4.14 Utilities and Service Systems

This section describes the utilities and service systems that serve Mendocino County. Specifically, this section includes an examination of water service, wastewater service, solid waste service, and electrical, natural gas, and telephone services. Each subsection includes descriptions of existing providers and facilities, as well as potential environmental impacts resulting from implementation of the proposed General Plan Update. General Plan policies that would serve to reduce impacts are also identified.

4.14.1 WATER SERVICE

4.14.1.1 EXISTING SETTING

WATER SERVICE PROVIDERS AND INFRASTRUCTURE

Water service in much of the county is provided by on-site methods such as groundwater wells and springs. There were approximately 10,590 individual domestic water wells in Mendocino County in 1999 (California Wastewater Training and Research Center, 2002).

The cities of Fort Bragg, Point Arena, Willits, and Ukiah provide public water within their respective corporate boundaries as well as delivering water to some areas in the unincorporated portions of the county.

There are also many other water purveyors in Mendocino County, including special districts and private water purveyors. Most of the latter were formed to serve specific land development projects and are therefore small in comparison to larger municipal systems that often serve more populous cities. The State Department of Health Services listed 125 public water systems in Mendocino County on their inventory as of August 2008. Of those, only 21 purveyors provide water to 100 or more service connections, including 3 campgrounds providing service to 100 or more connections (Burton, 2008). **Table 4.14.1-1** lists public and private water districts in Mendocino County serving over 100 connections.

TABLE 4.14.1-1
PUBLIC AND PRIVATE WATER SERVICE PROVIDERS IN MENDOCINO COUNTY PROVIDING SERVICE TO MORE THAN 100 SERVICE CONNECTIONS

Service Provider	Estimated Water Connections	Estimated Population Served
Brooktrails Township CSD	1,553	4,000
Calpella County Water District	165	489
Fort Bragg, City of	2,791	6,963
Hopland Public Utilities District	330 physical connections	587
Irish Beach Water District	196	106
Laytonville Community Water District	366	1,301
Millview County Water District	1,489	5,500
North Gualala Water Company	1,033	2,580
Pine Mountain Mutual Water Co.	130	310
Point Arena Water Works	191	310

Service Provider	Estimated Water Connections	Estimated Population Served
Redwood Valley County Water District	Domestic Connections: 1,150 actual services with approximately 1,500 equivalent dwelling units (EDU) counting granny units, three mobile home parks and a rancheria. Irrigation (untreated water): 200	3,969
Ridgewood Water System	170	200
Rogina Water Company Inc.	981	3,700
Surfwood Mutual Water Corporation	121	160
Ukiah, City of	5,486	15,959
Willits, City of	1,750 active connections	5,098
Willow County Water District	1,040	3,797
Woods, The (Mendocino)	112	150

Source: State Department of Public Health, Division of Drinking Water and Environmental Management, Annual Drinking Water Reports, 2006; Redwood Valley CWD, Personal Communication, 2008; Jacobsen, Personal Communication, 2008. Burton, Personal Communication, 2008; Chapman, Personal Communication, 2008; Redding, Personal Communication, 2008.

Brooktrails Township Community Services District

The Brooktrails Township Community Services District (CSD) provides water services to approximately 1,553 residences and five commercial users. The majority of single-family residences serviced by the CSD each use approximately 7,000 gallons of water in the summer and 4,000 gallons in the winter. Water is stored in two reservoirs totaling 24 surface acres and 24 other water tanks spread throughout the CSD service area. The CSD has a total water storage capacity of 106 million gallons (325 acre-feet), which provides water supplies during the seven-month dry season. Water storage capacity should increase to 130 million gallons (mg) in the summer of 2009 after completion of a 3-foot reservoir expansion. Total annual production through the water plant is 1.22 million gallons (374 acre-feet), with an average of 1.2 acre-feet being produced during the dry season and 0.7 acre-feet per day in the wet season (Chapman, 2008).

The Brooktrails Township CSD is currently under a water moratorium imposed on February 28, 2003, by the California Department of Health Services (now known as California Department of Public Health). The CSD has indicated that, in order to provide water service to new development, a second access road would need to be provided so that Lake Ada Rose could be expanded to allow for a larger dam. Expanding the lake from 138 acre-feet to 725 acre-feet would provide enough storage capacity for 3,873 single-family residences. The CSD's

application for water rights to replace the dam and increase storage capacity is currently being reviewed by the California Division of Water Rights (Chapman, 2008).

Calpella County Water District

The Calpella County Water District (CWD) provides service to 139 residential connections and 24 commercial connections in the Calpella area, as well as areas to the west of Calpella and Highway 101. The district has an average annual production rate of 508 gallons per residential unit per day. Winter production averages 208 gallons per residential unit per day. The CWD produced 125 gallons per minute and sold 36.5 million gallons of water in 2007. The district has indicated that adequate water supplies are not available to serve new development (Redding, 2008).

Hopland Public Utilities District

The Hopland Public Utilities District (PUD) was formed in 1951 to consolidate the various water sources and water distribution systems in the town of Hopland. The water system presently has an estimated 330 connections and an annual production of approximately 89.3 million gallons, which serves an estimated population of 587. The PUD derives water from two active wells located in the Russian River floodplain with a production capacity of approximately 650 gallons per minute (gpm), or 0.936 million gallons per day (mgd). Peak demand is approximately 0.95 mgd. The district constructed two new storage tanks (0.30 and 0.50 mg) in 2003 and has full capacity in one existing storage tank (0.1 mg) that is not currently being utilized, for a total storage volume of 0.80 mg.

In 2005, it was determined through litigation in Mendocino County Superior Court that the Hopland PUD wells were using the underflow (subterranean streams flows) of Mill Creek, a tributary to the Russian River, and not percolated groundwater, accountable as project water. The California Water Code requires that water users taking water for beneficial use from surface watercourses and "subterranean streams flowing through known and definite channels" obtain water right permits or licenses from the State Water Resources Control Board (SWRCB, Water Code § 1200 et seq.). The PUD has filed applications for water right permits to divert water from Mill Creek (surface and subterranean flows). The district is under a court-ordered water moratorium prohibiting new connections until the application for water rights is approved, which is expected to occur before the end of 2008. Once the moratorium is lifted, the Hopland PUD will have ample supply to meet future demand and could potentially double the current number of service connections (Jacobsen, 2008).

Irish Beach Water District

The Irish Beach Water District provides water service to 196 active connections in the Irish Beach subdivision. The district water supply consists of surface water from two points of diversion on Irish Gulch and one groundwater well. The district currently has adequate supply to meet water demand and does not anticipate any future shortages in supply. The district maintains a water treatment plant with a 210,000-gallon tank (Cong, 2008).

Laytonville Community Water District

The Laytonville Community Water District (CWD) supplies water service to the community of Laytonville. The water system presently serves an estimated population of 1,301 and has 366 active connections. The district derives its water source from one well built in the early 1950s, with the total amount of water produced in 2001 at approximately 50.85 mg. Peak demand

occurs in the summer months with the maximum number of gallons produced in July 2006 being approximately 7.5 mg (DHS, 2006).

The U.S. Department of Agriculture granted the Laytonville CWD a loan to upgrade its water system and improve supply reliability and quality, increase storage capacity, upgrade the distribution system, and make other operational improvements (Brooktrails CSD, 2001). Upgrades that occurred in 2004 expanded treatment capacity to 0.72 mgd and storage capacity to 0.81 mg.

Millview County Water District

The Millview County Water District (MCWD) supplies water to 8.5 square miles located between the City of Ukiah to the south and Eastside Calpella to the north. Currently, the average daily demand for the CWD is 1,008 gallons per minute (gpm), or 1.45 million gallons per day (mgd). The capacity of the district's water treatment plant is 2.7 mgd (MCWD, 2008).

The MCWD is currently under a water moratorium imposed by the California Department of Health Services. The moratorium prohibits new service connections pending the acquisition of additional water rights. Furthermore, treatment plant upgrades and additional storage capacity would be necessary to meet the demands of additional service connections. Revenues generated from connection fees and capital reserves would fund needed improvements (MCWD, 2008).

North Gualala Water Company

The North Gualala Water Company provides water service to 1,033 active customers in the Gualala area located along the Mendocino coast. The water company's current water supply consists of 9,234,175 cubic feet of water supplied from a diversion point on the North Fork of the Gualala River. The water company has indicated that additional development could result in the need for additional water sources, water storage capacity, and main lines in order to adequately serve customers (Wareham, 2008).

Potter Valley/Anderson Valley

There are no public water service providers in either of these valleys. Water is generally obtained through on-site systems such as wells and/or springs. The Potter Valley Irrigation District (PVID) uses water diverted from the PG&E Potter Valley Project for irrigation and frost protection. The lack of public water service in Anderson Valley constrains residential development.

Redwood Valley County Water District

The Redwood Valley County Water District (CWD) supplies water to the unincorporated community of Redwood Valley. The Redwood Valley service area includes approximately 5,000 gross acres on both sides of U.S. Highway 101 (US 101), and the district boundaries, service area, and sphere of influence are identical. The water system has 1,150 actual domestic service connections with approximately 1,500 equivalent dwelling units (edu) counting granny units, three mobile home parks, and a rancheria. The district also provides water to 200 irrigation connections. The district's treated water is used primarily for residential uses, as commercial, office, industrial, and institutional uses are very limited in the area. Typical historical usage is approximately 400 gpd/edu (Redwood CWD, 2008). The CWD operates a 2.5 mgd conventional water treatment plant. The distribution system is supplemented by 1.85 mg of total storage volume contained in six tanks. Irrigation water is distributed via a separate distribution

system served by a 68 acre-foot reservoir, with storage capacity of 22 mg. Peak demand is approximately 1.3 mgd.

Currently the district does not have a reliable summer water supply. The district can directly divert frost protection water March 1 through April 30 and is permitted to divert up to 2,800 acre-feet per year from Lake Mendocino to storage November 1 through April 30 when certain conditions of lake storage and downstream flow are met. However, the district does not have available storage and therefore relies on surplus water agreements with the Russian River Flood Control District and the Sonoma County Water Agency. The California Department of Water Resources (DWR) does not consider these sources to be reliable (Redwood CWD, 2008). Due to ongoing concerns over lack of reliability of the district's source of water, a court-ordered moratorium prohibiting new domestic service connections was imposed on the Redwood Valley CWD in 1989. In order to lift the moratorium, the district would need to build a water storage structure. Currently the district has no funding or location to construct water storage facilities (Redwood CWD, 2008).

Rogina Water Company

The Rogina Water Company provides water to 981 connections in Talmage and the surrounding area. Rogina's water system consists of wells, pumps, storage tanks, distribution mains ranging in size from 1.4 to 10 inches, meters, fire hydrants, and water treatment equipment. Rogina's water storage tanks include a 460,000-gallon steel tank, a 140,000-gallon concrete tank, two 3,500-gallon capacity hydropneumatic tanks, and a 3,000-gallon concrete storage tank (PUC, 2006).

Rogina obtains its water from 5 wells located on the east side of the Russian River, about a mile south of the Vichy Springs Bridge. The capacity of the wells is over 1,200 gallons per minute (gpm). The wells are located in an area very close to the Russian River, and all water from these wells is considered to be underflow (subterranean streams flows). Therefore, the quantity of water pumped is limited by the State Water Resources Control Board, which limits water service to existing customers and may jeopardize service to new customers. In addition, the Rogina Water Company does not meet the distribution storage requirements of the State Health Department. In 2006, Rogina obtained a loan to install a new 400,000-gallon steel storage tank to replace the old 140,000-gallon concrete tank and to meet distribution storage requirements. In addition, the loan funds were to be used to drill a new well located away from the Russian River that could serve existing and future customers (PUC, 2006).

Willow County Water District

The Willow County Water District provides service to approximately 1,040 service connections to the area south of the city of Ukiah. The district's water supply is pumped from three wells using underflow from the Russian River. The district currently has adequate supply to meet water demand and does not anticipate any future shortages in supply (Anderson, 2008).

City of Fort Bragg

Fort Bragg's water collection, treatment, and distribution systems are operated and maintained by the City of Fort Bragg. Fort Bragg's water system is made up of three raw water sources (Noyo River, Waterfall Gulch diversion, and Newman diversion), two raw water transmission mains, the water treatment plant, two 1.5-million-gallon (mg) steel storage tanks, and one 300,000-gallon storage tank, as well as 32.42 miles of transmission and distribution lines and booster pumps that deliver water throughout Fort Bragg and the service area.

On February 27, 2006, the Fort Bragg City Council adopted Resolution 2928-2006, establishing 5,000,000 gallons as the minimum reserve storage capacity for the city's water system. At the present level of water use, Fort Bragg does not have sufficient storage capacity to meet the required 5,000,000-gallon reserve requirement (City of Fort Bragg, 2007). Water production is adequate for current needs and for limited development, but the present lack of storage capacity will result in shortages in the event of drought. At present, water is supplied to locations within the city's boundaries and to some areas outside its boundaries within the unincorporated county. In 2000, the Fort Bragg City Council established a policy of "no new connections outside of the city's boundaries" to remain in effect until the city resolves its water supply issues. The City is investigating new sources of water, including water rights currently held by Georgia Pacific, and also other water storage facilities to ensure that there will be an adequate water supply to serve existing and future residents and businesses under all conditions, including prolonged drought. New development in the city is required to pay its fair share for any new water system improvements (City of Fort Bragg, 2007).

City of Ukiah

The City of Ukiah provides water service within the city limits, as well as to some customers in the unincorporated county. The City currently obtains all of its water supply from the underflow of the Russian River and one percolating groundwater well. The City is not a wholesaler and pursuant to a Water Supply Contract, the city can purchase up to 800 acre-feet annually of project water from the Mendocino County Russian River Flood Control and Water Conservation Improvement District.

Eight distribution reservoirs, with a combined capacity of 6.1 million gallons (mg), provide short-term treated water storage to be used on a daily basis and for emergency situations such as firefighting. The distribution system is divided into four pressure zones. The main zone, Zone 1, (approximately 97 percent of the system) is served by gravity from the 2.5 mg and 1.5 mg storage tanks. These tanks are supplied by all system resources via the main distribution system. There is also a 1.5 mg clearwell and high service pump station in Zone 1. The remaining three smaller zones are supplied by booster pump stations via the main distribution zone (City of Ukiah, 2008).

The City's water system is physically interconnected with Willow County Water District to the south and Millview County Water District to the north, and Millview is physically interconnected to Calpella County Water District. However, these interconnections between the city and the adjacent districts are used exclusively for emergencies (City of Ukiah, 2008).

City of Willits

The City of Willits provides water service within the city limits of Willits, as well as to customers in some areas of the surrounding unincorporated county. Currently, the City serves approximately 1,750 active connections. In 2007, the City put 392,490,000 gallons into the water distribution system and had metered water delivery of 296,514,000 gallons. The City of Willits water supply consists of surface water obtained from a City-owned watershed supplied by Davis Creek. The system has total storage capacity of 4,711,000 gallons.

The City of Willits currently has a self-imposed moratorium on water connections for any projects requiring an environmental impact report, with the exception of projects for community health and safety. Furthermore, per LAFCo, the City is not allowing new connections outside of the city limits (Caine, 2008).

Point Arena Water Works

Point Arena Water Works provides water services to 191 service connections within the city limits of Point Arena. Point Arena Water Works has adequate supplies from Garcia River underflow to service existing customers.

Other Water Service Providers

Information regarding water service, supply, and infrastructure were not provided by the Pine Mountain Mutual Water Company, the Ridgewood Water System, the Surfwood Mutual Water Corporation, and The Woods.

WATER SUPPLIES

Although surface water is used for a variety of agricultural, urban, and industrial activities throughout Mendocino County, groundwater is the main source for municipal and individual domestic water systems and contributes significantly to irrigation in the county. As discussed in Section 4.8, Hydrology and Water Quality, detailed water budgets with information regarding groundwater capacity and usage is generally not available for groundwater basins in the county. Actively monitored wells show that groundwater levels in inland valley groundwater basins have generally remained relatively stable over the last 30 years; however, little is known about the safe yield of these wells. Groundwater development in these valleys is generally of limited extent, and most problems stemming from reliance on groundwater in these areas are related to lack of natural underground storage capacity. Many groundwater wells rely on hydrologic connection to the rivers and streams of the valleys due to water flow seeping into water storage aquifers from rivers and streams (DWR, 2003).

Very little information is available regarding groundwater supplies in the mountainous areas that cover the majority of the county. There are very few significant aquifers that are capable of providing reliable water supplies in the coastal mountains, and wells in these areas are generally along the valleys of rivers and streams (DWR, 2005).

The amount of groundwater available in the county varies yearly depending on rainfall, infiltration, and the amount of withdrawals from groundwater basins. Withdrawals, in turn, are in part dependent on the amount of surface water available for municipalities that use both surface water and groundwater for supply needs. The amount of surface water and groundwater is extremely dependent upon precipitation. In very wet years, there may be a surplus, but in drought years, quantity is limited (NCRP, 2007).

Water supplies in the county, especially in rural areas dependent on private groundwater wells, can be unreliable and often do not provide adequate water supplies in the dry summer months. Furthermore, groundwater use is increasing in the region. Although specific information regarding groundwater usage in the county is not currently available, the Department of Water Resources' California Water Plan Update provides regional reports on water supply and usage (DWR, 2003). According to the DWR report, net groundwater withdrawals for the entire North Coast Region, which covers all of Del Norte, Humboldt, Trinity, and Mendocino counties, major portions of Siskiyou and Sonoma counties, and small portions of Glenn, Lake, and Marin counties, increased by 53 thousand acre-feet between 1998 and 2000 and by 111.8 thousand acre-feet between 2000 and 2001.

4.14.1.2 REGULATORY FRAMEWORK

STATE

Senate Bill (SB) 610 and Assembly Bill (AB) 901

During the 2001 regular session of the State Legislature, SB 610 and AB 910 – Water Supply Planning were signed and became effective January 1, 2002. SB 610 amends Public Resources Code section 21151.9, requiring any environmental impact report, negative declaration, or mitigated negative declaration for a qualifying project to include consultation with affected water supply agencies (previous law applied only to notices of preparation). SB 610 also amends Water Code Sections 10656 and 10657 to restrict state funding for agencies that fail to submit their urban water management plan to the Department of Water Resources, and Water Code Section 10910 to describe the water supply assessment that must be undertaken for projects referred under PRC Section 21151.9, including an analysis of groundwater supplies. Water agencies would be given 90 days from the start of consultation in which to provide a water supply assessment to the CEQA lead agency; Water Code Section 10910 would also specify the circumstances under which a project for which a water supply assessment was once prepared would be required to obtain another assessment. AB 901 amends Water Code section 10631, expanding the contents of the urban water management plans to include further information on future water supply projects and programs and groundwater supplies.

Senate Bill (SB) 221

SB 221 adds Government Code Section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within 5 days of the subdivision application being accepted as complete for processing by the city or county. It adds Government Code Section 66473.7, establishing detailed requirements for determining whether a "sufficient water supply" exists to support any proposed residential subdivisions of more than 500 dwellings, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring a sufficient water supply to be available. Proof of availability must be requested of and provided by the applicable public water system. If there is no public water system, the city or county must undertake the analysis described in Section 66473.7. The analysis must include consideration of effects on other users of the water.

LOCAL

Mendocino County Water Agency

The Mendocino County Water Agency (MCWA) is a special district created pursuant to state law. The MCWA seeks to protect and develop the water resources of Mendocino County and to ensure that an adequate quantity and quality of water is available to meet present and future needs. The MCWA may also provide, to the extent deemed feasible or economical, protection from the disposition of stormwater and floodwater sufficient to protect life and property. The MCWA also functions as a planning body and as a policy coordinator and advisor to the Board of Supervisors, and the agency coordinates the County's federally mandated stormwater runoff pollution control program (MCWA, 2008).

Mendocino County Division of Environmental Health

The construction, repair, or destruction of a well is prohibited without a written permit from the Division of Environmental Health. Abandoned wells or wells in a condition that causes traps or pollutes groundwater are also prohibited.

4.14.1.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G thresholds of significance. A water service impact is considered significant if implementation of the project would:

1) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

2) Not have sufficient water supplies available to serve the project from existing entitlements and resources, or new or expanded entitlements needed.

METHODOLOGY

Evaluation of potential water supply and service impacts resulting from the proposed General Plan Update was based on consultation with Mendocino County water service providers and review of the California Water Plan and Bulletin 118 prepared by the California Department of Water Resources, as well as other relevant literature. The impact analysis focuses on the General Plan Update's specific water supply and service-related impacts and whether those impacts would have a significant effect on the physical environment. The impact analysis for the General Plan Update considers projected growth in the unincorporated county by year 2030.

IMPACTS AND MITIGATION MEASURES

Increased Demand for Water Supplies and Services

Impact 4.14.1.1 Subsequent land use activities associated with implementation of the proposed General Plan Update could require additional water supplies, storage capacity, and treatment and conveyance facilities to adequately serve subsequent development. This is considered a **potentially significant** impact.

Assuming a 1 percent annual growth rate, the county would have a population of 77,160, as well as 27,725 housing units, in the year 2030. In addition to this growth, subsequent land use activities (e.g., continued agricultural activities) associated with implementation of the proposed General Plan Update would add to an increased demand for water supplies, storage capacity, and treatment and conveyance facilities.

As previously discussed, much of the county is currently served by private groundwater wells, many of which do not provide adequate supplies during normal summer months and dry years. The public water service providers in the county currently face water supply and infrastructure problems, including court-imposed water moratoriums that prohibit new connections, inadequate storage capacity, and unreliable water supplies. Furthermore, little is known about

the hydrologic balance of groundwater basins in the county, especially in the mountainous areas that rely on private wells. The safe yield of groundwater basins, and therefore the ability of the basins to adequately serve future development, has not been determined.

Subsequent land use activities associated with the proposed General Plan Update may result in an increase in demand for water supplies for agricultural use. A study of agricultural water use in the Mendocino County portion of the Russian River watershed conducted by the University of California Cooperative Extension (UCCE) found that the amount of water that growers apply to crops is based upon site-specific conditions, crop-specific cultural objectives, an understanding of the link between energy and water costs to deliver water to crops, and water resources reliability to which growers have access. Irrigated agriculture accounts for about 81 percent of the developed uses of water supplies in the North Coast Region, which includes all of the counties of Del Norte, Humboldt, Trinity and Mendocino, major portions of Siskiyou and Sonoma counties, and small portions of Glenn, Lake, Marin and Modoc counties (NCRP, 2007). Similar to urban water use, specific information regarding agricultural use in Mendocino County is not readily available. Therefore, the availability of water supply for agricultural uses, as well as the impact to water supply of increased agricultural uses, has not been determined.

Illegal marijuana farming is also currently impacting both surface and ground water supply sources in the county and this will likely continue into the future. However, the extent of this activity and its impact on surface and ground water resources is not known.

With no substantial additional sources identified for the unincorporated area (beyond groundwater), groundwater overdraft would likely occur that would impact existing wells and could require the re-drilling to deepen wells and/or restrictions regarding groundwater usage that could limit land uses (such as limitations on agricultural uses).

Mendocino County Code Sections that Provide Mitigation

Chapter 16.04 of the Mendocino County Code regulates the construction, repair, and destruction of water wells, monitoring wells, and cathodic protection wells in the county and provides for the destruction of abandoned wells and the abatement of wells found to be public nuisances or hazards. The regulations are intended to preserve and protect the groundwaters of Mendocino County from contamination or pollution.

Chapter 16.24 of the Mendocino County Code requires water-saving devices to be incorporated into all new construction and existing bathrooms that are being remodeled. The requirements are intended to help conserve water and to preserve the capacity of sewage treatment systems in the county.

Proposed General Plan Policies and Action Items that Provide Mitigation

Policy DE-177 requires the County to coordinate community water and sewer services with General Plan land use densities and intensities.

Policy DE-178 supports efficient and adequate public water and sewer services through combined service agencies, shared facilities, or other inter-agency agreements, and requires the County to work aggressively with water and sewer service providers to overcome current and projected system and supply deficiencies necessary to serve planned community growth. This policy also requires the County to support funding applications to improve and expand water and sewer service capabilities in areas planned for future growth or to resolve existing deficiencies.

Policy DE-179 identifies that the County shall encourage and assist communities in establishing or authorizing public water and sewer service entities to monitor, manage, and/or maintain communitywide or decentralized systems.

Policy DE-180 requires the County to encourage water and sewer service providers to incorporate water conservation, reclamation, and reuse through measures such as the development and use of innovative systems and technologies, the development of systems that reduce greenhouse gas emissions from their operation, and the development and use of innovative systems and technologies for the treatment of wastewater.

Policy DE-181 opposes extension of water or sewer services to rural non-community areas when such extensions are inconsistent with land use and resource objectives of the General Plan.

Policy DE-182 requires development to be supported by water supply and wastewater treatment systems adequate to serve the long-term needs of the intended density, intensity, and use. The policy also states that new development within water or sewer service areas is allowed if the service provider serves the development or the County approves an alternative method of service that is not prohibited by the service provider.

Policy DE-183 prohibits land use plans and development from negatively affecting drinking water supplies used by water service providers.

Policy RM-6 and associated Action Item RM-6.1 promote sustainable management and conservation of the county's water resources and require the County to develop and implement a methodology to determine the supply and use of water in all the county's watersheds.

Policy RM-7 encourages the development and implementation of new water conserving technologies as a means of reducing water demands.

Policy RM-8 promotes the incorporation of efficient indoor plumbing fixtures, drought tolerant landscaping, and other water conservation best management practices into new development and redevelopment.

Policy RM-9 requires the County to seek and advocate for dependable water resources necessary to support all sectors of the economy and other beneficial uses.

Policy RM-10 requires the County to work with local, state, and federal agencies and organizations to develop and protect water supplies in a manner consistent with adopted General Plan policies, recognizing sustainable yields and protections for the environment. Policy RM-10 also requires the County to promote and support the development of water storage facilities; promote wastewater reclamation and reuse for irrigation, landscaping, and other appropriate uses; support detailed water supply yield studies of all significant groundwater basins in the county; protect existing groundwater recharge areas from sediment, chemical inputs, and other negative effects of development; protect the formation of groundwater management areas by existing water districts or the County, where the competition for the available groundwater resource is resulting in groundwater quantity impairments to existing users; and investigate and pursue opportunities to prevent the loss of existing water supplies, including the Eel River diversions through the Potter Valley Project.

Policy RM-11 reserves local water resources for in-county use.

Policy RM-12 gives existing water uses priority over new water uses.

Policy RM-13 requires the County to maximize the use of existing water supplies while proceeding with the development of new water supplies.

Policy RM-14 prohibits new development unless a water supply acceptable to the County is available.

Compliance with General Plan policies DE-177 through DE-183 and RM-6 through RM-14, along with Sections 16.04 and16.24 of the Mendocino County Code, would increase water conservation and partially reduce impacts to water supplies resulting from new development. However, the county does not currently have reliable water supply in dry years, and more rural areas relying on private groundwater wells also experience shortages. Uncertainty remains regarding the time required to establish and implement effective management actions, the length of time needed to implement the programs needed to bring groundwater into hydrologic balance, and the lack of current knowledge regarding groundwater availability and sustainability of important aquifers. Therefore, impacts are considered **significant and unavoidable**.

Mitigation Measures

No additional mitigation is available to reduce this impact to less than significant.

4.14.2 WASTEWATER SERVICE

4.14.2.1 EXISTING SETTING

WASTEWATER SERVICE PROVIDERS

Wastewater services in much of the county are provided by private on-site facilities, such as septic tanks and leach field systems. There are limited public wastewater systems that serve the more populated communities. Larger wastewater service providers in the county are described below.

Anderson Valley

Currently, sewage disposal in Anderson Valley is provided by on-site systems such as leach fields. Development in the valley is constrained by the lack of public sewer service. Gravelly soils near the Navarro River and less favorable soil conditions in the foothills constrain septic system usage.

Brooktrails Community Service District

The Brooktrails Community Service District (CSD) transfers waste to the Willits sewer plant via a 1968 agreement between the City of Willits and Brooktrails. The main sewer line will reach capacity at 2,200 residential connections, and sewer line capacity will constrain development (Chapman, 2008).

Covelo Community Services District

The Covelo Community Services District (CSD) provides sewer service to approximately 281 active connections, or 360 residential equivalent units. The CSD uses an estimate of 200 gallons per day (gpd) per household to project wastewater generation. The current capacity of the wastewater treatment plant is 80,000 gpd, and historically inflow ranges from 150,000 to 300,000

gpd with peaks of 600,000 gpd. Approximately 5,000 feet of main sewer lines were replaced in 2008. The funding sources for all of the district's operations include sewer rates, capacity fees, inspection fees, and septage disposal fees (Dennis, 2008).

The CSD has indicated that any new development would have to occur inside the CSD jurisdiction itself, as the community is surrounded by agricultural and tribal lands that include limited or no infrastructure (Dennis, 2008).

Gualala Community Services District

The Gualala Community Services District (CSD) was established in 1987 to provide a communitywide wastewater system to the Gualala area, which includes 1,430 acres and consists of four zones. There are approximately 260 service connections and a total of 353 parcels within Zones 1 and 2, which provide services along the Highway 1 corridor. Currently, no services are provided within Zones 3 and 4. The Gualala CSD treatment facility is located south of the Gualala River in Sonoma County (Grand Jury, 2007).

The wastewater system was designed to serve existing development and provide for additional growth within the Gualala CSD Sewer Assessment District boundaries. All new development within Zones 1 and 2 must connect to the wastewater treatment system. The Gualala Town Plan, however, estimates that buildout of the plan will be short 543 connections unless the plant is expanded. Currently, the Gualala CSD has no plans for expansion, primarily because of the costs of new system infrastructure (Grand Jury, 2007).

Hopland Public Utilities District

The Hopland Public Utilities District (PUD) owns and operates a wastewater treatment facility (WWTF) that provides wastewater treatment and disposal for the community of Hopland. The WWTF is located near Feliz Creek and the Russian River. The PUD provides sewer service for approximately 290 connections to domestic and commercial users.

The WWTF is designed for an average daily dry weather flow (adwf) of 90,000 gallons per day (gpd). The current average dry weather flow is approximately 30,000 gpd, as determined by the lowest average monthly flow for the calendar years 2001 to 2004. The peak month average flow over this period was 0.121 mgd. The WWTF consists of three aerated lagoons, a facultative treatment pond, chlorine disinfection unit, and two percolation ponds. The treatment and settling ponds are unlined. However, soil underlying the treatment and settling ponds is thought to be of low permeability. The primary obligation of the WWTF is to treat waste generated from within the jurisdiction of the Hopland PUD. However, the PUD also accepts septage pumped from on-site wastewater treatment and disposal systems and other waste treatment and/or holding tanks located within Mendocino County. The Hopland PUD is also responsible for operation and maintenance of the wastewater collection system, which was originally constructed in 1975 and consists of approximately 19,000 feet of 8-inch vitrified clay sewer pipe, 3,000 feet of 4-inch cast iron force main, and two lift stations (NCRWQCB, 2005).

Laytonville

Currently, wastewater service in the Laytonville area is provided by individual septic systems. Low-density land uses prevail in the downtown Laytonville area since large portions of parcels must be set aside for septic systems and alternate leach lines. The Laytonville Downtown Development Plan cites the high water table and high annual rainfall in the Long Valley area as

a primary contribution to septic system problems. The Laytonville community is currently exploring potential new treatment systems and management options (LAMAC, 2008).

Mendocino City Community Services District

The Mendocino City Community Services District (CSD) operates the Mendocino Sewerage System and provides wastewater service to 435 active residential and commercial connections in the Town of Mendocino, as well as the Mendocino Unified School District and Russian Gulch State Park. The wastewater treatment plant (WWTP) has a capacity of 1,500 equivalent single dwellings (ESDs) and a design flow of 300,000 gallons per day (gpd). There are 1047.15 ESDs of WWTP capacity currently being used, leaving 452.85 ESD capacity remaining for future development, changes in use, and expansion of existing uses. Currently, there is no proposed new development in the district boundaries or proposed sphere of influence that would require additional infrastructure. All wastewater operations are funded by monthly sewer fees and property taxes (Kelley, 2008).

City of Fort Bragg

Fort Bragg's wastewater collection, treatment, and disposal facilities are owned, operated, and maintained by the Fort Bragg Municipal Improvement District No. 1, formed on April 28, 1969. Fort Bragg's wastewater system is made up of approximately 26.5 miles of gravity pipeline and pressure force mains, six sewage lift stations, the wastewater treatment plant (WWTP), and an ocean outfall pipeline that extends 690 feet into the Pacific Ocean. Fort Bragg Municipal Improvement District No. 1 provides sewage collection and treatment service for approximately 7,125 people within the district's service area, which includes the City of Fort Bragg and parts of the sphere of influence, which includes areas in the unincorporated county. As of May 2006, the district had 2,579 service connections. However, these numbers do not reflect the summer influx of tourists and the demand they place on the treatment plant during dry weather conditions. At the peak of the tourist season, the WWTP may serve as many as 20,000 people (City of Fort Bragg, 2007).

The WWTP was originally designed to treat approximately 1.0 million gallons per day (mgd) of normal strength municipal sewage during dry weather conditions and is currently operating at or above its present capacity during dry weather flow periods. The WWTP has a current design wet weather capacity of 2.2 mgd. Wet weather flow data indicate that the WWTP is presently operating at or above capacity and any additions to flow will increase the likelihood that the WWTP will operate above capacity (City of Fort Bragg, 2007).

City of Willits

The City of Willits wastewater treatment plant provides service to 2,366 active connections in the City of Willits, Brooktrails Township, Meadowbrook subdivision, and the Sherwood Reservation. The Willits WWTP is currently operating at capacity of 1.3 mgd, although wastewater flows fluctuate depending on the season. The City is currently upgrading the WWTP and plans to upgrade the wastewater collection system as funding permits. Once complete, the upgraded WWTP will be rated to handle approximately 7 mgd, which would provide service to approximately 11,936 residents (Trincado, 2008).

City of Ukiah and the Ukiah Valley Sanitation District

Wastewater services in the City of Ukiah and the surrounding Ukiah Valley are provided by both the City of Ukiah and the Ukiah Valley Sanitation District (UVSD), which operate together under a

participation agreement. The existing wastewater collection system is considered aging and is just able to serve its residents. The collection system consists of sewer pipelines, lift stations, cleanouts, manholes, and pumping stations located throughout the jurisdiction of both agencies. Collected wastewater is transported by gravity through a main trunk sewer, located along the west bank of the Russian River, from the north end of the valley to the wastewater treatment plant (WWTP) located on the south end of the City of Ukiah.

The existing WWTP was constructed in 1958 and additional capacity has been gradually added as demand required, to the current treatment capacity of 2.8 mgd (million gallons per day) of average dry weather flow (ADWF) and 20 mgd of peak wet weather flow (PWWF). According to staff, the WWTP receives a weekly average of 6 to 8 mgd in the winter, within the designed capacity, and 2.5 mgd on the average during the summer months, at the designed capacity. The peak flow, after succeeding periods of heavy rain, was 21 mgd, exceeding the PWWF rate. Currently, in lieu of physical improvements and upgrades, staff was able to increase wastewater treatment capacity beyond the 2.8 mgd through the addition of chemicals during the primary treatment process, a process known as Chemically Enhanced Primary Treatment (CEPT). With the chemical enhancement, the WWTP is able to serve an additional 1,380 equivalent sewer service units (ESSU).

As shown above, the WWTP is currently operating at capacity. The WWTP is currently being upgraded to handle stricter treated wastewater requirements and expanded to provide additional capacity for some existing (through the CEPT program) and new development. The city anticipates completion of the WWTP upgrades and expansion in 2009/2010 (City of Ukiah, 2007; Kennedy, 2008; Mendocino County Grand Jury, 2008a and 2008b).

Point Arena Wastewater Reclamation Facilities

The Point Arena wastewater reclamation facility serves the City of Point Arena, which includes approximately one square mile and a population of approximately 503. The plant has an average dry weather flow of 0.13 million gallons per day (mgd) and an average wet weather flow of 0.23 mgd. Peak dry weather flow at the plant is 0.26 mgd and peak wet weather flow is 0.86 mgd. The City is currently in the process of adding sewer main lines on city streets as the connections in some older homes are not up to code, with 2 to 3 homes on one sewer connection. As homes are sold or built, they are required to connect to the main sewer line (Marshall, 2008).

Other Wastewater Service Providers

Information regarding wastewater service and infrastructure were not provided by the Calpella County Water District.

PRIVATE WASTEWATER SYSTEMS

On-site systems provide the sewage treatment for more than 50 percent of the housing units in Mendocino County. As previously mentioned, much of the county disposes of wastewater through private on-site facilities, such as septic tanks and leach field systems. In 1999, there were 20,520 housing units in the county with individual sewage systems and an average of 446 systems being installed each year. The type of sewage system used depends on the location, soil porosity, and groundwater level on the property.

Private on-site wastewater treatment systems can adequately provide water quality and environmental protection when properly designed, sited, constructed, maintained, and

operated (CWTRC, 2002). However, failing septic tanks are a problem in Mendocino County (NCRWQCB, 2005). In 1999, approximately 140 of the 446 systems in the county needed repair (CWTRC, 2002). The operation of faulty septic systems can lead to groundwater and surface water contamination with nutrients, sediment, and pathogens.

The County Division of Environmental Health cites the lack of sites for disposal of septage pumped from private on-site systems as a countywide issue. Septage is defined as material that has been removed, typically pumped, from a treatment tank or waste holding tank and hauled to another location for final disposition or additional treatment (CWTRC, 2002). In all of Mendocino County, there are four facilities that accept septage. All four are wastewater treatment facilities (see **Table 4.14.2-1** below).

TABLE 4.14.2-1
SEPTAGE HANDLING FACILITIES IN MENDOCINO COUNTY

Facility	Quantity of Septage Handled Annually (in gallons)
Fort Bragg City WWTP	20,000
Hopland PUD WWTP	1,900,000
Ukiah City WWTP	766,650
Willits Water Quality Control Plant	Unknown

Source: CWTRC, 2002

4.14.2.2 REGULATORY FRAMEWORK

FEDERAL

National Pollutant Discharge Elimination System (NPDES) Permit

Discharge of treated wastewater to surface water(s) of the United States, including wetlands, requires a National Pollutant Discharge Elimination System (NPDES) permit. In California, the Regional Water Quality Control Boards (RWQCB) administers the issuance of these federal permits. Obtaining an NPDES permit requires preparation of detailed information, including characterization of wastewater sources, treatment processes, and effluent quality. Whether or not a permit may be issued and the conditions of a permit are subject to many factors such as basin plan water quality objectives, impaired water body status of the receiving water, historical flow rates of the receiving water, effluent quality and flow, the State Implementation Plan (SIP), the California Toxics Rule (CTR), and established Total Maximum Daily Loading (TMDL) rates for various pollutants. These factors are highly specific to the potential discharge point. Obtaining an NPDES permit is generally considered difficult in inland areas and may not be possible in sensitive areas.

General Pretreatment Regulations

Under the General Pretreatment Regulations of the Clean Water Act, the U.S. Environmental Protection Agency (EPA) established pretreatment standards to prevent discharge into a publicly owned treatment works (POTW) of any pollutant that would interfere with, pass through untreated, or otherwise be incompatible with such treatment works (33 U.S.C. § 1317(b); 40 C.F.R. § 401.12(f)). Each POTW over 5 mgd is required to develop and enforce pretreatment

standards for discharges to the POTW. NCRWQCB enforces the pretreatment program for POTW in Mendocino County.

STATE

Regional Water Quality Control Board

Water Reuse Requirements

The primary responsibility of the Regional Water Quality Control Board for recycled water is to ensure that all recycled water uses meet state wastewater regulations to protect the environment and human health and safety.

The RWQCB issues water reuse requirements (permits) for projects that reuse treated wastewater and may incorporate requirements into the permit in addition to those specified in the State Water Recycling Criteria. This typically includes periodic inspection of recycled water systems, periodic cross-connection testing, periodic training of personnel that operate recycled water systems, maintaining a database and/or permitting individual use sites, periodic monitoring of recycled water and groundwater quality, and periodic reporting.

Waste Discharge Requirements

A Waste Discharge Requirement (WDR) permit is typically required for any facility that discharges or proposes to discharge waste that may affect groundwater quality. This may include systems that have waste storage systems with land disposal, such as a seasonal storage and reuse. Potential dischargers must file a complete Report on Waste Discharge with the RWQCB at least 120 days prior to discharging waste. Issuance of a WDR permit is based on information provided in the Report on Waste Discharge. A WDR permit may set effluent standards for activities that do not pose a threat or nuisance to water quality.

Assembly Bill 885

AB 885 was enacted in September of 2000 to address inconsistencies in the on-site wastewater system requirements of local jurisdictions and to provide uniform requirements related to minimum acceptable operation of on-site wastewater systems, including standards for the protection of beneficial uses of potentially affected water. AB 885 requires the State Water Board to develop statewide requirements, including:

- Minimum operating requirements;
- Requirements for on-site wastewater treatment systems adjacent to waters listed as impaired under Section 303(d) of the Clean Water Act;
- Requirements authorizing local agency implementation;
- Corrective action requirements;
- Minimum monitoring requirements;
- Exemption criteria; and
- Requirements for determining when an existing onsite wastewater treatment system is subject to major repair.

AB 885 also requires the Regional Water Boards to incorporate the new statewide regulations into their basin plans. Neither the legislation nor the proposed regulations preempt the Regional Water Boards or any local agency from adopting or retaining performance requirements for on-site wastewater treatment systems that are more protective of public health or the environment than the new statewide regulations (EDAW, 2005).

LOCAL

Mendocino County Division of Environmental Health

Construction of a new home or other structure that generates domestic waste on a private parcel will require a sewage disposal system (septic) permit from the Division of Environmental Health (DEH). Prior to permit issuance for a new septic system, DEH must approve a site evaluation report (percolation test), which demonstrates that the parcel is suitable for a septic system.

1991 Uniform Plumbing Code

On September 8, 1992, the Mendocino County Board of Supervisors adopted a modified version of the 1991 Uniform Plumbing Code, Private Sewage Disposal Systems, Appendix I. The County's Division of Environmental Health administers and enforces the code, which sets forth provisions for the type, design, and location of private wastewater systems in Mendocino County.

4.14.2.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G thresholds of significance. A wastewater service impact is considered significant if implementation of the project would:

1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;

2) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or

3) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments.

METHODOLOGY

Evaluation of potential wastewater service impacts resulting from the proposed General Plan Update was based on consultation with wastewater service providers in the county and review of existing and proposed General Plan policies and the Mendocino County Code, as well as review of other relevant literature. The impact analysis focuses on the proposed General Plan Update's specific wastewater service-related impacts and whether those impacts would have a significant effect on the physical environment. The impact analysis for the General Plan Update considers projected growth in the county by the year 2030.

IMPACTS AND MITIGATION MEASURES

Increased Demand for Wastewater Services

Impact 4.14.2.1 Subsequent land use activities associated with implementation of the proposed General Plan Update may require additional wastewater services, including treatment capacity, conveyance facilities, and septage disposal facilities to adequately serve subsequent development. This is considered a **less than significant** impact.

Subsequent land use activities associated with the implementation of the proposed General Plan Update may result in an increased demand for wastewater services, including treatment capacity, conveyance facilities, and septage disposal facilities. Furthermore, much of the county is currently served by private on-site wastewater treatment systems. Population and housing growth could increase the number of such systems in the county.

Mendocino County Code Sections that Provide Mitigation

Chapter 16.08 of the Mendocino County Code specifies minimum lots sizes for the installation of on-site sewage systems. Current Division of Environmental Health policy prohibits the use of off-site easements for land divisions. The prohibition does not apply to a community sewage disposal system which serves all lots in a subdivision.

Section 16.08.015 of the Mendocino County Code requires all structures from which, or in which, domestic waste may be generated to be connected to an approved sewage system approved by the County. It also states that no person or other entity shall reside in or otherwise use a structure generating domestic waste unless it is connected to a sewage system approved by the County.

Proposed General Plan Policies and Action Items the Provide Mitigation

Policy DE-177 requires the County to coordinate community water and sewer services with General Plan land use densities and intensities.

Policy DE-178 supports efficient and adequate public water and sewer services through combined service agencies, shared facilities, or other inter-agency agreements and requires the County to work aggressively with water and sewer service providers to overcome current and projected system and supply deficiencies necessary to serve planned community growth. The policy also requires the County to support funding applications to improve and expand water and sewer service capabilities in areas planned for future growth or to resolve existing deficiencies.

Policy DE-179 encourages and assists communities in establishing or authorizing public water and sewer service entities to monitor, manage, and/or maintain communitywide or decentralized systems.

Policy DE-180 requires the County to encourage water and sewer service providers to incorporate water conservation, reclamation, and reuse through measures such as the development and use of innovative systems and technologies, the development of systems that reduce greenhouse gas emissions from their operation, and the development and use of innovative systems and technologies for the treatment of wastewater.

Policy DE-181 opposes extension of water or sewer services to rural non-community areas when such extensions are inconsistent with land use and resource objectives of the General Plan.

Policy DE-182 requires development to be supported by water supply and wastewater treatment systems adequate to serve the long-term needs of the intended density, intensity, and use and states that new development within water or sewer service areas is allowed if the service provider serves the development or the County approves an alternative method of service that is not prohibited by the service provider.

Policy DE-183 prohibits land use plans and development from negatively affecting drinking water supplies used by water service providers.

Compliance with proposed General Plan policies DE-177 through DE-183, as well as compliance with Chapter 16.08 of the Mendocino County Code, would require provision of adequate wastewater service for new growth. Thus, this impact would be **less than significant**.

Mitigation Measures

None required.

4.14.3 SOLID WASTE

4.14.3.1 EXISTING SETTING

SOLID WASTE SERVICE

Currently three companies provide curbside trash and recycling pickup services to communities in Mendocino County. Fort Bragg Disposal serves the communities of Albion, Caspar, and Covelo; Solid Wastes of Willits serves the communities of Laytonville, Westport, Boonville, and the remainder of Anderson Valley; and Solid Wastes Systems serves the City of Ukiah. Curbside pickup service is not available for the communities in Potter Valley, although garbage and recyclables can be self-hauled to the Potter Valley Transfer Station. Residents who live on unpaved roads also do not receive curbside hauling services. There are transfer stations located throughout the unincorporated portions of Mendocino County that receive residential garbage and recycling.

DISPOSAL AND DIVERSION RATES

The California Integrated Waste Management Board (CIWMB) tracks disposal and diversion rates for Mendocino County as a whole and for the unincorporated portions of the county. Residential and nonresidential disposal rates are shown in **Table 4.14.3-1** below. The CIWMB estimates that in Mendocino County as a whole the average resident daily disposal is approximately 1.43 pounds per person per day and in the unincorporated areas of the county the average is approximately 2 pounds per person per day (CIWMB, 2008).

TABLE 4.14.3-1
COUNTYWIDE DISPOSAL RATES

	Mendocino County	Unincorporated Mendocino County
Residential Disposal Rate - Total Household Waste Disposal (Tons/Yr.)	21,838	19,916
Nonresidential Disposal Rate Total Business Waste Disposal (Tons/Yr)	25,636	11,203

Source: CIWMB, 2008

The California Integrated Waste Management Act (IWMA) of 1989 (SB 939) required cities and counties to divert 50 percent of their waste stream from landfill disposal by the year 2000 through source reduction, recycling, composting, and transformation programs. **Table 4.14.3-2** shows waste diversion data from the CIWMB for the unincorporated areas of Mendocino County and the jurisdictions within the county.

TABLE 4.14.3-2
WASTE DIVERSION RATES – MENDOCINO COUNTY

Year	Diversion Rates				
	Unincorporated County	Fort Bragg	Point Arena	Ukiah	Willits
1995	29%	43%	42%	26%	29%
1996	31%	44%	46%	25%	26%
1997	32%	28%	27%	42%	38%
1998	26%	43%	32%	40%	42%
1999	18%	53%	15%	41%	47%
2000	22%	52%	17%	48%	49%
2001	18%	52%	88%	45%	54%
2002	13%	52%	100%	45%	41%
2003	36%	47%	23%	43%	44%
2004	12%	52%	32%	25%	47%
2005	29%*	Not available	Not available	34%*	Not available

*Note: * Biennial review not completed yet - preliminary data*
Source: CIWMB, 2008

LANDFILL CAPACITY

Currently, there are no operating landfills located within Mendocino County. Former landfill sites owned by Mendocino County Solid Waste Division at Caspar, Laytonville, South Coast, the Willits landfill owned by the City of Willits, and the Ukiah Municipal Landfill owned by the City of Ukiah have been closed and are monitored in accordance with state law. Currently, solid waste generated in the county is exported for disposal to several landfills. These landfills, along with estimated capacity, are shown in **Table 4.14.3-3** below. As shown, most of the landfills are currently using less than half of their permitted capacity.

TABLE 4.14.3-3
DISPOSAL FACILITIES USED BY UNINCORPORATED MENDOCINO COUNTY

Landfill	Location	Total Permitted Capacity (in cubic yards)	Total Estimated Capacity Used (in cubic yards)	Estimated Remaining Capacity (in cubic yards)	Permitted Maximum Daily Disposal (in tons)
Altamont Landfill & Resource Recovery	10840 Altamont Pass Road Livermore, CA 4550	62,000,000	16,280,000 (26.3%)	45,720,000 (73.7%)	11,500
Anderson Landfill, Inc.	18703 Cambridge Road Anderson, CA 96007	1,850	-11,912,175	-11,914,025	1,850
Bakersfield Metropolitan (Bena) SLF	2951 Neumarkel Road Caliente, CA 93518	53,000,000	8,181,042 (15.4%)	44,818,958 (84.6%)	4,500
Hay Road Landfill, Inc. (B + J Landfill)	6426 Hay Road (1/4 mile west Hwy 113) Vacaville, CA 95687	28,240,000	6,425,422 (22.8%)	21,814,578 (77.2%)	2,400
CWMI, Kettleman Hills Facility (MSW Landfill B-19)	35251 Old Skyline Road Kettleman City, CA 93239	4,200,000	2,298,140 (54.7%)	1,901,860 (45.3%)	2,000
Keller Canyon Landfill	901 Bailey Road Pittsburg, CA 94565 (unincorporated)	75,018,280	11,609,870 (15.5%)	63,408,410 (84.5%)	3,500
Potrero Hills Landfill	3675 Potrero Hills Lane Suisun City, CA 94585	21,500,000	13,300,000 (61.9%)	8,200,000 (38.1%)	4,330
Redwood Sanitary Landfill	4 Mi NE Novato Btwn Santonio & RR Novato, CA 94945	19,100,000	6,200,000 (32.5%)	12,900,000 (67.5%)	2,300
Vasco Road Sanitary Landfill	4001 North Vasco Road Livermore, CA 94550	31,942,205	22,071,501 (69.1%)	9,870,704 (30.9%)	2,250

Source: CIWMB, 2008

TRANSFER STATIONS

A system of eight small volume transfer stations and two large volume transfer stations receive waste for export to an out-of-county landfill. The two large volume transfer stations in the cities of Ukiah and Willits are privately owned and operated under agreements with local government. Mendocino County owns and operates the small volume transfer stations at Albion, Boonville, Caspar, Potter Valley, and the South Coast (Gualala). The small volume transfer stations in Covelo, Laytonville, and Westport are privately operated under agreements with Mendocino County.

HAZMOBILE

The Mendocino Solid Waste Management Authority also offers a free hazardous waste collection service called HazMobile. Collection locations include Ukiah, Point Arena, Fort Bragg, Laytonville, Covelo, and Willits. The HazMobile program accepts common household hazardous waste such as motor oil, oil filters, antifreeze, gasoline, solvents, paint thinner, oil-based paint, latex paint, household batteries, toxic cleaners, fluorescent light tubes, PCB-containing ballasts, acids, bases, pesticides, herbicides, and pool chemicals (MSWMA, 2008).

4.14.3.2 REGULATORY FRAMEWORK

FEDERAL

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), an amendment to the Solid Waste Disposal Act of 1965, was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the act as it stands today governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes the U.S. Environmental Protection Agency (EPA) to regulate waste management activities and authorizes states to develop and enforce their own waste management programs, in lieu of the federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the federal program.

STATE

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) requires every city and county in the state to prepare a Source Reduction and Recycling Element (SRRE) to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25 percent by 1995 and 50 percent by 2000. The purpose of AB 939 is to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The act has established a waste management hierarchy, as follows:

- Source reduction;
- Recycling;
- Composting;
- Transformation; and
- Disposal.

California Integrated Waste Management Board Model Ordinance

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Re-use and Recycling Access Act of 1991 (§42900-42911 of the Public Resources Code) directs the California Integrated Waste Management Board (CIWMB) to draft a "model ordinance" relating to adequate areas for collecting and loading recyclable materials in development projects.

The model ordinance is used by the County as the basis for imposing new recycling conditions on new development projects and on existing projects that add 30 percent or more to their existing floor area. The model ordinance requires that any new development project for which an application is submitted on or after September 1, 1994, include "adequate, accessible, and convenient areas for collecting and loading recyclable materials." For subdivisions of single-family detached homes, recycling areas are required to serve only the needs of the home within that subdivision. The model ordinance also provides standards for recycling areas.

LOCAL

Mendocino Solid Waste Management Authority (MSWMA)

The Mendocino Solid Waste Management Authority (MSWMA), a joint powers agency formed in 1990 by the County and the cities of Ukiah, Willits, and Fort Bragg, identifies transfer stations, recycling processing facilities, and composting facilities necessary to implement each jurisdiction's waste diversion goals.

Source Reduction & Recycling Element and Non-disposal Facility Element

The Source Reduction & Recycling Element, jointly adopted by the County and the cities of Ukiah, Fort Bragg, and Willits and approved by the CIWMB in 1994, sets forth a strategy to minimize the volume of solid waste requiring land disposal. The Non-disposal Facility Element, approved in 2000, addresses the variety of new and expanded non-disposal facilities necessary to implement the Source Reduction and Recycling Element. These facilities include transfer stations with extensive drop-off recycling to serve the high proportion of rural area self-haulers, composting facilities to process yard waste and wood waste, and recycling processing facilities to prepare recyclables for shipment to market. The multi-jurisdictional strategy also includes curbside, commercial, and drop-off recycling where waste generators (households, businesses, etc.) separate recyclables from trash. Franchised and permitted haulers continue to collect trash as well as take responsibility for the efficient handling of recyclables.

Mendocino County Siting Element

The Mendocino County Siting Element, approved in 1997, identifies potential locations for the disposal of solid waste that cannot be reduced, recycled, or composted to ensure that the need for future solid waste disposal will be met in an environmentally and fiscally sound manner (Public Resources Code Sections 41700 et seq.).

4.14.3.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G. A solid waste impact is considered significant if implementation of the proposed project would:

1) Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs; or

2) Fail to comply with federal, state, and local statutes and regulations related to solid waste.

METHODOLOGY

Evaluation of potential impacts on solid waste facilities and services was based on information from the California Integrated Waste Management Board, as well as review of other pertinent literature. The impact analysis focuses on the General Plan Update's specific solid waste-related impacts and whether those impacts would have a significant effect on the physical environment. The impact analysis for the General Plan Update considers projected growth in the county by the year 2030.

PROJECT IMPACTS AND MITIGATION MEASURES

Increased Solid Waste Generation

Impact 4.14.3.1 Subsequent land use activities associated with implementation of the proposed General Plan Update would increase solid waste generation and the demand for related services. This is considered a **less than significant** impact.

Assuming a 1 percent annual growth rate, the county would have a population of 77,160, as well as 27,725 housing units, in the year 2030, an increase of 15,170 persons and 6,785 housing units over 2008 conditions. As a result of this growth, solid waste generation could be increased and could result in the need for additional solid waste services. Assuming that each person generates 2 pounds of waste per day as estimated for the unincorporated county by the CIWMB, implementation of the proposed General Plan Update would generate an additional 30,340 pounds (0.015 tons) of solid waste per day over 2008 conditions. The daily solid waste generation in 2030 resulting from implementation of the proposed General Plan Update is significantly less than the maximum daily disposal allowed at all of the landfills serving the county, and all landfills serving the county have remaining capacity available to accommodate waste generated under 2030 conditions.

New development in the county would be subject to the Source Reduction and Recycling Element (SRRE) and the Non-disposal Facility Element (NDFE) adopted by Mendocino County. These elements would ensure that future development under the proposed General Plan Update would comply with AB 939.

Mendocino County Code Sections that Provide Mitigation

Title 9A of the Mendocino County Code establishes the Solid Waste Ordinance of Mendocino County, which is designed to eliminate or alleviate public nuisances resulting from improper solid waste disposal and to provide for the efficient use of resources through waste reduction and waste diversion programs including those in the County's approved Source Reduction and Recycling Element required under AB 939. The chapter outlines disposal requirements, permitting of service providers, fees/charges, and administration and enforcement of the ordinance.

Chapter 18.35 of the Mendocino County Code requires that debris and solid waste from demolition and construction of buildings be diverted from going to landfills by using recycling, reuse, and diversion programs. In addition, new developments are required to prepare a Recycling and Reuse Plan for construction debris. This chapter complies with the California Waste Management Act which requires the County to prepare, adopt, and implement source reduction and recycling elements to divert 50 percent of all solid waste from disposal within its jurisdiction.

Chapter 18.25 of the Mendocino County Code complies with the California Waste Management Act and seeks to address the lack of adequate areas for collecting and loading recyclable materials that are compatible with surrounding land uses. The chapter requires any new development project to include adequate, accessible, and convenient areas for collecting and loading recyclable materials and includes guidelines for including these areas.

Proposed General Plan Policies and Action Items that Provide Mitigation

Policy DE-193 requires that the County maintain a comprehensive integrated waste management plan consistent with General Plan, environmental, and public health objectives. Action Item DE-193.1 requires the County to work with local and regional agencies and enterprises to maintain and enhance integrated waste management programs. Action Item DE-193.2 requires the County to work with state, federal, and other agencies to create and implement systems to eliminate pockets of pollution such as tire dumps, abandoned vehicles, and illegal dump sites.

Policy DE-194 promotes materials recovery programs and facilities, with focus on wastes generated in the Mendocino County region.

Policy DE-195 requires that all development projects shall include plans and facilities to store and manage solid waste and hazardous materials and wastes in a safe and environmentally sound manner.

Compliance with General Plan policies and associated action items DE-193, DE-193.1, DE-193.2, DE-195, and DE-195 would reduce additional solid waste impacts associated with the proposed General Plan Update. Title 9A and Chapters 18.25 and 18.35 of the Mendocino County Code, as well as compliance with the County's Source Reduction and Recycling Element and the Non-disposal Facility Element, would ensure that future development would comply with AB 939. Furthermore, adequate capacity exists at landfills serving the county to accommodate waste generated in 2030. Therefore, impacts are considered **less than significant**.

Mitigation Measures

None required.

4.14.4 ENERGY AND COMMUNICATION SERVICES

4.14.4.1 EXISTING SETTING

ELECTRIC, NATURAL GAS, AND TELECOMMUNICATIONS SERVICES

Most residents and businesses in the county, except those in Ukiah, receive electric service from Pacific Gas and Electric (PG&E). PG&E maintains transmission lines throughout Mendocino County. PG&E owns and operates the Potter Valley Project, which is located on the Eel River and diverts water from the Eel River to the East Branch of the Russian River to generate power. The Potter Valley Project powerhouse, located adjacent to Adobe Creek, produces up to 9.4 megawatts of electricity.

Ukiah Public Utilities, the only municipal utility in Mendocino County, provides electricity to approximately 15,000 residential and business customers in the City of Ukiah. The City of Ukiah also owns a hydroelectric power facility at Coyote Dam/Lake Mendocino designed to produce 3 megawatts of power when water flows are adequate. Ukiah Public Utilities purchases most of its power through the Northern California Power Association, a Joint Powers Agency comprising 13 municipal and other public agencies.

PG&E provides electric and natural gas services throughout much of California. The PG&E planning area is composed of five distinct climate zones, and Mendocino County is included in Zone 1 (North Coast and Eastern Mountain). **Table 4.14.4-1** below shows both historical and projected electricity consumption for PG&E's Zone 1. **Table 4.14.4-2** shows electricity consumption by specific use in Mendocino County for the years 2003 through 2007.

TABLE 4.14.4-1
PG&E ZONE 1 ELECTRICITY CONSUMPTION
HISTORICAL AND PROJECTED

Year	Electricity Consumption (in GWH)
1990	4,276
2000	4,923
2005	4,977
2008	5,382
2013	5,680
2016	5,849

Source: California Energy Commission, 2007

TABLE 4.14.4-2
ELECTRICITY CONSUMPTION
MENDOCINO COUNTY (MWH)

Year	Residential Uses	Commercial Uses	Industrial Uses	Streetlights	Agriculture & Water Pumping	Total Energy Consumption
2003	263,371	207,472	60,634	1,390	14,073	546,941
2004	278,623	201,514	66,503	1,280	14,419	562,339
2005	288,918	195,366	60,106	1,270	14,757	560,417
2006	301,696	182,146	57,026	1,290	13,459	555,618
2007	331,764	199,727	54,023	1,284	15,623	602,422

Source: Andrea Gough, California Energy Commission, 2008

PG&E also provides natural gas in the county; however, only the southeast portion of the county is served by PG&E's natural gas pipeline, along the US 101 corridor from the Sonoma County line to the Willits area. **Table 4.14.4-3** shows natural gas consumption by specific use in Mendocino County for the years 2003 through 2007. Areas not served by PG&E use natural gas use propane supplied by private suppliers including Suburban Propane, Ferrellgas, and AmeriGas. In addition, some residences use wood stoves for heat.

TABLE 4.14.4-3
NATURAL GAS CONSUMPTION
MENDOCINO COUNTY (MILLION THERMS)

Year	Residential Uses	Commercial Uses	Industrial Uses	Agriculture & Water Pumping	Total Energy Consumption
2003	7.154	3.988	1.471	0.009	12.622
2004	6.239	3.870	3.047	0.027	13.183
2005	6.361	5.068	2.317	0.027	13.773
2006	6.391	3.293	1.862	0.018	11.565
2007	6.375	3.424	0.988	0.016	10.804

Source: Andrea Gough, California Energy Commission, 2008

TELECOMMUNICATION SERVICES

The major telecommunications provider in the county is AT&T. Most residents and businesses also have access to cellular phone services supplied by various providers. Microwave systems are used by the County and other private users. There are several cable and satellite television providers in the county, including DirecTV, Comcast, Central Valley Cable, and Dish Network. Internet access via telephone lines, digital subscriber line (DSL), satellite, and television cable is available to some residents and businesses. Internet providers include Esplanade.us, Mendocino Community Network, Pacific Internet, and SaberNet. DSL service is available in some of the more urban portions of the county. Internet service via cable and satellite is available from DirecTV, Comcast, and other providers. Internet service is limited in many areas, including the coastal areas.

4.14.4.2 REGULATORY FRAMEWORK

STATE

California Public Utilities Commission

The California Public Utilities Commission (PUC) is the primary state agency that regulates private utilities. These utilities include telecommunications, electricity, natural gas, water, railroad, rail transit, and passenger transportation companies. The primary role of the PUC is to authorize utility rate changes. The PUC also establishes service standards and safety rules, monitors the safety of utility and transportation operations, prosecutes unlawful marketing and billing activities, and oversees the merger and restructure of utility corporations.

California Building Energy Efficiency Standards

Title 24, Part 6 of the California Code of Regulations, known as the Building Energy Efficiency Standards, was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. After adoption of the California Energy Security and Reliability Act of 2000 (AB 970), the California Energy Commission (CEC) produced changes to the Building Energy Efficiency Standards. In November 2003, CEC adopted these updated standards. The California Building Standards Commission adopted the 2005 changes in July 2003 and the updated standards took effect on October 1, 2005. Included in the update were requirements identified under Senate Bill 5X, part of which requires CEC to adopt energy efficiency standards for outdoor lighting.

4.14.4.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G. A utilities impact is considered significant if implementation of the project would:

1) Result in the need for new systems or supplies or a substantial expansion or alteration to electricity, natural gas, or telecommunication systems that results in a physical impact on the environment or would result in inefficient, wasteful and unnecessary consumption of energy (based on State CEQA Guidelines Appendix F).

METHODOLOGY

Evaluation of potential impacts on electrical, natural gas, telephone, and cable services resulting from the proposed project is based on consultation with the service providers and review of California Energy Commission policies and other state standards.

IMPACTS AND MITIGATION MEASURES

Increased Demand for Electrical, Natural Gas, and Telecommunications Services

Impact 4.14.4.1 Subsequent land use activities associated with implementation of the proposed General Plan Update may increase demand for electrical, natural

gas, and telecommunications services and related infrastructure. This is considered a **less than significant** impact.

Subsequent land use activities associated with implementation of the proposed General Plan Update may increase the demand for electrical, natural gas, and telecommunications services and may result in increased infrastructure extensions to serve future development. The environmental effects of obtaining more power, developing new power plants, or constructing new electrical and natural gas transmission lines and generation infrastructure, as well as telecommunications infrastructure, to accommodate future growth, could include air quality, biological resources, cultural resources (depending on location), hazardous materials, land use, noise and vibration, traffic, visual resources, soil related impacts, and human health and safety hazards, which would be evaluated in further detail for each specific energy-related project.

Subsequent development under the proposed General Plan Update would be required to comply with recently adopted changes to Title 24 of the California Code of Regulations regarding energy efficiency that were effective in September 2005. These new energy efficiency standards were developed to improve residential and nonresidential building energy efficiency, minimizing impacts to peak energy usage periods, and to reduce impacts on overall state energy needs.

Mendocino County Code Sections that Provide Mitigation

There are currently no ordinances or codes that provide mitigation for the extension of existing or the addition of new electric, gas, or telecommunications infrastructure.

Proposed General Plan Policies and Action Items that Provide Mitigation

Policy DE-198 encourages appropriate utility infrastructure necessary to support social and economic needs including wired, wireless, and satellite communications.

Policy DE-199 requires the County to facilitate investment in telecommunications infrastructure by providing clear guidelines for utility systems.

Policy RM-44 states that resources and areas that may provide opportunities for energy production, such as geothermal or reserves and solar easements, should be identified, mapped, and protected.

Policy RM-45 encourages research and development of renewable energy sources to meet current and increasing energy demands. Action Item RM-45.1 suggests that solar, wind, tidal, geothermal, methane/landfill gas, biomass/biofuel, and micro-hydro resources should be inventoried and mapped. Action Item RM-45.2 encourages investment in distributed renewable energy resources either through incentives offered to commercial developers or under the Community Choice Aggregation Model. Under Action Item RM-45.3, all county, state, and federal law, codes, or policies that restrict the placement of distributed energy generating devices in the county shall be reviewed, and changes should be suggested wherever those restrictions are not supported by health, safety, or environmental concerns or where new technologies have rendered past concerns obsolete. Action Item RM-45.4 ensures that CC&Rs for new development projects comply with County policies supporting the use of alternative energy sources such as solar or wind power and do not preclude the installation of these facilities.

Policy RM-46 requires the incorporation of energy conservation and renewable energy sources for public, residential, educational, institutional, commercial, and industrial facilities and uses.

Policy RM-47 requires the incorporation of strategies for renewable energy and energy conservation into development planning, design, and operation, such as subdivision, lot orientation, and building design for optimal heating, cooling, and cogeneration opportunities.

Policy RM-48 states that energy efficiency shall be a major consideration in land use and transportation planning decisions.

Compliance with General Plan policies and action items DE-198, DE-199, RM-44, RM-45, RM-45.1, RM-45.2, RM-45.3, RM-45.4, RM-46, RM-47, and RM-48 would assist in reducing electrical, natural gas, and telecommunication impacts to a level that is **less than significant.**

Mitigation Measures

None required.

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