IV. ENVIRONMENTAL IMPACT ANALYSIS
P. UTILITIES

INTRODUCTION

This section of the Revised Draft EIR provides a description of utilities within the City of Healdsburg, information on regulations and agencies with jurisdiction over the Project area, proposed General Plan policies relevant to utilities, and an analysis of the potential impacts on utilities resulting from implementation of the proposed General Plan. Information used to prepare this section was taken from the *Healdsburg 2030 General Plan Background Report* (January 2009 Draft), *Sonoma County Integrated Waste Management Plan*, dated October 13, 2003, *Healdsburg Water System Master Plan* (2003) and *Healdsburg Urban Water Management Plan* (2007).

1. WASTEWATER SERVICES

ENVIRONMENTAL SETTING

Physical Setting

The sewage collection, treatment, and disposal facilities that serve the city are owned and operated by the City of Healdsburg. The City's wastewater treatment plant (WWTP) is located approximately one mile southwest of the city limits, on Foreman Lane just south of the confluence of Dry Creek and the Russian River. The plant was recently upgraded to the Advanced Waste Treatment level and utilizes a membrane bio-reactor process. Its components include influent screening, grit removal, extended aeration with biological nutrient removal, microfiltration through hollow membrane fibers, and ultraviolet light disinfection. The new treatment plant also includes two flow equalization basins, two digestion tanks, and centrifuge equipment for biosolids dewatering. The treatment plant is designed for an average daily flow of 1.6 million gallons per day (MGD). The equalization basins and wet-weather treatment capacity (4.0 MGD) together are sized to accommodate a storm event producing wet weather flows of up to 9.3 MGD.

The City does not currently use or provide recycled water to customers. However, the City will be constructing a seasonal irrigation reuse system as an additional component of the WWTP Upgrade Project.[1]

The wastewater treatment plant has a permitted dry-weather capacity of 1.4 MGD, and the City has not requested an increase in this permitted capacity. The average dry weather flow (ADWF) between 2000 and 2008 is shown below:

Taking the highest ADWF (0.98 MGD) as the base year, the unused capacity available to accommodate development and growth under General Plan buildout is a minimum of 0.42 MGD .

The wastewater collection system encompasses a network of collector lines of various sizes, nine small lift stations in various locations throughout the city, and a major lift station on Magnolia Drive that conveys the entire city's wastewater to the treatment facility on Foreman Lane. Local lift stations have been upgraded one by one as part of the City's Capital Improvement Program. All of these lift stations are located in areas that are nearly built-out, and therefore can be expected to have adequate capacity for any in-fill projects.[2]

The Magnolia Lift Station has recently been upgraded to replace aging and outdated electrical equipment and to improve its overall reliability. Daily wet weather flows, which include inflow and infiltration, have peaked at approximately 5.7 million gpd over the past three years. The lift station has a capacity of

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[1] *Final Healdsburg Urban Water Management Plan, 2005.*

[2] *Healdsburg 2030 General Plan Background Report, January 2009 Draft.*

approximately 6.2 million gpd and experiences maximum daily flows of about 5.5 million gpd. Therefore, the system has the hydraulic capacity to accommodate the peak wet weather flows as well as additional flows.

Table IV. P-1
Average Dry Weather Flows[1]

Year	ADWF
2000	0.84 mgd
2001	0.81 mgd
2002	0.98 mgd
2003	0.88 mgd
2004	0.98 mgd
2005	0.92 mgd
2006	0.95 mgd
2007	0.81 mgd
2008	0.86 mgd

ADWF = average dry weather flow
MGD = million gallons per day
[1] *Minimum running 30-day average*
Source: City of Healdsburg, 2009.

Recent major upgrades to the sewer collection system included replacement of a critical section of trunk sewer main on the south end of Healdsburg Avenue. The replacement sewer was adequately sized to allow an eventual tie-in for the industrial development in Sub-Area J east of the Russian River. That tie-in is not scheduled to occur in the near future because it needs to span the Russian River. Development of Sub-Area J, which is currently unsewered, will also require construction of collection facilities and a new sewer lift station to pump wastewater from the east side of the River. In addition, one existing sewer line along Grove Street between Dry Creek Road and Chiquita Road is operating at near capacity, and may need to be replaced to accommodate future development in the area.[3]

Regulatory Setting

Federal

Clean Water Act

The Clean Water Act assists in the development and implementation of waste treatment management plans and practices by requiring provisions for treatment of waste using the best practicable technology

[3] *City of Healdsburg Public Works Department, personal communication, September 18, 2007.*

before there is any discharge of pollutants into receiving waters, as well as the confined disposal of pollution so that it would not migrate to cause water or other environmental pollution.

National Pollutant Discharge Elimination System (NPDES)

The Water Permits Division within the Environmental Protection Agency Office of Wastewater Management leads and manages the NPDES permit program which oversees stormwater management and sewer and sanitary sewer overflows. The Healdsburg wastewater treatment plants operates under a NPDES permit issued in 2004 and last revised in 2008 by the North Coast Regional Water Quality Control Board (RWQCB). The permit is scheduled for revision by late 2009, which will include a review of the permit to bring it up to date with current regulations and to describe the upgraded treatment facilities and incorporate reclamation requirements.

State

Department of Health Services

In California, water reclamation is regulated under Title 22 California Code of Regulations, Division 4, Section 60301 *et seq.* ("Title 22"), promulgated in 1978 by the Department of Health Services to assure protection of public health where water use is involved. Title 22 criteria include water quality standards, as well as treatment process, operational, and treatment reliability requirements. Title 22 reclamation requirements are implemented by inclusion in waste discharge requirements adopted by the Regional Water Board.

Regional/ Local

Regional Water Quality Control Board (RWQCB)

The Planning Area is within the jurisdictional boundaries of the North Coast RWQCB, which develops and enforces water quality objectives and implementation plans that safeguard the quality of water resources in its region. In accordance with Section 13263 of the California Water Code, regional water boards are authorized to issue waste discharge requirements as well as periodically review self-monitoring reports submitted by the discharger, and perform independent compliance checking. The standards contained within the Board's Water Quality Control Plan for the North Coast Region Basin are designed to provide developers with a uniform approach for the design and installation of adequate systems to control wastewater and wastewater treatment/sewage disposal impacts from the city, and to prevent any potential contamination of groundwater.

Urban Water Management Plan

In accordance with the California Water Code 10610, also known as the Urban Water Management Planning Act of 1984, the City adopted an Urban Water Management Plan (UWMP) in 2007. The Act states that the UWMP must be updated every five years to identify short-term and long-term water demand management in order to meet growing water demands during normal, dry and multiple dry years.

The UWMP provides information about the City's responsibilities towards water supply and water recycling in the community including wastewater generation, collection, treatment, and disposal.

PROPOSED GENERAL PLAN POLICIES AND IMPLEMENTATION MEASURES

Proposed General Plan policies and implementation measures that affect or pertain to wastewater services are listed below:

Policies

- *LU-A-1*: An Urban Service Area/Urban Growth Boundary is established, as shown on the Land Use Plan, and shall be in effect for a period of twenty years after its adoption or until December 31, 2016. No new development shall be permitted outside the Urban Service Area/Urban Growth Boundary other than public parks, public schools, public facilities that implement the goals and policies of the Public Facilities Element, and open space used for any of the purposes set forth in state law, including agricultural uses.
- *LU-A-2*: City water and sewer service shall not be extended to development outside of the Urban Service Area/Urban Growth Boundary, except as allowed under extraordinary circumstances pursuant to other applicable General Plan policies.
- *LU-A-6:* The City will not consider the annexation of any properties in the unincorporated Fitch Mountain area except under the following circumstances:
    (a) A comprehensive study is completed examining the feasibility of annexation of the area examining Fitch Mountain resident views, geotechnical and public service constraints and fiscal impacts.
    (c) An assessment district is formed to design and construct a wastewater collection system to City standards with localized treatment facilities or financing of necessary capacity expansion in the City's wastewater treatment system.
- *LU-C-1*: Only low-intensity urban development and open space land uses shall be allowed in areas characterized by steep slopes, environmental hazards, scenic ridgelines and hillsides. Clustering of development in these areas shall be encouraged to preserve open space, meet the policies of the General Plan concerning natural hazards and scenic resources and minimize the costs of infrastructure improvements.
- *LU-G-1*: Re-evaluate the suitability of industrial uses in the area between the Russian River bridge and the southernmost entrance to the City of Healdsburg when water and sewer services become available.
- *PS-A-9:* The City will pursue agricultural and urban reuse of recycled water in accordance with state law to minimize the use of potable water in serving existing and planned development.
- *PS-B-1:* City sewer service shall not be extended to areas outside the city limits and within the Urban Service Area prior to annexation or to development outside of the Urban Service Area, except as allowed under extraordinary circumstances pursuant to other applicable General Plan

policies. Existing commitments for sewer service outside the city limits shall continue to be honored.

- *PS-B-2:* The City will promote water conservation in both city operations and private development to minimize sewer flows.
- *PS-B-3:* New private septic systems, expansions of existing systems and repair of failed systems shall be allowed only where the City determines that it cannot feasibly provide public sewer service, and such systems shall only be used until such time as city sewer service becomes available.
- *PS-B-5:* The City will continue to assess a sewer development fee on all new commercial, industrial, and residential development sufficient to fund system wide capacity improvements.
- *PS-C-3:* The City will continue to extend its feeder lines as necessary to serve planned development and to ensure reliable service.

Policy Implementation Measures

- *PS-1*: Update, review for consistency with the General Plan and adopt annually the five-year Capital Improvement Program.
- *PS-2*: Periodically review the water, sewer, electric and storm drainage development fee schedules and revise as necessary.
- *PS-3*: Continue to enforce state-mandated provisions of building codes requiring low flush toilets and other types of water-conserving features and provide permit assistance to building projects that conserve water.
- *PS-5*: Continue to implement the Demand Management Measures contained in the Healdsburg Urban Water Management Plan. Review the Plan at least every five years and revise as deemed necessary by the City Council.
- *PS-7*: Explore options and opportunities to expand urban and agricultural use of the City's recycled water.
- *PS-8*: Amend the Municipal Code to reflect the "extraordinary circumstances" under which extensions of city water and/or sewer service outside of the Urban Service Area/Urban Growth Boundary may occur and establish a requirement that findings be made for such extensions, including the following:

    (a) The land use to which the water and/or sewer service would be extended is consistent with all applicable policies of the General Plan;

    (b) The land use to which the water and/or sewer service would be extended is compatible with open space uses as defined in state law, does not interfere with accepted agricultural practices, and does not adversely affect the stability of land use patterns in the area;

    (c) The property to which the water and/or sewer service would be extended is immediately adjacent to land already served by the service(s) to be extended; and,

(d) Specific circumstances, unique to the property to which the water and/or sewer service would be extended, would otherwise deprive the property of privileges enjoyed by other comparable property outside the Urban

ENVIRONMENTAL IMPACTS

Methodology

Impacts associated with wastewater services were evaluated based on the information found within the *Healdsburg 2030 General Plan* (January 2009 Draft), *Healdsburg 2030 General Plan Background Report (*January 2009 Draft), *Final Healdsburg Urban Water Management Plan* (2005), *Healdsburg Water System Master Plan* (2003) and correspondence with the City of Healdsburg Public Works Department.

Thresholds of Significance

In accordance with Appendix G to the CEQA Guidelines, the proposed Project would have a significant impact related to wastewater services if it would:

(a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board; or

(b) 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 or require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Project Impacts

Impact IV.P-1: The proposed Project would not exceed treatment requirements of the applicable Regional Water Quality Control Board.

New development under implementation of the proposed Project will continue to comply with all provisions of waste discharge permits, which regulate discharges in the Planning Area. Through compliance with the City's waste discharge permit program, which is administered subject to the requirements and limitations of the NPDES program, as enforced by the RWQCB, the proposed Project will not result in an exceedance of wastewater treatment requirements. The CDPH's Title 22 reclamation requirements are implemented by inclusion in waste discharge requirements adopted by the RWQCB. The NPDES permit system also regulates both point source discharges (a municipal or industrial discharge at a specific location or pipe) and non-point source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the State (e.g., stormwater systems). The NPDES Phase I and Phase II requirements will regulate discharge from construction sites. All future projects under the proposed General Plan will be required to comply with all applicable wastewater discharge requirements issued by the State Water Resources Control Board (SWRCB) and RWQCB.

Therefore, implementation of the proposed Project will not exceed applicable wastewater treatment requirements of the RWQCB with respect to discharges to the sewer system or stormwater system within the city. In addition, the City will continue implementation as appropriate, of NPDES requirements, including requiring the use of best management practices by businesses in the city. Development under the proposed Project will be required to apply for and comply with all provisions of the industrial wastewater permits. Therefore, impacts associated with wastewater treatment requirements of the RWQCB for development under the proposed Project would be ***less than significant.***

Impact IV.P-2: The proposed Project would not 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 or require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Implementation of the proposed Project will generate additional demand on the existing wastewater services from increased sewage flows. This growth will generate wastewater that will require treatment. The City's treatment plant has a permitted dry-weather capacity of 1.4 MGD.[4] As described above in the Environmental Setting section, there is a minimum of 0.42 MGD remaining unused capacity of available to accommodate development and growth in the near term.

Based on wastewater flow generation factors provided by the City, buildout under the proposed General Plan is anticipated to generate an estimated wastewater flow of 428,015 gpd (.428 MGD) within the city, as shown below in Table IV.P-2.[5] When added to the highest historic ADWF (0.98 MGD) as the base year, the total sewage average flow would increase to approximately 1.41 MGD, which is less than one percent above the treatment plant's permitted capacity.

However, there are several mitigating factors regarding the treatment plant's actual capacity. For the purpose of measuring permitted dry weather capacity, average dry-weather flow (ADWF) is defined as the average flow when inflows to the treatment plant have reached their annual minimum, which typically occurs in late fall. The ADWF is intended to be a measure of the true load connected to the sewer system, after the influence of any infiltration has diminished. The City of Healdsburg ADWF is defined in its NPDES permit as the minimum running 30-day average. While a treatment plant may be nominally designed for a certain ADWF, the actual capacity is typically much greater because it must be able to accommodate peaking events, including higher wet-weather flows in the winter, and higher solids loadings that can occur at any time of the year.

The wastewater generation summarized in Table IV.P-2 is derived from unit flow factors that are intended to estimate flows for an individual customer during the summer peaking period (July through October). Peak uses for individual users throughout the system never occur simultaneously, and flows during the

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[4] *Healdsburg 2030 General Plan Background Report, January 2009 Draft.*

[5] *City of Healdsburg Public Works Department, personal communication, January 20, 2009.*

period when ADWF is determined are typically far lower, typically at least 15 percent below the summer peaking period. For this reason, the aggregated peak demand in Table IV.P-2 could not be expected to cause a corresponding increase in ADWF. The expected ADWF generation would reasonably be expected to be at least 15 percent lower (i.e., 363,813 GPD/.364 MGD). The total resulting flow of 1.34 MGD at buildout would leave an unused capacity of .06 MGD.

Table IV.P-2
Potential Wastewater Generation

Potential Development		Wastewater Generation
Residential	872 units	143,269 gpd
Hotel	339 rooms	33,222 gpd
Commercial[1]	1,094,191 sf.	174,424 gpd
Industrial	1,014,117 sf.	77,099 gpd
Total wastewater generation – unadjusted[2]		428,015 gpd
Total wastewater generation - adjusted[2]		**363,813 gpd**

GPD = gallons per day

[1] *Commercial and industrial wastewater generation are estimated on a square foot basis because no metering data is available to quantify existing per-connection flows*

[2] *Peak uses for individual users throughout the system never occur simultaneously, and flows during the period when ADWF is determined are typically far lower, typically at least 15 percent below the summer peaking period*

Source: City of Healdsburg Public Works Department, 2009.

The permitted capacity at the WWTP, 1.4 mgd, is contained in the City's NPDES permit from the NCRWQCB. However, the physical capacity of the WWTP is far greater because the WWTP must be sized to accommodate peak loads for both hydraulic (flow) and solids loadings. The WWTP was designed for an annual average daily flow of 1.6 MGD and peak wet weather flows of 4.0 MGD. In addition, the critical components in the WWTP, such as the membrane filter tanks, have been constructed and plumbed so that capacity can be expanded by simply adding additional filter modules. This alone would increase capacity by 11%. In addition, membrane technology is constantly improving, and in the time since the WWTP was completed in 2008, retrofittable membrane filters with considerably higher capacity have become available. Increasing the permitted capacity, therefore, will be a matter of preparing an engineering study demonstrating higher capacity, possibly combined with minor equipment retrofits. Increasing permitted capacity would require that all Regional Water Board requirements be satisfied to authorize higher flows.

Buildout of the proposed Project could also impact wastewater distribution infrastructure. Development in Sub-Area J, which is currently unsewered, has occurred using septic systems. However, some types of development in Sub-Area J will require public sewers, necessitating the construction of collection facilities and a sewer lift station to pump wastewater from the east side of the River. Additionally, the

existing sewer lines are inadequate along Grove Street between Dry Creek Road and Chiquita Road (Sub-Areas D and G). Development under the proposed Project will require upgrades to the existing wastewater infrastructure in these areas.

Proposed General Plan policies will mitigate the construction and/or upgrades of wastewater infrastructure that will be required due to development under the proposed General Plan. Policy PS-B-3 will promote water conservation to minimize sewer flows and Policy PS-B-6 will require the assessment of sewer development fees to obtain sufficient funding for system wide capacity improvements. Any additional wastewater generated by development could be accommodated by existing treatment facilities and will not require any plant expansion. Furthermore, any future upgrades to the City's sewer distribution system that are not a part of the proposed Project will be subject to a separate environmental review per CEQA.

Thus, the proposed Project's potential to require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and the potential for insufficient wastewater capacity to serve buildout under the proposed Project would be ***less than significant.***

CUMULATIVE IMPACTS

The geographic context for the analysis of cumulative impacts associated with the wastewater treatment system consists of the City's wastewater treatment plant service area, which is the City's Urban Service Area. As described in Impacts IV.P-1 and IV.P-2, average sewage flow under buildout of the proposed Project could increase to approximately 1.43 MGD, an increase of 43 percent that is two percent above the plant's design capacity. However, the additional wastewater generation is derived from unit flow factors that are intended to estimate flows for an individual customer during the summer peaking period (July through October). Peak uses for individual users throughout the system never occur simultaneously, and flows during the period when ADWF is determined are typically far lower, typically at least 15 percent below the summer peaking period. For this reason, the aggregated peak demand could not be expected to cause a corresponding increase in ADWF. The expected ADWF generation would reasonably be expected to be at least 15 percent lower. Thus, the City's wastewater treatment plant would be able to accommodate buildout under the proposed Project and the potential for cumulative impacts to wastewater services would be ***less than significant.***

MITIGATION MEASURES

With implementation of applicable regulations and the proposed General Plan policies and implementation measures listed above, no mitigation measures would be required for Impacts IV.P-1 and IV.P-2. Additionally, no mitigation measures would be required for cumulative impacts.

2. WATER SERVICES

ENVIRONMENTAL SETTING

Physical Setting

The City's water system is supplied from three well fields: one on Dry Creek with three operational wells and two on the Russian River (Fitch and Gauntlett well fields) with a total of eight operational wells. At each of the well fields, water is treated with chlorine, fluoride and orthophosphate for corrosion control. Distribution system facilities include eight storage tanks serving six separate pressure zones within the distribution system, five pump stations and the necessary water mains and appurtenances for purveying water within the service area. Storage capacity now totals 7.9 million gallons. The system also includes several pump stations and distribution mains.

Until late 2005, the Gauntlett and Fitch well fields could only be used between May 1 and October 31 because of water quality-based restrictions imposed by the California Department of Health Services. During the winter months, these wells experienced turbidity increases during storm events. In 2004 and 2005, the City completed the Gauntlett/Fitch Water Treatment Facility, which now provides micro-filtration for water produced from the Gauntlett wells, allowing the wells to be used year-round. The second phase of the project, scheduled for 2010, will route water from the Fitch well through this treatment facility as well.

The City presently holds three water right permits: two on the Russian River and one on Dry Creek, as shown in Table IV.P-3. The City's water rights and corresponding diversion limits are listed in the table below:

Table IV.P-3
City of Healdsburg Existing Water Rights

Location	Maximum Use	Diversion Rate Limit
Dry Creek	420 afy[1]	1.0 cfs
Russian River (Fitch Well Field)	1385 afy[2]	3.0 cfs
Russian River (Gauntlet Well Field)	1860 afy	4.0 cfs
Total	**3,665 afy**	**8.0 cfs**

afy = acre-feet per year
cfs = cubic feet per second
[1] *There is no explicit annual diversion limit; this estimate is based on a 1 cfs diversion from April through October, which equates to 420 AFY/year.*
[2] *Following completion of second phase of water treatment facility.*
Source: City of Healdsburg Public Works Department, 2009.

The City currently has petitions pending with the State Water Resources Control Board (SWRCB) for its two Russian River Water Right Permits (Nos. 7847 and 11039). The petitions are to extend the deadline for putting the water to full beneficial use. The Board has determined that the water for these rights falls under a 10,000 acre-foot per year reservation of "project water" made available from Lake Mendocino. Satisfying upstream demands that fall under this reservation is a condition of the Sonoma County Water Agency's water rights permits. Approval of the petitions is likely and the City's environmental analysis and planning forecast assume full beneficial use under the permits.

In addition to these rights, the City has a contractual agreement with the Sonoma County Water Agency (SCWA) that allows the City to divert up to 6.3 MGD (peak month) and up to 4,440 AFY under the Agency's water rights permits if appropriated water is not available under the City's own water rights. However, the City has no plans to rely on the agreement in the near future because its own water rights are adequate.

The City has also applied to the SWRCB for an additional water right for Dry Creek in the amount of 880 AFY, which. This application is still pending, and has not yet been fully reviewed and approved by the Board. The projected water supply estimate used in this analysis does not rely on full or partial approval of this pending water right application; instead it is based on existing approved water rights.

Minimum flows in the Russian River are reduced in dry and critically dry years. These reductions are addressed in the terms of the water rights permits for the SCWA, which regulates summertime flows in the Russian River through releases of water from Lake Mendocino and Lake Sonoma. It is important to note that these minimum flows must be met after first satisfying the needs of lawful and even unlawful diverters of water. Therefore, reductions in minimum flows do not translate to a reduction in the City's legal entitlement to water from the Russian River. Conversely, minimum flows are reduced in dry and critically dry years as a means to protect beneficial uses, including instream flows for fisheries, as well as diversions by water users.

Supply is the amount of water that can be provided to the City's water customers based on water rights, water quality, delivery system capabilities, and the physical availability of the water. Currently, the system is designed to meet both peak and annual demand. Each of the three well fields that supply the City's water has been shown to derive its recharge from surface water provided by either the Russian River or Dry Creek flows[6].

Supply availability to the City's water customers is not expected to decrease in single- or multiple-year drought scenarios, primarily because the Sonoma County Water Agency is required to meet minimum flows at three points on the Russian River, all downstream of the Dry Creek and Russian River confluence; therefore, downstream of all City well fields. The flows are controlled by releases from the Warm Springs Dam (Lake Sonoma) and Coyote Valley Dam (Lake Mendocino). The water rights permits held by the City presently do not require diversion reductions during droughts. Notwithstanding

[6] *Final Healdsburg Urban Water Management Plan, 2005.*

that fact, in past dry years, the City has achieved significant water use reductions through voluntary conservation efforts. These efforts have typically been initiated in response to requests from the SCWA and the SWRCB, and the City may respond similarly to future requests. These calls for conservation and the City's corresponding efforts are part of responsible water supply management, and would likely occur regardless of the level of demand.

The Sonoma County Water Agency and the State Water Resources Control Board are expected to consider reductions to these minimum flows as a result of a Biological Opinion (BO) issued by the National Marine Fisheries Service in September of 2008 for listed species of salmon and steelhead[7]. Among other "reasonable and prudent alternatives" considered in the BO is a recommendation to reduce summertime flows to improve rearing habitat conditions for juvenile steelhead and salmon. The BO requires the Sonoma County Water Agency to formally request a reduction in minimum summertime flows in Dry Creek and the Russian River. Although minimum summertime flows may eventually be reduced, the BO explicitly notes that the demands of existing legal water diverters will be met.

Total water use in the urban service area during 2007 was approximately 2.15 MGD; approximately 13 percent was derived from the Dry Creek well field, 23 percent from the Fitch well field, and 64 percent from the Gauntlett well field. The City water system currently serves a population of approximately 12,200. The Fitch Mountain water system is part of Sonoma County Service Area #41 and receives its water from the City of Healdsburg water system through two meters. That system services a population of approximately 950, with 333 residential connections.

A number of pumps boost water from the well fields to eight reservoirs and tanks, located in six different locations. Besides providing a combined storage capacity of 7.9 million gallons, the tanks and reservoirs, due to their elevations, create water pressure for users, including pressure for fire hydrant flows. The older and smaller Sunset and Cadoul tanks can supply fire flows of up to 1,000 gpm by a combination of pumping and use of storage. This capacity does not currently meet Insurance Service Office guidelines. Although the tanks are inadequate, they would not serve potential development areas.

Portions of Sub-Areas B and C are above the highest elevation (320 feet) that can be served by the City's Gauntlett reservoirs. The construction and environmental effects of a pump station needed to serve certain portions of the Saggio Hills project site (Sub-Area C) were analyzed as part of the Saggio Hills project and its certified EIR. Any future development in Sub-Area B will be assessed at a project level at the time of application for such development and/or annexation to identify pumping and storage requirements that are adequate to provide the pressure and flow capacity needed to meet health and safety requirements.

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[7] *Biological Opinion for Water Supply, Flood Control Operations, and Channel Maintenance conducted by the U.S. Army Corps of Engineers, the Sonoma County Water Agency, and the Mendocino County Russian River Flood Control and Water Conservation Improvement District in the Russian River watershed, U.S. Army Corps of Engineers, San Francisco District, September 24, 2008*

Existing water distribution mains are adequately sized to accommodate all anticipated growth in the city's north area and along Grove Street. The Grove Street corridor includes an existing 16 inch water main. The Parkland Farms area is also connected directly to the Gauntlett Reservoirs by a 12 inch main, which feeds water to the subdivision. In addition, the recent Rosewood Drive extension provided another water line connection to the Parkland Farms area, completing a looped main. These two water mains are expected to be adequate for the development of Sub-Areas B and C.[8] The *Healdsburg 2030 General Plan Background Report* recommends a number of distribution system improvements, consisting mostly of water main replacements, which were designed to improve the system's ability to deliver water during peak demand and fire flow conditions. Several are designed to improve the delivery of water from the new Gauntlett/Fitch Water Treatment Facility, which will soon become the primary entry point to the distribution system for nearly all of the City's water production.

Regulatory Setting

Federal

Safe Drinking Water Act

The Federal Safe Drinking Water Act (SDWA) established standards for contaminants in drinking water supplies. Maximum contaminant levels or treatment techniques were established for each of the contaminants. The listed contaminants include metals, nitrates, asbestos, total dissolved solids, and microbes.

State

California has enacted its own Safe Drinking Water Act. CDHS has been granted primary enforcement responsibility for the SDWA. Title 22 of the California Administrative Code establishes CDHS authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the federal standards.

Urban Water Management Plan

The Urban Water Management Planning Act (Water Code Sections 10610 - 10656) states that every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. It is the intention of the Legislature to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied. The Act requires that suppliers submit an urban water management plan every five years. The City's 2005 UWMP update was adopted in 2007 and evaluates water demands of its water customers as projected over a 20-year period.

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[8] *Healdsburg 2030 General Plan Background Report (January 2009 Draft).*

Water Supply Assessments

Section 21151.9 of the Public Resources Code and Section 10910 et seq. of the Water Code require the preparation of a "water supply assessment" (WSA) for large developments (e.g., more than 500 dwelling units or nonresidential equivalent). These assessments, prepared by "public water systems" responsible for service, address whether adequate existing or projected water supplies are available to serve proposed projects, in addition to urban and agricultural demands and other anticipated development in the service area in which a proposed project is located. State regulations do not specifically require the preparation of a water supply assessment for a general plan. However, the Healdsburg Urban Water Management Plan contains the same analysis that would be included in a WSA if it were required for the proposed General Plan.

Regional/Local

No regional or local plans, policies, regulations or laws related to water services are applicable to the proposed Project.

PROPOSED GENERAL PLAN POLICIES AND IMPLEMENTATION MEASURES

Proposed General Plan policies and implementation measures that affect or pertain to water services are listed below:

Policies

- *LU-A-1*: An Urban Service Area/Urban Growth Boundary is established, as shown on the Land Use Plan, and shall be in effect for a period of twenty years after its adoption or until December 31, 2016. No new development shall be permitted outside the Urban Service Area/Urban Growth Boundary other than public parks, public schools, public facilities that implement the goals and policies of the Public Facilities and Services Element, and open space used for any of the purposes set forth in state law, including agricultural uses.
- *LU-A-2*: City water and sewer service shall not be extended to development outside of the Urban Service Area/Urban Growth Boundary, except as allowed under extraordinary circumstances pursuant to other applicable General Plan policies.
- *LU-A-6:* The City will not consider the annexation of any properties in the unincorporated Fitch Mountain area except under the following circumstances:

    (a) A comprehensive study is completed examining the feasibility of annexation of the area examining Fitch Mountain resident views, geotechnical and public service constraints and fiscal impacts.

    (b) The existing Fitch Mountain Water Company system is upgraded to City standards.

(c) An assessment district is formed to design and construct a wastewater collection system to City standards with localized treatment facilities or financing of necessary capacity expansion in the City's wastewater treatment system.

- *LU-C-1*: Only low-intensity urban development and open space land uses shall be allowed in areas characterized by steep slopes, environmental hazards, scenic ridgelines and hillsides. Clustering of development in these areas shall be encouraged to preserve open space, meet the policies of the General Plan concerning natural hazards and scenic resources and minimize the costs of infrastructure improvements.
- *PS-A-1*: The City will ensure the availability of water sources as necessary to serve planned development.
- *PS-A-2*: The City will develop new water storage facilities and major distribution lines as necessary to serve planned development.
- *PS-A-3*: City water service shall not be extended to areas outside the city limits and within the Urban Service Area prior to annexation or to development outside of the Urban Service Area, except as allowed under extraordinary circumstances pursuant to other applicable General Plan policies. Existing commitments for water service outside the city limits shall continue to be honored.
- *PS-A-4*: New private water wells, expansion of existing private wells or repair of failed private wells shall be allowed only where the City determines that it cannot feasibly provide public water service, and such systems shall only be used until such time as city water service becomes available.
- *PS-A-5*: The City will promote water conservation in both city operations and private development.
- *PS-A-6*: The City will continue to assess a water development fee on all new commercial, industrial, and residential development sufficient to fund system wide capacity improvements.
- *PS-A-7*: The City will continuously monitor water flows through the City's water system to identify areas of potential water loss and cases of under billings for water service and shall make improvements in the systems as necessary.
- *PS-A-8:* The Healdsburg Urban Water Management Plan and the Healdsburg Water System Master Plan shall guide the City's water supply and conservation capital improvement programming.
- *PS-B-3:* The City will promote water conservation in both city operations and private development to minimize sewer flows.
- *PS-B-5:* The City will continue to work with neighboring jurisdictions and the Regional Water Quality Control Board in seeking an area-wide solution to water quality problems in the Russian River.

- *PS-C-3:* The City will continue to extend its feeder lines as necessary to serve planned development and to ensure reliable service.

Policy Implementation Measures

- *PS-1*: Update, review for consistency with the General Plan and adopt annually the five-year Capital Improvement Program.
- *PS-2*: Periodically review the water, sewer, electric and storm drainage development fee schedules and revise as necessary.
- *PS-3*: Continue to enforce state-mandated provisions of building codes requiring low flush toilets and other types of water-conserving features and provide permit assistance to building projects that conserve water.
- *PS-4*: Continue to maintain a monitoring program for the City's water system and replace faulty meters in the system with technologically superior meters, as necessary. The City shall also identify and replace faulty meters at service connections and require cathode protection devices on an ongoing basis.
- *PS-6*: Explore options and opportunities to expand urban and agricultural use of the City's reclaimed water. Seek grants and/or low-interest loans for the City's reclaimed water irrigation system.
- *PS-7:* Complete the second phase of the Gauntlett/Fitch Water Treatment Facility in order to preserve the City's water source capacity and water rights.

ENVIRONMENTAL IMPACTS

Methodology

Impacts associated with water services were evaluated based on the information found within the *Healdsburg 2030 General Plan* (January 2009 Draft), *Healdsburg 2030 General Plan Background Report* (January 2009 Draft), *Healdsburg Urban Water Management Plan* (2005), *City of Healdsburg Water System Master Plan* (2003) and additional documents provided by the City of Healdsburg.

Thresholds of Significance

In accordance with Appendix G to the CEQA Guidelines, the proposed Project would have a significant impact related to water services if it would:

(a) Have insufficient water supplies available to serve the project from existing entitlements and resources, or would require new or expanded entitlements.

(b) 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.

Project Impacts

Impact IV.P-3: The proposed Project would have sufficient water supplies available to serve the Project from existing entitlements and resources, and would not require new or expanded entitlements.

Buildout under the proposed Project will increase the population and amount of development within the city, which in turn will increase the demand for water supplies. The future water supply projection assumes that the City will continue to obtain groundwater from its three well fields and possibly from expanding the City's two Russian River water rights permits to full beneficial use.

Buildout under the proposed Project could increase the SOI population to 14,468, which is less than the 14,900 population projected for 2025 by the 2003 Water System Master Plan and the 2005 UWMP. Assuming that the same proportion of water demand among residential, commercial, industrial and landscape uses occurring in 2004 occurs in the future, the UWMP concluded that with a total projected 2025 water supply of 4,179 acre-feet/year, the total 2025 projected water demand (3,372 acre feet per year) would leave a surplus of 807 acre feet per year (19 percent).

In addition to the population-based analysis from the UWMP, the City has also projected water demand using an updated Urban Service Area (USA) analysis, an approach that was first used in the City's 2003 Water System Master Plan. The USA analysis was based on the vacant and under-utilized parcels identified in Appendix C, as well as the Saggio Hills project description evaluated in its EIR. Demands were estimated on a per-connection basis, with each commercial/industrial parcel assumed to represent one connection. The analysis then added the estimated demand from projected development to the City's water demand in 2005, which was the highest annual demand between 2002 and 2007[9]. The results of this analysis are shown in Table IV.P-4. The results from the two analysis methods, 3,372 and 3,562 acre-feet/year, are nearly identical.

Even if no additional water rights were approved, the City's existing water rights total 3,665 acre-feet/year (see Table IV.P-2), which is more than adequate to provide the projected water demands described above. Therefore, there is adequate water supply to accommodate the increased demand associated with the proposed Project.

The City has adopted a number of demand management measures that are detailed in the UWMP, including:

- Water loss detection and leak repair
- Meter replacement and installation, and water billing based on use
- Irrigation efficiency improvements for non-residential customers with large landscapes and eventual irrigation with recycled water

[9] *Healdsburg Public Works Department, January 21, 2009.*

- Promotion of water conservation through direct mailings, city web site, public events and newspaper articles
- Conservation pricing

Table IV.P-4
Water Demand Projection - Urban Service Area Analysis

	Residential	Commercial	Totals
New connections			
Sub-Area A	77	0	
Sub-Area B	58	0	
Sub-Area D	66	19	
Sub-Area E	114	2	
Sub-Area F	117	8	
Sub-Area G	211	2	
Sub-Area H	9	0	
Sub-Area I	0	8	
Sub-Area J	0	5	
Sub-Area K	0	0	
Total new connections	1,226	44	
Demand per connection	363 gpd	431 gpd	
Average day demand for above new connections	445,038 gpd 0.45 mgd	18,964 gpd 0.02 mgd	.46 mgd
Average day demand for Saggio Hills project (Sub-Area C) [1]			.19 mgd
Total average day additional demand			**.65 mgd**
Existing average day demand[2]			**2.53 mgd**
Total average day demand at General Plan buildout			**3.18 mgd/ 3,562 afy**

gpd = gallons per day
mgd = million gallons per day
1 million gallons = 3.069 acre-feet

[1] *Estimated water demand for resort at 100% capacity, 220 residential units, fire sub-station and park*

[2] *Average daily demand during 2005, which was the highest annual demand between 2002 and 2007.*

Sources: Healdsburg Public Works Department, 2009; Saggio Hills Project EIR

Furthermore, the proposed General Plan has identified the minimization of water consumption as one of its policies. Policy PS-A-5 promotes water conservation in both city operations and private development. To achieve this goal, the City will enforce state-mandated provisions of building codes requiring low flush toilets and other types of water-conserving features and provide permit assistance to building projects that conserve water. Policy PS-A-7 involves continued monitoring of water flows through the City's water system to identify areas of potential water loss and cases of under billings for water service and making improvements in the systems as necessary. Implementation of these policies will ensure that water conservation measures are implemented and potential impacts to groundwater supply are reduced.

Because implementation of the proposed policies will reduce future water demand and the City has identified sufficient water supplies are available to serve buildout of the proposed Project, the proposed Project will not require new or expanded water entitlements. Therefore, water supply impacts would be ***less than significant***.

Impact IV.P-4: The proposed Project would 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.

The second phase of the Gauntlett/Fitch Water Treatment Facility, which now provides micro-filtration for water produced from the Gauntlett wells, is scheduled for 2010 and will route water from the Fitch well through this treatment facility as well. The Healdsburg City Council adopted a mitigated negative declaration of environmental impact for both phases of the facility on April 21, 2003. All mitigation measures required for the project were implemented during the first phase of the project or will be implemented during the second phase. No additional water treatment facilities are required to serve development that could occur under buildout of the proposed General Plan. Therefore, potential impacts related to water treatment facilities would be ***less than significant***.

CUMULATIVE IMPACTS

The City's Urban Service Area encompasses the City's water supply service area. As described in Impacts IV.P-3 and IV.P-4, the City's water supply and water treatment facilities would be adequate to accommodate buildout of the proposed Project; therefore, the potential cumulative impacts to water services would be ***less than significant.***

MITIGATION MEASURES

With implementation of applicable regulations and the proposed General Plan policies and implementation measures listed above, no mitigation measures would be required for Impacts IV.P-3 or IV.P-4. Additionally, no mitigation measures would be required for cumulative impacts.

3. SOLID WASTE SERVICES

ENVIRONMENTAL SETTING

Physical Setting

The City contracts its solid waste services to North Bay Corporation and Redwood Empire Disposal. Services include a single-stream recycling system that allows paper, plastic, metals, and glass to be co-mingled rather than requiring separation. Other services include weekly yard waste pick-up, a free bulk waste pick-up that includes e-waste (computers, electronic equipment, etc.) and food waste collection from restaurants.

Solid waste transfer and disposal facilities are owned by the County and serve the cities and unincorporated portions of the county. These facilities include four transfer stations (Healdsburg, Annapolis, Guerneville, and Sonoma), the Central Disposal Site, and the Sonoma Compost Facility. The County's system is managed by the Department of Transportation and Public Works.

Once collected, solid waste is hauled to the Healdsburg Transfer Station at 166 Alexander Valley Road, north of the city limits. The Healdsburg Transfer Station serves the unincorporated areas of northern Sonoma County, Cloverdale, Healdsburg, Windsor, and Geyserville. The transfer station is permitted to accept 435 tons per day (TPD) of solid waste.[10] In July 2007, the transfer station accepted an average of 241.9 TPD of solid waste.[11] From this transfer station, solid waste is transported to any of four landfills, depending on the size of loads, time of day, and season. Table IV.P-5 shows the permitted daily throughput and permitted and remaining capacities of these four landfills.

Disposal of recyclable materials generated during construction, such as soil, brush and other vegetative growth, dimensional lumber, metal scraps, and cardboard packaging is prohibited at any disposal area in the county. Inspection stations are located at the Healdsburg Transfer Station, Sonoma Transfer Station, and Sonoma County Central Landfill, and loads containing more than 10 percent recyclable materials are subject to surcharges. Recyclable materials can be disposed of at the Healdsburg Transfer Station Reuse and Recycling, Sonoma Transfer Station Reuse and Recycling, the Central Disposal Site, and other local recycling centers.[12]

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[10] *Sonoma County Integrated Waste Management Plan, October 13, 2003*

[11] *Ken Wells, Director of Sonoma County Waste Management Agency, personal communication, September 24, 2007.*

[12] *Sonoma County Waste Management Agency. Builders' Guide to Re-Use & Recycling, 2003.*

Table IV.P-5
Current Disposal Facility Capacities

Facility Name	Permitted Daily Throughput	Permitted Capacity	Remaining Capacity
Redwood Sanitary Landfill	2,300 TPD	4,136,885.4 tons	2,794,022.0 tons
Potrero Hills Landfill	4,330 TPD	4,656,703.4 tons	1,776,045.0 tons
Vasco Road Sanitary Landfill	2,518 TPD	6,918,389.6 tons	2,659,706.5 tons
Keller Canyon Landfill	3,500 TPD	16,248,273.0 tons	14,788,752.0 tons
		Total	22,018,525.5 tons

**Note: TPD = tons per day*
Source: California Integrated Waste Management Board, Facilities/Site Search, website: http://www.ciwmb.ca.gov/SWIS/Search.asp, October 2, 2007.

Regulatory Setting

Federal

Federal regulations concerning solid waste are primarily concerned with the control of hazardous substances, and therefore are analyzed in Section IV.H (Hazards & Hazardous Materials).

State

The California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 was enacted to reduce, recycle, and reuse solid waste generated in the State to the maximum extent feasible. Specifically, city and county jurisdictions were required to identify an implementation schedule to divert 50 percent of the total waste stream from landfill disposal by the year 2000 and maintain the 50 percent diversion thereafter. Cities and counties must also promote source reduction, recycling, and safe disposal or transformation.

Other requirements include conducting a Solid Waste Generation Study and preparing a Source Reduction and Recycling Element (SRRE) to describe how solid waste reduction goals would be achieved. The SRRE contains programs and policies for continued fulfillment of the goals of AB 939 and must be updated annually to account for changing market and infrastructure conditions. As projects and programs are implemented, the characteristics of the waste stream, the capacities of the current solid waste disposal facilities, and the operational status of those facilities are upgraded, as appropriate. California cities and counties are required to submit annual reports to the California Integrated Waste Management Board (CIWMB) to provide updates on their progress toward the Act's goals.

Regional/Local

Countywide Integrated Waste Management Plan

As required by the California Integrated Waste Management Act of 1989, in 2003, Sonoma County conducted a solid waste generation study and developed an SSRE that has been incorporated into the Countywide Integrated Waste Management Plan. The Plan, which is currently being updated, requires recycling programs that are expected to result in a 50 percent diversion away from landfills, thereby extending the life of landfills. Approximately 63 percent of the 489,865 tons of solid waste generated in the county in 2006 was diverted from landfills through recycling, composting, and other waste diversion methods.[13]

The Countywide Integrated Waste Management Plan is used by all cities in Sonoma County as their regulatory document. The Sonoma County Waste Management agency requested that the City use the Plan, and any subsequent amendments thereto, as the policy document for solid waste management in the county.[14]

PROPOSED GENERAL PLAN POLICIES AND IMPLEMENTATION MEASURES

Proposed General Plan policies and implementation measures that affect or pertain to solid waste services are listed below:

Policy

- *PS-J-1*: Minimize the amount of solid waste deposited in landfills and maximize the amount of waste that is recycled.

Policy Implementation Measures

- *PS-33*: Continue to work toward minimizing the amount of solid waste that is deposited in landfills and maximizing the amount of waste that is recycle, in compliance with the Sonoma County Countywide Integrated Waste Management Plan.
- *PS-34*: Require new or remodeled multi-family residential and non-residential development to incorporate convenient collection areas for recyclables.
- *PS-35*: Continue to require the City's waste and recycling collection franchisee to provide single-stream recycling collection service and yard waste collection service.
- *PS-36*: Continue to require the City's waste and recycling collection franchisee to promote source reduction and recycling through education and outreach programs.

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[13] *Sonoma County Waste Management Agency, AB 939 Annual Report for 2006 (2008).*

[14] *Ken Wells, Director of Sonoma County Waste Management Agency, response to service letter, dated August 14, 2007.*

- *PS-37:* Purchase goods containing recycled materials for use in City operations, to the extent possible.

ENVIRONMENTAL IMPACTS

Methodology

Impacts associated with solid waste services were evaluated based on the information found within the *Healdsburg 2030 General Plan* (January 2009 Draft), *Healdsburg 2030 General Plan Background Report* January 2009 Draft), and the *Sonoma County Integrated Waste Management Plan* (2003).

Thresholds of Significance

In accordance with Appendix G to the CEQA Guidelines, the proposed Project would have a significant impact related to waste services if it would:

(a) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or

(b) Not comply with federal, state, and local statutes and regulations related to solid waste.

Project Impacts

Impact IV.P-5: The proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs.

Based on CIWMB's residential, commercial, and industrial generation rates and the potential development under the proposed Project, the additional tons per day generated by potential development is displayed in Table IV.P-6.

Table IV.P-6
Projected Solid Waste Generation

Land Use	Potential Development	Generation Rate	Conversion	Solid Waste Generated
Residential	872 units	11.4 lbs/dwelling unit	0.0057 tons/dwelling unit	4.97 tpd
Commercial	1,094,191 sq ft	13 lbs/1000 sq ft	0.0000065 tons/sq ft	7.11 tpd
Industrial	1,014,117 sq ft	0.006 lb/sq ft	0.000003 tons/sq ft	3.04 tpd
Hotel	339 rooms	4 lbs/room	0.002 tons/room	0.68 tpd
			Total	**15.8 tpd**

**Note: TPD - tons per day*

Sources: City of Healdsburg, 2007
California Integrated Waste Management Board, Estimated Solid Waste Generation Rates, website: http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/, September 26, 2007.

Table IV.P-7 shows each disposal facility's average daily loading, their permitted daily loading, and the unused capacity.

Table IV.P-7
Current Transfer Facility Capacities

Facility Name	Average Daily Loading	Permitted Daily Capacity	Unused Capacity
Central Disposal Site	1,461.0 TPD	2,500 TPD	1,039.0 TPD
Annapolis Transfer Station	21.2 TPD	50 TPD	28.8 TPD
Guerneville Transfer Station	64.2 TPD	160 TPD	95.8 TPD
Healdsburg Transfer Station	206.0 TPD	435 TPD	229.0 TPD
Sonoma Transfer Station	247.0 TPD	760 TPD	513.0 TPD
Totals	**1,999.4 TPD**	3,905 TPD	1,905.6 TPD

**Note: TPD = tons per day*
Source: Sonoma County Integrated Waste Management Plan, October 15, 2003.

Solid waste collected by Redwood Empire Disposal will be hauled to the Healdsburg Transfer Station. The transfer station is currently permitted to accept 435 TPD of solid waste and currently accepts 206 TPD. The estimated increase in solid waste generation due to an increase in residential, commercial and industrial, and hotel land use is 15.8 TPD. Therefore, the transfer station has sufficient permitted capacity to accommodate solid waste disposal needs for the proposed Project. From this transfer station, solid waste is transported to any of four landfills available to the county. In total, these landfills (Redwood Sanitary Landfill, Potrero Hills Landfill, Vasco Road Sanitary Landfill, and Keller Canyon Landfill) have a remaining permitted capacity of 22,018,525.5 tons (see Table IV.P-5) and are able to accommodate the proposed Project's solid waste disposal needs. Proposed General Plan Policy PS-J-1 seeks to minimize the amount of solid waste deposited in landfills and maximize the amount of waste that is recycled.

Therefore, the proposed Project would not result in insufficient landfill disposal capacity and the impact would be ***less than significant***.

Impact IV.P-6: The proposed Project would comply with federal, state, and local statutes and regulations related to solid waste.

The California Integrated Waste Management Act of 1989 was enacted to reduce, recycle, and reuse solid waste generated in the State to the maximum extent feasible and requires city and county jurisdictions to identify an implementation schedule to divert 50 percent of the total waste stream from landfill disposal by the year 2000. In 2005, Sonoma County had a diversion rate of 61 percent.[15] Sonoma County

[15] *Integrated Waste Management: Report Card 2005. Provided by Patrick Carter, Waste Management Specialist.*

prepared a Solid Waste Study and a Source Reduction and Recycling Element (SSRE) in 2003. This plan is used by all cities in Sonoma County as their regulatory document. The Sonoma County Waste Management agency requested that the City use the County Integrated Waste Management Plan, and any subsequent amendments thereto, as the policy document for solid waste management in the county.[16] The SRRE contains programs and policies for continued fulfillment of the goals of the Act and is updated annually to account for changing market and infrastructure conditions. By maintaining compliance with the SRRE, ***no impact*** would occur.

CUMULATIVE IMPACTS

Implementation of the proposed Project in combination with development in other area cities will further increase demands on the transfer stations and the landfill capacities. As shown in Table IV.P-6, the potential development under the proposed Project will generate approximately 15.8 tons of solid waste per day. As stated previously, the combined remaining permitted daily intake of the transfer stations and Central Disposal site in Sonoma County is 1,905.6 TPD, and thus, adequate capacity will exist to accommodate the 15.8 TPD disposal needs of the potential development under the proposed Project. Also, the four landfills described above have a combined remaining permitted capacity of 22,018,525 tons and are able to accommodate the cumulative solid waste disposal needs. Therefore, cumulative impacts to solid waste services would be ***less than significant***.

MITIGATION MEASURES

With implementation of the applicable regulations and the proposed General Plan policies and implementation measures listed above, no mitigation measures would be required for Impacts IV.P-5 and IV.P-6. Additionally, no mitigation measures would be required for cumulative impacts.

[16] *Ken Wells, Director of Sonoma County Waste Management Agency, response to service letter, dated August 14, 2007.*

4. ELECTRICAL SERVICE

ENVIRONMENTAL SETTING

Physical Setting

The City owns and operates its own electric distribution system. The City's Electric Department is responsible for the operation and maintenance associated with the reliable distribution of electricity to residential and commercial customers within the Planning Area except for the Grove Street neighborhood and the Fitch Mountain area, which are served by Pacific Gas & Electric (PG&E). In December 2005, the City's electrical system had 5,461 customers. In the summer of 2007, the system's peak demand was 20.6 megawatts.[17] Table IV.P-8 shows the annual usage by land use type in megawatt hours (MWh). As shown in Table IV.P-8, the City has maintained a fairly constant rate of energy usage.

Table IV.P-8
Annual Electric Usage (MWH)

Land Use Type	2003	2004	2005	2006	2007
Residential	25,015	25,892	26,235	26,208	26,500
Commercial	40,304	42,224	43,467	43,842	36,706
Industrial	3,528	3,235	3,662	2,628	11,380
Totals	**68,847**	**71,351**	**73,364**	**72,678**	**74,586**

Notes: MWH = megawatt hours
Commercial includes municipal; Industrial includes outdoor lighting
Source: Electric Utility Department, City of Healdsburg.

Wholesale-priced power for distribution is acquired through the Northern California Power Agency (NCPA). As part of the NCPA, the City owns shares in geothermal and hydroelectric power plants, providing approximately 80 percent of the City's power with "green" sources and natural gas combustion turbine power plants. The City has also installed solar panels on City Hall and is studying the feasibility of using solar power for other city facilities. Additional power is available through purchase power contracts with the NCPA, possible future additional NCPA generation projects, conservation and load management programs, small self-generation projects, and purchase power contracts through private qualifying facilities.

The City's electrical system is linked to its power sources through an interconnection with the PG&E 60,000-volt transmission line at the City's Badger Electric Substation located on Heron Drive. The

[17] *City of Healdsburg Electric Department, personal communication, December 28, 2007.*

substation is currently operating at about one-half of its capacity.[18] The Electric Department has initiated planning for the addition of a new transformer and additional supportive equipment to increase the capacity and reliability of the substation by 2010.[19]

Two main feeders extend from the substation south along First Street and south to the industrial area along Healdsburg Avenue. Two additional feeders extend northerly to the main part of the City through Tayman Park Golf Course. The main feeders are adequately sized for all potential infill in the City's developed areas.[20] As part of the City's Capital Improvement Program, the City is in the process of creating one more main feeder for the north development area to serve future growth areas included in the proposed General Plan.

Electric service in the City is supported by monthly user charges as well as by annexation fees and development fees. At the time of development, the City charges an electric development fee based on electrical panel size, plus the actual cost of upgrading the electrical distribution system.

Energy demand in Healdsburg could grow by 15 to 20 percent in the next few years, primarily because of growth in the northern area of the City. After buildout of this area, however, growth will be more limited.

Regulatory Setting

Federal

No federal plans, policies, regulations or laws related to electrical services are applicable to the proposed Project.

State

California Public Utilities Commission

California Public Utilities Commission (CPUC) Decision 95-08-038 contains the rules for the planning and construction of new transmission facilities, distribution facilities, and substations. The decision requires permits for the construction of certain power line facilities or substations if the voltages would exceed 50 kV or if the substation would require the acquisition of land or an increase in voltage rating above 50 kV. Distribution lines and substations with voltages less than 50 kV do not need to comply with this decision; however, the utility must obtain any nondiscretionary local permits required for the construction and operation of these projects. CEQA compliance is required for construction of facilities constructed in accordance with the decision.

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[18] *Ibid.*

[19] *Ibid.*

[20] *Ibid.*

The Electric Utility Industry Restructuring Act (AB 1890)

The Electric Utility Industry Restructuring Act requires California utilities to fund Public Benefit Programs through 2011. Under the program, publicly-owned utilities are required to spend 2.85 percent of utility revenues on Public Benefit Programs. While there is wide flexibility regarding the planning and implementation of such programs, expenditures must fall under one or more of four categories: (1) Cost-effective demand-side management services to promote energy-efficiency and energy conservation; (2) New investments in renewable energy technology; (3) Research, development and demonstration; and (4) Services provided for low income electricity customers. The amount publicly owned utilities must collect is tied to the lowest percentage of expenditures of the State's three investor-owned utilities. The expenditure of those funds is entirely the discretion of locally-elected governing bodies so long as the expenditures fit within one or more of the four categories.

Regional/Local

No regional or local plans, policies, regulations or laws related to electrical services are applicable to the proposed Project.

PROPOSED GENERAL PLAN POLICIES AND IMPLEMENTATION MEASURES

Proposed General Plan policies and implementation measures that affect or pertain to electrical services are listed below.

Policies

- *LU-A-1*: An Urban Service Area/Urban Growth Boundary is established, as shown on the Land Use Plan, and shall be in effect for a period of twenty years after its adoption or until December 31, 2016. No new development shall be permitted outside the Urban Service Area/Urban Growth Boundary other than public parks, public schools, public facilities that implement the goals and policies of the Public Facilities and Services Element, and open space used for any of the purposes set forth in state law, including agricultural uses.
- *LU-A-6:* The City will not consider the annexation of any properties in the unincorporated Fitch Mountain area except under the following circumstances:

    d. County Service Area No. 24 or another public entity initiates and provides financing for the acquisition of Pacific Gas and Electric's electrical distribution facilities in the area and agrees to dedicate such facilities to the City as a condition of annexation.

- *PS-C-1:* The City will plan, construct, and maintain facilities to provide adequate electrical service to existing and planned development.
- *PS-C-2:* The City will continue to extend its feeder lines as necessary to serve planned development and to ensure reliable service.

- *PS-C-3:* The City will promote energy conservation in its operations and private development, including programs to reduce dependency on fossil fuels.
- *PS-C-4:* The City will continue to assess an electrical development fee on all new commercial, industrial, and residential development sufficient to fund system-wide capacity improvements.
- *NR-E-3*: The City will comply with California's Publicly Owned Electric Utilities' Principles Addressing Greenhouse Gas Reduction Goals.
- *NR-E-4:* The City will support sustainable development and building practices and lead by example in municipal projects.
- *NR-E-5:* The City will encourage the use of large-scale trees in new development to lessen heat build-up from solar radiation.
- *NR-E-6:* The City will comply with state climate protection goals and programs to the maximum extent allowed by the City's jurisdictional authority.

Policy Implementation Measures

- *PS-2*: Periodically review the water, sewer, electric, and storm drainage development fee schedules and revise as necessary.
- *NR-11*: Promote the voluntary conservation of energy and natural resources by:
    a. Allowing the use of alternative materials, designs and methods of construction not specifically prescribed by the Uniform Building Code to conserve energy and/or natural resources, if they have been approved and their use authorized by the City Building Official.
    b. Waiving design review approval for most solar installations for existing buildings.
    c. Granting rebates for such items as energy-efficient residential and commercial lighting, appliances, heat pumps, air conditioning, weatherization, and photovoltaic systems.
    d. Adopting and implementing a green building program.
- *NR-12:* Employ "green" building design and practices in the construction and renovation of city facilities whenever feasible.
- *NR-13*: Implement greenhouse gas emissions reduction measures adopted by the City Council.
- *NR-14*: The City will:
    a. Develop a community greenhouse gases reduction plan, consistent with the State's reduction goals. The plan shall be reviewed and updated at least once per year to identify progress and incorporate new information, regulatory standards, and technologies.
    b. Acquire all available energy efficiency and demand reduction resources that are cost-effective, reliable and feasible.
    c. Pursue renewable energy supplies and non-greenhouse gas-emitting energy resources and clean fossil resources.

d. Provide education for its customers on ways that they can reduce their greenhouse gases emissions, and provide assistance where feasible.

e. Implement Action Plan B of the *City of Healdsburg Greenhouse Gas Emissions Reduction Action Plan Analysis* to reduce greenhouse gas emissions related to municipal operations.

- *NR-22*: Evaluate the existing transportation network to identify areas suitable for improvements as they relate to efficient vehicle movements, including: installation of dedicated left and right turn lanes, construction of roundabouts, development of Intelligent Transportation systems such as synchronized signal timing, and adaptive traffic control systems, removal of unwarranted stop signs and construction of new and improved freeway on- and off-ramps. Implement identified measures as feasible.

ENVIRONMENTAL IMPACTS

Methodology

Impacts associated with electrical services were evaluated based on the information found within the *Healdsburg 2030 General Plan Background Report* (January 2009 Draft). Additional information was obtained from the City's Electric Department.

Thresholds of Significance

In accordance with Appendix F to the CEQA Guidelines, the proposed Project would have a significant impact related to electrical services if it would:

(a) Create demand for electrical services that is substantial in relation to the existing demands; or

(b) Create wasteful, inefficient and unnecessary consumption of energy.

Project Impacts

Impact IV.P-7: The proposed Project would not create demand for electrical services that is substantial in relation to the existing demands.

Implementation of the proposed Project will increase electrical demand within the city. Based on 2007 per capita electricity usage, buildout of the proposed Project will result in a total usage of 89,037 MWh per day.[21] With the expansion of the Badger Substation due to be completed by 2010, the planned addition of feeder line into the northern part of Healdsburg as part of the development of Sub-Area C and ongoing maintenance efforts, existing City electrical facilities are expected to meet future demand.[22]

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[21] *An Analysis of Greenhouse Gas Emissions in Support of Healdsburg 2030 General Plan Update Draft EIR, Winzler-Kelley, 2009.*

[22] *City of Healdsburg Electric Department, personal communication, September 28, 2007.*

Sufficient additional power is available through purchase power contracts with the NCPA, possible future additional NCPA generation projects, conservation and load management programs, small self-generation projects, and purchase power contracts through private qualifying facilities.

The proposed General Plan includes policies and implementation measures will also ensure the proposed General Plan's impact related to electric service is less than significant. Policy PS-C-3 states that the City will promote energy conservation in its operations and private development, including programs to reduce dependency on fossil fuels. Policy NR-E-4 states that the City will support sustainable development and building practices and lead by example in municipal projects. Policy NR-E-5 states that the City will encourage the use of large-scale trees in new development to lessen heat build-up from solar radiation. Policy NR-E-6 states that the City will comply with state climate protection goals and programs to the maximum extent feasible within the City's jurisdictional authority.

Because the City has available capacity, facilities and power sources to provide electrical service, impacts related to electrical service would be ***less than significant***.

Impact IV.P-8: The proposed Project would not create wasteful, inefficient and unnecessary consumption of energy.

Any development under the proposed Project will be required to conform to the State Building Energy Efficiency Standards (Title 24 of the California Code of Regulations). The proposed Project also includes policies and implementation measures that will reduce the inefficient use and unnecessary consumption of energy. Policy PS-C-3 states that the City will promote energy conservation in its operations and private development, including programs to reduce dependency on fossil fuels. Policy NR-E-4 states that the City will support sustainable development and building practices and lead by example in municipal projects. Policy NR-E-5 states that the City will encourage the use of large-scale trees in new development to lessen heat build-up from solar radiation. Policy NR-E-6 states that the City will comply with state climate protection goals and programs to the maximum extent feasible within the City's jurisdictional authority. These proposed General Plan policies will ensure that impacts related to electrical services would not create wasteful, inefficient and unnecessary consumption of energy and therefore would be ***less than significant***.

CUMULATIVE IMPACTS

The geographical context for the cumulative analysis of electrical services is the city's SOI. Buildout under the proposed Project will increase the demand for electrical services. The city is currently updating its power station, including adding a third transformer, and extending a feeder line into Sub-Area C on the north side of the city. With this third transformer and the new feeder line, the City has sufficient capacity to provide electrical services to all sections of the city. Sufficient additional power is available through purchase power contracts with the NCPA, possible future additional NCPA generation projects, conservation and load management programs, small self-generation projects, and purchase power contracts through private qualifying facilities.

Cumulative electrical service impacts would therefore be ***less than significant***.

MITIGATION MEASURES

With implementation of applicable regulations and the proposed General Plan policies and implementation measures listed above, no mitigation measures would be required for Impacts IV.P-7 and IV.P-8. Additionally, no mitigation measures would be required for cumulative impacts.

5. NATURAL GAS SERVICE

ENVIRONMENTAL SETTING

Physical Setting

Natural gas service is provided to the Healdsburg Planning Area by Pacific Gas & Electric (PG&E) through portions of their 46,000 miles of natural gas pipeline. There is a natural gas pipeline located on Healdsburg Avenue and within the right-of-way of the Parkland Farms neighborhood. Information regarding the location of pipelines and the quantity of natural gas provided to the city is considered by PG&E to be proprietary information under the Homeland Security Act and is therefore not included.

Regulatory Setting

Federal

No federal plans, policies, regulations or laws related to natural gas services are applicable to the proposed Project.

State

No state plans, policies, regulations or laws related to natural gas services are applicable to the proposed Project.

Regional/Local

No regional or local plans, policies, regulations or laws related to natural gas services are applicable to the proposed Project.

PROPOSED GENERAL PLAN POLICIES AND IMPLEMENTATION MEASURES

Proposed General Plan policies and implementation measures that affect or pertain to natural gas services are listed below.

Policies

- *NR-E-4:* The City will support sustainable development and building practices and lead by example in municipal projects.
- *NR-E-6:* The City will comply with state climate protection goals and programs to the maximum extent feasible allowed by the City's jurisdictional authority.

Policy Implementation Measures

- *NR-11*: Promote the voluntary conservation of energy and natural resources by:

a. Allowing the use of alternative materials, designs and methods of construction not specifically prescribed by the Uniform Building Code to conserve energy and/or natural resources, if they have been approved and their use authorized by the City Building Official.

b. Waiving design review approval for most solar installations for existing buildings.

c. Granting rebates for such items as energy-efficient residential and commercial lighting, appliances, heat pumps, air conditioning, weatherization, and photo voltaic systems.

d. Adopting and implementing a green building program.

- *NR-12*: Employ "green" building design and practices in the construction and renovation of city facilities whenever feasible.
- *NR-13*: Implement greenhouse gas emissions reduction measures adopted by the City Council..
- *NR-14*: The City will:

a. Develop a community greenhouse gases reduction plan, consistent with the State's reduction goals. The plan shall be reviewed and updated at least once per year to identify progress and incorporate new information, regulatory standards, and technologies.

b. Acquire all available energy efficiency and demand reduction resources that are cost-effective, reliable and feasible.

c. Pursue renewable energy supplies and non-greenhouse gas-emitting energy resources and clean fossil resources.

d. Provide education for its customers on ways that they can reduce their greenhouse gas emissions, and provide assistance where feasible.

e. Implement Action Plan B of the *City of Healdsburg Greenhouse Gas Emissions Reduction Action Plan* Analysis to reduce greenhouse gas emissions related to municipal operations.

ENVIRONMENTAL IMPACTS

Methodology

Impacts associated with natural gas service were evaluated based on the information found within the *Healdsburg 2030 General Plan Background Report* (January 2009 Draft). Additional information was obtained from PG&E[23].

[23] *Mike San Julian, PG&E, personal communication, October 3, 2007.*

Thresholds of Significance

In accordance with Appendix F to the CEQA Guidelines, the proposed Project would have a significant impact related to natural gas services if it would:

(a) Create demand for natural gas services that is substantial in relation to the existing demands.

Project Impacts

Impact IV.P-9: The proposed Project would not create demand for natural gas services that is substantial in relation to the existing demands.

PG&E currently provides natural gas to Healdsburg through portions of its 46,000-mile natural gas pipeline system. The City's estimated natural gas demand was 2,463,635 therms per day in 2007. Using per capita estimations, buildout of the proposed Project would result in a total usage of 3,210,859 therms per day.[24] The energy demands created by the potential development under the proposed Project are not considered substantial in relation to the total amount of energy supplied by PG&E in its northern and central California service area.[25] Development under the proposed Project will connect to extensions of existing service lines, with the ultimate configuration to be approved by PG&E. In addition, the proposed General Plan includes a policy and implementation measures that will reduce the use of natural gas through energy conservation. Because PG&E is able to provide natural gas and associated infrastructure to the potential development under the General Plan, and because the increase in demand for natural gas will not be substantial in relation to existing natural gas consumption in PG&E's service area, this impact would be considered ***less than significant***.

CUMULATIVE IMPACTS

Implementation of the proposed Project in conjunction with other related projects near the city would require additional gas services. PG&E has stated they have adequate facilities to maintain service to the city and any new developments. The cumulative increase in natural gas demand is not anticipated to cause any significant impact to PG&E's ability to provide service to the city, therefore impacts to natural gas service would be ***less than significant***.

MITIGATION MEASURES

With implementation of the applicable regulations and the proposed General Plan policies and implementation measures listed above, no mitigation measures would be required for Impact IV.P-9. Additionally, no mitigation measures would be required for cumulative impacts.

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[24] *An Analysis of Greenhouse Gas Emissions in Support of Healdsburg 2030 General Plan Update Draft EIR, Winzler-Kelley, 2009*

[25] *Mike San Julian, PG&E, personal communication, October 3, 2007.*