Upper Fresno River Watershed

Background

The Fresno River, located in Central California, is the most southerly of the major east-side tributaries of the San Joaquin River. It rises on the western slopes of the Sierra Nevada and flows in a southwesterly direction through the mountains and foothills and across the valley floor via the eastside bypass to the San Joaquin River.[1]

The Upper Fresno River watershed drainage area above Hidden Dam at Hensley Lake consists of 234 square miles of mountainous and foothill terrain. It is about 33 miles in length and about 7 miles in width, and ranges in elevation from about 7,000 feet at the headwaters to about 400 feet at the dam. The streams flow in steep narrow canyons that have slopes ranging from 300 feet per mile in the headwaters areas to about 20 feet per mile near the reservoir. [1]

Soils in the area are predominantly decomposed granite and range in depth from shallow at high elevations to moderate at low elevations. Vegetation ranges from relatively dense, coniferous forests to open grasslands. [1]

The Fresno River Basin has a temperate, semiarid climate characterized by cool, wet winters and warm, dry summers. Precipitation characteristics of the Fresno River Basin are significantly affected by topography. Normal annual precipitation varies from 50 inches in the headwater areas to about 15 inches at Hidden Dam. About ninety percent of runoff-producing precipitation occurs during the period from November to April. [1]

Tributaries

Tributaries that feed the Fresno River include Lewis Creek, Nelder Creek, Redwood Creek, China Creek, Oak Creek, Miami Creek, Petersen Creek, Crooks Creek, Carter Creek, Spangle Creek, and Coarsegold Creek.

1. United States Corps of Engineers, “USCOE, Hidden Lake, Fresno River Reservoir Regulation Manual,” March 1975.

Community Information

The Upper Fresno River watershed includes the unincorporated communities of Oakhurst, Ahwahnee, Coarsegold, Sugar Pine, Cedar Valley, Yosemite Forks, Nippinawassee, Knowles, and Raymond. The area has been identified as a "High Fire Threat" area by CDF. The communities of Oakhurst, Ahwahnee, and Nippinawassee have also been identified as "Communities Within the Vicinity of Federal Land That are at High Risk from Wildfire"' per the *Federal Register:* January 4, 2001 and May 1, 2001. The watershed is completely within Madera County. The major thoroughfares within the watershed are Highways 41 and 49.

Development within the watershed includes community water supplies and sewage treatment systems, as well as individual wells, and individual septic systems. The opening of the Oakhurst Wastewater Treatment Facility in April of 2006 was finally achieved after nearly ten years in the making. This project is maintained by the Maintenance District 22A and has the ability to process 550,000 gallons of wastewater per day. There are also additional smaller community water supplies and sewage treatment systems in Bass Lake, Goldside, Chukchansi Gold Casino, Yosemite Lakes Parks, Indian Lakes, and the Oak Creek Adult Community in Coarsegold. Water Companies are Bass Lake Water Company, Beasore Meadows Water Company, Broadview Terrace Mutual Water Company, Fish Camp Mutual Water Company, Hillview Water Company, and Yosemite Forks Mutual Water Company.

Through several grants, the Coarsegold Resource Conservation District and Eastern Madera County Fire Safe Council, under a written memorandum of understanding, have received funding to reduce fuels and create firebreaks in the Upper Fresno River watershed. The projects have reduced fuels on privately-owned lands by soliciting landowner participation in programs for vegetation restoration, erosion control, and construction and extension of fuel breaks. Projects vary from controlled burns to hand clearing. In all, approximately 5,400 acres have been treated, and 72 miles of fuel breaks have been built in the watersheds of the Fresno and San Joaquin Rivers through November 2001. Additional funds of $1.8 million have been received by Eastern Madera County FireSafe Council to continue fuel breaks, brushing projects, and education and outreach for fire safety and fuel control. (see *Activity in the Watershed*)

In 1992, the Oakhurst River Parkway, a grassroots effort, was formed to protect and restore the Fresno River watershed. The purpose of the Oakhurst River Parkway (ORP) project is to continue to bring the Fresno River and Oak and China Creeks, in the Oakhurst basin, back to

a level of stability similar to that experienced before intensive development occurred along the river and in the surrounding watershed. The entire area is typified by granitic, sandy soils which exhibit high erosion levels when disturbed. Potential damage to property from floods and erosion has been, and will continue to be reduced. To date, over 3 miles of Oak and China Creeks and the Fresno River have been restored and/or protected from urbanization. Restoration includes removal of trash; installation of culverts, pond levelers, drainage systems, and stabilizing materials; planting of native vegetation; construction of wood and rock retaining walls; removal of old building foundations; regrading slopes to a 2 to 1 ratio; and removing a 40' by 100' eroded concrete wall. (Contact: ORP Chairman Sandy Brinley at 559.683.7027).

Planning within the Watershed

Madera County has a general plan, which includes the entire Fresno River watershed. The Ahwahnee Area Specific Plan, which includes portions of the watershed, was adopted in 1999. The 1980 Oakhurst Area Specific Plan was updated and approved in July of 2005, and the Coarsegold Area Plan was approved as the Area Specific Plan in June of 2006. Both of these plans include portions of the Fresno River watershed.

The Fish Camp Town Specific Plan was first adopted in 1983, and amended in 1988 and 1989. The SilverTip Resort project proposal may result in an amendment during 2002. The Plan covers 280 acres. The Planning Advisory Committee meets as needed to review local projects.

In June 2004, the Chowchilla Resource Conservation District won a three year grant from the California Department of Conservation (DOC) to hire a watershed coordinator to ensure long-term sustainability in the Upper Fresno Watershed. According to the DOC, this grant is the second phase of a successful pilot program and will enable the recipients to hire watershed coordinators for a three-year period. This grant for a watershed coordinator was to help assess the watershed - the area drained by a river or river system - and help bring together local government, landowners, and community groups through outreach, education, and partnerships in order to improve the health of the watersheds. The focus is on education of the community and the creation and completion of projects related to water use education and conservation, noxious weeds, and fuel loads/fire safety.

The Chowchilla/Red Top Resource Conservation District's *Long Range Plan* covers a part of this watershed. Priority resource concerns include: water, arundo eradication, urban sprawl,

air quality, and topsoil depletion. The Coarsegold Resource Conservation District's *Long Range Plan* covers a part of this watershed. Its priority resource concerns are: water, soil, forest health, utilization, fuels management, and conservation education.
Other plans include the USFS Sierra National Forest Ecosystem Management Plan 2001, USFS Sierra National Forest Land and Resource Management Plan 1991, as amended by the Sierra Nevada Forest Plan: Sierra Framework 2001, which is on the web and available as a three-volume CD. The Sierra Framework document has fuel-loading maps. The Sierra National Forest has other plans that cover lands within its jurisdiction (31,278 acres). California Department of Forestry & Fire Protection has a Pre-Fire Management Plan 2000, that covers all portions of the watershed.

The Department of Water Resources produced "Bulletin 135, Madera Area Investigation" in 1966. The *Water Quality Control Plan for the Sacramento and San Joaquin River Basin*, adopted by the Regional Water Quality Control Board, describes the beneficial uses and water quality objectives for the Fresno River.

Madera County won a 205j grant, which will fund a monitoring program and provide a nutrient reduction plan to improve problem areas. The eventual goal is to develop a citizen monitoring program (See Committee Overview, page 8).

A water quality management plan/report was completed in 1979 by George Nolte & Associates, under contract to Merced County, in which questionnaires were sent to Oakhurst residents. The report identifies septic tank problems, high chloride, and runoff from the wastewater treatment plant to the Fresno River. There was also a study completed in 1968 by the Madera County Planning Department regarding sewer service for the Oakhurst area.
Through the County of Madera, Engineering and General Services, the *Groundwater Conditions – Eastern Madera County* report was completed in March of 2002. This was prepared by Todd Engineers of Emeryville, CA, and was written as the "Madera County Foothills/Mountain Region Groundwater Management Plan".

In 2003, the Action Committee To Incorporate Oakhurst Now (A.C.T.I.O.N.), wrote an ESR based on a review of the data, analysis, results, and recommendations of the report generated by the Madera County Resource Management Agency. This report addresses development in the Oakhurst Area related to water issues and provides an independent assessment of the results and conclusions that were used to formulate the report.

Ken Schmidt and Associates of Fresno completed the *Groundwater Conditions in the Oakhurst Basin – AB303 Study* for Madera County in October of 2005. In recognition of their extensive knowledge of the Oakhurst Basin's unique fractured rock system, Kenneth D. Schmidt & Associates was retained by the County to complete this study. Its purpose was to collect and analyze information regarding quality and quantity of ground water in the Oakhurst Basin.

The California Water Institute of California State University Fresno was chosen by Madera County to do a two year water monitoring study of the Fresno River. The information was prepared for the California State Water Resources Control Board and was completed in July 2004.

Additional information regarding the watershed can be found at the EPA Web Site http://cfpud1.epa.gov/surf/huc.cfm?huc_code 18040007; usgs.com; Fresno River Hydrologic Area 539.10, USGS Cataloging Unit 18040007-Upper Chowchilla-Upper Fresno. Also at: www.cfwatershed.org and www.crcd.org .

Beneficial Uses

The following beneficial uses have been designated for the Upper Fresno River, source to Hidden Dam: flood control, municipal and domestic water supply, irrigation, water contact and non-contact water recreation, warm water habitat, cold water habitat, and wildlife habitat.

Permitted Facilities in the Upper Fresno River Watershed

Facilities for: Upper Fresno
USGS Cataloging Unit: 18040007

Facility ID	Facility Name	Facility Address	Water-shed	Primary Water Source
CA2000585	51167 Rd 426 Oakhurst 93644	Madera, CA	Fresno	
CA2000558	A M Park Water Company	CA	Fresno	Ground water
CA2000617	Ahwahnee Hills School	Madera, CA	Fresno	
CA2000522	Ahwahnee Inn	Madera, CA	Fresno	
CA2000537	Ahwahnee Quik Mart	CA	Fresno	
CA2000572	Al's Place (out of business)	Madera, CA	Fresno	Ground water
CA2000627	Black Hawk Lodge (Coarsegold Creek)	Coarsegold,CA	Fresno	
CA2000731	Black Hawk Lodge (Coarsegold Creek)	Coarsegold,CA	Fresno	
CA2000735	Bluff Drive Water Company	Madera, CA	Fresno	
CA2000521	Broadview Terrace Water Co	CA	Fresno	
CA2000744	Cady Shack lounge (now Miller and Smith	Madera, CA	Fresno	

	Accounting Firm)			
CA2000508	Calvin Crest Conference Center	CA	Fresno	
CA2000564	Camp Pacifica	CA	Fresno	
CA2000560	Camp Sugar Pine	CA	Fresno	
CA2000809	Coarsegold Mini Mart/C&B	Madera, CA	Fresno	
CA2000611	Coarsegold School	CA	Fresno	
CA2000631	Coarsegold Wine Center (out of business)	Madera, CA	Fresno	
CA2000849	Dillon Estates MD #60	Madera, CA	Fresno	
CA2000819	Double D Miners Camp (Coarsegold)	Madera, CA	Fresno	
CA2000577	El Cid Mexican Cuisine	CA	Fresno	
CA2000684	Elks Lodge #2724	CA	Fresno	
CA2000635	Forty One Motel (out of business)	Madera, CA	Fresno	
CA2000719	Gateway Christian School	CA	Fresno	
CA2000565	Glenwood Acres Mutual Water Co	Oakhurst, CA	Fresno	Ground water
CA2000839	Heartland Opportunity Center	Madera, CA	Fresno	
CA2000555	Hensley Lake - Hidden Dam	CA	Fresno	
CA2000814	Hensley Lake Headquarters	Madera, CA	Fresno	
CA2000596	High Sierra RV & MH Park (Oakhurst)	Madera, CA	Fresno	
CA2000520	Hills Pride Inn (Knowles)	Madera, CA	Fresno	
CA2010013	Hillview Water Co-Coarsegold	CA	Fresno	
CA2010014	Hillview Water Co-Goldside Hil	CA	Fresno	
CA2010012	Hillview Water Co-Raymond	CA	Fresno	
CA2010007	Hillview WC-Oakhurst/Sierra Lakes	CA	Fresno	
CA2000815	Hitching Post Saloon	Madera, CA	Fresno	
CA2000816	Holiday Shops (OAKHURST, CA 93644)	Madera, CA	Fresno	Ground water
CA2000575	Hrdlicka (out of business)	Madera, CA	Fresno	Ground water
CA2000840	Indian Springs Children Center	Madera, CA	Fresno	
CA2000817	Jade Gazebo	Madera, CA	Fresno	
CA2000559	Joseph Smith Water Company (PO Box 231 Coarsegold, CA 96314)	Madera, CA	Fresno	Surface Water
CA2000803	Katie's Country Kitchen	Madera, CA	Fresno	
CA2000574	Mad Bear Café (out of business)	CA	Fresno	Ground water
CA2010011	Madera Co SA #1-Indian Lakes	CA	Fresno	
CA2000557	Miami Creek Knolls Dist #43	CA	Fresno	
CA2000605	Moulton's Mountain (out of business)	CA	Fresno	Ground water
CA2000581	Mountain Chicken (out of business)	Madera, CA	Fresno	Ground water
CA2000820	Neufeld's Ahwahnee Store (replaced w/ new business)	Madera, CA	Fresno	
CA2000594	Nugget (now Alfonso's Mexican Restaurant) (Coarsegold)	CA	Fresno	
CA2000614	Oak Creek Intermediate School	CA	Fresno	
CA2000841	Oak Park Church of Nazarene	Madera, CA	Fresno	
CA2000743	Oak Room, The	Madera, CA	Fresno	
CA2000821	Oakhurst Christian Conf Center	Madera, CA	Fresno	
CA2000613	Oakhurst Elementary School	CA	Fresno	
CA2000582	Oakhurst Market (now Golden Oak Auto Parts)	Madera, CA	Fresno	
CA2000842	Oakhurst Ranger Station	Madera, CA	Fresno	
CA2000583	Oakhurst Shopping Center	Madera, CA	Fresno	
CA2000822	Ol' Nip Outlaw Steakhouse (out of business)	Madera, CA	Fresno	
CA2000632	Old Coach Stop (out of business)	Madera, CA	Fresno	Ground water
CA2000578	Pete's Place, Oakhurst	CA	Fresno	
CA2000619	Raymond Granite Company	CA	Fresno	
CA2000824	River Creek Golf Course Club House	Madera, CA	Fresno	
CA2000844	Rivergold School	Madera, CA	Fresno	
CA2000700	Rustic Pine Lodge (now Comfort Inn)	Madera, CA	Fresno	

CA2000848	Sand Castle Day Care (COARSEGOLD,	Madera, CA	Fresno	Ground water
CA2000630	Sawyers General Store, Raymond	Madera, CA	Fresno	
CA2090745	Shannon Turtle Creek Water Sys (35234 HWY 41 CGOLD,	Madera, CA	Fresno	Ground water
CA2000640	Sierra Meadows Hospital	CA	Fresno	
CA2000636	Sierra Sky Ranch Water System	CA	Fresno	
CA2000829	Silver Creek Center	Madera, CA	Fresno	
CA2000832	SKP Park of the Sierras Inc.	Madera, CA	Fresno	
CA2000524	Sky Acres Mutual Water Corp	CA	Fresno	
CA2000648	Snowline Lodge Motel	CA	Fresno	
CA2000571	Snowline Restaurant (now Second Chance thrift store)	CA	Fresno	
CA2000533	Sugar Pine Homeowners Assoc	CA	Fresno	
CA2000851	Sunset Ridge Estates Dist #40 (Coarsegold	Madera, CA	Fresno	Ground water
CA2000543	The Broken Bit (out of business)	Madera, CA	Fresno	
CA2000580	The Midway Center (out of business)	CA	Fresno	
CA2000570	Twin Oaks (out of business) 40789 HWY 41 Oakhurst & CG	Madera, CA	Fresno	Ground water
CA2000569	Wagon Wheel Café (out of business) 45719 HWY 41 Oakhurst	Madera, CA	Fresno	Ground water
CA2000616	Wasuma School (Peterson)	Madera, CA	Fresno	
CA2000568	White Oaks Guest Home	Madera, CA	Fresno	
CA2000567	Yosemite High School	CA	Fresno	
CA2000587	Yosemite South Coarsegold ranch	CA	Fresno	
CA2010005	Yosemite Spring Park Util Co	CA	Fresno	

California Regional Water Quality Control Board Waste Discharger System

Facilities in the Upper Fresno River Watershed

Agency Name	Facility Name	Watershed
CALCO LEASING, INC	YOSEMITE FORK	Fresno
AHWAHNEE GOLF COURSE & RESORT	AHWAHNEE RESORT RV PARK	Fresno
BAPTIST SUGAR PINE CONF	CAMP SUGAR PINE	Fresno
BAUSCH, JOHN H. (now Shell Station)	COARSEGOLD SELF SERVICE, INC.	Fresno
COLD SPRING GRANITE COMPANY	SIERRA WHITE QUARRY	Fresno
HIGH SIERRA MHP	HIGH SIERRA MHP	Fresno
J W MYERS, INC	HWY 41 COARSEGOLD FACILITY	Fresno
MADERA CO ENG & GEN SERVICES	#22A-OAKHURST FACILITY	Fresno
MADERA CO ENG & GEN SERVICES	#27-GOLDSIDE ESTATES	Fresno
NELLA OIL COMPANY	OAKHURST STATION	Fresno
OUTBACK, INC	GRAVEL PLANT	Fresno
PICAYUNE RANCHERIA/CHUKCHANSI CASINO & RESORT	COARSEGOLD GAMING FACILITY	Fresno
PINE LAKES CAMPER PARK	WASTE TRT. FACILITY	Fresno
PROTSTNT EPSCPL BISHP OF SN JO	DIOCESE OF SAN JOAQUIN, ECCO	Fresno
PTLA	COARSEGOLD VILLAGE WWTF	Fresno
SIERRA SKY RANCH	WASTEWATER TREATMENT FACILITY	Fresno
US ARMY CORPS OF ENGINEERS	HENSLEY LAKE	Fresno
US FOREST SERVICE	BASS LAKE LANDFILL	Fresno
WARD, MIKE	ESTATE OF HAZEL KENNEDY	Fresno

WENZINGER-POITRAS ASSOC	SAND & GRAVEL OPERATION	Fresno
YOSEMITE LAKES PARK, INC	CAMPSITE FACILITY	Fresno
YOSEMITE LAKES PARK, INC	CLUBHOUSE FACILITY	Fresno
YOSEMITE SOUTH COARSEGOLD RANC	LEACHFIELDS	Fresno

U.S. Environmental Protection Agency Water Discharge Permits

Facilities in Upper Fresno River Watershed

NPDES ID	Facility Name	Watershed
CA0004009	CHUKCHANSI GOLD RESORT & CASINO	Fresno
CAU000230	YOSEMITE SOUTH COARSEGOLD	Fresno

California Regional Water Quality Control Board Waste Discharger Adopted Orders

Facilities in Upper Fresno River Watershed

Order Number	Facility Name	Watershed
R5-2006-0709	MOUNTAIN VALLEY SEPTIC SERVICE	Fresno
R5-2006-0718	MOUNTAIN VALLEY SEPTIC SERVICE	Fresno

NPDES Dischargers in the Upper Fresno Watershed

(National Pollutant Discharge Elimination System)

Facilities in Upper Fresno River Watershed

WDID	Facility Name	Agency Name
5B20NP00001	MADERA CANAL	US BUREAU OF RECLAMATION
5B20NP00002	YOSEMITE LAKES TRADING POST	YOSEMITE LAKES TRADING POST
5B20NP00004	MINI MART STORE	SAV MOR OIL
5B20NP00005	OAKHURST SHELL	OAKHURST SHELL

RCRAINFO Facilities for: Upper Fresno USGS Cataloging Unit: 1804000

Hazardous Waste Facilities in the Upper Fresno Watershed

Facility ID	Facility Name	Facility Address
CAT000646232	MYERS J W INC CHEVRON JOBBER	35888 Hwy 41 Coarsegold, CA 93610
CAD981635113	OAKHURST CLEANERS	40441 Hwy 41 Oakhurst, CA 93644
CAD982464117	OUTBACK INC	39966 Hwy 41 Oakhurst, CA 93644
CAD983587981	OUTBACK MATERIALS	44999 Rd 200 Oneals, CA 93645
CAD980886691	PG&E OAKHURST SERV CTR	50150 Rd 426 Oakhurst, CA 93644
CA0000333807	RALEYS 350	40041 Hwy 41 Oakhurst, CA 93644
CAD983624032	COMMUNITY MEDICAL CENTER (was SIERRA MEADOWS URGENT CARE)	48677 Victoria Ln Oakhurst, CA 93644
CAD982479461	THE BODYSHOP	41814 Rd 222 Oakhurst, CA 93644
CA5140090593	USDOI BR FRIANT DAM	18015 Friant Rd Friant, CA 93626
CA0000924373	VONS 409	40049 Hwy 49 Oakhurst, CA 93644
CAD981638547	WOODLAND DRY CLEANERS	40356 Oak Park Oakhurst, CA 93644

Toxic Waste Facilities in the Upper Fresno River Watershed

No TRIS Facility Data found in Envirofacts for USGS Cataloging Unit: 18040007

Known Activities in the Watershed

1) The Crooks Mountain Project has been done in Phases 1, 2 & 3. This is a 12-mile fuel break that extends from Miami Peak to Deadwood Peak.

2) The eastern Madera County FireSafe Council is working on 5.6 miles from Deadwood peak to Mudge Ranch (Thornberry ridge), creating a fuel break for fire control in the area.

3) The Goat Mountain fuel break is 2.6 miles from Goat Mountain to Bass Lake Annex (Road 274) and is currently being created by the eastern Madera County FireSafe Council.

4) The eastern Madera County FireSafe Council is working on a three-phase project starting at Road 620 (Bisset Station Road) with phase one from Highway 41 to Road 628, phase two to Road 601, and phase three to Highway 49.

5) The eastern Madera County FireSafe Council is working with the USFS on an outreach program for eastern Madera County in conjunction with Madera County's Office of Emergency Services for education and community outreach.

6) Youth outreach projects are being handled through the eastern Madera County FireSafe Council and the Coarsegold Resource Conservation District for the Fog Mountain C.O.R.E. project in conjunction with local school districts.

7) A large stand of arundo was found on the Upper Fresno River near Winding Way. Reportedly it was planted to prevent erosion, but could become a problem downstream.

8) Yellow starthistle, another invasive weed, was found on USFS lands, adjacent to the Bass Lake spray field. There are also starthistle sightings on the Oakhurst River Parkway and on the perimeter of the Oakhurst Park.

9) The Bass Lake area is infested with scotch broom. Judy Johnson is monitoring its spread with grant money from the CRCD.

10) The Oakhurst River Parkway needs repair in the area near the high school and in the area near "turtle rock". The "turtle rock" path needs to be moved completely and the trail rebuilt.

11) A habitat restoration project needs to occur on the south entrance of Oakhurst around the bridge at Highway 41. This area could be connected to the south end of the Oakhurst River Parkway from the Fire Station #12 to continue under the bridge on Highway 41 and across to the shopping center along side the Taco Bell restaurant. A massive number of willows need to be removed and erosion issues need to be addressed.

12) Joanna Clines of the USFS, working with the Coarsegold Resource Conservation District, has begun a project to reverse the spread of yellow starthistle and other noxious weeds in eastern Madera County. This project's goal is to obtain a precise assessment of yellow starthistle and other noxious weeds' locations on private lands bordering the Sierra National Forest, in order to eradicate and control them before they

spread extensively. In the process, the aim is to educate and involve property owners and the public that use the Sierra National Forest.

13) The Madera County Resource Advisory Committee funded a project for the Coarsegold Resource Conservation District to compare brush maintenance by goats, weed-eating /chainsaw, and herbicide. All mail recipients in eastern Madera County will be informed of the results to encourage them to treat and maintain the vegetation on their property to reduce the fire hazard in eastern Madera County. The work is to be performed on private land adjacent or in close proximity to National Forest land.

14) The CSWC created two brochures to educate foothill property owners. The property owner brochure explained about septic systems, fire safety, water conservation, and erosion and sediment control to protect and improve property and water quality in eastern Madera County. The *Sierra Smarts* brochure explains the fractured rock water system in the foothills. (See Appendix).

15) Madera County Board of Supervisors will review a policy action paper prepared by its Resources Management Agency concerning groundwater supply depletion and ground and surface water quality impacts of development in eastern Madera County. Regional Board staff assisted the Agency by supplying a technical evaluation of the water supply and quality situation in the subject area and reviewing County code requirements for new developments as they affect groundwater supply determination and individual sewage treatment systems installation and repair. Overdevelopment of the Fresno River watershed has already made it a candidate for 303(d) listing. Development policy options under consideration include a significant deceleration of development and a self-imposed prohibition of future individual sewage treatment systems in environmentally sensitive areas.

16) The Sierra Telephone Parkway Building, seven churches, Oakhurst Elementary and Intermediate School, Yosemite High School, Western Sierra Nursery, and the Boys and Girls Club in Oakhurst have no storm water collection systems, causing runoff directly into Fresno River.

17) Golf courses in Ahwahnee, Goldside, Yosemite Lakes Park, and River Creek may have runoff of nutrients, pesticides and chemicals.

18) Sedimentation/erosion from roads: For example, Highway 49 is eroding and the efforts of Caltrans to repair it have been inadequate.

19) Nelder Grove is a key resource in the area. Fuel reduction in this area is overdue.

20) Miami motorcycle area is maintained by the USFS. Erosion control measures are installed and a preventive approach has been taken to protect "out of bound" areas. Trails which are too close to the creek have broken down banks. The Trails Management department of the Forest Service is surveying the area trails and will be closing those that go too close to the water. Other trails will be connected to maintain the area for visitors in 2006.

21) USFS has completed numerous small erosion control projects and has an inventory of erosion problems on Forest Service administered lands.

22) Merced River flows in the amount of 6,000-acre feet a year into Lewis Creek, a tributary of the Fresno River. Madera Irrigation District's Big Creek (50 cfs) diversion to Lewis Creek is based on water rights for the Madera Canal and Irrigation Company. The water is diverted December 1st – July 15, 1st, beginning with 50 cfs in Big Creek, which is reduced to 20cfs by April. The diversion is set in November. In dry years, the water is released down Big Creek. A pipe washed out 1997/98; it was replaced in 2001. There are two recorders in the channel to Lewis Creek. One belongs to DWR and the second belongs to USGS. On average, it costs $16,000-17,000/year to maintain these gauges. For reference: $30,000 is the cost to maintain one recorder in Willow Creek. The contractors are the Friant Water Users Group. Information from the gauging station is available on the USGS web site http://water.usgs.gov (contracts). Information on this diversion is also available by written request to Madera Irrigation District, 12152 Road 28 ¼, Madera, California 93637-9199.

Past Activities to Investigate in the Upper Fresno River Watershed

1) Camp Sugar Pine:

   a. The Baptist Church Youth Summer Camp at Sugar Pine has a dam on a tributary to Lewis Creek. Several issues have been discussed including water rights, erosion problems, sedimentation build-up, water release issues, narrow channels,

impoundments used for swimming and recreation (impoundment is emptied annually into Lewis Creek at the end of summer causing water to turn “black” for several days). A new spillway and shut off valve/pipe have been installed recently. According to NRCS, the camp has water rights. The CSWC offered its assistance to the camp and they attended the January 2002 meeting. In August 2001, Mr. Van Aman advised the camp “that by only pulling half a (flood) board or approximately 3’’, out at a time, the erosion issue would be mitigated. The camp followed his advice this past summer and planned to continue this method in the future. CSWC, NRCS, DFG, and RWQCB will continue to provide assistance. It was also recommended that a manual be written for this project to provide a plan for future camp directors to follow.

b. The Baptist Church Camp at Sugar Pine has a second dam that used to be the abandoned Sugar Pine sawmill pond (Sawmill closed in the 1930s). Currently, the impoundment is being used for boating and other recreation.

c. Timber harvest activities. Harvesting has been occurring near Camp Sugar Pine during 2001.

2) Sugar Pine Community: Old homes, built during the operation of the Sugar Pine sawmill, are on both sides of Lewis Creek and have septic systems. Water samples are being taken from the public access site just below the Sugar Pine Community through the Madera County Monitoring program.

   a. The Sugar Pine sawmill site has significant debris and old foundations still in place.

   b. There is an abandoned uranium mine below Sugar Pine on Lewis Creek. Mineshaft tailings were dumped into Lewis Creek during operations in the 1950s.

3) Cedar Springs subdivision (downstream from Camp Sugar Pine) is on septic tanks. This area is included in the monitoring program.

4) Major water springs in Cedar Valley have been developed for private pipeline transport downstream to Yosemite Forks subdivision. These springs would normally flow into Lewis Creek. The 12’ high by 24’ wide by 48’ long water tank is on Cedar Valley Road and Mountain Meadow Road.

5) The State Water Resources Control Board licensed water diversion from Lewis Creek to the ECCO facility storage ponds, allows the taking of 11 acre-feet of water per annum from December 1 to April 30 at a maximum rate of 0.31 cfs.

6) The State Water Resources Control Board licensed water diversion from Lewis Creek to the abandoned Sierra Sky Ranch Golf Course, allows diversion of 0.31 cfs from July 15 to November 1. The Sierra Sky Ranch closed the golf course and discontinued diverting water in August 1991 (the water rights are still retained).

7) An abandoned sawmill site (closed in the late 1960s or early 1970s) at Road 632 and Lewis Creek has:
   a. An underground fuel oil storage tank (asbestos materials hanging from ceiling) and steam boiler still located on the site. Also, the old mill pond was backfilled and abandoned sawmill equipment, parts and debris were buried in the fill. Some parts of the debris are visible on the surface and also where erosion has occurred along Lewis Creek. Appliances have been dumped into the kiln.

   b. A log cold-deck area where logs were sprayed with a preservative agent that may have been toxic. It was suggested that it may have been treated with a fungicide rather than a preservative; monitoring for toxins is needed.

   c. An area that was backfilled and where contaminated log debris was buried.

8) A high concentration of homes is built along Lewis Creek in the Yosemite Forks subdivision. Each of these homes uses septic tanks and leach fields to dispose of wastewater. Sample water testing is taking place in these areas and on Miami Creek.

9) Sedimentation in Nelder Creek is a problem. This is also an area of excess fuels.

10) Homes have been built along the river from Oakhurst toward the south. Water sampling is being done as far as Hensley Lake. Sample collection is also occurring at Miami Creek /Highway 49 when water is flowing.

11) Peterson Creek needs water quality assessment and severe erosion problems must be corrected.

12) Yosemite Lakes Park has a petroleum leak. 25 unrecorded, abandoned holes are located around the subdivision. These holes could contribute to movement of contaminants. There is an ongoing investigation and assessment of this problem by the RWQCB.

13) Algae grows in Hensley Lake. USCOE states that it has always been in Hensley and that it may be natural.

14) The USCOE conducts annual monitoring of Hensley Lake for dissolved oxygen temperature and pH. Detailed information available at www.spk.usace.army.mil/cespk-ed/env.

Present Monitoring within the Watershed

In spring of 2006, the State Water Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program began and has not been completed at the time of this report. The GAMA Program is implementing its Statewide Basin Assessment in the Central Sierra study unit, which includes the Oakhurst area. This study unit encompasses the Upper Fresno watershed and the upper north fork of the San Joaquin River, outside of DWR defined groundwater basins. The GAMA program is a comprehensive assessment of statewide groundwater quality designed to improve statewide groundwater monitoring, identify risks to groundwater resources, and increase the availability of groundwater quality information to the public.

In January 2006, Madera County won a Proposition 50 grant to write an Integrated Regional Water Management Plan for the eastern Madera County region. When completed, this plan will cover: groundwater studies, water supply and reliability, water quality protection and improvement, increasing water resources, flood control, planning process, public education, and administration. This planning project for this watershed will be completed in a two-year period and will build upon and leverage existing studies and planning efforts already produced for this region. These include the following:

- DWR investigations; published the Madera Area investigation in 1966 (preliminary Edition, Bulletin No. 135).
- Eastern Madera County and Mariposa County Long Term Plan (MC^2LTP) for Watershed Conservation and Restoration, produced in November, 2001 by the Central Sierra Watershed Committee and updated by December 2006.

- Technical Memorandum – Groundwater Conditions in Eastern Madera County, produced in March 2002 by Todd Engineering.
- Fresno River Nutrient Reduction Study, implemented pursuant to a SWRCB 205 (j) grant awarded in 2001.
- AB 303 Oakhurst Groundwater Study, assessing the quantity and quality of groundwater in Oakhurst is currently being implemented pursuant to a DWR AB 303 Local Groundwater Assistance grant.
- Area plans, produced by several towns in the region, including Ahwahnee, Coarsegold, Oakhurst, and North Fork.

Potential Problems

Water Quality degradation due to

1) sewer spills
2) road washouts
3) mud slides
4) failing septic systems
5) wildfire
6) urban sprawl reaching the foothills

Water Quantity

1) lack of a long-term, county-wide water plan
2) no water quantity or quality study for the Upper Fresno River watershed
3) continued growth and development without a water plan
4) invasion of noxious, non-native weeds
5) overdevelopment on the rivers and creeks

Proposed Planning Projects

Monitoring programs are needed for the Fresno River. Grant funding should be sought to support monitoring program of the Fresno River watershed to determine the pollutants and possible effects from mine and logging mill residue. The constituents used in these operations need to be determined, as well as whether or not they pose a threat to water quality.

Once problem areas are identified, develop restoration plans, which will include best management practices for implementation.

Proposed Implementation Projects

1) Reduce and prevent contaminants from entering the watershed, which is affecting water quality. Address drainage problems, including pollution, septic system runoff entering the river, and sewer spills
2) Reduce and prevent sedimentation from entering streams. Alleviate erosion and sedimentation caused by roadways, house pads, sub-divisions, including broken pipes and undersized culverts. Contact Caltrans and the County to assist in resolving this issue.
3) Reduce fuel loading to reduce risk of wildfire.
4) Remove noxious weeds: yellow starthistle, scotch broom, arundo, and tree of heaven.
5) When monitoring/planning projects are completed, identify funding sources for restoration of problem areas identified.
6) Locate funding to continue the Watershed Coordinator program and further projects in the watershed.

The Future

The Upper Fresno River watershed is like many areas of California: resources are dwindling, populations are expanding, and pressures on the environment are intensifying as fuel loads grow, noxious weeds spread, and rivers become more polluted. Many of these issues can be addressed only if competing groups work together and develop solutions on a comprehensive, collaborative basis. The future plan of this watershed is to strive for a comprehensive watershed approach to improve on the fragmented approach that has been used in this area in the past. A whole watershed approach is advantageous because it considers all activities within a landscape that affect watershed health. Ideally, it will integrate biology, chemistry, economics, and social considerations into decision-making and consider local stakeholder input and national and state goals and regulations. A watershed approach recognizes needs for water supply, water quality, flood control, habitat preservation, and recreation - and it recognizes that these needs often compete. We feel that the watershed approach improves collaboration and information sharing among diverse partners and leverages resources.