and commercial operations by reducing or eliminating excess sediment, nutrients, and pathogens in downstream waters; requiring new development to use best management practices; connection to a sewer collection system; and enforcing septic system regulations. The policies in this section seek to protect water resources and maintain the highest quality water for human and natural use. (WPAC)

**GOAL 19.A Pursue adequate water supply for all Tuolumne County residents and visitors.**

#### Policies

19.A.1 Support the pursuit and acquisition of Pursue County Area of Origin Water Rights and gain access to other senior water rights to ensure adequate and stable water supplies. (WPAC)

- 19.A.2 Support the efforts of local water purveyors to increase water storage capacity, maintain and enhance infrastructure, and cross-connect water systems.
- 19.A.3 Work with other agencies in developing joint water policies supporting healthy watershed management. (BOS)
- 19.A.4 Pursue access to all existing water storage not currently available for use within Tuolumne County.
- 19.A.5 Consider supporting the acquisition of additional ring existing water rights held by others.

### Implementation Programs

- 19.A.a Water Rights
 

Evaluate and consider pursuing county senior water rights. Tuolumne County supports Area of Origin Water Rights, the existing water right priority system and the authority to make water management decisions locally to meet the County's current and future needs, thereby protecting Tuolumne County's communities, economy and environment. (WPAC)
- 19.A.b Pinecrest Lake
 

Support the efforts of the Tuolumne Utilities District to secure modified lake level guidelines at Pinecrest Lake to provide a reliable water supply to its customers.
- 19.A.c Develop Additional Water Storage
 

Support the efforts of local water purveyors to increase water storage and pursue additional water storage initiatives within the County or acquire access to increase water storage.
- 19.A.d Water Policy
 

Actively participate and be engaged in state and federal water policy and Federal Energy Regulatory Commission relicensing of hydroelectric projects in the County.
- 19.A.e Work with Other Districts Agencies

Work with other agencies, such as the Tuolumne County Water Agency, to encourage water and utility districts to support healthy watershed management and develop, adopt and fund long term strategic water and wastewater infrastructure maintenance, modernization and sustainability plans. (BOS)
- 19.A.f Adequate Water Supply
 

Encourage public water systems and their sources to provide an adequate water supply to meet long term needs that is consistent with this General Plan and urban water management plans and that is provided in a manner that maintains water resources for water users while protecting the natural environment.

### 19.A.g Water Action Plan

Implement the Tuolumne County Water Action Plan: Developing a Plan for Our Future adopted by the Board of Supervisors on April 7, 2015, as it may be amended from time to time.

19.A.h Comprehensive Water Resources Plan

Consider developing a Comprehensive Water Resources Plan with the City of Sonora and local water agencies to manage and protect the County's water resources by prioritizing a list of projects and developing a monitoring program.

19.A.i Water Harvesting and Storage

Consider developing incentives, such as fee reductions, for rainwater harvesting and storage facilities on development projects—standards to conserve water and minimize water loss. Recognize that water or sewer purveyors may adopt regulations to prohibit or otherwise regulate rainwater harvesting and storage facilities that could adversely affect the efficient operation of their systems; and require new development to incorporate these standards. (WPAC)

19.A.j Retrofit Plumbing Fixtures

Encourage plumbing retrofits to be installed in existing buildings to reduce water use. (WPAC)

**GOAL 19.B Protect and improve the quality and quantity of the County's water resources, while protecting the rights of the land owner.**

**Policies**

- 19.B.1 Protect the quality of the County's water resources. ~~Support by supporting~~ the efforts of local districts to maintain infrastructure and cross-connect sewer systems. ~~Prevent surface water and groundwater contamination by insuring~~ ensuring Tuolumne County's development standards are adequate to protect surface and groundwater resources from contamination.
- 19.B.2 Encourage new urban development to locate in areas where public water and sewer services are available or can be developed.
- 19.B.3 Support the efforts of the local water agencies in identifying and procuring new water resources to meet projected future demands from growth in the County, including the use of reclaimed water ~~for non-potable uses~~.
- 19.B.4 Encourage the conservation of water resources in a systematic manner that is sensitive to the maintenance of water quality, natural capacities, ecological values, and consideration of the many water related needs of the County.
- 19.B.5 Develop and evaluate criteria to allow limited development to occur where harmful area-wide impacts to groundwater exist based on known hazard areas when feasible.
- 19.B.6 Recognize that the decisions made by the County of Tuolumne concerning water resources have an effect on water supply needs for all beneficial uses of water consistent with the California Water Code, including, but not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.
- 19.B.7 Recognize that clean water is essential to the public health, safety and welfare, fosters economic development and job creation, protects the environment, maintains fish and wildlife, and supports recreation.

- 19.B.8 Encourage water resources to be protected from pollution, conserved, and recycled whenever possible to provide for continued economic, community, and social growth.
- 19.B.9 Promote improved watershed health and improved water quality and water quantity yields of the watersheds in Tuolumne County.
- ~~19.B.10 Develop policies and programs and seek funding to adapt to extreme climate effects, such as prolonged drought and flooding.~~

### Implementation Programs

- 19.B.a Tuolumne County Water Quality Plan
- Consider updating the Tuolumne County Water Quality Plan, subject to receiving funding, to facilitate a consistent, fair and cost-effective approach to water resource mitigation and encourage and support the restoration of degraded riparian areas through public education programs demonstrating the value of healthy riparian habitats in protecting water quality, and provide for permit streamlining while conserving important water resources.
- 19.B.b Land Uses Adjacent to Public Drinking Water Infrastructure
- Consider amending the Tuolumne County Ordinance Code to provide for local source water protection and wellhead protection programs, such as setbacks, to protect the sources of drinking water supplies. In the interim, ~~avoid designating~~ ~~require new areas proposed for~~ urban land uses (HDR, MDR, LDR, NC, GC, HC, and MU) and industrial land uses (BP, LI, and HI) on the General Plan ~~land use diagrams for property located~~ ~~maps to avoid being located~~ directly ~~above~~ ~~uphill from~~ public drinking water reservoirs and open (uncovered or unpiped) public drinking water conveyances (ditches, flumes, and canals) where discharge or contamination is likely to occur, unless public water and sewer are available or can be developed, or impacts can be mitigated.
- 19.B.c Landscaping Standards
- Ensure the conservation of water through the implementation of the Tuolumne County Landscaping Requirements ~~Ordinance~~, Chapter 15.28 of the Tuolumne County Ordinance Code, which provide for the use of xeriscape landscaping plants and materials to conserve water, the use of water conserving irrigation systems for landscaping, and the use of reclaimed or reuse water for irrigation.
- 19.B.d Provide for Greywater Irrigation
- ~~Consult with water districts to consider allowing~~ ~~Provide for~~ ~~Allow~~ the ~~subsurface~~ irrigation of non-food plants from sinks, showers, washing machines, car washing bays and other non-sewage sources ~~in areas where such systems are allowed by the jurisdictional water or sewer purveyor. Recognize that water or sewer purveyors may adopt regulations to prohibit or otherwise regulate greywater systems that could adversely affect the efficient operation of their systems. Provide educational materials , and educate property owners~~ in the proper use of greywater systems ~~to property owners and the public.~~ (WPAC)
- 19.B.e Regulate Groundwater Exportation
- Continue to regulate the exportation of groundwater to preserve the County's limited groundwater reserves for use by its residents and businesses through the provision of Chapter 13.20 of the Tuolumne County Ordinance Code.

- 19.B.f            Require Confirmation of Water Availability for New Development
- Continue to require new urban development needing discretionary entitlements to secure a letter from the jurisdictional public water agency stating that the proposed project can be served by that agency and that there is an available water supply. Continue to require water assessments that are required by the California Water Code, Senate Bill 221 and Senate Bill 610.
- 19.B.g            Require Connection to Public Sewer
- Continue to require new urban residential development with a density of three dwelling units per acre, or greater, and commercial development, except that on land designated Special Commercial (SC) by the General Plan land use diagrams, to connect to public sewer.
- 19.B.h            Require Connection to Public Water
- Continue to require ~~new urban residential development with a density of one dwelling unit per two acres, or greater, and commercial development, all new urban development,~~ except on land designated as Special Commercial (SC) by the General Plan land use diagrams, to be served with public water.
- 19.B.i            Create and Update Soil Maps
- ~~Create and update, as needed,~~ Consider creating and maintaining soil maps that identify indicating areas of high ground water, impervious soils, limestone or other hazards which, either by themselves or in combination, create potentially serious health conditions due to failing septic systems or which are inappropriate for on-site sewage treatment and disposal on an areawide basis. Continue to develop and evaluate criteria to allow development to occur in areas of high ground water, impervious soils, limestone or other hazards without degrading the water resources. (WPAC)
- 19.B.j            ~~Provide-Implement~~ Grading and Surface Runoff Standards
- ~~Provide-Implement~~ grading and surface runoff standards, such as retention and detention, permeable surfaces and recharge, necessary to protect water resources in compliance with State and Federal water quality regulations and with the County's water conservation program quality plan referenced in Implementation Program 19.B.a.
- 19.B.k            Expand List of Permitted Uses in Open Space-1 Zoning District
- Expand the list of permitted uses in the O-1 (Open Space-1) zoning district in Title 17 of the Tuolumne County Ordinance Code for the conservation and utilization of the County's water resources to include such uses as water monitoring installations, ~~excluding~~ wells, <sup>4,5</sup> improvements to aquatic, plant and wildlife habitat, <sup>4,5</sup> erosion control projects, <sup>4,5</sup> and vegetation removal for flood control. (WPAC)
- 19.B.l            Address Water Supply Sources for Anticipated Growth
- Continue to ~~coordinate the County's long range land use planning program~~ consult with local public water agencies to determine that water supplies and delivery systems can meet the demands of the anticipated new development and population growth of the County. In accordance with Section 65352.5 of the California Government Code, the General Plan Land Use Diagrams were formulated in ~~coordination~~ consultation with the applicable urban water management plans from these agencies and any amendments to those diagrams shall be

reviewed in ~~coordination~~-consultation with the respective public water agency serving the parcel or parcels affected by the proposed amendment.

19.B.m Watershed Rehabilitation Projects

Promote the development of plans for watershed rehabilitation projects which provide for such watershed improvements as:

1. A reduction in the presence of contaminants in drinking water by addressing the origins and treatment of the contaminants, including, to the maximum extent practicable, the specific activities that affect the drinking water supply of a community or communities.
2. An increase in the quantity of water available from the watershed.
3. The improvement, restoration, or enhancement of fisheries habitat, including riparian habitat, in and along streams and watercourses in the watershed. These projects may address factors which increase sedimentation in streams and watercourses in the watershed.
4. The improvement of overall forest health, including the reduction of factors which may contribute to the severity of wildfires in the watershed.

19.B.n Formulation of Watershed Rehabilitation Plans

Initiate or assist in the formulation of plans for watershed rehabilitation projects ~~by~~ with the ~~County's~~ serving as the coordinating agency for the various stakeholders in such a plan, such as property owners, water agencies, other public agencies, private industry, recreational facility providers and other interested groups and organizations. Provide technical assistance in the development of plans for watershed rehabilitation projects through such means as data sharing.

19.B.o Funding for Watershed Improvement

Submit applications for grants which become available for funding for County initiated or sponsored watershed rehabilitation projects and support the efforts of other public agencies and water agencies, such as the Tuolumne County Water Agency, Tuolumne-Stanislaus Integrated Regional Water Management ~~Plan~~ Authority and other entities in their efforts to seek funding for watershed improvement projects. This support may manifest itself in such ways as adopting a resolution of support or co-sponsoring an application for funding for a watershed project.

19.B.p Cooperation Among Agencies

Cooperate and consult with Federal, State and local agencies, such as the Tuolumne County Water Agency, in promoting the stewardship of the watersheds within the County. Consult with these agencies to avoid duplication of effort and to maximize use of public resources in working towards a common goal of improving the watersheds within Tuolumne County which will, in turn, contribute to the State and Federal objective of providing long-term bay-delta recovery and protection.

19.B.q Tuolumne County Resource Conservation District

Support the Tuolumne County Resource Conservation District in its efforts to improve watersheds within Tuolumne County, including stream water quality sampling, which can assist agencies where to direct their efforts.

19.B.r Play Active Role in Water Resources

Prepare for potential climate change effects on water resources, such as prolonged drought and flooding, by working with water agencies to implement measures to reduce water consumption, expand water storage capacity, protect water quality, and explore and promote more diverse sources of water.

19.B.s Climate Adaptation

Adopt local policies and programs and seek funding and support efforts by local, regional, state and federal agencies and others to develop policies and manage programs that allow the County to adapt to extreme climate change effects, such as prolonged drought and flooding.

**GOAL 19.C Provide for recreational use in water resource areas ~~Conserve public water resource areas with high recreational value for public use.~~ (WPAC)**

**Policies**

19.C.1 Permit recreational uses in flood zones if it can be demonstrated that the recreational use will not cause additional flooding, or hazards increase the potential for flood damage, or increase health and safety risks will not result. (WPAC)

19.C.2 Provide reasonable public access to ~~the County's~~ public waterways, lakes and reservoirs in compliance with State statutes while protecting private property rights and maintaining the biological, scenic and historical integrity of these features and lands adjacent to these features. (WPAC)

**Implementation Programs**

19.C.a Conditionally Allow Low Impact Recreational Uses Within Open Space Zoned Areas

Continue to conditionally permit, in the O (Open Space) and O-1 (Open Space -1) zoning districts, recreational uses where such uses do not adversely impact water resources, such as beaches, picnic areas, non-motorized pedestrian and equestrian trails and other recreational uses.

19.C.b Develop a Program to Identify and Provide Access to Public Waterways

Develop a program to identify public waterways, lakes and reservoirs that do not already provide reasonable public access, but which are required to provide such access pursuant to State statutes. The program should include provisions for identifying which bodies of water require public access, identification of reasonable access points to these water bodies and procedures for providing such access.

**Responsibility for Programs:** Administration of the Implementation Programs listed in this section is the shared responsibility of the Board of Supervisors, County Administrator's Office and the Community Resources Agency with the County Administrator and/or Community Resources Agency serving as the primary administrator at the direction of the Board of Supervisors. (WPAC)

**Funding Sources:** Administration of Implementation Programs listed herein will be funded through the County's General Fund and grants.

**Time Frame for Implementation:** The target date for implementation of the programs listed in this section related to development of conservation programs, generation of resource maps and provision of public information is Fiscal Year 2019-2020; all other programs are ongoing.

## PUBLIC WATER SUPPLIES

The public water system providing service to the most residents of Tuolumne County is operated by the Tuolumne Utilities District (TUD). Actually an agglomeration of numerous large and smaller systems under TUD ownership and operation, TUD provides water either directly or indirectly to most of the developed portions of Tuolumne County. Some of the systems absorbed into TUD were originally based on wells, and many of these have been incorporated into the overall system and the supply now includes surface water. Today, only 5% of TUD's customers receive water derived exclusively from wells. Most of TUD's supply wells are used to supplement the surface supply or provide back-up.

TUD provides potable water directly to over 14,000 connections. Approximately one-third to two-thirds of the treated potable water is produced by ~~their~~-its largest treatment plant, in Sonora. In addition, other large purchasers of treated water are themselves water distribution systems. These include the Sonora Meadows Mutual Water Company serving approximately 450 customers, Sonora Water Company in Jamestown, and an assortment of mobilehome parks and multiple family housing complexes.

TUD also sells raw water from the ditch supply to over 600 customers. These customers include community water systems which treat, store, and distribute the potable water to their customers. The largest, Twain Harte Community Services District, serves approximately 1,600 connections. Other smaller water systems purchase raw water for distribution to limited areas; these were often established when subdivisions were created in relatively remote areas.

Individuals are also included in those 600 customers. Some people continue to draw raw water from the ditch and use the water for household purposes. TUD no longer allows new ditch connections for individual residences, and the County Environmental Health Division does not approve individual ditch connections for new residential construction projects. The majority of water withdrawn by individuals, and most of the water left at the termination of the various ditches, is used for agricultural purposes.

For the southern portion of Tuolumne County, the Groveland Community Services District (GCSD) provides potable water to the Groveland and Big Oak Flat areas. The water is withdrawn from the Hetch Hetchy Mountain Tunnel, under a long-term contract with the City and County of San Francisco. The raw water is treated and distributed to approximately 3,500 customers. The present contract has no limit on water quantities until the year 2034, and does allow limited expansion of the present GCSD boundary. The Lake Don Pedro Community Services District provides water service to the residents of the Lake Don Pedro Subdivision. Currently, their water supply is drawn from Lake McClure under an agreement with the Merced Irrigation District. Because the Lake Don Pedro Subdivision and Community Services District include property in both Tuolumne County and Mariposa County, only about 1/3, or 394, of the metered lots are within Tuolumne County.

The ~~California Department of Public Health (CDPH) and the~~ State Water Resources Control Board permit additional water systems through the Drinking Water Programs. These range from small systems treating and distributing ditch water, to subdivisions with independent systems based on wells, to US Forest Service campgrounds. Approximately one-half of the small systems use wells to provide potable water for commercial establishments like restaurants, motels, bars, and the Dodge Ridge Ski Resort. Modern state regulatory laws, ~~enforced by CDPH~~, require regular and extensive testing for all of these systems.

As the primary non-public sources of water supply, wells continue to be drilled and employed for a portion of ~~of~~ the County's development, particularly for rural residential development in outlying areas. Due to weather fluctuations and the nature of fractured rock, wells can prove unreliable during drought periods and difficult to establish in some parts of the County. In addition to nearly dry zones, sometimes the hydraulic connectivity between areas is too great. In other words, water can pass too quickly between the surface or a leach field and a nearby well when the fracture zone provides too great a link or there are dissolved cavities in a limestone area. The potential for polluted wells requires that adequate sanitary setbacks be maintained between wastewater discharge points, like septic systems, and wells.

## Future

The Groveland Community Services District (GCSD) has a long-term contract, relatively reliable supply, and the ability to supply service to its communities. The Tuolumne Utilities District has recognized the limitations of water supply and the conglomeration of smaller systems that makes up its assets. As required by the Urban Water Management Planning Act, Urban Water Management Plans (UWMP) are updated every five years. ~~TUD is required to update its 2010 UWMP in 2015; whereas GCSD has recently adopted its UWMP.~~ The Community Resources Agency will work with ~~TUD and GCSD~~ affected agencies on ~~the 2015~~ future UWMPs. Future water demands will be based on estimates using land use data generated by the County Geographic Information System (GIS). As the UWMPs ~~are updated~~ is completed, changes in GIS mapping and data will be made available for County use and water suppliers. (WPAC)

Due to the recent drought, in addition to the surface water supply historically allotted for use within the County from Lyon's Reservoir and Pinecrest Lake, TUD has identified potential sources of water for its customers. These sources include, but are not limited to, New Melones, wells, and mines which serve as underground reservoirs. TUD continues to consider additional sources of water and water storage to improve the reliability of its system. (WPAC)

## Purpose

Since the County is not directly responsible for meeting the water supply needs of its residents, the General Plan cannot dictate the means or conditions of improving and adding water supply infrastructure. Therefore, the purpose of the Public Water Supplies Section of this Element is to provide general direction for establishing and maintaining safe and reliable water supplies during ~~further~~ future development of the County, balance the evolving needs of all other users in a changing hydrology, such as agriculture, and ~~to~~ define the necessary support relationship between land use development patterns described on the General Plan land use diagrams, ~~and~~ water distribution facilities and purveyors. (WPAC)

**GOAL 19.D** Promote cooperation ~~coordination~~ between Tuolumne County, the Tuolumne County Water Agency and water supply purveyors. (WPAC)

## Policies

- 19.D.1 Strive to maintain a mutually beneficial relationship with water supply purveyors.
- 19.D.2 Establish and update a database of all the service areas of the water supply systems in the County to ~~facilitate coordination~~ assist with land use planning.

## Implementation Programs

- 19.D.a Data for Water Master Planning
- Provide land use data from the General Plan, proposals being considered for updating the land use diagrams of the General Plan, and other relevant maps and data to water purveyors to be used in preparing their water master plans and Urban Water Management Plans.
- 19.D.b Review Water Master Plans and Urban Water Management Plans
- Review and consider land use implications of water master plans and Urban Water Management Plans prepared for any of the water supply purveyors in the County. Water master plans and Urban Water Management Plans examine the projected water needs, and outline the necessary repairs, replacements, and additions to the water distribution infrastructure.

19.D.c Consult with Water Purveyors

Provide descriptions of proposed land development projects that may require water service or in some way affect the ability of the water purveyor to provide service, to all affected water districts or water supply companies. Comments or requirements addressed by the water purveyor shall be considered prior to approval of the project.

19.D.d Maintain and Review Comprehensive Water Service Database

Maintain a water service database on the County Geographic Information System (GIS) which shows the boundaries of each water district, the service areas, and any available master planning maps showing future infrastructure. The database shall be used for review of proposed land use changes or development projects.

**GOAL 19.E Establish standards for water service for new development and protect the quality and quantity of existing supplies of ground and surface water.**

**Policies**

19.E.1 Require new commercial development to be served by public water systems, except for development in areas designated as Special Commercial on the General Plan land use diagrams where public water is not reasonably available.

19.E.2 Require urban residential development to be served by a public water system.

19.E.3 Encourage new industrial development to be sited in areas that are served by a public water system.

19.E.4 Consider protecting the geologic landscape for water quality and quantity and the functionality of the geology for water recharge from new development.

**Implementation Programs**

19.E.a Require Public Water Service for Urban or Commercial Development

Require new commercial development in areas designated as Neighborhood Commercial, General Commercial or Heavy Commercial on the General Plan land use diagrams and urban residential development (densities greater than one dwelling unit per two acres) to be served by a public water distribution system. Prior to approval of any discretionary entitlement for such development, a public water distribution system must have indicated that service is available and it has a reliable source of water to serve their existing and future customer's foreseeable needs. Prior to occupancy of the development, the service must be in place.

19.E.b Special Commercial Designation

Continue to utilize the Special Commercial (SC) General Plan land use designation on property suitable for commercial development of a neighborhood, rural or tourist-oriented nature but lacking service from a public water system. Development of a commercial nature on land designated SC is permitted without having service from a public water system, but only where public water service is not reasonably available and after issuance of a Conditional Use Permit, Site Development Permit, Site Review Permit, or Planned Unit Development Permit.

19.E.c Identify Areas for Industrial Development

Encourage new industrial development in specifically defined geographic areas which have the capability of being served by a public water system, or a private system when it can be reasonably demonstrated that the development will not cause an adverse public health problem.

**GOAL 19.F Plan new development and water supply infrastructure in a ~~coordinated~~ cooperative fashion.**

**Policies**

19.F.1 Encourage the logical extension of public water services infrastructure during review of new land development projects.

19.F.2 Ascertain that the water system ~~servicing~~ serving a new development has an adequate and reliable supply and distribution system to meet present and future needs. ~~and will not impact Balance the water needs of existing residents or and other users of water, such as agriculture.~~ (WPAC)

**Implementation Programs**

19.F.a Determine Long-range Needs

Support evaluations of Evaluate the long-range needs for water system infrastructure proximate to proposed development to determine proper design and sizing of water distribution lines, storage tanks, and other aspects of the water system infrastructure both on and off the site of the development. Support an The analysis ~~that shall~~ considers the logical extension of water distribution systems to adjoining or proximate properties where continued development can be foreseen.

19.F.b Ascertain Adequate Supply

Consider whether the water system proposed to serve a new development has a reliable source of water, sized to serve their existing and future customer's' foreseeable demands. Projects shall only be approved where the water supply system has reliable sources of water capable of meeting present and future demands. ~~and Balance the water needs of not impact existing residents or and other users of water, such as agriculture.~~ (WPAC)

19.F.c Encourage Urban Development Within or Adjacent to Community Boundaries

Encourage the siting of new urban development either within or adjacent to the urban development boundaries to maximize the use of existing infrastructure and encourage the logical extension of public water services infrastructure ~~reduce the need for expansion of the water supply system~~. When new urban development is proposed to be located outside but adjacent to the urban development boundaries, it should be preferentially located in proximity to existing water supply infrastructure.

**GOAL 19.G Encourage consolidation of existing small water systems and discourage the creation of new ones.**

**Policies**

19.G.1 ~~Advocate~~ Support the consolidation of water purveyors in the County to facilitate improvements to the infrastructure and consistency of water quality of the systems.

- 19.G.2 Consider the undesirability of proliferation of small water [systems, as defined in the California Health and Safety Code, purveyors](#) during the development review process. [\(WPAC\)](#)
- 19.G.3 Discourage additional water purveyors in the County, particularly stemming from new development.
- 19.G.4 Discourage creating new discontinuous water systems operated by existing water purveyors.

### Implementation Programs

- 19.G.a [Define Support the Limits of Water Service](#)  

Support the master planning of water purveyance systems that define the geographic limits of their service areas. New development shall not be approved that is proposed to be served by a public water purveyance system that does not include the project area within the defined geographic limits of service [unless the public water purveyance system is in the process of or agrees to pursue action to include the project area within the purveyor's limits of service.](#)
- 19.G.b Support Consolidation of Smaller Systems  

Assist and support actions by larger water purveyors and special districts to incorporate and maintain existing smaller systems and isolated privately or mutually-owned water supply systems.
- 19.G.c Discourage Development from Relying on New or Discontinuous Public Water Systems  

Require residential development projects that are proposed to be served by a public water system to be served by an existing water purveyor that is either a district, or water company that is privately-owned, or a mutually-owned system. The new or expanded water service from a privately-owned or mutual water company must be geographically [contiguous with proximate to](#) the existing system and have a direct infrastructure link between the existing and new system. This requirement is not intended to apply to isolated commercial or industrial developments which are served by water systems which are transient-noncommunity or nontransient-noncommunity water systems.
- 19.G.d Discourage Additional Discontinuous Public Water Systems  

Require amendments to the General Plan land use diagrams to add new areas designated for urban residential or commercial development, with the exception of new areas designated for Special Commercial (SC), be approved only with assurance that the area can be served by public water from either [an existing](#) district, or from an existing privately-owned or mutually-owned water company. The public water service from an existing privately-owned or mutually-owned water company is only acceptable if it would not create discontinuous service systems. Discontinuous service systems are those operated by the same company but are geographically separated and not related by a shared infrastructure. ~~Discontinuous service systems can be provided by water districts, utility districts or community services districts.~~

**Responsibility for Programs:** Administration of the Implementation Programs identified in this section is the shared responsibility of the Board of Supervisors and the Community Resources Agency, with the Community Resources Agency serving as the primary administrator.

**Funding Sources:** Administration of the Implementation Programs identified in this section will be funded through the County's General Fund and Health Fund.

**Time Frame for Implementation:** Implementation of the programs listed in this Section ~~are~~is ongoing.  
**SEWER SYSTEMS**

Historical problems with sewage disposal prompted the creation of districts whose purposes included the collection and disposal of sewage. By 1950, the larger districts included Tuolumne County Water District #1 (later known as Twain Harte Community Services District), Tuolumne County Water District #2 (later known as Tuolumne Regional Water District, and now Tuolumne Utilities District), Tuolumne City Sanitary District, and Jamestown Sanitary District. These districts continue to provide the primary public sewage disposal services to the portion of the County lying north of the Tuolumne River.

In the Groveland-Big Oak Flat area of the County, the Groveland Community Services District (GCSD) provides sewage service to those communities and a portion of the Pine Mountain Lake Subdivision.

There are other small sewage disposal systems at various places in the County. Many of these operate without problems, but others suffer from poor design or increased use. Regulation of sewage disposal in the County is split between the State and County. All above-ground systems are regulated by the Central Valley Regional Water Control Board (RWQCB) in Fresno, while the County Environmental Health Division regulates underground disposal using individual or common tank and leach-field systems of less than 10,000 gallons per day of wastewater.

Since the County is not directly responsible for providing public sewer systems, the General Plan cannot dictate the means or conditions of improving or creating such systems. The purpose of the Sewer Systems section of this Element is to provide general direction for establishing and maintaining adequate systems for sewage disposal during further development of the County.

**GOAL 19.H Promote the logical extension or expansion of sewer system infrastructure as development occurs in areas where the expansion of public sewer systems is feasible.**

### **Policies**

- 19.H.1 Encourage the installation of public sewage systems in existing communities which are experiencing repeated septic system failures.
- 19.H.2 Maintain soil maps and in areas where natural hazards are present, encourage new urban development to be served by public sewer systems ~~in areas where natural hazards are present~~.
- 19.H.3 Assist and cooperate in master planning sewer facilities and encourage the extension of additional public services through the installation of larger utility distribution lines and off-site improvements on new developments.

### **Implementation Programs**

- 19.H.a Provide Data for Sewer Master Planning  
  
Provide land use data from the General Plan, proposals being considered for updating the land use diagrams of the General Plan, and other relevant maps and data to districts who provide sewage disposal to be used in preparing their master plans. Data and maps showing areas noted as being hazardous for underground disposal or areas of known leach field failures, as well as relevant land use data, shall be shared.
- 19.H.b Review Sewer Master Plans  
  
Review and consider land use implications of sewer master plans prepared ~~for~~by any of the sewer districts in the County.

19.H.c Consult with Districts

Provide descriptions of proposed land development projects that may require sewer service or in some way affect the ability of the sewer purveyor to provide service, to all affected utility districts or public sewer systems. Comments or requirements, which may include overdesigning some infrastructure to allow for logical extension, which are returned by the sewer provider shall be considered prior to approval of the project.

19.H.d ~~Maintain a~~ Comprehensive Sewage Disposal Database

~~Establish and maintain~~ Support the establishment of a sewer service database on the County Geographic Information System (GIS) which shows the boundaries of each sewer district, the service areas, and any available master planning maps showing future infrastructure extensions. ~~An~~ Support an additional related database ~~shall be established and maintained~~ showing areas of known geological limitation for underground disposal, along with areas of a known history of septic system failure. The database shall be reviewed when considering land development applications.

19.H.e Support Sewage System Extensions to Correct Problems

Promote the logical extension of sewer lines and infrastructure to areas of existing development where there are known limitations or problems associated with on-site underground sewage disposal.

**GOAL 19.I Maintain a healthy environment for the citizenry by setting standards for the types and methods of sewage disposal to be used by new development.**

**Policies**

19.I.1 ~~Establish~~ Maintain standards for residential development that sets a minimum lot size that can be created without service by a public sewer system.

19.I.2 ~~Stipulate~~ Require that development shall be served by a public sewerage system where geological conditions exist which prevent the proper functioning of a septic system.

19.I.3 Encourage new industrial and commercial development in areas where a public sewer system is available ~~having the capability of being served by a public sewer system~~, or require evidence that there is a capability of functioning on a private system without any adverse public health impact.

19.I.4 Require development to take advantage of a public sewer system if it is reasonably available.

**Implementation Programs**

19.I.a Industrial or Commercial Development to Use Public Sewer

Consider whether areas proposed for designation as Neighborhood Commercial, General Commercial, Heavy Commercial, Business Park, Mixed Use, Light Industrial or Heavy Industrial on the General Plan land use diagrams can be served by a public sewer system. If public sewer service is available, ~~the public sewer system~~ shall be used for commercial or industrial development. Public sewer service is considered "available" according to the definition in Chapter 13.08 of the Tuolumne County Ordinance Code. Prior to approval of any discretionary entitlement for such development, a public sewer purveyor must have indicated that service is available, or an acceptable plan for sewage disposal through a private system must be approved by the Environmental Health Division or the State Water Resources

Control Board~~California Department of Public Health~~. Prior to occupancy of the development, the service must be in place.

19.I.b Require Public Sewer for Dense Residential Development

Allow residential development of a density greater or equal to three units per one net acre only in areas that can be served by a public sewer system.

19.I.c Consider Geological Limitations

Require that proposed development in areas of known or suspected geological limitations to underground sewage disposal either be served by a public sewer system, or successfully demonstrate that on-site underground sewage disposal can be accomplished with no lessening of quality to ground or surface waters.

19.I.d Septic Ordinance

Amend Title 13 of the Tuolumne County Ordinance Code and consider adopting a Local Agency Management Plan pursuant to Assembly Bill 885 and consistent with the State Water Resources Control Board's OnSite Waste Treatment System Policy regarding sewage disposal systems and impaired water bodies.

19.I.e Use Public Sewer If Available

Require development that is proposed on a parcel within 300 feet uphill or 100 feet downhill of a public sewer system's primary pipeline to connect to that system for service in accordance with Chapter 13.08 of the Tuolumne County Ordinance Code. This includes all urban residential development, and commercial and industrial development. This does not apply when the public sewer system's treatment plant is at its capacity level or -the sewer purveyor indicates the connection is not feasible, or the project lies outside the defined service area established for a district.

19.I.f Encourage Urban Development Within or Adjacent to Community Boundaries

Encourage the siting of new urban development either within or adjacent to the urban development boundaries to maximize the use of existing infrastructure and reduce the need for expansion of the public sewer system. Where new urban development is proposed to be located outside but adjacent to the urban development boundaries, it should be preferentially located in proximity to existing public sewer infrastructure.

**Responsibility for Programs:** Administration of the Implementation Programs identified in this section is the shared responsibility of the Board of Supervisors and the Community Resources Agency with the Community Resources Agency serving as the primary administrator.

**Funding Sources:** Administration of the Implementation Programs identified in this section will be funded through the County's General Fund and Health Fund.

**Time Frame for Implementation:** Implementation of the programs listed in this Section ~~are~~is ongoing.

## EFFICIENT USE OF WATER CONSERVATION (WPAC)

Water conservation is an easy, cost-effective way to reduce demand for water. Water-efficient technologies benefit the environment, economy, and community as a whole. Water can also be conserved through the reuse of agricultural, municipal and industrial wastewater and domestic greywater. Through a series of wastewater treatments and filtration techniques, recycled water can be safely used for agriculture and domestic ~~non-potable~~ purposes. The implementation programs in this section address water conservation in Tuolumne County through increased efficiency and reuse.

### **GOAL 19.J Maximize the efficient use and reuse of water supplies through water conservation, water recycling, and public education.**

#### **Policies**

19.J.1 Support water districts in establishing conservation standards to reduce demand for water.

19.J.2 Increase water conservation efforts to maximize water use efficiency within Tuolumne County through conservation, recycling and education.

#### **Implementation Programs**

19.J.a Water Availability and Conservation

Support the efforts of water agencies and districts to prevent the depletion of ~~groundwater~~ resources and promote the conservation and reuse of water.

19.J.b Water Reuse Programs

Encourage water reuse programs to conserve raw or potable water supplies (~~such as the capture of rainwater~~) consistent with State Water Resources Control Board~~Department of Public Health~~ guidelines.

19.J.c Water System Rehabilitation

Encourage the rehabilitation of water delivery systems to reduce lost water and increase the efficient use and availability of water.

19.J.d Water Reuse Treatment

Encourage water reuse/recycling through the treatment and distribution of treated wastewater.

19.J.e Landscape Water Efficiency

Ensure the conservation of water through the implementation of the Tuolumne County Landscape ~~Ordinance~~Requirements contained in, Chapter 15.28 of the Tuolumne County Ordinance Code.

19.J.f High Water Use Processing Activities

Prohibit any processing activities with high water use practices, ~~such as mines~~, near areas where groundwater overdraft problems exist, unless the facility uses water recycling and conservation techniques that minimize ~~ea~~ffects of water use to the groundwater table. (WPAC)

- 19.J.g Encourage Water Efficiency
- Develop an outreach program, working with the water service providers in the region, to encourage development to be constructed with, or upgraded to, water-efficient plumbing fixtures, landscaping, and irrigation systems, and use greywater and/or recycled water for irrigation.
- 19.J.h Domestic Greywater Use
- Encourage the use of domestic greywater for landscape irrigation and other purposes and consider establishing incentives for ~~consider requiring new development to install greywater systems~~ in areas where such systems are allowed by the applicable water or sewer purveyor. Recognize that water or sewer purveyors may adopt regulations to prohibit or otherwise regulate greywater systems that could adversely affect the efficient operation of their systems. (WPAC)
- 19.J.i Composting Toilets
- Explore the feasibility of reducing wastewater through the use of dry/composting toilets in new construction, consistent with Goal 19.I.
- 19.J.j Educational Programs
- Support the development of educational programs by water districts and public agencies to increase public awareness of efficiently conserving, using, reusing, and managing water resources.
- 19.J.k Water Conservation Information
- Provide information on water conservation measures to the general public and ~~coordinate~~ consult with conservation efforts of the water districts.
- 19.J.l Agricultural Water Reuse
- Promote and facilitate ~~using the use of~~ reclaimed wastewater for ~~efficient~~ agricultural irrigation, in accordance with the guidelines published by the State Water Resources Control Board ~~Department of Public Health~~.
- 19.J.m Agricultural Water Efficiency
- Cooperate with the Agricultural Commissioner, Cooperative Extension Service, Farm Bureau and water districts to promote the protection of water resources in agricultural areas by encouraging programs that assist producers in using water efficiently in agricultural operations and by promoting technology for efficient water use in agriculture.
- 19.J.n Water Efficiency on County Property
- Utilize water-efficient plumbing fixtures and irrigation systems on County property.
- 19.J.o Water Harvesting and Storage
- ~~Consider developing incentives, such as fee reductions, for the installation of requiring new development to incorporate rainwater harvesting and storage facilities standards on- or off-site to conserve water and minimize water loss~~ in areas where such systems are allowed by the applicable water or sewer purveyor. Recognize that water or sewer purveyors may adopt regulations to prohibit or otherwise regulate greywater systems that could adversely affect the efficient operation of their systems. (WPAC)

19.J.p Water Efficient Technology

Support development of new technology to improve efficient use of water. (WPAC)

19.J.q~~A-j~~ Retrofit Plumbing Fixtures

Encourage plumbing retrofits to be installed in existing buildings to reduce water use. (WPAC)

**Responsibility for Programs:** Administration of the Implementation Programs identified in this section is the shared responsibility of the Board of Supervisors, County Administrator's Office and other County Departments with the Community Resources Agency and the County Administrator serving as the primary administrators.

**Funding Sources:** Administration of the Implementation Programs identified in this Ssection will be funded through the County's various funds.

**Time Frame for Implementation:** Implementation of the programs listed in this Section ~~are~~ is ongoing.

