17. PLUMAS-EUREKA COMMUNITY SERVICES DISTRICT

Plumas-Eureka Community Services District (PECSD) provides fire suppression, emergency medical, water, wastewater, snow removal and road maintenance services. In 2008, Plumas LAFCo passed a resolution initiating a Municipal Service Review (MSR) and Sphere of Influence update for PECSD;³⁴⁴ however, the review was never completed. This is the first MSR for PECSD.

AGENCY OVERVIEW

Background

PECSD was formed in 1993 as an independent special district.³⁴⁵

The area was originally served by County Service Area (CSA) 8, until 1989 when the CSA was dissolved. Following the dissolution, the Board of Directors (County Board of Supervisors) of the dissolved CSA formed the CSD to continue providing services formerly provided by the CSA to the residents and land owners of Plumas-Eureka Estates and Eureka Springs Subdivision, such as water and wastewater. In addition, the newly formed CSD took on the responsibility of fire services,³⁴⁶ which had been operating under the direction of the developer of the community with cooperation from Plumas County since 1981. The District currently provides the same services as when it was formed. PECSD is considering adding parks and recreation to the list of its services. A piece of land was donated to PECSD in 2010, and the District is now planning to turn it into either a dog park or a picnic area.

The principal act that governs the District is the State of California Community Services District Law.³⁴⁷ CSDs may potentially provide a wide array of services, including water supply, wastewater, solid waste, police and fire protection, street lighting and landscaping, airport, recreation and parks, mosquito abatement, library services; street maintenance and drainage services, ambulance service, utility undergrounding, transportation, abate graffiti, flood protection, weed abatement, hydroelectric power, among various other

³⁴⁴ LAFCo Resolution No. 2008-SOI-003.

³⁴⁵ LAFCo Resolution No. 92-2.

³⁴⁶ There are no records to indicate if

³⁴⁷ Government Code §61000-61226.5.

services. CSDs are required to gain LAFCo approval to provide those services permitted by the principal act but not performed by the end of 2005 (i.e., latent powers).³⁴⁸

PECSD is located in the heart of the Plumas National Forest, in the eastern part of Plumas County. The District borders Graeagle FPD in the south, Plumas National Forest in the west and Feather River in the north and east. Across the river in the east there is the Little Bear RV Park, and in the north, another small RV Park and mostly wilderness.

Boundaries

The PECSD boundary is entirely within Plumas County. The District's boundaries encompass approximately half of a square mile. There has been one annexation to and no detachments from the District since its formation. In 1994, the District annexed Eureka Springs Subdivision, which encompassed 62 acres or 0.1 square miles. Now the District consists of the Plumas Eureka Estates, the Eureka Springs Subdivision, and the Village of Plumas Pines Subdivision, and surrounds the Plumas Pines golf course. Many of the residential homes are located adjacent to the golf course.

Sphere of Influence

The SOI for PECSD was adopted in 1994.³⁵⁰ A map of the SOI that was adopted in 1994 was not attached to the LAFCo Resolution, and no other records are available to indicate what area the SOI encompasses. For the purposes of this MSR and the upcoming SOI update, it is assumed that the SOI is coterminous with the District's boundaries, as reported by the District General Manager and directed by the LAFCo Executive Officer. Based on LAFCo records, it appears that the District has never had a sphere of influence update or amendment since it was first adopted. The District's SOI is assumed to include the same half of a square mile area as the boundary area.

Extra-territorial Services

Through an informal agreement with the Sheriff's Office, which is discussed in more detail in the Fire Service Section, the District responds outside of its boundaries. The District's fire service area extends beyond its boundaries to the east and south and includes an area of 20 square miles compared to half a mile of boundary area.

PECSD provides fire protection services to two property owners in the community of Johnsville.

³⁴⁸ Government Code §61106.

³⁴⁹ Total agency area calculated in GIS software based on agency boundaries as of July 1, 2011. The data is not considered survey quality.

³⁵⁰ LAFCo Resolution 94-1.

The District provides extra-territorial fire services to the communities of Blairsden, Graeagle, Clio and Whitehawk under a joint automatic aid dispatch with GFPD. It also has informal mutual aid agreements with all other fire service providers in Eastern Plumas County.

The District does not provide any extra-territorial water and wastewater services.

Areas of Interest

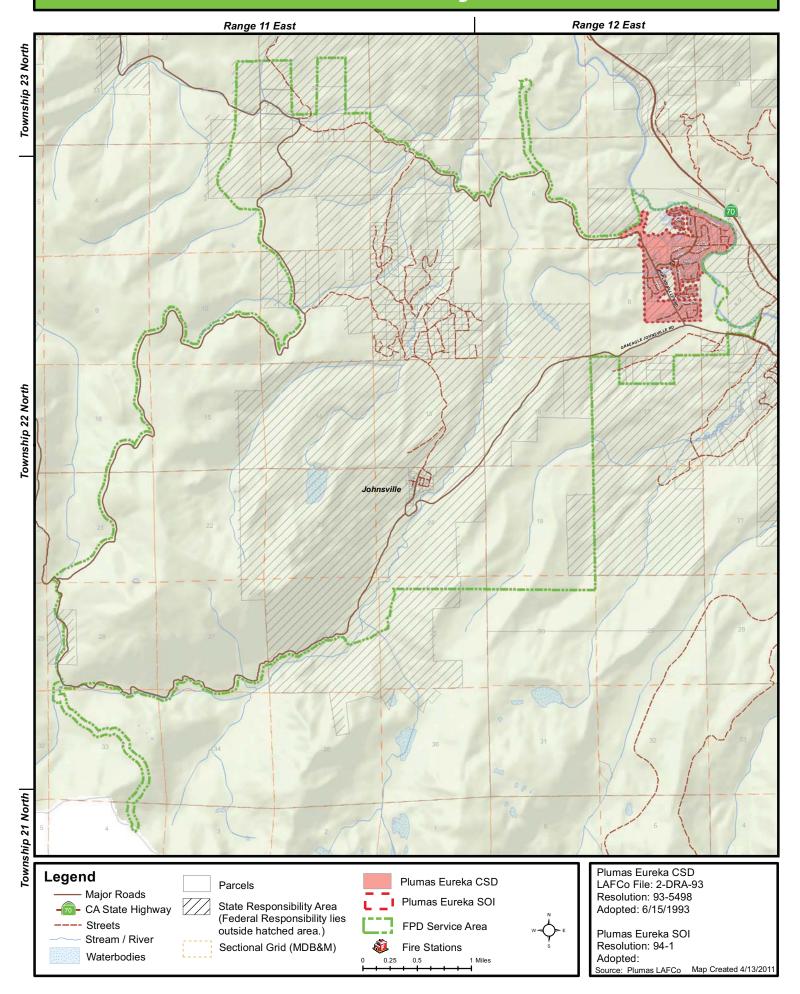
There are a few areas of interest that were identified for PECSD. One is the community of Johnsville that is located to the south of PECSD. Johnsville does not currently belong to a fire district. Some individual property owners contract with PECSD for fire services and others with GFPD. At this time, there is only one active signed contract with one of the property owners who is charged \$250 for fire services by PECSD. All other previous contracts were not renewed by homeowners. PECSD would like to expand its SOI to include Johnsville and eventually annex it, because the District believes that its proximity to the community and availability of resources make it the most suitable candidate for fire service provision there. The District believes that the community of Johnsville would like to be annexed into PECSD, but lacks funds to start the process. Graeagle FPD believes that Johnsville's wish is to be annexed by GFPD.

Another area of interest is Little Bear RV Park located across Feather River to the east. The District would like to explore the possibility of expanding its SOI to include the RV Park area.

There is also Johnsville Public Utility District (JPUD) that provides community water service. At one time it provided limited fire protection services, but now there is an opportunity for JPUD to contract with PESCD for fire protection and EMS services. Currently, a meeting hall in Johnsville in the St. John's Catholic Church has an active contract with the Graeagle FPD as a condition of the County's Special Use Permit. However, Johnsville is now within the response area of PECSD which may create a conflict.

Two more areas that are of interest to PECSD are Eagle Ridge RV Park and Red Road area. Eagle Ridge RV Park is a newly developed recreational area located within GFPD SOI. However, GFPD thought that the Park was going to be placed in PECSD SOI which created confusion about which agency would be serving the new recreation area. Red Road area is the 560-acre ranch surrounded by State Park and National Forest lands. Its primary access is via private unimploved roads leading form the County Road in Johnsville. The area does not conform to fire safe standards; it is outside of a fire district but within PECSD service area.

17-1 Plumas Eureka Community Services District



Accountability and Governance

PESCD is governed by a five-member Board of Directors who are to be elected at large to staggered four-year terms. There are currently five members, all of whom were elected. There has never been a contested election in the history of the District. The District encourages voter participation through its semi-annual newsletter and website. Current board member names, positions, and term expiration dates are shown in Figure 17-2.

The Board meets on the second Wednesday of each month at nine in the morning in the PECSD building in Plumas-Eureka Estates. Board meeting agendas are posted on the website, four bulletin boards throughout the community and on the door of the PECSD building. Minutes are posted on the website and are available upon request.

Figure 17-2: PECSD Governing Body

Plumas-Eureka Community Services District										
District Contact In	District Contact Information									
Contact:	Frank Motzkus, (General Manager								
Address:	200 Lundy Lane,	Blairsden, CA 96103								
Telephone:	530-836-1953									
Email/website:	teresa.pecsd@di	gitalpath.net, www.pe	<u>csd.org</u>							
Board of Directors										
Member Name	Position	Term Expiration	Manner of Selection	Length of Term						
Elmer Tretten	Chairman	December 2011	Elected	4 years						
Larry Walker	Vice Chairman	December 2013	Elected	4 years						
Frank Shepard	Member	December 2013	Elected	4 years						
Vern Wiemeyer	Member	December 2011	Elected	4 years						
Richard Machado	Member	December 2013	Elected	4 years						
Meetings										
Date:	Second Wedneso	lay of each month at 9a	ım.							
Location:	PECSD building l	PECSD building located at 200 Lundy Lane in Plumas-Eureka Estates.								
Agenda Distribution:	Posted on the w	ebsite, 4 community bu	ılletin boards and PECSD	building door.						
Minutes Distribution:	Available on the	website and upon requ	est.							

In addition to the legally required agendas and minutes, the District does public outreach through its website, word of mouth, newspaper ads, a semi-annual newsletter, the fire department store, and fundraising events organized through the fire department auxiliary. The fundraising events include, but are not limited to, a charity golf tournament, pancake breakfasts on Labor Day and Memorial Day, and a Fourth of July event.

If a customer is dissatisfied with the District's services, that customer may submit a complaint via email or on the website. There will be a spot on the website for general complaints and there is already an online form for water-related complaints. All complaints in the last two years were regarding water quality and odor. From 2009 to the present, there were two complaints. The General Manager of the CSD is responsible for handling the complaints. In his absence, the Chairman of the Board assumes the responsibility.

Plumas-Eureka CSD demonstrated accountability and transparency in its disclosure of information and cooperation with Plumas LAFCo. The District responded to the questionnaires and cooperated with the document requests.

Planning and Management Practices

Daily operations of the District are managed by the general manager, operations and maintenance manager and administrative manager. All of which are full-time paid personnel. In addition, there is a full-time paid laborer who assists the operations and maintenance manager.

The fire department has 11 staff members—a fire chief, an assistant chief, two fire captains, two engineers, four firefighters and one administrative secretary who is also the administrative manager for the whole district. Ten personnel are sworn firefighters. The chief is paid a monthly stipend. He does not have set hours and fulfills his duties on his own schedule. The assistant fire chief and two captains also receive small monthly stipends.

The Board of Directors oversees the general manager and the administrative manager. The operations and maintenance manager manages the facilities operator (which is vacant at this time) and is accountable to the general manager. According to the organizational chart, the laborer is accountable to the facilities operator, but due to the vacancy, the laborer reports to the operations and maintenance manager. The fire chief reports to the general manager and the Board of Directors, and oversees the assistant chief. The captains are accountable to the assistant chief, and the firefighters report to the captains.

The employees of the District are evaluated annually by the general manager. The new hires are evaluated on semi-annual basis. The Board of Directors evaluates the overall performance of the District. The Board has adopted long-term goals for the District, and at every board meeting the members discuss these goals and evaluate the progress made towards realizing them. Many of the established goals have been completed, so this April 2011, the Board will set new goals for the future.

To track the workload and productivity of the agency and its employees, district staff perform daily checks on water systems and conduct monthly reports. The employees fill out time cards and are paid every two weeks.

The District's fire department regularly evaluates its staff to confirm that training has been effective. Training takes place every Wednesday, and participation is documented. The fire department also tracks service calls by documenting them in a call log.

Workload monitoring of the agency and its employees helps the District improve its productivity. In the case of water and wastewater services, it helps avoid repetitious situations and streamlines system operations. In the case of fire services, it helps the fire department determine where high volume call areas are. It also aids the fire department in estimating anticipated call volume during the summer months and make appropriate preparations. When applying for grants, the District uses its recorded demand and work history to demonstrate and justify a need for funds.

The District reported that it makes an effort to participate in regional plans, such as the Regional Basin Plan and the Grizzly Lake Improvement District reorganization study, through public comments only. The District encourages its residents to submit comments about any development-related projects near Plumas-Eureka CSD. In addition, one of the PECSD Board Members is the president of the Plumas County Special District Association.

The District's financial planning efforts include an annually adopted budget, audited financial statements and a capital improvement plan. The financial statements were last audited for FY 09-10. They are audited annually. The District provided the adopted budgets for FY 09-10 and FY 10-11, audited financial statements for FY 09-10, and the capital improvement plan. The CIP has a planning horizon of five years and is updated on annual basis.

Existing Demand and Growth Projections

Designated land uses within the District are primarily residential and recreational.³⁵¹ The total boundary area of PECSD is half of a square mile.

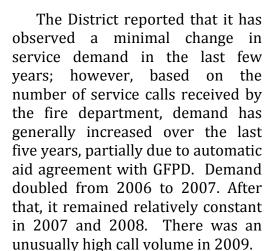
Population

The District reported that its approximate population is 200 to 300 people in winter and 1,700 people in summer. According to the 2000 Census, the Plumas Eureka Census Designated Place had a permanent population of 320. Population information at the census tract level was not yet available for the 2010 census, as of the drafting of this report; however, based on the lack of growth experienced throughout the County over the last decade, and in some cases population decline, it can be assumed that the approximate population has not changed much since 2000.

Existing Demand

The District reported having peak demand during summer months when the population significantly increases due to seasonal residents and tourists. Calls for medical emergencies are consistently high throughout the year, similar to other providers.

³⁵¹ Plumas County Parcel Application.



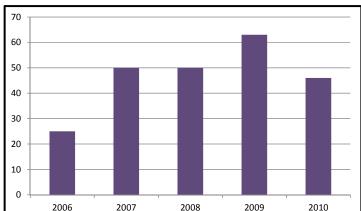


Figure 17-3: PECSD Number of Fire Calls (2006-10)

Plumas-Eureka FD reported that most service calls generally occur in the late afternoons or early evenings.

Projected Growth and Development

PECSD anticipates little growth in population and similarly in service demand within the District in the next few years; however, no formal population projections have been made by the District. PECSD projects its service needs based on its own experience and history.

The State Department of Finance (DOF) projects that the population of Plumas County will grow by five percent in the next 10 years. Thus, the average annual population growth in the County is anticipated to be approximately 0.5 percent. Based on these projections, the District's population would increase from 320 in 2010 to approximately 335 in 2020. It is anticipated that demand for service within the District will increase minimally based on the DOF population growth projections through 2020.

The District reported that to their knowledge there is one planned development within its boundaries called Village of Plumas Pines. Growth is concentrated within the southwest portion of the District, in the community of Eureka Springs, which has plenty of in-fill space. PECSD appears to have the capacity to serve projected development. The District did not identify any areas within the agency's future growth area to which it would be difficult to provide an adequate level of service.

Growth Strategies

The District is not a land use authority, and does not hold primary responsibility for implementing growth strategies. The land use authority for unincorporated areas is the County.

The County enforces the codes that it has enforcement power over, which does not encompass all State fire codes. The County ensures that new construction meets the

requirements of the latest adopted edition of the California Building Standards. The County enforces the County codes that have been adopted in lieu of the California Fire Safe regulations. The County does not have authority to enforce PRC 4291, which requires defensible space around structures; however, the County does have some enforcement authority over vegetation removal around buildings that was adopted prior to PRC 4291. In addition, the Board of Supervisors, through the adoption of the General Plan and county codes, regulates development standards to be followed in processing subdivisions, including fire protection.

The proposals for new developments are sent for review to the appropriate fire provider if a development is within district's boundaries. The County reported that as SOI maps have not been digitized, is has been challenging to ensure that proposals go to the appropriate district if a proposed development was within that district's SOI but outside its boundaries. The County and Plumas LAFCo are working together on a process to ensure that all appropriate districts are contacted for review of proposed developments. The County Board of Supervisors is discussing a possibility of hiring a fire marshal, part of whose responsibilities may be code enforcement and building inspections. However, thus far, no decision has been made on the responsibilities of the position.³⁵²

The County has several policies in the existing general plan, which impact the fire providers of new developments.

- 1) Turnouts are now required in every new development.³⁵³
- 2) The County encourages development to be located adjacent to or within areas where fire services already exist or can be efficiently provided.³⁵⁴
- 3) The County requires new developments within areas not currently served by a fire provider to be annexed into an existing fire district or create a funding mechanism, such as a CSD, to cover the costs of fire service provision.³⁵⁵
- 4) Sustainable timber and biomass production and harvesting as well as intensive forest management practices are encouraged to reduce the danger of catastrophic wildfires.³⁵⁶
- 5) There is a minimum requirement of two roadway access points, which are maintained on a year-round basis by the County or the State. 357

³⁵⁶ Ibid, p. 32.



³⁵² Correspondence with Becky Herrin, Plumas County Senior Planner, September 8, 2011.

³⁵³ Plumas County Code of Ordinances, Title 9 Section 9-4.604 (k).

³⁵⁴ Plumas County, *General Plan*, 1984, pp. 28 & 29.

³⁵⁵ Ibid., p. 28.

- 6) Minimum public and private road standards: roads providing access to two or more lots have to conform to a two-lane standard of no less than 16-foot traveled way.³⁵⁸
- 7) Bridges are required to be designed for an 80,000 pound vehicle load.³⁵⁹
- 8) All access roads must be marked with an approved sign; and all lots must be identified by an address.³⁶⁰
- 9) All developments within boundaries of a structural fire service provider may be required to contribute to the maintenance of the structural service proportionate to the increase in demand for fire service resulting from the development.³⁶¹
- 10) As a condition of development it is required to provide long-term maintenance of private roads to the standards of original improvements, including roadside vegetation management.³⁶²
- 11) The County encourages biomass thinning programs in high fire risk areas. 363

The District reported concerns that new developments in the County were not being required to comply with existing requirements.³⁶⁴ The County reported that only one agency had come to the County regarding these concerns, which were unfounded at the time. No conjecture is made by the authors of this report as to the accuracy of these statements. It should be noted that one of the purposes of the newly formed Emergency Service Feasibility Group is to address these concerns.

The County is in the process of updating its general plan. The suggested new policies in the General Plan update that would impact fire service providers, but had not yet been adopted as of the drafting of this report, include:

12) The County shall review and update its Fire Safe ordinance to attain and maintain defensible space though conditioning of tentative maps and in new development at the final map or building permit stage.

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Jibid., p. 16.
Jibid.,
Jibid.
Jibid.
Jibid.
Jibid.
Jibid.
Jibid.
Plumas County Code of Ordinances, Title 9 Section 9-4.601.
Plumas County Code of Ordinances, Title 4 Section 4-2.101.
Profile comments from Chief Greg McCaffrey, May 3, 2011.
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- 13) The County will consult Fire Hazard Severity Zone Maps during the review of all projects. The Countywill work with fire protection agencies to develop community fire plans and require appropriate building setbacks and fuel modification requirements within fire hazard zones.
- 14)In order for the new development to be approved, the County must conclude that adequate emergency water flow, fire access and firefighters and equipment are available.
- 15) New developments have to show that they have adequate access for emergency vehicles to access the site and for private vehicles to evacuate the area.
- 16)New developments within high and very high fire hazard areas are required to designate fuel break zones that comply with fire safe requirements.
- 17) The County will work with Forest Service and fire districts in developing fire prevention programs, identifying opportunities for fuel breaks in zones of high and very high fire hazard and educating public.
- 18) Fire, law enforcement, EMS, resource management, and public health response partners are encouraged to conduct joint training exercises.³⁶⁵

The County has not adopted the new standards for development yet. The revised General Plan may be adopted towards the end of 2012. County zoning code will then go through a revision process in order for the zoning code to implement the General Plan.

In 2007, the Board of Supervisors formed the Emergency Services Advisory Committee to "evaluate the funding feasibility of providing uniform and comprehensive emergency services to all of Plumas County." The Committee attempted to look for opportunities to increase funding for emergency services, but faced a considerable challenge in the difficult economic times. Most recently, it focused on mitigating efforts through building and development standards improvements and the General Plan update process, and encouraging local fire service providers to share resources and realize economies of scale in preparing grant applications, conducting training and engaging in other joint programs.

With regard to future growth areas, the District would like to include the community of Johnsville and the Little Bear RV Park in its SOI.

Financing

The District reported that the current financing level is not adequate to deliver services. Increased costs to providing services is a particular strain on the District's level of financing, such as increased electrical costs, chemical costs, as well as medical and retirement coverage. Prior to five years ago, PECSD had minimal medical and retirement

³⁶⁵ Plumas County General Plan, Draft Goals, Policies and Implementation Measures, 2010.

coverage, and since updating these employee benefits in 2007, overall service costs have dramatically increased. Because of the recession, PECSD did not want to burden its residents by raising rates to cover increasing costs. The District has been able to tap into its reserves and sustain itself. However, the District reported that this year rates will have to be updated to reflect the increased service costs. While most district residents were able to continue paying service fees and taxes, the District did experience a decrease in income due to an increased vacancy rate, foreclosures and liens. As a result, the District reported that instead of a normal rate of loss of two percent, PECSD has experienced a rate of loss of between five and six percent. The amount of debt to the District from unpaid fees therefore increased.

The District operates out of a governmental fund for fire services and separate enterprise funds for water and wastewater services.

Figure 17-4: PECSD Revenues and Expenses

Income/Expenses	FY 09-10 Bu	ıdgeted	FY 09-10	Actual	FY 10-11 Budgeted	
Income						
Assessments	\$29,799	4%	\$29,653	4%	\$29,799	4%
Property Taxes	\$30,000	4%	\$31,996	4%	\$30,000	4%
Charges for Services	\$645,385	84%	\$656,644	84%	\$645,385	84%
Interest Income	\$26,500	3%	\$3,756	0%	\$26,500	3%
Donations	\$5,000	1%	\$395	0%	\$5,000	1%
ERAF reimbursement	\$8,500	1%	\$8,500	1%	\$8,500	1%
Feeram/mitigation	\$19,819	3%	\$36,321	5%	\$19,819	3%
Other	\$0	0%	\$13,269	2%	\$0	0%
Total Income	\$765,003	100%	\$780,534	100%	\$765,003	100%
Expenses						
Water Services	\$226,418	39%	\$236,647	31%	\$239,028	41%
Wastewater Services	\$218,320	38%	\$201,207	26%	\$210,108	36%
Public Protection	\$83,141	14%	\$101,801	13%	\$80,899	14%
Depreciation	NA		\$136,148	18%	NA	
Support Services	\$19,000	3%	\$14,632	2%	\$19,750	3%
Interest on Debt	\$34,259	6%	\$69,704	9%	\$34,259	6%
Total Expenses	\$581,138	100%	\$760,139	100%	\$584,044	100%
Net Income	\$183,865		\$20,395		\$180,959	

The District's total revenues for FY 09-10 were \$780,534. Primary revenue sources included charges for water and wastewater services (84 percent), property taxes that are used for fire department only (four percent), benefit assessments (four percent), Fire Engine Equipment Replacement and Maintenance fees (three percent) and interest income (three percent).

PECSD charges its residents fees for the services it provides. The fee and rate schedule is outlined in an ordinance written in 1998 and last updated in 2007. Separate fees are charged based on subdivision, applicable reserve funds and long-term debt financing for

historical projects. The fees are adjusted annually based on the adopted budget, not based on inflation. Specific fees are listed below. Water and wastewater rates are covered in the utility-specific sections.

For fire services, the District charges a fire assessment on each property. assessment depends on location and whether the property is improved or not. Land owners in Plumas Eureka Estates are charged \$43.12 for an improved lot and \$20 for an unimproved lot. Residents of Eureka Springs Subdivision and The Village are assessed \$43.12 for improved lot and \$58 for unimproved lot. PECSD also charges a Fire Engine Equipment Replacement and Maintenance (FEERAM) fee. This revenue is dedicated to firerelated capital expenses over \$500. The FEERAM fee for all properties throughout the District is \$32.88 for improved lot and \$18 for unimproved lot. Finally, the District collects fire protection fees for services in the Eureka Springs Subdivision and The Village—\$75 and \$150 annually per improved lot, respectively. Based on these fees for fire services, land owners of developed lots in Plumas Eureka Estates pay a total of \$76 annually, land owners in Eureka Springs pay \$151 annually, and land owners in The Village pay \$226. In addition, for new development, a fire mitigation fee is levied on all properties—\$1,039 per lot . The fire mitigation fee is to be used for capital expansion necessary to provide adequate services to the additional demand from new development. In addition, the District charges per incident for providing services outside of its boundaries.

PECSD charges water and wastewater capital reserve fees with the monthly service fee bills. The water capital reserve fee depends on the size of the connection, and ranges from \$144 for a residential connection to \$380 annually for the largest commercial connection. The wastewater reserve fee is a flat rate of \$133.44 annually regardless of connection size or location. Depending on location, and what wastewater facilities are in use, the District also collects fees to finance bonds for previous capital improvements and to finance leach field maintenance. All residents with sewer service are charged \$136.56 annually for the Dynamite Hill Leachfield Bond. The wastewater service charge is \$136.56 per year. Additionally, nine Plumas Eureka Estates residents pay \$42 annually for leach field maintenance and \$87.76 for the 2006 sewer revenue bond, while residents in Eureka Springs and the Village pay a sewer revenue bond fee of \$509.59 annually.

Since the ordinance establishing fees for fire department is about 13 years old, the District finds it necessary to be redone this year. Currently, PECSD is in search of a contractor to perform an engineering study to adjust the fire assessment. The District is in the process of receiving proposals to conduct the study and compile the report. The water and sewer rates until 2010 were increased based on the proposed annual budget as opposed to a certain percentage. This year, the plan is to propose a certain fixed increase over the next few years in order to avoid revisiting the fees issue every year.

The District's expenditures in FY 09-10 were \$760,139. The District's primary expenditures consist of water services (31 percent), wastewater services (26 percent), depreciation (18 percent), and fire protection services (13 percent). Other expenses are detailed in Figure 17-3.

PECSD has a capital improvement program with a five-year planning horizon, which is updated on an annual basis. Capital improvements are budgeted for separately from the main budget and are financed through the District's multiple reserve funds. Money is put aside on a regular basis to replace the equipment that is depreciating. The reserve fund is financed through reserve fees. The reserve fund is an adopted policy outlined in the Ordinance. The District does not have an adopted policy regarding a reserve target, but funds set aside have generally constituted about 1.5 to 2 percent of the budgeted operation and maintenance funds. At the end of FY 09-10, the District had unrestricted fund balances of \$508,171 and \$294,827 for water and wastewater capital improvements. The Board has designated these funds for road maintenance, plant expansion, and equipment reserve needs. While there are no unrestricted funds designated for fire service capital needs, the District does maintain a Fire Engine Equipment Replacement and Maintenance (FEERAM) reserve account for capital expenses over \$500. At the end of FY 09-10, there was a balance of \$25,221 in the FEERAM account.

The District does not have a formal policy or target for reserves for emergency operational needs. At the end of FY 09-10, the District maintained unrestricted undesignated fund balances in each of the funds that could finance about three months of operations for wastewater services, approximately one month of operations for water services, and almost eight months of operations for fire services (based on annual operational expenditures in FY 09-10).

The District's long term debt is represented by two sewer revenue bonds and refinancing for certificates of participation also for sewer related capital improvements.

- ❖ **Sewer Revenue Bond, Series 2006A**: This \$683,000 U.S. Department of Agriculture, Rural Development revenue bond was issued in 2006 to finance the repair and expansion of WWTP 7. The bond is payable from the revenues of the District's sewer enterprise. The balance with interest as of June 2010 was \$662,400.
- ❖ **Sewer Revenue Bond, Series 2006B**: This funding with the USDA, Rural Development, in the original amount of \$439,850, was also secured to finance the expansion of WWTP 7. The bond is payable from the revenues of the District's sewer enterprise. The balance with interest as of June 2010 was \$478,960.
- ❖ 2008 Private Placement Refunding: The proceeds of this \$391,600 loan refinanced the 1996 Certificates of Participation, which financed the construction of a replacement community leach field and other capital improvements. As of June 2010 the balance with interest was \$348,800.

The District participates in the CALPERS program, which it joined in 2007. For FY 09-10, the District contributed \$40,597, and district employees made their own contributions equal to seven percent of wages.

FIRE SERVICES

Service Overview

Plumas-Eureka Fire Department (PEFD), which is a department of PECSD, was established in 1981 to provide local fire protection. In 1994, the staff began being trained in Emergency Medical Services (EMS). Currently, the fire department provides fire suppression and Basic Life Support services to the communities of Plumas-Eureka and Johnsville. Despite a small commercial base, the District tries to conduct annual fire inspections.

Ambulance service is provided by Eastern Plumas Healthcare District (EPHCD). Care Flight, Mountain LifeFlight and California Highway Patrol provide air ambulance services. Fire suppression helicopter service is provided by USFS and CalFire.

Collaboration

The District has a joint automatic aid dispatch with GFPD under which the District provides fire services to the communities of Blairsden, Graeagle, Clio and Whitehawk. In addition, there are automatic aid agreements with EPRFPD and Long Valley Fire Department, however, the Dispatch Center has not recognized them. PEFD is a member of the Plumas County Fire Chief's Association and has signed the Plumas County Master Mutual Aid Agreement under which it provides mutual aid to other fire providers in Plumas County. PEFD is also a part of CalEMA (California Emergency Management Agency, formerly known as OES) under which it provides assistance to State-wide emergencies if need be. The fire department occasionally responds to wild fires and gets reimbursed for it from the federal government. In addition, the PEFD conducts weekly trainings with GFPD.

<u>Dispatch</u>

The County Sheriff is the Public Safety Answering Point (PSAP); consequently, most land line emergency calls (9-1-1 calls) are directed to the Sheriff. Most cell phone emergency calls (9-1-1 calls) are answered by CHP and redirected to the Sheriff. The Sheriff provides dispatching for most fire providers in the County except for the ones in the northern part of the County, which are served by the CHP Susanville Dispatch Center. The Forest Service has its own dispatch. The sheriff dispatch center has a first responder map, which it uses to identify what provider to dispatch to an incident. All territory within the County has a determined first responder; although, many areas lie outside the LAFCo-approved boundary of the districts and lack an officially designated fire provider.

According to the District, there could be many potential improvements to dispatch, such as better communication between the fire units in the field and during dispatch, collaboration among fire departments to set up mutual aid and multi-jurisdictional dispatches to incidents, and Sheriff's participation in quarterly meetings with the County Fire Chiefs Association.

When there is a need for mutual aid assistance, the Jurisdiction Having Authority (JHA) puts out a request for mutual aid through Fire Control and specifies how many and of what type of fire equipment is needed. The JHA establishes an Incident Commander using ISC Standards who coordinates the responders and incident. The District reports that Plumas County currently has a very good radio interoperable system in place. However, there are issues that will need to be addressed in the foreseeable future. All Plumas County fire agencies will have to switch to narrow banding by January 1, 2012 and will be required to be P-25 compliant by 2015. This may cause a heavy financial burden on a lot of fire departments. The District reports that its repeater system needs upgrades and ongoing maintenance for which PECSD lacks funding.

Staffing

PECSD has ten sworn personnel—one fire chief, one assistant fire chief, two captains, two engineers and four firefighters. The fire chief, assistant chief and two captains are paid a monthly stipend. In addition, firefighters are paid per call. The pay for a firefighter is from \$18 to \$24 per call depending on firefighter certification. Firefighters are also reimbursed for attending training at the rate of two dollars and fifty cents an hour. Checks to firefighters are issued monthly. The median age of the fire fighters is 58, with a range from 36 to 75.

The District reports that recruitment and retention of volunteers have been major challenges for PEFD. The main reason for these issues is that Plumas-Eureka is a bedroom and retirement community with a senior citizen and aging population. The department tries to recruit volunteers through its website where it describes the requirements, time commitment and benefits of being a volunteer firefighter. Other ongoing efforts include going door to door, sending flyers and newsletters, and conducting fundraising events where the department actively seeks new recruits and displays a large recruitment banner.

According to the California State Fire Marshal, all volunteer and call firefighters must acquire Firefighter I certification; however, there is no time limit as to how long they may work before attaining certification. Firefighter I certification requires completion of the 259-hour Firefighter I course, which includes training on various fireground tasks, rescue operations, fire prevention and investigation techniques, and inspection and maintenance of equipment. In addition to this course, Firefighter I certification also requires that the applicant have a minimum of six months of volunteer or call experience in a California fire department as a firefighter performing suppression duties.³⁶⁶ PECSD has four Firefighter I certified personnel; the same four are Firefighter II certified. The fire department has three EMT I certified firefighters.

The Department's regular trainings in fire suppression, emergency medical services, hazardous materials response, rescue, and public assist take place every week on Wednesdays from 6pm to 9pm. Supplemental training programs held on occasional

 $^{^{366}}$ State Fire Marshall, Course Information and Required Materials, 2007, p. 44

Saturdays include classroom and hands-on field training. The Department conducts evaluations to confirm that the training has been effective. The minimum training standards require the District's firefighters to attend the Quincy Fire Academy. PEFD volunteer firefighters spend about 200 hours annually on training. The following trainings are to be completed within 24 months:

- CFSTES Volunteer Firefighter 1;
- **❖** CPR and AED;
- First Responder (Nor Cal EMS);
- ICS-100 and 200 (FEMA online);
- ❖ NWCG S-130, 131 and 190;
- ❖ CSTI Hazardous Materials First Responder Operational and Decontamination;
- Auto extrication; and
- ❖ Practice in a burn trailer.³⁶⁷

Facilities and Capacity

PECSD operates one fire station located in Plumas Eureka Estates, at the same location as the main office for the CSD. The station, which is owned by the District, was built 1984 and was reported to be in poor condition. The facility is used as a fire station and fire department headquarters. It is also used by the CSD staff for administration purposes and to house district equipment and vehicles.

The station is typically staffed between seven in the morning and 3:30 in the afternoon. It contains two Type I engines, one Type III fire engine and one Type II rescue vehicle. Command vehicle is in possession of the fire chief at all times.

The District's water reserves are represented by two bolted steel storage tanks totaling 590,000 gallons.

PEFD reported that its capacity to provide fire service to future development will depend on the size of development and whether the department could recruit more volunteers from within the new development. The District anticipated that there would not be any difficulties providing adequate service to new development, due to the automatic aid agreement with GFPD.

³⁶⁷ http://www.pecsd.org/training.html.

Infrastructure Needs

The District reported that the existing station used to be a stand-alone facility until the CSD was formed, at which time the PECSD took over the fire station. Since then, there have been some modifications to the building with regards to storage and providing more space to house the District's equipment and vehicles. The Fire Department reports that it has been increasingly difficult for both the fire department and the other district functions to co-exist in the same building, due to limited office and storage space and undersized parking areas for the fire apparatus. But, although it would be desirable to have separate facilities for the fire station and all other CSD operations, the District does not see any fiscally responsible way to construct another facility. PECSD is not eligible for grant funding due to its high level of per capita income.

The fire department identified a need for new fire engines. The existing ones are 22 to 30 years old. PEFD does not presently have sufficient funds to purchase new fire engines.

The fire department enhances its financing for new purchases through the fire auxiliary (PECAUX). The auxiliary raises money for new fire equipment and emergency medical equipment through fundraising events held throughout the year.³⁶⁸

Challenges

One of the primary challenges for the fire department at this time is the lack of volunteer firefighters. Due to the County's unemployment rate and community's aging population, it is increasingly difficult to recruit and retain volunteers.

PEFD identified two difficult-to-serve areas—the community of Johnsville and the area known as Red Dirt Road located to the north of Johnsville. A majority of the roads in Johnsville are uphill and it takes more than 12 minutes to get to an incident in the summer. The fire hydrants in Johnsville are not accessible in the winter due to the snow. The Red Dirt Road area is primarily comprised of dirt roads, which are very narrow, with poor or no signage and overgrown with no vegetation management. Red Dirt Road is not reachable in the winter. There is also no emergency water supply in the area.

The chief identified a few areas where he sees opportunities for fire service improvement. Dispatching could be improved by the Sheriff's Office working more closely with the Fire Chiefs Association and discussing fire providers' current dispatching needs. There is a need for a County Fire Warden who could act as a fire inspector for all fire agencies in the County. Vehicle maintenance could be handled by the County Road Department's mechanics. According to the chief, there is a potential for most of the fire departments to consolidate to make fire service provision in the County more efficient. As a first step, the fire providers could enter into a JPA to share expenses on equipment,

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³⁶⁸ http://www.pecsd.org/pecauxauxiliarv.html

maintenance, training, staffing, fire prevention programs, insurance, workers' compensation, calls, and administrative duties.

Service Adequacy

While there are several benchmarks that may define the level of fire service provided by an agency, indicators of service adequacy discussed here include ISO ratings, response times, and level of staffing and station resources for the service area.

Fire services in the communities are classified by the Insurance Service Office (ISO), an advisory organization. This classification indicates the general adequacy of coverage. Communities with the best fire department facilities, systems for water distribution, fire alarms and communications, and equipment and personnel receive a rating of 1. PECSD's fire department has an ISO rating of 3 in urban areas and 5 in rural areas. The District was last evaluated in 2004.

The guideline established by the National Fire Protection Association (NFPA) for fire response times is six minutes at least 90 percent of the time, with response time measured from the 911-call time to the arrival time of the first-responder at the scene. The fire response time guideline established by the Center for Public Safety Excellence (formerly the Commission on Fire Accreditation International) is 5 minutes 50 seconds at least 90 percent of the time.³⁶⁹

Emergency response time standards vary by level of urbanization of an area: the more urban an area, the faster a response has to be. The California EMS Agency established the following response time guidelines: five minutes in urban areas, 15 minutes in suburban or rural areas, and as quickly as possible in wildland areas. The District's response zones include wildland classifications. The District's reported average response time is five to eight minutes. An area that PEFD can improve upon is calculating its median and 90th percentile response times.

The service area size³⁷⁰ for each fire station varies between fire districts. The median fire station in eastern Plumas serves approximately 20 square miles. Sierra Valley FPD serves the most expansive area, with 111 square miles served per station on average. Densely populated areas tend to have smaller service areas. For example, the average service area for the City of Portola is 3.8 square miles. By comparison, a fire station in PECSD serves approximately 20 square miles.

The number of firefighters serving within a particular jurisdiction is another indicator of level of service; however, it is approximate. The providers' call firefighters may have differing availability and reliability. A district with more firefighters could have fewer

³⁶⁹ Commission on Fire Accreditation International, 2000.

³⁷⁰ Service area refers to the area that the agency will respond to, based on a first responder map used by the Sherriff's office

resources if scheduling availability is restricted. Staffing levels in eastern Plumas vary from eight call firefighters per 1,000 residents in City of Portola service area to 42 in Beckwourth FD. By comparison, PECSD has approximately 30 firefighters per 1,000 residents.

Figure 17-5: Plumas-Eureka Community Services District Fire Profile

			Fire Servic	e			
Facilities							
Firestation	Location	Condition	Staff per Shift		Vehicles		
Plumas-Eureka Fire	200 Lundy	Poor	Unstaffed		2 Type 1 engines, 1 Type 3 engine, 1	Туре	
Department	Lane,				2 Rescue, Command vehicle.		
	Blairsden, CA						
	96103						
Facility Sharing							
Current Practices:							
The Fire Department shar	es its facilities with	n PECSD water	r and wastewater	offices.			
Future opportunities:							
					n the event of a fire district consolida		
			rovide necessary	vehicle mainte	enance on each provider's fire engine	S.	
Infrastructure Needs	and Deficienci	es					
There is a need for separa	ate facilities for fire	e department :	and other CSD of	fices. PEFD nee	eds new fire engines.		
District Resource Sta	tistics	Service Cor	nfiguration		Service Demand		
Staffing Base Year	2010	Configuration	n Base Year	2010	Statistical Base Year	2010	
Fire Stations in District	1	Fire Suppression Direct		Total Service Calls			
Stations Serving District	1			% EMS			
Sq. Miles Served per Statio	on 20	Ambulance Transport EPHCD			% Fire/Hazardous Materials 4:		
Total Staff ²		Hazardous Materials Direct			% False		
Total Full-time Firefighter			mbulance Helico			0%	
Total Call Firefighters	10	Fire Suppres	sion Helicopter	CalFire, USFS	% Non-emergency	0%	
Total Sworn Staff per Stati			Answering Point		% Mutual Aid Calls	38%	
Total Sworn Staff per 1,00	00 30	Fire/EMS Dis			Calls per 1,000 people	138	
Service Adequacy			Service Chall				
					s and inaccessible fire hydrants in wi	nter in	
Response Time Base Year		2010	Johnsville and r	un-down narro	ow roads in Red Dirt Road area.		
Madian Pasnansa Tima (m	nin)	ND	Training				
Median Response Time (n	1111)	INF	Trainings are held every Wednesday from 6pm to 9pm. Supplemental				
90th Percentile Response	Time (min)	NP	NP training includes classroom and hands-on field training. The minimum				
your rerection response	Time (mm)				first 24 months, inlude completing man		
ISO Rating		3/5 (2004)	training types a				
Mutual & Automatic	Aid Agreement	S					
PECSD has an automatic a			FPRFPD and Lo	ng Valley FD			
Notes:	ia agreement with	Gracagic II D	, LI KI I D and LC	ing vancy i D.			
1) Primary service area (squa	are miles) per statio	n.					

²⁾ Total staff includes sworn and non-sworn personnel.3) Based on ratio of sworn full-time and call staff to the number of stations. Actual staffing levels of each station vary.

WASTEWATER SERVICES

Service Overview

The District owns and operates the wastewater collection and treatment system that serves the community. All services are provided directly by district staff, with the exception of collection system cleaning which is provided by contractors. There are 1.5 FTEs dedicated to wastewater services. As of 2011, the District provides sewer services to 318 connections.

Wastewater services are provided only within the District's boundaries. The District does not provide wastewater services outside of its bounds. Less than half of the residential lots in each basin are currently provided sewer service by the District. The District estimates that there are approximately 224 developed lots that rely on private septic systems, including a restaurant and shop at the golf course clubhouse. The areas that rely on septic systems were developed prior to the formation of PECSD, and include the areas from the middle of the District's bounds to the northeast, as well as the southwest territory of the District. As the private septic systems fail that are within 200 feet of a main, the landowners are required by the County to connect to the PECSD system. Additionally, the eastern most portion of the District that lies next to the Feather River, is largely undeveloped with only two or three residences and does not receive wastewater services. (Water and fire services are provided in this area.) Flood plain concerns and topography issues pose challenges to development and extending wastewater services to this area of the District.

Facilities and Capacity

The existing wastewater collection system is comprised of two separate and distinct collection and treatment systems—WWTP 6 and WWTP 7. The WWTP 6 tributary area includes residences on Aspen Circle and West Ponderosa Drive. Basin 6 also includes a portion of the residential areas west of Poplar Valley Road. The WWTP 7 service area includes areas in the south and west portion of the District that are connected to the collection system.

The collection system consists of a total 3.4 miles of pipes, 3.3 miles of which are gravity fed. All lines are PVC pipe with sealed manholes. To date there have been no mainline stoppages. The system was originally installed in the mid-80s. The last major addition to the system was a section of main along Ponderosa Drive, which was privately funded in 2009. The collection system is generally considered to be in good condition by the District. The District reported that there are some concerns about infiltration and inflow as flows can go up 20 to 30 percent during the winter, or when there is high groundwater. The peaking factor is 1.6, meaning peak flows are 1.6 times the ADWF. The District regularly

assesses the system for manholes that need to be sealed, which appears to be the primary contributor to the infiltration and inflow.³⁷¹

Based on the District's engineer's calculations, less than 10 percent of the capacity of any given pipeline in a majority of the collection system was in use in 2001, with the exception of a few pipelines around Ponderosa Drive that are up to 52 percent full.³⁷²

Sewage is collected and conveyed to one of the two wastewater treatment plants—WWTP 6 and WWTP 7. Both treatment plants treat to secondary levels.

The design capacity of WWTP 6 is 25,000 gpd; treatment consists of a trickling filter system.³⁷³ Treated effluent is discharged to the community leachfield or the golf course during irrigation season. Treated wastewater is collected at WWTP 6 in three 10,000-gallon storage tanks to be used for irrigation of the golf course. The District reported that WWTP 6 is in relatively good condition. The ADWF in 2010 to WWTP 6 was 0.01 mgd or 40 percent of the WWTP's design capacity. The peak day demand during 2010 was .028 mgd or 112 percent of the capacity of WWTP 6.

WWTP 7 makes use of activated sludge treatment with disposal to the community leach field. According to the District's waste discharge requirements, WWTP 7 originally had the design capacity to treat 50,000 gpd.³⁷⁴ As part of the WWTP repair and expansion in 2007 the design of the treatment plant was upgraded to 70,000 gpd; however this expansion is not reflected in the District's permit from 1998. WWTP 7 is considered to be in excellent condition by the District. The ADWF in 2010 to WWTP 7 was .024 mgd or 34 percent of the WWTP's permitted capacity. The PWWF during 2010 was 0.098 mgd or 140 percent of the capacity of WWTP 7.

The Dynamite Community Leachfield was installed in 1996, to replace the previously used common leachfields. The leachfield has a capacity of 100,000 gpd. The District reported that it is in good condition.

The District has a contract to provide reclaimed water to the golf course for irrigation purposes. Based on the District's waste discharge requirements there is no limit as to how much treated effluent can be used for irrigation. The golf course is irrigated from ten in the evening till six in the morning and will generally accept as much reclaimed water as the

applicable (i.e., ADWF or PWWF).

³⁷¹ Interview with Frank Motzkus, PECSD General Manger, April 25, 2011.

³⁷² PECSD, Collection System Evaluation, 2001, p. 14.

³⁷³ The District is operating under Waste Discharge Requirments issued by the Central Valley Region Water Quality Control Board (Order No. 98-007). The permit does not indicate for what period or season the permitted capacity is

³⁷⁴ The District is operating under Waste Discharge Requirments issued by the Central Valley Region Water Quality Control Board (Order No. 98-007). The permit does not indicate for what period or season the permitted capacity is applicable (i.e., ADWF or PWWF).

District can provide between April and October. Presently, the District only supplies enough water to irrigate the first nine holes of the course.

The current system appears to have sufficient capacity for average dry weather flows, but occasionally exceeds the capacity of the WWTPs during wet weather and peak demand periods in the summer. Excess flow is stored prior to treatment in order to stay in compliance with permit conditions. At build-out, the District's Collection System Evaluation estimates that there will be a total of 686 connections contributing to the District's wastewater collection system with a daily flow of 115,900 gpd.³⁷⁵ Expansion of the District's facilities will be necessary to serve build-out of all territory within the District's bounds.

Infrastructure Needs

PECSD addresses rehabilitation and replacement by categorizing repairs and system deficiencies into three categories; immediate needs, short term actions, and long term goals. Presently, there are no immediate or short-term needs for the wastewater system. The District has created reserve funds to save for several potential long-term capital improvements, which include:

- ❖ Upgrading the WWTP 6 treatment system It is likely that RWQCB will have more stringent requirements for reclaimed water when the PECSD's waste discharge requirements are reviewed and reissued. In anticipation of the requirements, the District is looking to update or replace WWTP 6 with an activated sludge treatment process. The District will likely do the upgrades when they are required, but has begun saving in anticipation. The District estimates that a new plant will cost approximately \$2 million.
- Relocation of the WWTP 7 lift station The lift station is approximately 40 years old and is located near private property. The District would like to relocate this lift station when the station becomes inoperable and needs to be replaced. The existing lift station is still operating at satisfactory levels, so there are no plans to replace it in the short-term.
- ❖ Improvements to treatment system to tertiary levels Presently, WWTP 6 only has the capacity to provide reclaimed water for the first nine holes of the golf course. The District hopes to install filters at WWTP 7 so that additional reclaimed water can be made available for the back nine holes. The District has not made specific plans on when this will occur, but has begun reserving funds.

³⁷⁵ Total flow at build-out based on the assumption of 200 gpd per connection for each new connection.

Challenges

Challenges to providing wastewater services, as reported by the District, consist of 1) relying on outside parties to do significant cleaning and repairs and 2) retaining appropriately licensed operators with system knowledge and no training needs.

Service Adequacy

This section reviews indicators of service adequacy, including regulatory compliance, treatment effectiveness, sewer overflows and collection system integrity.

Figure 17-6: PECSD Wastewater Service Adequacy Indicators

Wastewater Service Adequacy and Efficiency								
Regulatory Compliance Record, 2005-10								
Formal Enforcement Actions	0	Informal Enforcement Actions	2					
Formal Enforcement Action Ty	ре	Description of Violations						
NA								
Total Violations, 2005-10								
Total Violations	2	Priority Violations	0					
Service Adequacy Indicators								
Treatment Effectiveness Rate ²	100%	Sewer Overflows 2009 - 2010 ³	1					
Total Employees (FTEs)	1.5	Sewer Overflow Rate ⁴	29.412					
MGD Treated per FTE	0.022	Customer Complaints CY 10: Odor (0), s	oills (0), other (0)					

Source Control and Pollution Prevention Practices

There are no commercial or industrial connections to the PECSD system, which limits the possibility for the discharge of fats, oil, grease, and debris into the sewer system.

Collection System Inspection Practices

The collection system is cleaned on a three year cycle. The system has been divided into thirds and one section is cleaned out each year. This service is contracted out. Video inspections are done only if possible problems are found during the cleaning process. Lift stations are cleaned during the annual collection system cleaning on an "as needed" basis.

Notes:

- (1) Order or Code Violations include sanitary sewer overflow violations.
- (2) Total number of compliance days in 2010 per 365 days.
- (3) Total number of overflows experienced (excluding those caused by customers) from 2008 to 2010 as reported by the agency.
- (4) Sewer overflows from 2009 to 2010 (excluding those caused by customers) per 100 miles of collection piping.

PECSD has been issued two violations between 2005 and 2010, both of which were informal enforcement orders due to violations of order conditions. Neither of the violations were considered priority violations. Two violations equates to approximately five violations per 1,000 population served. By comparison, other wastewater providers in the eastern region of the County averaged 38 violations per 1,000 population served.

Wastewater treatment providers are required to comply with effluent quality standards under the waste discharge requirements determined by RWQCB. The District reported that

in 2010, it was never out of compliance with effluent quality requirements. Other wastewater providers in the eastern region of Plumas County were out of compliance on average nine days in 2010.

Wastewater agencies are required to report sewer system overflows (SSOs) to SWRCB. Overflows reflect the capacity and condition of collection system piping and the effectiveness of routine maintenance. The sewer overflow rate is calculated as the number of overflows per 100 miles of collection piping. The District reported one overflow during the period from 2008 thru 2010, and consequently the overflow rate is 29. Other providers in the region averaged an SSO rate of 3.8 per 100 miles of collection piping.

There are several measures of integrity of the wastewater collection system, including peaking factors, efforts to address infiltration and inflow (I/I), and inspection practices. As discussed previously, the District has a peaking factor of four in the WWTP 7 system and 2.8 in the WWTP 6 system. Other wastewater providers in the region have an average peaking factor of 4.3.

Figure 17-7: PECSD Wastewater Profile

Wastewater Service Configuration and Demand								
Service Configura								
Service Type		Service Provider	(s)					
Wastewater Collection		PECSD						
Wastewater Treatment		PECSD						
Wastewater Disposal		PECSD						
Recycled Water		PECSD						
Service Area								
Collection: Treatment: Recycled Water: Service Demand		The District's boundaries less 224 developed lots that rely on private septic systems which are located in the middle of the District's bounds to the northeast, as well as the southwest territory of the District. Same as the collection service area above. Plumas Pines Golf Course						
	Connections (2010)			Flow (mgd)				
Туре	Total	Inside Bounds	Outside Bounds	Average				
Total	318	318	0	0.033				
Residential	318	318	0	-				
Commercial	0	0 0 -						
Industrial	0	0 0 -						
Historical and Pr	ojected Demand (ADWF in millio	ns of gallons per	· day) ²				
2005	2010	2015	2020	2025				
0.029	0.034	0.035	0.036	0.037				

Note:

⁽¹⁾ NA: Not Applicable; NP: Not Provided.

⁽²⁾ Projections are based on the 0.05 percent annual average growth rate projected by DOF for the entire County.

continued

Wastewater Infrastructure

Wastewater Collection, Treatment & Disposal Infrastructure

System Overview

Treatment level: Secondary

Disposal method: Treated effluent is either discharged into the community leachfield or used to irrigate the

golf course.

Facility Name	Capacity	Condition	Year Built
Unit 6 WWTP	0.025 mgd	Good	Mid 1980s
Unit 7 WWTP	0.07 mgd	Excellent	2007
Community leachfields	0.10 mgd	Good	1996

Collection & Distribution Infrastructure

Sewer Pipe Miles 3.4 Sewage Lift Stations 2

Treatment Plant Daily Flow (mgd)

WWTP 6

ADWF (mgd)	% of ADWF Capacity in Use	Peak Wet (mgd)	Peaking Factor
0.01	40%	0.028	2.80
WWTP 7			
ADWF (mgd)	% of ADWF Capacity in Use	Peak Wet (mgd)	Peaking Factor
0.024	34%	0.098	4

Infiltration and Inflow

The District reported that there are some concerns about infiltration and inflow as flows can go up 20 to 30 percent during the winter, or when there is high groundwater. The District regularly assesses the system for manholes that need to be sealed, which appears to be the primary contributor to the infiltration and inflow.

Infrastructure Needs and Deficiencies

Presently, there are no immediate or short-term needs for the wastewater system. The District has created reserve funds to save for several potential long-term capital improvements, which include: upgrading the WWTP 6 treatment system, relocating the WWTP 7 lift station, and improvements to treatment system to tertiary levels.

Wastewater Facility Sharing

Facility Sharing Practices

The District does not practice facility sharing with other agencies or organizations related to wastewater services.

Facility Sharing Opportunities

The District did not identify future opportunities for facility sharing.

	Wa	ater Rat	es and	Fin	ancing	
Residential Wa	ter Rates-(Ongoing C	harges I	Y 10	-11¹	
		Rate Descrip	tion		Avg. Monthly Charges	Consumption ²
Residential-Plumas Eureka Estates and The Village		ly rate of \$39. but regardles: ype.	-	_	\$39.75 (developed lots only)	7,600 gal/month
Residential-Eureka Springs		ly rate of \$52. but regardles: ype.	7,600 gal/month			
Rate-Setting Pr	ocedures					
Most Recent Rate Cha	inge 7	7/1/07	Frequency	y of Ra	te Changes	Annually
Water Develop	nent Fees	and Requi	rements	,		
Fee Approach	r	Гhe District cl	harges sepa	rate fe	es for water systen	n buy-in and water
	5	system hook ι	ıp.			
Connection Fee Amo	ınt S	\$1,000/Single	Family Un	it		
Development Impact	Fee S	\$5,329/Single	Family Un	it		
Water Enterpri	se Revenu	es, FY 09-1	10	Ope	rating Expend	litures, FY 09-10
Source		Amount	%			Amount
Total		\$297,587	100%	Total		\$273,730
Rates & charges		\$293,491	99%	Admi	nistration	\$98,445
Property tax		\$0	0%	0 & N	1	\$138,202
Grants		\$0	0%	Capital Depreciation \$37,08		
Interest		\$2,292	0.8%	Debt		\$0
Connection Fees		\$0	0%	Purchased Water \$0		
Other		\$1,804	1%	Other	.	\$0

- (1) Rates include water-related service charges and usage charges.
- (2) Water use assumptions were used to calculate average monthly bills. Assumed use levels are consistent countywide for comparison purposes.

WATER SERVICES

Service Overview

PECSD provides retail water services for consumption and irrigation purposes. The District owns and operates the water storage, wells, treatment and distribution system that serves the community. All services are provided directly by district staff. There are 1.5 FTEs dedicated to water services, including two operators and the general manager that assists as needed. As of 2011, the District provides water services to 548 active connections.

The District does not provide water services outside of its bounds. All developed lots within the District's bounds are connected to the District's water system, and do not rely on private wells.

Facilities and Capacity

Water Supplies

Water Source and Rights

The current source of PECSD's water supply is groundwater pumped at two wells. The District pumps water from the Mohawk Valley Groundwater Basin. The Department of Water Resources estimates storage capacity of the basin to be 90,000 acre-feet to a depth of 200 feet.³⁷⁶ Groundwater extraction by PECSD averages approximately 190 acre-feet annually. Deep percolation of applied water is estimated to be 330 acre-feet by the Department of Water Resources, meaning that the amount pumped by municipal users is presently replaced by groundwater recharge. PECSD and Clio Public Utility District are the only public water systems that make use of the Mohawk Valley Basin; however, there are other agencies that make use of the groundwater basin area Neither agency has a groundwater management plan. The District monitors the groundwater level of the aquifer. PECSD reported that there had been no periods of significant drawdown and there is little change in available water during droughts.

Water service to the community was previously provided with surface water from Lake Madora, until 1982 when growth required a better quality water supply. The lake water is presently used to irrigate the golf course. All of the lake water conveyance facilities are owned and operated by the golf course.

³⁷⁶ Department of Water Resources, California's Groundwater Bulletin 118 – Mohawk Valley Groundwater Basin, 2004, p. 1.

Quality

Groundwater in the Mohawk Valley Basin has locally high iron, manganese, ammonia, phosphorus, ASAR and boron levels.³⁷⁷ The District has detected iron and manganese levels that occasionally exceed the secondary standard.

Additionally, approximately eight months of the year, PECSD is in violation of the MCL standard of 10 μ g/L for arsenic in their drinking water. The current arsenic level in the drinking water varies with season, and ranges from about 6 μ g/L to 18 μ g/L. Typically, the arsenic concentration falls in the winter and climbs during the summer, and generally exceeds the standards between April and December.³⁷⁸

In order to comply with the arsenic standard, either the arsenic level in the water must be lowered through treatment, or an alternative source of low-arsenic water identified and brought into the system. As part of an engineer's report on options to address the arsenic issue, other water supply possibilities in the area were researched. The groundwater in the vicinity was found to have similar arsenic content. Possible surface water supplies include the Feather River, or Jamison Creek through Madora Lake. The engineer's report found that the Feather River source was not reliable enough to meet system demands during drought years. Developing the Jamison Creek source was found to be more expensive than construction of an arsenic treatment facility for the groundwater.³⁷⁹

After the completion of the engineer's report, in the fall of 2010, the District had two test wells drilled—one of which was found to have no or low arsenic levels which meets the MCL. The District will be investigating if water from this well can be blended with the water from the existing wells to lower the arsenic levels and comply with MCL requirements. CDPH has issued a statement to the District indicating that blending is a viable option if it is substantiated in an engineer's report. The District anticipates that by fall 2011, they will have the results of the testing and engineer's analysis and will have determined what strategy the District will use to address the arsenic issue.

Existing and Projected Water Use

While the two wells have a reported maximum capacity of 920 gpm, DPH reported that the sustainable long-term yield when both wells are operating at the same time is 335 gpm.³⁸⁰ The maximum day demand (in 2010) of the system was 555 gpm, which exceeds the District's sustainable yield, but is well within the maximum capacity of the two wells. The average monthly demand is 118 gpm, which is approximately 35 percent of the long-term yield from the two wells.

³⁸⁰ DPH, *Annual Inspection Report*, April 24, 2008, p. 2.



³⁷⁷ DWR, *Groundwater Bulletin 118 – Mohawk Valley Groundwater Basin*, February 27, 2004, p. 2.

³⁷⁸ PECSD, Preliminary Engineering Report For the Plumas Eureka Water System Improvements, June, 2009, p. 1.

³⁷⁹ Ihid

Demand for water differs greatly throughout the year, as the District's population spikes in July and August during the tourism season. Both wells are needed to meet peak day demands during the summer months. If one well fails or is off-line, the system cannot meet peak day demands. California Waterworks Standards require that a system be able to supply peak day demand with the largest well off line. The District plans to construct a third well as part of a cumulative capital improvement of the entire system to address the arsenic as well as any other identified issues.

Based on the DOF's projection of 0.5 percent average annual growth throughout the County, the average monthly demand for water will exceed the District's sustainable water supply in 2026.

Treatment and Distribution Facilities

The District operates two wells that were both drilled in 1982. While the equipment that operates the two wells was reported to be in good condition by the District, PECSD is struggling with arsenic levels in both wells that exceed federal and State MCLs. Both wells are still online and the District has made the public aware of the situation. As discussed previously, the District is the process of researching alternatives to address this issue. Both wells are equipped with well head treatment systems—one with chlorine gas and one with sodium hypochlorite. The District plans to transition the chlorine gas system to sodium hypochlorite by the end of summer 2011.

The District's distribution system is composed of primarily PVC piping with less than one percent iron piping. The District intends to completely replace all of the iron piping; although, the timing of the replacement is unknown. DPH described the system as being in good or excellent condition with the exception of the portion of iron piping.³⁸¹

Storage Facilities and Emergency Supply

The District maintains two bolted steel storage tanks—one with a storage capacity of 400,000 gallons and the other with a capacity of 190,000 gallons. The tanks were built in 1979 and 1981. The larger of the two tanks needs to be cleaned, but is considered to be in good condition by the District. The smaller tank is considered to be in fair condition, due to seismic safety concerns. The tank is planned to be replaced as part of the capital projects to address the arsenic issue. DPH reported that for a system the size of PECSD, the District should have 400,000 gallons of water storage to meet Waterworks Standards for storage. The District exceeds this standard with 590,000 gallons of available water storage.

The District does not have any interties with other water providers to provide a backup potable water supply should PECSD's water supply be interrupted. If necessary, the District would have to truck in water for consumption. Should additional water be needed for fire flow purposes, untreated water from Lake Madora could be used. An intertie spool is available and can readily be installed to connect the lake to the District's system.

³⁸¹ Ibid, p. 4.

The District reported that adequate pressure (between 50 and 80 psi) is maintained during fire flow events.

Infrastructure Needs

The following infrastructure needs and deficiencies were identified for the District by the engineer's report:

- ❖ Arsenic treatment or additional groundwater supply for blending to come into compliance with the arsenic MCL.
- ❖ Additional well capacity to meet maximum day demand while one well is off line.
- Transition to hypochlorite from chlorine gas at the well head treatment.
- Replacement of the 190,000-gallon storage tank and recoating of the other tank.
- ❖ Installation of radio read meters at each connection in order to promote conservation.

These projects are estimated to cost approximately \$7.3 million. Once the District has determined the appropriate approach to addressing the arsenic levels, it will begin searching for a funding source for the projects combined, potentially a USDA rural development loan.

Additionally, the final remaining portion of iron pipe may be replaced this year, depending on financing.

Challenges

The District reported that staying in compliance with ever evolving regulatory requirements for a small utility provider can pose a challenge, particularly if it involves significant capital investment.

Service Adequacy

This section reviews indicators of service adequacy, including the Department of Public Health's (DPH) annual system evaluation, drinking water quality, and distribution system integrity.

The DPH is responsible for the enforcement of the federal and California Safe Drinking Water Acts and the operational permitting and regulatory oversight of public water systems. Domestic water providers of at least 200 connections are subject to inspections by DPH. During the Department of Public Health's most recent annual inspection in 2008, DPH reports that the District's water system appears to be "in reasonably good condition"

and conscientiously operated."382 The inspection report did note a need for the District to test back flow devices annually, which the District had failed to do in 2006, 2007 and 2008.

Drinking water quality is determined by a combination of historical violations reported by the EPA since 2000 and the percent of time that the District was in compliance with Primary Drinking Water Regulations in 2010. Since 2000, the District has had 13 health violations due to arsenic exceedances at the wells. This equates to approximately 24 violations per 1,000 connections served. By comparison, the other water providers in the eastern region of the County had a median of 21 violations per 1,000 connections served during that same time frame. The median water service provider in the region was in compliance 96 percent of the time in 2010. In 2010, the District was out of compliance with the arsenic MCL for one of the two wells all four quarters; however, the well with the highest arsenic content is usually offline.

Indicators of distribution system integrity are the number of breaks and leaks in 2010 and the rate of unaccounted for distribution loss. The District reported no breaks and leaks per 100 miles of pipe lines in 2010, while other providers in the region had a median rate of 12 breaks per 100 pipe miles. The District loses approximately four percent of water between the water source and the connections served, which was relatively low compared to other providers in the area that averaged seven percent distribution losses.

Figure 17-8: PECSD Water Service Adequacy Indicators

Water Service Adequacy and Efficiency Indicators									
Service Adequacy Indicators									
Connections/FTE	365.33333		O&M Cost Ratio ¹	\$801,331					
MGD Delivered/FTE	0.11		Distribution Loss Rate	4%					
Distribution Breaks & Leaks (2010)	0		Distribution Break Rate ²	0.0					
Water Pressure	50-80 psi Total Employees (FTEs) 1.5								
Customer Complaints CY 2010:	Odor/taste (0), leak	s (0), pressure (1), other (6)						
Drinking Water Quality Re	egulatory	Infor	mation ³						
	#	Desci	ription						
Health Violations	13	Excee	dances of arsenic MCL (2007,	2008, 2009, 2010)					
Monitoring Violations	0								
		In 201	0, the District was out of com	pliance with the arsenic					
		MCL f	or one of the two wells all fou	ir quarters; however, the					
		well v	with the highest arsenic conte	nt is usually offline from					
DW Compliance Rate ⁴	0%	Octob	er through April.	-					
Notes:									

- (1) Operations and maintenance costs (exc. purchased water, debt, depreciation) per volume (mgd) delivered.
- (2) Distribution break rate is the number of leaks and pipeline breaks per 100 miles of distribution piping.
- (3) Violations since 2000, as reported by the U.S. EPA Safe Drinking Water Information System.
- (4) Drinking water compliance is percent of time in compliance with National Primary Drinking Water Regulations in 2010.

³⁸² Department of Public Health, *Annual Inspection Report*, April 25, 2008, p. 1.

Figure 17-9: PECSD Water Service Tables

W	/ater	Service C	onfigurat	ion & Infr	astructur	e
Water Service	Provi	der(s)	Water Se	Water Service		s)
Retail Water		PECSD	Groundwate	r Recharge	PE	CSD
Wholesale Water		None	Groundwate		PE	CSD
Water Treatment		PECSD	Recycled Wa	ter	PE	CSD
Service Area D	escrip	tion				
Retail Water		All developed pa	rcels within the	District's bounda	ries	
Wholesale Water		NA				
Recycled Water		Plumas Pines Go	olf Course			
Water Sources			Supply (A	cre-Feet/Yea	r)	
Source		Туре	Average		Maximum	Safe/Firm
Mohawk Valley Groundwater Basin		Groundwater	19:	3	1,485	330 ²
System Overvie	ew					
Average Daily Dema	nd	0.1	7 mgd	Peak Day Dema	and 0.8	mgd
Major Facilitie	S					
Facility Name		Туре	Capacity		Condition	Yr Built
Well 1B		Well	420 gpm		Good	1982
Well 2		Well	500 gpm		Good	1982
Storage Tank #1		Storage	400,000 gallo		Good	1979
Storage Tank #2		Storage	190,000 gallo	ons	Fair	1982
Other Infrastru	ıcture					
Reservoirs			-	Storage Capacit	y (mg)	0.59 mg
Pump Stations			0	Pressure Zones		2
Production Wells			2	Pipe Miles		12
Facility-Sharin	g and	Regional Col	laboration			
Current Practices:	PECSD	does not practice	facility sharing	with other agenci	es or organizatio	ns.
Opportunities: The	e District	reported that fu	ture opportuniti	es for facility shar	ring were limited	
Notes:						
(1) NA means Not Appli	cable, NP r	neans Not Provided,	mg means millions	of gallons, af means a	cre-feet.	
(2) Based on the ground	water recl	narge rate reported l	by the Department	of Water Resources.		

		Water D	emand a	nd Supp	ly			
Service Connectio				Inside Bound		Outside Bounds		
Total		548		54	8	0		
Irrigation/Landscape		4			4	0		
Domestic		542		54	2	0		
Commercial/Industrial/	Institutional	1			1	0		
Recycled		1			1	0		
Other		0			0	0		
Average Annual L	emand Info	ormation (A	l <i>cre-Feet</i> p	er Year) ¹				
	2000	2005	2010	2015	2020	2025	2030	
Total	190	194	185	192	197	202	202	
Residential	NP	NP	NP	NP	NP	NP	NP	
Commercial/Industrial	NP	NP	NP	NP	NP	NP	NP	
Irrigation/Landscape	NP	NP	NP	NP	NP	NP	NP	
Other	NP	NP	NP	NP	NP	NP	NP	
Supply Information	on (Acre-fee	et per Year)						
	2000	2005	2010	2015	2020	2025	2030	
Total	198	202	193	200	205	210	210	
Imported	0	0	0	0	0	0	0	
Groundwater	198	202	193	200	205	210	210	
Surface	0	0	0	0	0	0	0	
Recycled	Unknown	3.2	2.2	3.0	3.5	3.5	3.5	
Drought Supply a	nd Plans							
Drought Supply (af) ²	Year 1:	No change	Year 2:	No ch	ange	Year 3:	No change	
Storage Practices	Storage is for t	reatment and sl	hort-term eme	ergency supply	only.			
Drought Plan	The District ha	s a five-stage c	onservation p	rogram for per	iods of droug	ht or emergency	y outages.	
Water Conservati	on Practice	S						
CHIMICO C:	No							
CUWCC Signatory	No - all new connections are required to be metered.							
Metering		nnections are r	equired to be	metered.				
		nnections are r	equired to be	metered.				
Metering	No - all new co				nust be equipp	oed with low flo	w devices.	

not track consumption by connection type.

⁽²⁾ The District has not estimated available supply during a three year drought. During past droughts, the District reported that it has experienced little difference in groundwater and spring levels.

	W	ater Rat	es and	Fin	ancing				
Residential Water Rates-Ongoing Charges FY 10-11 ¹									
		Rate Descrip	otion		Avg. Monthly Charges	Consumption ²			
Residential-Plumas Eureka Estates and The Village		thly rate of \$39 n, but regardles n type.	-	_	\$39.75 (developed lots only)	7,600 gal/month			
Residential-Eureka Springs		n, but regardles	nly rate of \$52.25 depending on strength but regardless of usage and type. \$52.25 developed lots only)						
Rate-Setting Pr	ocedures	3							
Most Recent Rate Cha	ange	7/1/07	Frequency	of Ra	te Changes	Annually			
Water Develop	ment Fee.	s and Requi	irements						
Fee Approach		The District c		rate fe	es for water systen	n buy-in and water			
Connection Fee Amo	unt	\$1,000/Single	Family Uni	t					
Development Impact	Fee	\$5,329/Single	e Family Uni	it					
Water Enterpri	se Reven	ues, FY 09-1	10	Ope.	erating Expend	ditures, FY 09-10			
Source		Amount	%			Amount			
Total		\$297,587	100%	Total		\$273,730			
Rates & charges		\$293,491	99%	Admi	nistration	\$98,445			
Property tax		\$0	0%	0 & N	Л	\$138,202			
Grants		\$0	0%	Capital Depreciation \$37,083					
Interest		\$2,292	0.8%	Debt \$0					
Connection Fees		\$0	0%	Purchased Water \$0					
Other		\$1,804	1%	Other \$0					
Notes: (1) Rates include water-	related service	charges and usag	e charges.						

⁽²⁾ Water use assumptions were used to calculate average monthly bills. Assumed use levels are consistent countywide for comparison purposes.

PLUMAS EUREKA CSD DETERMINATIONS

Growth and Population Projections

- ❖ The District has a permanent population of 320. During the summer, the District serves a seasonal population approximately 1,700.
- ❖ There has been minimal growth in population within the District over the last 10 years; however, there has been an increase in demand for district services, particularly fire services.

Present and Planned Capacity of Public Facilities and Adequacy of Public Services, Including Infrastructure Needs and Deficiencies

- ❖ PEFD reported that its capacity to provide fire service to future development will depend on the size of development and whether the department could recruit more volunteers from within the new development. The District anticipated that there would not be any difficulties providing adequate service to new development, due to the automatic aid agreement with GFPD and other mutual aid agreements in place.
- ❖ The fire department identified a need for new fire engines. The existing ones are 22 to 30 years old. PEFD does not presently have sufficient funds to purchase new fire engines.
- ❖ An area that PECSD can improve upon is calculating its median and 90th percentile response times and making it available to the public.
- ❖ It is recommended that the County Sheriff's Office work with the fire districts to update the ESN map that is used for dispatching, in order to adequately address any communication concerns and recent boundary changes.
- ❖ Based on dry weather flows, 40 percent of the capacity of WWTP 6 is in use, while 34 percent of the capacity of WWTP 7 is in use. While dry weather flows are well within the capacity of the treatment facilities, peak wet weather flows greatly exceed the capacity of WWTP 7, due to relatively high I/I. Peak flows are stored prior to treatment to ensure that the permitted capacity of the system is not exceeded.
- ❖ The current sewer system appears to have sufficient capacity for both dry and wet weather peak sewer flows. Expansion of the District's facilities will be necessary to serve build-out of all territory within the District's bounds.
- ❖ Presently, there are no immediate or short-term needs for the wastewater system.

- ❖ The maximum day demand exceeds the District's water source sustainable yield, but is well within maximum water source capacity. The average monthly demand is approximately 35 percent of the long-term yield from the two wells.
- ❖ Infrastructure needs and deficiencies identified for the District's water system include 1) Arsenic treatment or additional groundwater supply, 2) additional well capacity to meet maximum day demand while one well is off line, 3) transition to hypochlorite from chlorine gas at the well head treatment, 4) replacement of the 190,000-gallon storage tank and recoating of the other tank, and 5) installation of radio read meters at each connection in order to promote conservation.

Financial Ability of Agencies to Provide Services

- ❖ The District reported that the current financing level is not adequate to deliver services. Increased costs to providing services is a particular strain on the District's level of financing, such as increased electrical costs, chemical costs, as well as medical and retirement coverage.
- ❖ At the end of FY 09-10, the District maintained unrestricted undesignated fund balances in each of the funds that could finance about three months of operations for wastewater services, approximately one month of operations for water services, and almost eight months of operations for fire services.
- ❖ PECSD has a capital improvement program with a five-year planning horizon, which is updated on an annual basis. Capital improvements are budgeted for separately from the main budget and are financed through the District's multiple reserve funds. Money is put aside on a regular basis to replace the equipment that is depreciating.
- ❖ Water and wastewater rates were last updated in 2007. The District charges the median water rate in the region, while wastewater rates are the highest among the providers in the region.

Status of, and Opportunities for, Shared Facilities

- ❖ PECSD collaborates with other fire providers in Plumas County through informal mutual aid agreements, contracts and common trainings.
- The District does not practice facility sharing and did not see any opportunities to do so with regard to water and wastewater utilities.

Accountability for Community Service Needs, Including Governmental Structure and Operational Efficiencies

Plumas-Eureka CSD demonstrated accountability and transparency in its disclosure of information and cooperation with Plumas LAFCo. The District responded to the questionnaires and cooperated with the document requests.

- ❖ The District practices extensive public outreach to enhance transparency through its website, word of mouth, newspaper ads, a semi-annual newsletter, the fire department store, and fundraising events.
- ❖ Workload monitoring of the agency and its employees helps the District improve its productivity by avoiding repetitious situations, streamlining system operations, identify peak demand periods, and anticipate future demand levels. When applying for grants, the District uses its recorded demand and work history to demonstrate and justify a need for funds.
- ❖ PECSD would like to expand its SOI to include Johnsville and Little Bear RV Park with the potential to eventually annex these areas, because the District believes that its proximity to the communities and availability of resources make it the most suitable candidate for fire service provision there.
- ❖ The County of Plumas is considering hiring a countywide fire marshal whose responsibilities may include enforcing fire code and conducting building inspections..