5.10 PUBLIC SERVICES AND UTILITIES

Information in this Section was obtained from correspondence from public services and utility agencies. Additionally, data and analysis regarding water and wastewater services was obtained from the *Water and Wastewater Infrastructure Study* (dated October 2004) completed for the Project site by RBF Consulting, Inc. This Section includes an Existing Conditions discussion that provides background information necessary to understand potential impacts of the proposed Project. The criteria by which an impact may be considered potentially significant is provided along with a discussion of impacts pursuant to Appendix G of the CEQA Guidelines. Mitigation measures have been identified to reduce potential impacts to less than significant levels.

EXISTING CONDITIONS

FIRE PROTECTION

The Madera County Fire Department (MCFD) contracts with the California Department of Forestry and Fire Protection (CDF) to provide fire protection and emergency medical services in the unincorporated County. CDF is also responsible for providing protection in State Responsibly Areas (SRA). A SRA is an area in which the State Board of Forestry has determined that the State has the financial responsibility for fire prevention and suppression. According to Figure 7-6, *Fire Agency Responsibility Areas*, of the Madera County General Plan Background Report, the project area is located in a SRA.

The MCFD is a full service fire department providing emergency services to all unincorporated areas of Madera County through a network of fire stations, personnel and equipment. This network is comprised of 15 fire stations, a fleet of approximately 50 apparatus and support vehicles, and staffing that includes 19 career fire suppression personnel, 185 paid call firefighters and 11 support personnel. Administration and career suppression personnel are provided through a contract with the CDF. Fire prevention, clerical and automotive support personnel consist of County employees.

The CDF is dedicated to the fire protection and stewardship of over 31 million acres of California's privately owned wildlands. The CDF also provides fire protection services to 35 of the State's 58 counties via contracts with local governments. The CDF's responds to an average of 6,300 wildland fires each year, which burn an average of 144,000 acres annually. Beyond its wildland firefighting role, CDF responds to more than 286,000 non-wildfire emergencies each year. The CDF is comprised of a force of approximately 3,800 full-time fire professionals, foresters and administrative employees; 1,400 seasonal firefighters; 5,600 local government volunteer firefighters; 2,600 Volunteers in Prevention; and 4,300 inmates and wards that provide 194 fire crews. The CDF is divided into two regions with 21 administrative units statewide. Within these units, CDF operates 634 fire stations

(229 state and 405 local government). CDF also staffs 13 air attack bases and nine helitack bases that allow aircraft to reach any fire within a goal of 20 minutes.[1]

The following Madera County Fire Stations are staffed 24 hours a day by a full time career Fire Captain or Fire Apparatus Engineer and are augmented by paid call firefighters.

- #1 (Madera Valley);
- #3 (Madera Acres);
- #9 (Rolling Hills);
- #12 (Oakhurst); and
- #19 (Bonadelle Ranchos).

In contrast, the following Madera County Fire Stations are staffed exclusively by paid call firefighters:

- #2 (Chowchilla);
- #4 (Dairyland);
- #10 (Yosemite Lakes);
- #11 (North Fork);
- #13 (Coarsegold);
- #14 (Bass Lake);
- #15 (Raymond);
- #16 (Ahwahnee);
- #17 (O'Neals); and
- #18 (Cedar Valley).

The Madera County Fire stations that serve the Project area include Ahwahnee Station No. 16 and Oakhurst Station No. 12. The closest station to the project area is the Ahwahnee Station No. 16, which is located at 42300 SR-49 in Ahwahnee. The Ahwahnee Station is located less than one-mile from the project area. This Station is a CDF station and is equipped with one engine and one water tender (water storage truck that holds approximately 3,500 gallons of water). There is one full-time staff person at the Ahwahnee fire station. Fire fighting and emergency services personnel at Station No. 16 consist of volunteers on an as-needed basis.

Oakhurst Station No. 12 is located at 49015 Civic Circle Drive in Oakhurst. Station No. 12 is approximately three miles from the project site. Station No. 12 is equipped with one engine, one squad (truck with emergency and rescue equipment; no water) and one reserve engine. Station No. 12 is staffed with one full-time paid staff personnel. Paid fire fighting and emergency services personnel at Station No. 12 are called for service on an as-needed basis.

[1] Source: California Department of Forestry and Fire Protection website. http://www.fire.ca.gov/php/index.php, August 11, 2003.

According to the MCFD, response times to the project area range from approximately ten to twenty minutes, weather permitting.[2] However, response times may vary due to the availability of volunteers, since volunteers respond to emergency situations on an as needed basis.

The Insurance Service Organization (ISO) is a private insurance research group that periodically assesses the degree to which fire threatens geographic areas. This rating is based on the type of vegetation or structures present, climate, and the availability of fire protection services. The ISO uses a scale of 1 (best protection or lowest threat) to 10 (least protection or higher threat). Figure 7-4, *Fire Insurance Classifications*, of the Madera County General Plan EIR, illustrates that the project area is located in a Class 6 fire insurance area. Additionally, the MCFD has indicated that the ISO rating of the Project area is 6, however, this is subject to confirmation by a site inspection requested by the Fire Chief.

New development in Madera County places an additional burden on the MCFD and CDF to provide adequate fire protection service. In order to help provide this service, the County collects developer impact fees for fire protection, currently at $431.00 per single-family dwelling. These fees alone, however, do not provide enough funds to build new fire stations and provide immediate service to new growth areas. As a result, some new developments are being required to provide the money, or facilities, necessary to bring fire protection service to their developments. In return, these developments may be reimbursed by future developments that come into the area and utilize these facilities.

POLICE PROTECTION

Police protection to the Project area for both crime and traffic services is provided by the Madera County Sheriff's Department. The Headquarters Station is located at 14143 Road 28 in Madera. The Department has a staff of 116 total personnel, with 82 sworn officers. The Department is divided into two divisions, the Valley and the Mountains. Each division is commanded by a lieutenant and is self-sufficient.

The two police substations that would serve the project area include the Bass Lake Substation and the Oakhurst Substation. The Bass Lake Substation is located at 40601 Road 274 in Bass Lake, which is approximately ten (10) miles from the Project area. The Oakhurst Substation is located at 39884 Road 425B in Oakhurst, which is approximately four (4) miles from the project area. The Oakhurst Substation is a patrol office where administrative services are conducted. The geographical area served by the Oakhurst and Bass Lake Substations includes eastern Madera County, which has a resident population of approximately 35,000 persons, which increases in the summer months to approximately 60,000. Currently, the uniform patrol section consists of 21 personnel. The Department has indicated that response times in the Mountain Division, which includes the Project area, is approximately 20 minutes. Response times may vary, plus or minus, depending on the number of service calls received.

[2] Source: Letter correspondence from Patty Cline with the Madera County Fire Department. August 4, 2003.

SCHOOLS

The Project site is situated within the Bass Lake Joint Union Elementary School District (BLJUESD) and the Yosemite Joint Union High School District (YJUHSD). The BLJUESD provides education for grades Kindergarten through 12. The BLJUESD school of residence for the Project area is Wasuma Elementary School, which is a K-8 school. The only other elementary school within the Project vicinity is Oakhurst Elementary School (K-5). Wasuma Elementary School is located at 43109 SR-49 in Ahwahnee. Oakhurst Elementary School is located at 49495 Road 427 in Oakhurst. The distance to each of these schools from the Project area is approximately four miles. Yosemite High School, which is part of the YJUHSD, is the only high school that serves the Project area. In fact, Yosemite High School is the only Madera County high school that serves the mountain areas. Yosemite High School is located at 50200 Road 427 in Oakhurst. The distance to the High School from the Project area is approximately seven miles. Yosemite High School draws students from Ahwahnee, Raymond, Coarsegold, Oakhurst and other outlying areas.

Table 5.10-1, *School Facilities*, details the BLJUESD and YJUHSD schools serving the Project site and includes current enrollment and maximum capacity. As indicated in Table 5.10-1, the current enrollment of Wasuma Elementary School is approximately 382 students and the capacity of the school is 375 students. The current enrollment of Oakhurst Elementary School is 386 students and the capacity is 395 students. Each of the elementary school capacities is based upon students entering in relatively even distributions over the grade levels. Student generation rates for Kindergarten through 8th grade vary from .3 to .4 students per dwelling unit.[3]

Also, as illustrated in Table 5.10-1, Yosemite High School has a current enrollment of 1,250 students and a capacity of 1,500 students. Student generation rates for Yosemite High School are 0.28 students per dwelling unit.[4]

Table 5.10-1
School Facilities

School	Grade Level	Current Enrollment (2003-04)	Maximum Capacity	Approximate Distance to Project site (miles)
Bass Lake Joint Union Elementary School District				
Wasuma Elementary School 43109 SR-49, Ahwahnee, CA 93601	K-8	382	375	4.0
Oakhurst Elementary School 49495 Road 427, Oakhurst, CA 93644	K-5	386	395	4.0
Yosemite Joint Union High School District				
Yosemite High School 50200 Road 427, Oakhurst, CA 93644	9-12	1,248	1,500	7.0

[3] Source: Letter correspondence from Dr. Michael MacChesney, Superintendent, of the Bass Lake Union Elementary School District. June 30, 2003.

[4] Source: Letter Correspondence from Srini Vasan, Director of Business, Yosemite High School District.

Public school districts are placed into a specific "level" based on school impact fee amounts that are imposed on development. Senate Bill (SB50) establishes the "base" amount of allowable developer fees at $1.93 per square foot for residential construction and $0.31 per square foot for commercial. These base amounts are commonly called Level 1 fees and are the same caps that were in place at the time SB50 was enacted. Level 1 fees are subject to inflation adjustment every two years. In certain circumstances, for residential construction, school districts can impose fees that are higher than Level 1 fees. School districts can impose Level 2 fees, which are equal to 50 percent of land and construction costs if they i) prepare and adopt a school facilities needs analysis, ii) are determined by the State Allocation Board to be eligible to impose Level 2 fees, and iii) meet at least one of the following four conditions:

- At least 30 percent of the district's students are on a multi-track year-round schedule;
- The district has placed on the ballot within the previous four years a local school bond that received at least 50 percent of the votes cast;
- The district has passed bonds equal to 1) 15 percent of its bonding capacity prior to November 4, 1998 or 2) 30 percent of its bonding capacity after November 4, 1998; or
- At least 20 percent of the district's teaching stations are relocatable classrooms.

After January 1, 2000, districts have to meet at least two of these conditions to impose fees in excess of Level 1 fees. Additionally, if the State's bond funds are exhausted, a school district that is eligible to impose Level 2 fees will be authorized to impose higher fees, which are commonly referred to as Level 3 fees, equal to 100 percent of land and construction costs of new schools required as a result of new developments.

The fees stated previously are a base amount. Individual school districts are eligible to increase fees contingent upon meeting conditions pertaining to their specific situations. In 2004, the following Level 1 statutory school facility fees applied to homebuilders:

- New Residential Construction: $2.24 per square foot for "assessable space" – defined as "space within the perimeter of a residential structure, not including any carport, walkway, garage, overhang, patio, detached accessory structure or similar area.

LIBRARIES

The Oakhurst Branch Library located at 49044 Civic Circle Drive in Oakhurst serves the Project area. The Library is one of five branch libraries within the Madera County Library system. The Library's materials collection includes books, periodicals and audio-visual materials. Public services provided by the library include:

- Reference services for adults and children (either in person or by phone);
- Programs (story hours, literary and cultural programs, literacy services, etc.); and
- Electronic reference sources (electronic information databases, video recordings, oral history tapes, etc.).

Current trends in library services reflect increased circulation of materials, major demand for more computers and databases, and requests for more educational programs.

RECREATION

Madera County does not have a Parks and Recreation Department and does not play a significant role in providing recreational facilities or services. The Ahwahnee/ Oakhurst Area, which is considered part of the North 41 Corridor, includes several recreational opportunities.

The Wassama Road House in Ahwahnee is only one of several authentic ceremonial Indian Roadhouses surviving in California. The Roundhouse is maintained by members of local Miwok Indian tribes under the sponsorship of the California State Park system. The Park is open daily and guided tours of the park are available by appointment with a small fee. The only locally operated park in the North 41 corridor is the Oakhurst park which is a community open space playground administered and maintained by the Oakhurst community.

In addition to parks identified above, the North 41 Corridor area contains the Hensley Lake Recreation Area and Bass Lake. These lake areas provide fishing, water-skiing, picnicking and other recreational uses to the regional vicinity. Hensley Lake is maintained by the U.S. Army Corps of Engineers.

The federal government, through its ownership of public open land in the Sierra National Forest, provides an abundance of recreation and tourism opportunities for the eastern part of the county and to visitors from outside the county. The Sierra and Inyo National Forests comprise approximately 447,000 acres of the eastern county, with the Sierra covering most of the acreage. Oakhurst contains numerous campgrounds that are part of the Sierra National Forest.

The open space and recreation equipment found on school sites in the Project area also provides recreation opportunities on a neighborhood basis. Oakhurst Elementary School and Wasuma Elementary School are both located approximately four miles from the Project area. While the facilities at each school differ, each location generally has multi-purpose ball fields and an assortment of children's play equipment. Yosemite High school also has tennis courts, a track and a gymnasium.

Additionally, there are numerous privately owned recreation facilities within the Project area. Some of the more common facilities are golf courses and tennis courts. The Project area is located immediately adjacent to the Sierra Meadows Golf Course.

ROADWAY MAINTENENCE

The Madera County Road Department currently provides roadway maintenance in the Project area. The Department maintains, repairs and constructs roads and bridges on the official County system, in maintenance districts, and in county service areas within the unincorporated area, except for State highways. The Road Department maintains approximately 1,800 miles of roads and 170 bridges throughout the County. Roadways in the project area include SR-49, SR-41, Harmony Lane, County Road 621, County Road 628, Pine River Road, Opah Drive and Miami Highlands Drive. A description of these roadways is included in Section 5.3, *Traffic and Circulation*.

WASTEWATER

The Special District Services Division (SDSD) of Madera County maintains the Service Areas and Maintenance Districts (MD) that provide water and sewer facilities within the County. The SDSD maintains and oversees approximately 45 Maintenance Districts throughout the County. The project area is within the jurisdiction of Maintenance District 46. Existing residential uses in the Project vicinity utilize on-site septic tanks and leach fields to handle wastewater. Currently, the proposed Project area is not connected to a public wastewater system or non-community wastewater system, nor does it have an on-site sewage disposal system.

The following sections provide a discussion of the types of wastewater treatment facilities typically maintained by the SDSD in the County.

On-Site Sewage Disposal Systems

General Requirements. On-site sewage systems in Madera County generally serve rural and other low-density areas. Due to concerns over potential impacts to public health and safety, as well as environmental concerns, the County closely regulates the placement and design of on-site sewage disposal systems.

Private aerobic or septic disposal systems are allowed in all parts of the County. The design and sizing of all systems must be approved by the County Environmental Health Department.

Permitting of all septic systems in eastern Madera County requires an on-site meeting with a member of the Environmental Health Department. At that time, it is determined what type of system is required based upon location and proximity to water wells, property lines, and other factors. If a system cannot meet installation criteria, a specially designed system may be required.

Special Design. Special design sewage disposal systems are required where conditions of soil, topography, or space exclude the installation of a standard septic or aerobic disposal system. Special design systems must be prepared by a registered civil engineer acceptable to the Environmental Health Department.

Location. Due to their potential impacts, sewage disposal systems are prohibited in the following areas:

- Any area within any easement that is dedicated for surface or subsurface improvement;
- Any area not owned or controlled by the system owner unless that area is dedicated for waste disposal purposes;
- Any area occupied or to be occupied by structures;
- Any paved area;
- Any area in which the percolation rate is slower than 30 minutes per inch for seepage pits, or faster than five minutes per inch unless it can be shown that a sufficient depth of soil is available to assure proper filtration;
- Any area in which the permeable soil depth below the bottom of the leach field is less than five feet, or less than five feet below the bottom of the seepage pit; and
- Any area in which the ground slope is greater than 30 percent.

All septic tanks, sewer lines, leach fields and seepage pits are located in accordance with the above requirements.

Capacity. The minimum liquid capacity of septic tanks is 1,500 gallons for all dwelling units up to and including four bedrooms. Tank size increases at a rate of 150 gallons per bedroom for dwelling units with more than four bedrooms. The minimum diameter of the waste line serving the tank must be at least four inches. The minimum waste line distance from the foundation of the house to the tank must be at least five feet. Concrete block tanks are acceptable if reinforced with #4 bars, 24 inches on center each way and with all cells filled with pea gravel grout. Finer glass tanks may be approved subject to structural adequacy. Wooden and steel septic tanks are prohibited.

Disposal Fields and Seepage Pits. The County has established requirements for the location and construction of disposal fields. For information of these requirements, refer to the *Madera County General Plan Final EIR*. Seepage pits are mandatory in hardpan areas, optional in other valley areas and prohibited in mountain areas.

Public Wastewater Systems

The County currently operates and maintains 14 major public wastewater systems. These systems, which are administered through County Maintenance Districts or Service Areas, utilize several processing methods in their treatment of wastewater. The major process types are activated sludge, community septic tank, stabilization pond and aerated lagoon treatment systems.

Non-Community Wastewater Systems

Areas in the unincorporated area of the county that are not served by community wastewater systems are generally served by individual private septic systems, as described above. As a general rule, these systems operate as gravity collection systems. There are, however, a number of small private wastewater systems that serve such facilities as recreational camps.

WATER

Water Agencies

The delivery of surface water in Madera County is managed primarily by irrigation districts, while groundwater wells for municipal use are regulated and permitted by local governments. Four irrigation districts manage surface water that is delivered to agricultural users in the County. The main surface water supplier in the county is the Madera Irrigation District (MID), while the Chowchilla Water District (CWD) also supplies a substantial amount of water within the county. In addition to the two main water agencies, Gravely Ford and Clayton Water Districts also operate in the county, although they cover small areas and only have rights to excess water in wet years; these are essentially inactive agencies.

Community Water Systems

In numerous areas of Madera County, water is managed through community water systems. Water systems are classified as either "large" or "small" water systems, depending on the number of connections. Large water systems have a minimum of 200 service connections and are regulated by the State Department of Health Services, Division of Drinking Water. Under state regulations, each system is inspected annually and monitored for possible contamination and necessary system improvements. Groundwater (wells) is the primary supply of water for the large systems. The small community water systems have between 15 and 199 connections. The vast majority of these systems also use wells as the primary water source, with a small number relying on surface water and natural springs.

The existing community water systems function well and meet the needs of current users.[5] However, it is likely that improvements to these systems will be required in the future. While improvements to public water systems in the County can be made in response to regulatory mandates and operational deficiencies, new development will probably be the driving force behind system improvements. As communities continue to grow beyond the capacity of the water system that serves them, it may be necessary to expand the existing systems, or to provide entirely new water systems.

Water Management in Project Area

As previously stated, the surrounding Project vicinity includes the golf course; 58 lots in the Ahwahnee Country Club Estates adjacent to the golf course (with, as of fall 2004, homes built on 31 lots); and 47 residential lots as part of the Miami Creek Estates. Water for the existing dwelling units is provided from the Madera County Maintenance District No. 46 system, which is considered a small community water system. Local groundwater wells serve as the source of water for the system. The existing distribution system includes a 150,000-gallon tank and an 8-inch pipeline in Opah Drive. Since the Project area is located in an isolated area of Madera County, the existing water system in the surrounding area is a stand-alone system.

[5] Source: *The General Plan Background Report*, p. 4-2.

Existing Water Sources in Project Area

Surface Water from Miami Creek. The Sierra Meadows property has pre-1914 appropriative rights established under an 1893 notice of appropriation (captioned the "Water Location Notice") that was recorded in Madera County by Edwin J. Leonard on September 21, 1893. The pre-1914 appropriative rights entitles the owner of the Sierra Meadows property to divert "two-hundred sixty five inches measured under a four inch pressure" (in excess of 4,281,552 gallons per day) from Miami Creek by means of a series of ditches. Water diverted under the pre-1914 rights is stored in a series of ponds in the Project vicinity. These ponds originally served as water holes for livestock and domestic use have become a visual amenity of the area, as well as features of the golf course. Also, the ponds likely serve as a significant source of groundwater recharge for the surrounding area.

This source of surface water has been used on the land continuously since the date of the original filing of the notice of appropriation. Initial uses included agricultural irrigation of hay and fodder; more recent uses include the irrigation of the golf course in addition to some agricultural irrigation.

Groundwater Wells. Several wells in the Project vicinity are now in service. Maintenance District No. 46 uses wells to provide water supply to present customers. The golf course uses wells as an occasional supplement to surface water used for irrigation supply. In addition, the Project Applicant has begun construction of a new well, and intends this well to be used as a standby for irrigation, and also as a supplemental source for potable water.

Reclaimed Effluent. Future residences in the Project area would generate wastewater that would be treated at an on-site wastewater treatment facility (refer to impact discussion under *Wastewater*, below). The wastewater treatment plant would provide treated disinfected effluent in compliance with California Title 22. The treated effluent would be restricted to irrigation of the golf course only.

Senate Bills 221 and 610

Senate Bills 221 and 610 were signed into law by Governor Davis in 2001 and took effect January 1, 2002. The two senate bills amended State law to better link information on water supply availability to certain land use decisions by cities and counties. The two companion bills provide a regulatory forum that requires more collaborative planning between local water suppliers and cities and counties. All SB 610 and 221 reports are generated and adopted by the public water supplier.

Senate Bill (SB) 610 requires a detailed report regarding water availability and planning for additional water supplies that is included with the environmental document for specified projects. All "projects" that meet any of the following criteria require the assessment:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 ft^2 of floor space;

- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 ft^2 of floor space;

- A proposed hotel or motel having more than 500 rooms;

- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 ft^2 of floor area;

- A mixed-use project that includes one or more of the projects specified in this subdivision; or

- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

While SB 610 primarily affects the Water Code, SB 221 principally applies to the Subdivision Map Act. The primary effect of this bill is to require the applicant for a tentative map for an applicable subdivision to verifying that the public water supplier (PWS) has a sufficient water supply available to serve the needs of the subdivision. Under SB 221, approval by a city or county of certain residential subdivisions requires a written verification of sufficient water supply. SB 221 applies to any "subdivision," defined as:

- A proposed residential development of more than 500 dwelling units, if the PWS has more than 5,000 service connections.

- Proposed development that increases connections by 10% or more, if the PWS has fewer than 5,000 connections.

The Sierra Meadows Project does not require a SB 610 or SB 221 water supply assessment for the following reasons. First, the Project is not a residential development proposing greater than 500 dwelling units. Second, the Project does not propose infrastructure that would require more water than that which a 500 dwelling unit development would require. Third, the Project does not propose more then a 10 percent increase in the number of service connections to the "public water system" operated by Madera County. According to the *Guidebook for Implementation of Senate Bill 610 and 221*, a public water system is "a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections." Thus, it is the county's systems as a whole that make up a public water system, rather then simply the Maintenance District No. 46 system.

SOLID WASTE

The Project area located in eastern Madera County is referred to as the "Mountain Collection Zone." Emadco Disposal Service provides solid waste collection in the Project area. Emadco collects waste generated in the mountain and foothill areas and transports it to its own transfer station near Oakhurst. From the transfer station, the waste is transported to the Fairmead Solid Waste Disposal Site located along Avenue 22 at Road 19 in Chowchilla. Recyclable materials are sorted out of the waste at the Materials Recovery Facility (MRF) located at the Fairmead landfill. The

Fairmead landfill is permitted to receive 395 tons of waste per day. The remaining capacity of the landfill is 2,667,557 (as of 2000) cubic yards and the total permitted capacity is 3,204,349 cubic yards. The landfill is scheduled to close January 1, 2013.[6]

According to Emadco Disposal Service, residences in the Project area dispose of approximately 48 pounds of waste per service day. Waste hauling services are provided an average of 4.2 times per month, which equates to 202 pounds of waste generated per residence each month or 2,420 pounds of waste generated per residence each year. [7]

The California Integrated Waste Management Act, Assembly Bill 939 (AB 939), required jurisdictions to divert 50 percent of the wastestream away from land disposal by the year 2000. If the 50 percent goal were not met by the end of year 2000, the jurisdiction would be required to submit a petition for a goal extension to the Integrated Waste Management Board (IWMB). The most recent available IWMB-diversion rate for Madera County (unincorporated) is 43 percent for reporting year 2000.[8] However, preliminary data from the CIWMB indicates that the diversion rate for 2002 was 43 percent. The IWMB approved an alternative diversion rate requirement of 48 percent for unincorporated Madera County that began in January 2003 and ends in December 2004.

ELECTRICITY AND NATURAL GAS

The Project site is located within the Pacific Gas and Electric (PG&E) electrical utility service territory. PG&E owns and operates several electric distribution lines located within the proposed Project's boundaries. Currently, the existing golf course and residential uses surrounding the Project area are serviced by PG&E. PG&E does not provide natural gas service to the project area. Natural gas is provided to residences in the surrounding project area via individual propane tanks. Typically, residences have a 250-gallon (size can vary) propane tank located on their property, outside of the residential structure. An underground utility line is run from the tank to the residence to provide gas for the residence. Propane tanks in the project vicinity are serviced and refilled per service agreements by the Ferrellgas Company.

IMPACTS

SIGNIFICANCE CRITERIA

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains the Initial Study Environmental Checklist form which includes questions relating to public services and utilities. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this Section. Accordingly, a Project may

[6] Source: Integrated Waste Management Board website. Solid Waste Information System (SWIS), Facility/Site Summary Details for the Fairmead Solid Waste Disposal Site. July 16, 2002. www.ciwmb.ca.gov

[7] Source: Phone correspondence with Brian Negley, Manager, of Emadco Disposal Service. July 17, 2003.

[8] Source: Integrated Waste Management Board website. Jurisdictional Diversion Rate Summary for Madera County – Unincorporated. October 3, 2004. www.ciwmb.ca.gov

create a significant environmental impact if it causes one or more of the following to occur:

Public Services

- If the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services (refer to Impact Statements 5.3-1, 5.3-2, 5.3-3, 5.3-4, 5.3-5 and 5.3-6).

Utilities and Service Systems

- If the Project exceeds wastewater treatment requirements of the applicable Regional Water Quality Control Board (refer to Impact Statement 5.3-7);

- If the Project requires or results in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (refer to Impact Statements 5.3-7 and 5.3-8);

- If the Project requires or results in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (refer to Section 5.8, *Hydrology and Drainage*);

- If the Project has insufficient water supplies available to serve the Project from existing entitlements and resources, or if new or expanded entitlements are needed (refer to Impact Statement 5.3-8);

- If the Project results in a determination by the wastewater treatment provider which 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 (refer to Impact Statement 5.3-7);

- If the Project is served by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs (refer to Impact Statement 5.3-9); and/or

- If the Project does not comply with federal, state, and local statutes and regulations related to solid waste (refer to Impact Statement 5.3-9).

Impacts to services and utilities are analyzed below according to topic. Mitigation measures at the end of this section directly correspond with the identified impact.

FIRE PROTECTION

5.10-1 *Project implementation could result in significant physical impacts with respect to fire protection. Analysis has concluded that a less than significant impact would occur with adherence to Madera County development standards, payment of applicable development fees and taxes, and implementation of the recommended mitigation measures.*

The Madera County Fire Department (MCFD) has indicated that the current manpower and facilities are not adequate to respond to additional calls to the project area and that project implementation does have the potential to impact existing fire protection facilities in an adverse manner.[9] Project buildout could impact the Fire Department's ability to maintain acceptable response times and could impact the ISO rating based on the current staffing situation. Furthermore, the MCFD also acknowledges that project implementation would expose the proposed residential uses to potential wildland fire hazards since the project area is located in relatively undisturbed foothill woodland vegetation on varying topography.

As stated in the Existing Conditions section, the project area is rated as a Class 6 fire insurance area and current response times to the project area vary from approximately ten (10) to twenty (20) minutes, weather permitting. According to the *Madera County General Plan Policy Document*, Policy 3.H.1, the minimum fire protection standard (expressed as ISO ratings) for rural areas is ISO Class 6. General Plan Policy 3.H.2 states that fire protection agencies shall strive to achieve a 20-minute response time in rural areas (expressed as average first alarm response times to emergency calls). To maintain consistency with the fire protection standards set forth in the County's General Plan and reduce potential wildland fire hazards/impacts to less than significant levels, the proposed project would be required to comply with established development standards, pay all applicable development fees and taxes, and implement the recommended mitigation measures (per the direction of the MCFD), as described below.

As stated in the *General Plan Background Report*, one method of fire prevention is the enactment of development standards. *Public Resources Code* Section 4290 sets minimum safety standards for development in State Responsibility Areas (SRAs). Madera County has adopted *Fire-Safe Regulations and Road Standards* (Ordinance No. 542), which identifies minimum standards for emergency access (roadway standards), signage and building numbers, emergency water resources, and fuel modification to comply with the *Public Resources Code* 4290. Since the proposed project is located in an SRA, it would be required to comply with all applicable development standards set forth in the *Fire-Safe Regulations and Road Standards* (Ordinance No. 542) (described above).

The project would also be required to comply with all conditions of approval set forth by the MCFD and/or CDF. Correspondence from the MCFD has indicated tentative conditions of approval that apply to the proposed project (refer to Appendices Section 15.2, *Public Agency Correspondence/NOP Correspondence*). According to correspondence from the MCFD, the Project Applicant would be required to prepare

[9] Source: Telephone Correspondence from Patty Cline with the Madera County Fire Department. August 19, 2003.

a fuel modification plan by a licensed forester.[10] Review and approval of the proposed project, including the fuel modification plan, water system and water storage plans, would be required by the MCFD and/or CDF prior to final map approval. Additionally, the MCFD has identified fire flow requirements for the project, which require a minimum of 1,000 gallons per minute (gpm) at 20 residual psi for two hours duration, per Appendix IIIA and 901.3 of the Uniform Fire Code (UFC).

To help fund additional fire protection services, Madera County requires the Project Applicant of new developments to pay developer impact fees, currently at $431.00 per single-family dwelling unit. However, the MCFD has indicated that payment of the required fees and taxes by the Project Applicant would not adequately mitigate the expected increase in fire protection services.[11] The MCFD has indicated that project implementation would result in the need for one additional permanent, full-time career fire fighter at Ahwahnee Station No. 16. The addition of one fire fighter at the Ahwahnee Station would require expansion of the existing facility to house the fire fighter. According to the MCFD, the addition of a full-time fire fighter would ensure the necessary staffing to provide adequate fire protection services to the project area. Thus, mitigation has been recommended that the Project Applicant pay development impact fees (per California Government Code Section 66000 et. seq. (AB 1600)) in addition to the $431.00 per single-family dwelling unit to provide for the expansion of existing facilities, equipment and staffing of a permanent, full-time career fire fighter at Ahwahnee Station No. 16. This fee would be determined through an agreement between the Project Applicant and the MCFD and/or CDF.

Following compliance with Madera County development standards and conditions of approval set forth by the MCFD and/or CDF, payment of applicable development fees and taxes, and implementation of the recommended mitigation measures, impacts to fire protection services would be reduced to less than significant levels.

POLICE PROTECTION

5.10-2 *Project implementation would not result in significant physical impacts with respect to police protection. Analysis has concluded that impacts would be less than significant.*

Implementation of the proposed Project would increase the police service calls to the vicinity beyond existing conditions. This would be a direct result of the development of single-family residences and the resultant increase in population. At full build out of the 315 residential lots, the Project has the potential to increase the Oakhurst population by approximately by 962 persons (315 housing units x 3.055 persons/ household) (refer to Section 6.3, *Growth Inducing Impacts*). According to the Madera County Sheriff's Department, the Project could add as much as 25 percent activity to the Mountain Division beat area.[12] As such, Project implementation may

[10] Source: Letter Correspondence from Jeff Hartsuyeker, Fire Marshall, with the Madera County Fire Department. Letter dated November 16, 2004.

[11] Source: Letter Correspondence from Patty Cline with the Madera County Fire Department. Letter dated August 4, 2003.

[12] Source: Written correspondence from Lieutenant Milt Gauthier at the Madera County Sheriff's Department. Letter dated June 23, 2003.

result in an increase in burglar alarm calls, general criminal investigations, missing or lost persons, emergency medical calls, vandalism, etc. The Project is also anticipated to increase traffic along SR-49, particularly at the intersection of SR-49 and SR-41. Although police protection services would need to be increased as a result of the Project, it is anticipated that Project implementation would not require new police facilities or the alteration of existing facilities to maintain acceptable performance objectives. The Project's increase in demand for police services would be offset through Project related fees and taxes. Thus, impacts are anticipated to be less than significant in this regard. No mitigation measures are recommended.

SCHOOLS

5.10-3 *Project implementation could result in significant physical impacts to existing school facilities. Potential impacts to school facilities are concluded as less than significant with payment of school impact fees and compliance with applicable requirements, codes, and ordinances.*

Project implementation would result in student generation impacts to the Yosemite Joint Union High School District (YJUHSD) and the Bass Lake Joint Union Elementary School District (BLJUESD). Within the YJUHSD, the proposed Project would result in an additional increase of approximately 89 students (0.28 students per unit x 315 units) to Yosemite High School. As shown in Table 5.10-1, Yosemite High School is presently under capacity. Based on correspondence with the YJUHSD, the District anticipates that the Project would not result in the need for additional facilities at Yosemite High School.

Two existing elementary/middle schools within the BLUESD would serve the proposed Project, Wasuma Elementary School (K-8) and Oakhurst Elementary School (K-5). Development of the proposed Project would generate a student population increase of approximately 95 students (0.3 students per unit x 315 units) within the BLJUESD. As shown in Table 5.10-1, Wasuma Elementary School is presently over capacity and Oakhurst Elementary School is under capacity.

Currently, enrollment in the BLJUESD is approximately 1,300 students. According to the Madera County General Plan EIR, the projected number of students in the District in 2010 is approximately 4,023. Thus, the General Plan EIR anticipates an increase of approximately 1,700 students in 2010 over current enrollment statistics. Although, the proposed project would result in student generation that would exceed the current capacities of the existing school facilities (Wasuma Elementary School and Oakhurst Elementary School) that would serve the project, the student generation has been anticipated in growth projections in the County General Plan.

Based on correspondence with the BLJUESD, existing school facilities could not accommodate the anticipated students generated by the proposed Project. Thus, physical additions to Wasuma Elementary School and/or Oakhurst Elementary School would be required to accommodate the students generated by the proposed project. To finance the modifications to existing school facilities, the Project Applicant would be required to pay fees to the YJUHSD, which are currently $2.24 per square foot of construction. The YJUHSD collects all school fees and then

divides the fees, with 40 percent going to the high school and 60 percent going to the elementary schools.

According to the Superintendent of the BLJUESD, the District is currently in the process of preparing a bond issue that would provide funding to upgrade and renovate existing school facilities, including Oakhurst and Wasuma Elementary Schools, to accommodate student population growth projected by the County's General Plan.[13] The funding from the bond issue is anticipated to be available in approximately Fall 2007. According to the Superintendent of the BLJUESD, since the proposed project would be built-out over a period of more than five years, the payment of fees, in addition to funding from future bond issues, would provide the necessary funding to upgrade Wasuma and Oakhurst Elementary Schools to accommodate the students generated by the proposed Project. Thus, according to the BLJUESD, no additional mitigation is required beyond payment of fees to address the existing school capacity deficiencies. In conclusion, payment of all applicable fees by the Project Applicant to the YJUHSD would reduce potentially significant impacts regarding schools to less than significant levels.

LIBRARIES

5.10-4 *Project implementation would increase the demand on library services. Analysis has concluded that impacts would be less than significant.*

Implementation of the proposed Project would increase the population of the service area for the Oakhurst Branch Library and would impact the size and services of the library facility. The increase in population would necessitate a proportionate increase in staffing, resources and materials. The increased demand is also anticipated to create a nominal demand for additional library space at existing library facilities. The Library does not receive funding from development fees for projects located within the unincorporated portions of Madera County. Funding is provided through grants, general fund contributions, etc. that are maintained and dispersed by the Madera County Office of the Auditor-Controller. These funding mechanisms would adequately mitigate impacts to library services and facilities to less than significant levels.

RECREATION

5.10-5 *Project implementation may increase the use of existing local and regional parks and other recreational facilities thereby creating the potential for physical affects at each facility. Analysis has concluded that impacts would be less than significant with implementation of the recommended mitigation measure.*

The proposed Project involves the development of housing that would result in a direct impact upon existing recreational facilities. The proposed Project would have the potential to increase the use of existing parks and facilities as a result of the Project-related population growth.

[13] Source: Telephone correspondence with Dr. Michael MacChesney, Superintendent of the Bass Lake Joint union Elementary School District. September 28, 2004.

The *Madera County General Plan Policy Document* has identified a park space standard of 3.0 acres of improved parkland per 1,000 residents.[14] Assuming an average household size of 3.055 persons per unit, implementation of the proposed Project has the potential to increase the unincorporated Madera County population by approximately 962 persons (315 housing units x 3.055 persons/household). In consideration of the County's target standard of 3.0 acres of parkland per 1,000 population, this population increase would create a demand for approximately 2.9 acres of parkland.

According to correspondence with the United States Department of Agriculture, Forest Service, the proposed Project would not impact any National Forest System lands or facilities.[15] Additionally, according to correspondence with the Bureau of Land Management (BLM), the proposed Project would not impact any lands or facilities managed by the BLM.[16] Future residents as part of the proposed Project would contribute to the incremental use of existing local park facilities. Since no new parks within the Project are proposed, it is concluded that the proposed Project would impact existing park and recreational facilities.

According to General Plan Policy 4.A.5, in accordance with local authority and state law (e.g., Quimby Act), Madera County would require the dedication of land and/or the payment of fees to ensure the funding for the acquisition and development of public recreation facilities. The fees are to be set and adjusted by Madera County as necessary to provide for a level of funding that meets the actual cost to provide for all of the public parkland and park development needs generated by the proposed development. The Quimby Act Fees are developers' assessments that can be used for construction of recreational facilities, including pathways, but not for on-going maintenance or general labor. Payment of property taxes and fees would provide funding for maintenance of existing park/recreation facilities.

Mitigation has been recommended that the Project Applicant shall either dedicate land and/or pay park dedication fees, pursuant to General Plan Policy 4.A.5. Implementation of recommended mitigation measure would reduce impacts park and recreation facilities to a less than significant level.

ROADWAY MAINTENANCE

5.10-6 *Project implementation would increase the demand on roadway maintenance services. Analysis has concluded that that a less than significant impact would occur with implementation of the recommended mitigation measures.*

Implementation of the proposed Project would result in the future development of 315 dwelling units beyond existing conditions. The proposed Project would include new roadways and the expansion of existing roadways. Thus, there would be an

[14] Source: Madera County General Plan Policy Document. Section 4, Recreational and Cultural Resources.

[15] Source: Letter correspondence from David Martin, District Ranger, with the United States Department of Agriculture, Forest Service. Letter dated July 1, 2003.

[16] Source: Phone correspondence with David Vaughn of the Bureau of Land Management. June 8, 2003.

increase in the demand for roadway maintenance services. According to correspondence with the Madera County Road Department, project implementation would require that Opah Drive be improved to conform to Madera County and/or Caltrans Highway Design Manual standards pertaining to horizontal and vertical site distance and structural strength requirements. Additionally, an engineering study would be requested by the Road Department for all of Maintenance District No. 46 to determine the maintenance assessment per lot required for proper road maintenance. An election would be required pursuant to Proposition 218 to adjust the annual road maintenance assessment as required, which would be adjusted annually for inflation based on the construction cost index. Implementation of the recommended mitigation measures, pursuant to the Road Department's recommended measures, would reduce potentially significant impacts in this regard to a less than significant level.

WASTEWATER

5.10-7 *Project implementation would generate additional wastewater beyond current conditions. Analysis has concluded that impacts would be less than significant with compliance to Madera County Environmental Health Department regulations regarding on-site septic systems and implementation of the recommended mitigation measures.*

Analysis of wastewater generated by the proposed Project is based upon the *Water and Wastewater Infrastructure Study* completed for the Project site by RBF Consulting, Inc. This Study was based upon two separate reports that studied how water could be served to the Sierra Meadows Estates Project site. The first report, *Sierra Meadows Development – Study of Water System Demands and Supplies*, was prepared by Provost and Pritchard in July 2002. This Report discussed anticipated water demands and supplies, proposed infrastructure components, and included a cost estimate. The second report titled *Sierra Meadows Development Water and Wastewater Planning Technical Study* was completed by Nolte Engineering, Inc. in March 2003 and discussed water demands and supplies, created a water budget, and analyzed possible water and wastewater treatment processes.

As stated in the *Existing Conditions* section above, existing residential uses (58 residences within the Ahwahnee Country Estates subdivision) in the project vicinity utilize on-site septic tanks and leach fields to handle wastewater. Currently, the proposed Project area is not connected to a public wastewater system or non-community wastewater system, nor does it have an on-site sewage disposal system. Thus, to handle wastewater from future residential uses, the Project proposes to construct an on-site wastewater treatment plant (WWTP). For purposes of this analysis, wastewater generation is calculated as equivalent to the internal water use. All lots in Phases 2 through 12 (287 lots), regardless of size, would be placed on the community water system. The remaining 28 lots, included within Phase 1 of the proposed Project, which are larger than five (5) acres in size, would have septic tanks to handle wastewater flows. As shown in Table 5.10-2, *Wastewater Flows*, at full build-out the WWTP must have a capacity to treat at least approximately 130,000 gallons of wastewater per day.

Table 5.10-2
Wastewater Flows*

Dwelling Units	Factor	Average Flow		Peak Flow1	
-	(gpd/du)	(gpd)	(gpm)	(gpd)	(gpm)
287	300	86,100	60	129,150	90

Note:
* Wastewater generation equals internal water demand, therefore the Internal - Water Demand Peak of 1.5 was used.

The Nolte report outlines a proposed location for the wastewater treatment plant adjacent to Payne Stewart Court, within the area of the golf course. The plant would treat all generated wastewater from the proposed development to full Title 22 standards. The WWTP should be sized to serve the peak estimated flow, or include a forebay for inlet flow equalization. The reclaimed effluent from the plant would be used for supplemental golf course irrigation. It is assumed that a discharge permit would be obtained for permanent discharge to an existing golf course lake for supplemental golf course irrigation.

In conclusion, the WWTP must have a capacity to treat at least 130,000 gallons of wastewater per day. Additionally, recycled water from the WWTP could be used for supplemental golf course irrigation. Installation of septic tanks would be subject to the requirements of the Madera County Environmental Health Department. Compliance with all Madera County Environmental Health Department regulations pertaining to the design, siting and operation of on-site septic systems and implementation of the recommended mitigation measures would ensure that wastewater impacts are reduced to less than significant levels.

WATER

5.10-8 *Project implementation would increase the demand for water beyond existing conditions. Analysis has concluded that, with implementation of the recommended mitigation measures, impacts would be less than significant.*

Similar to the impact discussion under the *Wastewater* section above, analysis of water in this section is based upon the *Water and Wastewater Infrastructure Study* completed for the Project site by RBF Consulting, Inc. This Study was based upon two separate reports: the *Sierra Meadows Development – Study of Water System Demands and Supplies* and the *Sierra Meadows Development Water and Wastewater Planning Technical Study* (refer to impact discussion in the *Wastewater* section above for information regarding these two reports).

The proceeding water analysis is reflective of buildout conditions of Madera County Maintenance District No. 46, which would include the proposed Sierra Meadows project. Currently, the golf course and 105 dwelling units that exist in the study area are served water from the Maintenance District No. 46 system. Local groundwater

wells presently serve as the source of water for the system. The ultimate Maintenance District facilities (as shown in the Sierra Meadows and Maintenance District 46 – Water Balance Calculations performed by Nolte Associates, Inc.) would include the golf course, clubhouse and expansion to 105 dwelling units (not including the 315 dwelling units associated with the proposed project). Therefore, ultimate buildout of Maintenance District No. 46 and Sierra Meadows facilities would include 420 dwelling units, a golf course and the clubhouse.

The proposed Project would be built on land with existing riparian and appropriative water rights and, in addition, prospective appropriative water rights that are pending before the State Water Resources Control Board. The main source for the Project would be Miami Creek surface water. Local groundwater is proposed to provide supplemental water supply, as necessary. The proposed Project includes the installation of water treatment plant to provide a potable water supply for future residents. The wastewater treatment plant would be subject to all applicable water quality standards and requirements of the Regional Water Quality Control Board and/or the Madera County Environmental Health Department.

Water Demand

The water demand factors used for this study are based on the Water Balance Calculations performed by Nolte Associates, Inc., which use the Madera County Standard of an average flow of 1 gpm per dwelling unit from October through May, and 1.3 gpm per dwelling unit from June through September. That equates to an average demand of 1,548 gallons per day (gpd) for each residence, for internal and external uses. For the purposes of this analysis, an internal (indoor) demand of 300 gpd per dwelling unit is assumed. The remaining 1,248 gpd per resident is the average external (irrigation) demand for each residence. According to the Provost and Pritchard report, peak water usage factors are 1.5 times average day for internal use and 2.0 times average day for external use. The estimated average and maximum-day demands for the ultimate buildout of Maintenance District No. 46 facilities, which includes the proposed project, are calculated in Table 5.10-3, *Maintenance District No. 46 Residential Water Demands (at Buildout)*.

Table 5.10-3
Maintenance District No. 46 Residential Water Demands (at Buildout)

Dwelling Units	Internal Demand Factor	External Demand Factor	Internal Avg. Demand	External Avg. Demand	Total Avg. Demand		Internal Max Day Demand[1]	External Max Day Demand[2]	Total Max Day Demand
-	(gpd/du)	(gpd/du)	(gpd)	(gpd)	(gpd)	(AF/yr)	(gpd)	(gpd)	(gpd)
420	300	1,248	126,000	524,160	650,160	728	189,900	1,048,320	1,237,320

1 Internal Use Peaking Factor = 1.5
2 External Use Peaking Factor = 2.0

Water Supply

The rights to the water of Miami Creek are referenced to a *Water Location Notice* filed with Madera County on September 18, 1893 by Edwin J. Leonard. Mr. Leonard intended to divert the water by means of a dam and ditch for purposes of water stock and general domestic and household purposes on his ranch. The *Water Location Notice* is recorded in Volume 1 of Water Rights page 15 et. seq. of Madera County Records. The Miami Creek varies in flow throughout the year and is dependent upon precipitation and snowmelt within the tributary watershed. As a condition for development, the proposed Project is not limited to a particular quantity, but water supplies from Miami Creek may not be sufficient during all summer months because a minimum of 0.5 cubic feet per second (or the entire amount, if less than 0.5 c.f.s. is flowing) must be maintained in Miami Creek.

The Miami Creek surface water would require treatment for potable water use. There are also several wells located with the Sierra Meadows project area. Based upon the Nolte Report, the existing Maintenance District No. 46 groundwater wells have the capacity to provide the proposed project with a constant 150 gpm. It is understood that an additional 150 gpm from Sierra Meadows wells would be available to the proposed Project. To meet water demands during the summer months, supply must come from storage and/or groundwater. Table 5.10-4, *Maintenance District No. 46 at Buildout - Water Budget For First Drought Year*, is based on the Water Budget provided by Nolte Associates and shows the groundwater and storage capacity necessary for the proposed Project.

Table 5.10-4[1]
Maintenance District No. 46 at Buildout – Water Budget For First Drought Year

Month	Miami Creek Supply (AF)	Existing M.D. #46 Groundwater (AF)	Proposed Sierra Meadows Groundwater (AF)	Potential Reclaimed Wastewater (AF)	Total Supply (AF)	Total Demand (AF)	Required Storage (AF)
Jan	68.07	20.55	20.55	8.19	117.36	57.53	59.83
Feb	46.51	18.56	18.56	7.66	91.29	51.96	99.16
Mar	65.62	20.55	20.55	8.19	114.91	57.53	156.54
Apr	30.83	19.89	19.89	7.92	78.53	55.67	179.4
May	76.05	20.55	20.55	8.19	125.34	76.47	228.27
Jun	18.35	19.89	19.89	7.92	66.05	98.41	195.91
Jul	0	20.55	20.55	8.19	49.29	110.48	134.72
Aug	0	20.55	20.55	8.19	49.29	105.98	78.03
Sep	0	19.89	19.89	7.92	47.7	105.86	19.87
Oct	9.15	20.55	20.55	8.19	58.44	76.47	1.84
Nov	14.2	19.89	19.89	7.92	61.9	55.67	8.07
Dec	23.26	20.55	20.55	8.19	72.55	57.53	23.09
Total	352.04	241.97	241.97	96.45[2]]	932.43	909.55	-

1 Based on the Sierra Meadows and Maintenance District # 46 – Water Budget Balance Calculations performed by Nolte.
2 Based on 100 percent treatment plant efficiency

Based on Table 5.10-4, a minimum of 230 acre-feet of usable storage is required for supplying water at Buildout of Maintenance District No. 46 during the first of two consecutive drought years (refer to "Required Storage" for May). However, under two successive drought years, the water budget calculations prepared by Nolte Associates indicate that 300 acre-feet of operational storage would be required for supplying water at Buildout of Maintenance District No. 46. Currently, 93 acre-feet of storage is available onsite. However, the current site plan provided by Nolte Associates includes approximately 210 acre-feet of usable storage in a proposed water reservoir, which in addition to the existing water storage facilities yields approximately 309 acre-feet of water storage. Thus, the operational storage requirement to supply Maintenance District No. 46 with water at full buildout under consecutive drought years would be met by the proposed 210-acre-foot water reservoir.

As shown in the water budget in Table 5.10-4, a third available water source is reclaimed water provided from the wastewater treatment plant. For the 287 dwelling units of the project proposed for sewer service, the calculated average wastewater flow is 86,100 gallons per day (gpd), or approximately 96 acre-feet annually. However, effluent capacity is assumed to be a maximum of 75 percent yield, or approximately 64,575 gpd (72 acre-feet per year). With a maximum-day residential irrigation demand estimated at approximately 957,000 gpd, it would not be feasible to utilize the reclaimed water for residences. This water instead would be discharged to the golf course lake(s), which would supplement golf course irrigation.

Table 5.10-5, *Maintenance District No. 46 (at Buildout) - Modified (Actual) Supply and Demand*, illustrates the modified or actual supply and demand table for Maintenance District No. 46 at buildout, which reflects lowered reclaimed water production. The wastewater treatment plant is anticipated to have a 75 percent treatment efficiency. It should be noted that the Miami Creek water supply in the Water Budget is based upon the most severe drought year of record (1977). During such a drought year, it is understood that golf course demands would be cut back to ensure that demands would not exceed supply.

The Sierra Meadows water distribution system must be a self-sufficient system as due to its isolated location there are no facilities available for inter-connection. The proposed supply to the site, as presented in Table 5.10-5, is sufficient to meet the average yearly and monthly peaking demands during a drought season, through cutback of golf course irrigation. In order to meet demands during the dry months, additional water would be drawn, as shown in Table 5.10-4, so that water supplies would be available in the months of July and August when no Miami Creek supplies may be withdrawn. Both the supply sources and demands are shown in Table 5.10-5.

In conclusion, according to water supply and demand data, described above, there would be available water supply from Miami Creek, groundwater (wells) and reclaimed water from the wastewater treatment plant to supply water to Maintenance District No. 46 at buildout, which was analyzed under consecutive drought year periods. This assumes that during a drought season, golf course irrigation would be cut back approximately 50 percent. However, 300 acre-feet of operational water storage would be required to meet the water demands of the Maintenance District

No. 46 during consecutive drought years. The proposed Project includes a proposed reservoir with a 210-acre-foot water storage capacity. The proposed water reservoir along with the existing ponds (93 acre-feet) would provide approximately 309 acre-feet of water storage, which would satisfy the necessary water storage required under consecutive drought year conditions. It is also noted that reductions to golf course irrigation would occur during drought periods, to the maximum extent feasible, as determined by the golf course operator. Mitigation has been recommended that 210 acre-feet of water storage beyond existing conditions (93-acre feet of water storage) be included as part of the proposed project. Implementation of the recommended mitigation measures would reduce water supply impacts to a less than significant level.

Table 5.10-5[1]
Maintenance District No. 46 (at Buildout) – Modified (Actual) Supply and Demand

Description	Project Supply		Average Day Demand	
	(gpd)	(AF/yr)	(gpd)	(AF/yr)
Miami Creek	370,080	352		
Sierra Meadows Groundwater	216,000	242		
Maintenance District 46 Groundwater	216,000	242		
Treated Effluent	64,575	72[4]		
Sierra Meadows Lots (315 lots)			487,620	546
Golf Course[2]			283,873	317 / 178[3]
Maintenance District #46 (105 lots)			162,540	182
Total – Without 50% Golf Course Irrigation Reduction	866,655	908	934,033	1,045
Total – With 50% Golf Course Irrigation Reduction	--	--	792,737	906[5]

1 Based upon the Sierra Meadows and Maintenance District #46 – Water Balance Table by Nolte.
2 Per Water Balance Calculations, golf course irrigation only performed from May to October.
3 Per Water Balance Calculations, a 50 percent cutback of golf course irrigation from June to September is deemed possible for meeting drought conditions. Total demand for the golf course under 50% cutback is 178 acre-feet.
4 Based on 75% treatment plant efficiency
5 Demand based upon 178 acre-feet golf course irrigation demand per [3].

SOLID WASTE

5.10-9 *Development of the Project area would result in increased solid waste generation. Project compliance with the Integrated Waste Management Plan for the Madera County would reduce the amount of solid waste that is ultimately disposed of at the Fairmead Landfill and maintain potential impacts at a less than significant level.*

According to Emadco Disposal Service, residences in the Project area dispose of approximately 48 pounds of waste per service day (one day per week). Waste hauling services are provided an average of 4.2 times per month, which equates to 202 pounds of waste generated per residence each month or 2,424 pounds of waste generated per residence each year. Based on the generation factors calculated from waste disposal statistics provided by Emadco Disposal Service and a maximum occupancy scenario of 315 dwelling units, the proposed Project would generate an estimated 382 tons of solid waste per year (2,424 pounds/household/year x 315

dwelling units). This projected increase in solid waste generation would increase the demand to provide disposal service and would impact the capacity at the Fairmead Landfill. Further, this increased solid waste generation would incrementally shorten the lifespan of the Fairmead Landfill. Under existing State permits, the landfill has sufficient capacity to accommodate the disposal of solid waste at least to the year 2013.

It is anticipated that the Project's estimated volume of solid waste generation would be reduced through the storage and collection of recyclables. In an effort to meet diversion rate requirements, the County is considering a "Blue Bag" program. The Blue Bag program is common in unincorporated areas that do not have mandatory recycling programs. The program involves solid waste generators (i.e., residents) placing various recyclable materials into different colored bags so that when the recyclables are sorted out of the solid waste, there is increased efficiency and recovery rate.

According to correspondence with Emadco Disposal Service, solid waste collection services would be provided to future residents in the Project area through the incremental expansion of existing services and facilities. Additionally, it should be noted that the volume of the Project's solid waste, which would be disposed of at the Fairmead Landfill, would be further reduced due to the requirements of AB 939. Therefore, implementation of the proposed Project would result in a less than significant impact with respect to solid waste.

ELECTRICITY

5.10-10 *Project implementation would result in an increased demand for electrical service beyond existing conditions and would require expansion of the existing electrical system. Analysis has concluded that with implementation of the recommended mitigation, impacts would be less than significant.*

The proposed Project would require the installation and expansion of electric facilities to service the site. PG&E has indicated that the electrical demand created by implementation of the proposed Project is within the parameters of the projected load growth that PG&E is planning to meet in the Project area. [17]

To promote the safe and reliable maintenance and operation of utility facilities, the California Public Utilities Commission (CPUC) has mandated specific clearance requirements between utility facilities and surrounding objects or construction activities. To ensure compliance with these standards, the Project Applicant would need to coordinate with PG&E in the early planning stages of the Project. The proposed Project would need to provide unrestricted utility access and prevent easement encroachments that might impair the safe and reliable maintenance and operation of PG&E's facilities.

Some examples of activities that could have an impact upon PG&E facilities include permanent and/or temporary changes in the grade under PG&E facilities;

[17] Source: Letter correspondence from Tom Johnson, Land Agent, Pacific Gas and Electric. June 27, 2003.

construction of structures within or adjacent to a PG&E easement; and planting of certain types of vegetation under PG&E facilities.

The Project Applicant would be responsible for the costs associated with any relocation of existing PG&E facilities to accommodate the proposed Project. Because facility relocation's require long lead times and are not always feasible, the Project Applicant is encouraged to consult with PG&E as early in the planning stages as possible.

Expansion of electrical distribution and transmission lines and related facilities are necessary to accommodate the Project. In addition to adding new distribution feeders, the range of electric system improvements needed to accommodate the Project may include upgrading existing substation and transmission line equipment, expanding existing substations to their ultimate buildout capacity, and building new substations and interconnecting transmission lines.

As stated above, PG&E would expand its existing facilities to provide electrical service to Project. Implementation of the recommended mitigation would ensure that potentially significant impacts regarding electrical service is reduced to a less than significant level.

NATURAL GAS

5.10-11 *Project implementation would result in an increased demand for natural gas service beyond existing conditions. Analysis has concluded impacts would be less than significant.*

As stated in the Existing Conditions section, gas is provided to residences in the surrounding project area via individual propane tanks. Similar to the surrounding residential uses, the proposed Project would include the use of individual propane tanks to provide gas for residential uses. Propane service would be provided per service agreements established between each residence and the Ferrellgas Company. According to correspondence from the Ferrellgas Company, it has the necessary resources to provide propane gas service to the proposed Project.[18] No expansion of existing Ferrellgas Company facilities would be required. Thus, it is concluded that impacts regarding natural gas service are less than significant.

CUMULATIVE IMPACTS

5.10-12 *Cumulative development could result in an increased demand for public services and an increase in the consumption rates for public utilities, potentially requiring expansions of the existing utility systems. Analysis has concluded that cumulative development is subject to standards and requirements of reviewing agencies and impacts would be less than significant.*

[18] Source: Phone correspondence with Monique Sanderson, Office Manager, of Ferrellgas Company. October 8, 2004.

According to the Madera County General Plan EIR, development projected through 2010 in Madera County, would result in potentially significant impacts to water resources within the County due to the uncertainty of water supply in the mountains and foothills. However, the General Plan EIR states that development of a surface water supply would address this issue, but would be extremely difficult to accomplish and finance. Since the proposed project would rely primarily upon surface water from Miami Creek, it would not significantly contribute to cumulative impacts to groundwater resources.

The General Plan EIR concludes that development of one or more wastewater treatment plants to serve areas where cumulative impacts of septic systems on groundwater quality is a concern and would mitigate this impact to a less than significant level. Since the feasibility of this unknown, the General Plan EIR concludes that wastewater impacts are potentially significant. The proposed project would include a wastewater treatment plant. The on-site septic tanks would be subject to all Madera County Environmental Health Department regulations pertaining to the design, siting and operation of on-site septic systems. Additionally, mitigation measures have been recommended that would require a leech field study and a testing program for coliform bacteria and other possible pollutants for all on-site wastewater systems. With implementation of the recommended mitigation measures, the proposed project would not significantly contribute to cumulative wastewater impacts.

The General Plan EIR concludes that development projected by the General Plan through 2010 would have a significant impact if demand for school facilities exceed available capacity, without the ability to develop adequate schools to serve new demand, or if growth under the General Plan would result in larger class sizes or lower levels of educational services. Although, some schools within the affected school district are presently over capacity or would exceed capacity, the school district has stated that through future bond issues and project-related development fees, school facilities would be expanded to accommodate the project-generated students. Thus, the proposed project would not significantly contribute to cumulative impacts to school facilities.

In regards to solid waste, police protection services, fire protection services, and non-municipal utility services, the General Plan EIR concludes that implementation of the General Plan polices and programs, the impact of new development would be a less than significant impact.

Overall, in relation to the cumulative development outlined in Section 4.0, *Basis for Cumulative Analysis*, the proposed Project would cumulatively contribute to an increased demand for fire, police, schools, libraries, roadway maintenance, water, sewer, solid waste, and energy utilities. The proposed Project and related projects would add to the cumulative demand for such services through the introduction of new residents and users of the proposed facilities. However, this growth has been considered for in the Madera County General Plan. The site is located in an area that is served by all energy utilities and other public services (i.e., police, fire, schools and solid waste). Water and wastewater services and facilities would be provided through onsite systems, including a wastewater treatment plant and water treatment plant. Existing facilities can be extended into the area to serve the proposed

development. Since the respective providers of public services and facilities have indicated that the Project's incremental impacts can be sufficiently mitigated, cumulative impacts on public services and utilities anticipated to result from this development are not considered to be significant.

MITIGATION MEASURES

This section directly corresponds to the identified Impact Statements in the impacts subsection.

FIRE PROTECTION

5.10-1a In addition to development impact fees imposed on a per dwelling unit basis, the Project Applicant shall pay impact fees (per California Government Code Section 66000 et. seq. (AB 1600)) to provide for the expansion of existing facilities, equipment and staffing for a permanent, full-time career fire fighter at Ahwahnee Station No. 16. This fee shall be determined through an agreement between the Project Applicant and the Madera County Fire Department in cooperation with the California Department of Forestry and Fire Protection.

5.10-1b Fire flows shall be a minimum of 1,000 gallons per minute at 20 residual pounds per square inch (psi) for two hours duration, per Appendix IIIA and 901.3 of the Uniform Fire Code.

POLICE PROTECTION

5.10-2 No mitigation measures are recommended.

SCHOOLS

5.10-3 No mitigation measures are recommended.

LIBRARIES

5.10-4 No mitigation measures are recommended.

RECREATION

5.10-5 The Project Applicant shall be required to dedicate land and/or pay park dedication fees to ensure the funding for the acquisition and development of 2.9 acres of improved parkland. The fees are to be set by Madera County to provide for a level of funding that meets the actual costs to provide for all of the public parkland and park development needs generated by the proposed project.

ROADWAY MAINTENANCE

5.10-6a Opah Drive shall be improved to conform to Madera County and/or Caltrans Highway Design Manual standards pertaining to horizontal and

vertical site distance and structural strength requirements. Prior to final map approval, the Madera County Road Department shall review and approve the proposed improvements to Opah Drive.

5.10-6b An engineering study shall be conducted for all of Maintenance District No. 46 to determine the maintenance assessment per lot required for proper road maintenance. The study shall be reviewed and approved by the Madera County Road Department prior to final map approval. In accordance with the findings of the study, an election shall be requested by the Road Department pursuant to Proposition 218 to adjust the annual road maintenance assessment, which would be adjusted annually for inflation based upon the construction cost index.

WASTEWATER

Refer to Mitigation Measures 5.8-4a and 5.8-4b. The following mitigation measure is also recommended:

5.10-7 The project shall include a Waste Water Treatment Plant (WWTP) that has a minimum treatment capacity of 130,000 gallons per day. Recycled water from the WWTP shall be used for irrigation of the golf course only.

WATER

5.10-8 The project shall include a water reservoir that has a minimum operational/usable capacity of 210 acre-feet. The design and operational capacity of the reservoir shall be reviewed and approved by Madera County and the California Department of Water Resources Division of Safety of Dams (DSOD).

SOLID WASTE

5.10-9 No mitigation measures are recommended.

ELECTRICITY

5.10-10 Prior to final map approval, Madera County in cooperation with Pacific Gas and Electric (PG&E), shall verify that the site plan provides for unrestricted utility access and does not include easement encroachments that might impair the safe and reliable maintenance and operation of PG&E's facilities.

NATURAL GAS

5.10-11 No mitigation measures are recommended.

CUMULATIVE IMPACTS

5.10-12 No mitigation measures are recommended.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No unavoidable significant impacts related to public services and utilities have been identified following implementation of the recommended mitigation measures and compliance with applicable County, service or utility provider requirements, and County Codes and Ordinances.