SACRAMENTO MUNICIPAL UTILITY DISTRICT
UPPER AMERICAN RIVER PROJECT
FERC No. 2101

SOCIOECONOMIC IMPACT TECHNICAL REPORT

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Description

- Socioeconomic Impact Study Plan

10.6 Socioeconomic Impact Study Plan

The Socioeconomic Impact Study will consist of collecting primary data (through interviews and observations) and reviewing existing data sources to obtain specific information on Project-related issues. The Study will identify the socioeconomic benefits, costs and other socioeconomic externalities of the Project to the region. The Study will address those benefits and costs that are directly and indirectly affected by the Project.

10.6.1 Pertinent Issue Questions

2. What are the socioeconomic benefits (direct, indirect and induced) and costs of the UARP to El Dorado County and the Region?

5. What are the benefits and costs (local and regional) of the UARP to federal land agencies?

25. What are the public safety needs of induced recreation on law enforcement, medical, and search and rescue (risks, issues and mitigation)?

10.6.2 Background

The relicensing process for the Upper American River Project is prompted by the upcoming expiration of the SMUD's 50-year license. This license was granted in 1957 and expires in 2007. SMUD's Upper American River Project (UARP) is located in the rugged Sierra Nevada Mountains between the southern shores of Lake Tahoe and Sacramento. A majority of the UARP facilities are located within the Eldorado National Forest and the 85,000-acre Crystal Basin Recreation Area. The three UARP storage reservoirs – Ice House, Union Valley and Loon Lake, and their associated recreation facilities, provide significant recreational opportunities. These recreation facilities help meet the local, regional and state public demand for high quality outdoor experience. Facilities include campsites (seven hundred), boat ramps, picnic areas, paved bicycle trails, sanitation stations, winter warming huts and mountain top observation points.

10.6.3 Study Objectives

The objectives of the Socioeconomic Impact Study are:

- Identify the socioeconomic benefits of Project-related recreation opportunities and other externalities to the region.

- Identify the socioeconomic costs of Project-related recreation opportunities and other externalities to the region.

10.6.4 Study Area

Project Region – El Dorado County. The study area will mainly cover the Crystal Basin even though the impact of the recreation use in this area will be analyzed for the entire El Dorado County. Locations will include developed Project recreation facilities and dispersed (undeveloped) areas with a probable or potential association to the UARP. In addition, the surrounding area will be studied to determine the regional impact. This study area does not include any analyses of the economic impacts of the Chili Bar reach.

In explanatory terms, the study area will comprise of the following:

- Individual recreation sites: where recreational activities and direct economic impacts occur.

- Recreation focal area (trade area): surrounding the site or facility development which may be considered a "local impact" zone (this could consist of one or more counties). It is likely to be the source of most direct recreation employment.

- Travel corridor: from the consumer residence area to the site and the economic impacts that occur along the travel route.

- Sub-state or multi-state regions: surrounding the site where both direct and indirect impacts occur. It will depend upon the inspection of the visitor data.

10.6.5 Study Methods

Information for this study will be obtained through telephone and face-to-face interviews, observational trips to the study area, secondary sources, and existing literature. Information will be obtained on the following: visitor demographics (age, income, gender, place of residence), origin and destination of the trip, distance traveled (one way), type of accommodation used, length of stay, mode of transportation, day trip versus multi-day, multiple destination trip, average number of trips undertaken, number of people per party and party composition (family, friends etc.), equipment type (for example, those with RVs may have different expenditure patterns than those with family auto).

Expenditure data will be obtained on the following: lodging (private and public accommodation, camping fees), licenses, food and beverage (restaurants), groceries, liquor stores, gasoline, car rental, boat rental, public transportation, camera and films, outdoor recreation equipment rental, souvenirs, hospital services, outfitter and guides, and amusements. These variables have been identified and used by several economic impact studies (Schaffer, 1985; Propost et al., 1989; Stevens & Rose, 1989; English et al., 1994; Douglas & Harpman, 1995; Blaine & Mohammed, 1991).

Interviews

Service and facility providers will be interviewed to estimate costs associated with providing services for Project-related recreation. Local, regional, state and federal officials with jurisdiction in the Project region will be interviewed to identify qualitative and quantitative costs associated with the Project.

Information will be obtained from the following sources in the El Dorado County: The Eldorado National Forest Interpretive Association, The El Dorado County Sheriff's Department, All-volunteer El Dorado ski Patrol, El Dorado County Search and Rescue Operations, Economic Development Officer, Chamber of Commerce, Director of Tourism, and the Information Centers.

Other contacts for secondary sources will be: Pacific Southwest Forest and Range Experiment Station; Station Director, Pacific Southwest Research Station; and Program Manager, Ecology and Management of Western Forests Research, Development, and Application Program. In addition, the Outdoor Recreation Planner and the Research Social Scientist at the North Pacific Experiment Station will be interviewed.

Secondary Sources

Existing literature will be used to determine visitor expenditures and trip behavior. Economic impact studies conducted on similar study areas will also be examined. Previous literature will also be used to identify the non-market value (Scarpa et al., 2000; Hoehn & Randall, 1987; Lindberg & Johnson, 1997; Johnson & Moor, 1993) of Project-related recreation based on RVDs.

10.6.6 Study Analysis

Economic Impact

After identifying average expenditures for all pertinent recreation sectors, USDA's IMPLAN (input/output) model will be used to calculate the economic impact of Project-related recreation to the region.

The Model will help to understand the economic structure, interdependencies of different sectors of the economy, the size and structure of the recreation and tourism industry in a given region and its linkages to the economy. Such

understandings assist in identifying potential partners for the tourism industry as well as targeting industries as part of regional economic development strategies. Recreation and tourism can have a variety of impacts. Visitors are expected to contribute to sales, profits, jobs, tax revenues, and income in an area (Wagner, 1997; Fletcher, 1989; Alward, G.E., 1995). Through secondary effects, recreation is expected to affect most sectors of the economy. The economic impact analysis will trace the flow of money from visitor spending, first to businesses and government agencies where tourist spend their money and then to other businesses that are supplying goods and services. Taxes will be identified: sales tax from recreation-related spending, hotel tax from lodging, and property tax revenue from the UARP properties.

Regional multipliers will be calculated through IMPLAN and will apply to all the recreation sectors. An economic impact multiplier is very attractive to both analysts and decision makers (Chapelle, 1985; Otto & Johnson, 1991; Milne, 1987). Multipliers represent the value of total economic activity in a particular sector. They measure the interdependence of sectors in an economy. Type I and SAM multipliers will be calculated for this Study. Type I multiplier will capture the indirect effects of purchases among industries, while SAM multiplier will capture the effect of household expenditures induced by changes in labor income.

Total Costs

Total cost associated with the recreation use of the study area will be estimated in terms of additional burden upon the environment and the local economy through existing information and interviews. Impact on property values, additional burden on infrastructure, public safety, medical services and other facilities will be evaluated. In addition, social costs such as effects on the lifestyle of local residents will be considered.

The data is going to be real-time data and is not to be used for projections into the future.

10.6.7 Study Output

A presentation of the study results will be made to the Socioeconomic TWG. The ultimate study output will be mostly a narrative report with tables and charts displaying the economic impact results with regard to output, income, value added, and employment. Tables will also be used to provide information on the costs and non-market value of recreation opportunities to the residents of El Dorado County. The report will include the following: issue questions, objectives, study area, methods used collect information, methods used to analyze the data, findings, discussion, conclusion and recommendations. The report will be prepared in a format so that it can easily be incorporated into the Licensee's draft environmental assessment that will be submitted to FERC with the Licensee's application for a new license.

10.6.8 TWG and Plenary Group Endorsement

The Socioeconomic TWG approved the draft study plan on March 17, 2003. The participants at the meeting who said they could "live with" the plan were El Dorado County Water Agency, City of Sacramento, Placer County Water Agency, U.S. Forest Service, Sue Britting and SMUD. None of the participants at the meeting said they could not "live with" the draft study plan. . The Plenary Group approved the plan on April 2, 2003. The participants a the meeting who said they could "live with" this study plan were U.S. Forest Service, American River Recreation Association & Camp Lotus, El Dorado County Water Agency, National Park Service, U.S. Bureau of Land Management, City of Sacramento, and SMUD. None of the participants at the meeting said they could not "live with" this study plan.

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SOCIOECONOMIC IMPACT TECHNICAL REPORT

E.1.0 EXECUTIVE SUMMARY

This report is a revision of the Socioeconomic Study of the Upper American River Project UARP report previously prepared by CSUS and submitted to the Socioeconomic Technical Workgroup (TWG) in February 2004. With the exception of the community attitude survey and some of the recreation data, all the information used in this report, including the regional economic analysis, was specifically developed for this revision.

E.1 Study Purpose and Scope

The purpose and scope of the UARP socioeconomic study, as defined in the study plan approved by the Plenary Group (see Appendix A), is to:

- Identify the socioeconomic benefits of the Project-related recreation opportunities and other externalities to the region
- Identify the socioeconomic costs of the Project-related recreation opportunities and other externalities to the region

The above objectives are met through addressing the following Pertinent Issue Questions as set forth in the UARP Socioeconomic Impact Study Plan:

2. What are the socioeconomic benefits (direct, indirect and induced) and costs of the UARP to El Dorado County and the Region?

5. What are the benefits and costs (local and regional) of the UARP to federal land agencies?

25. What are the public safety needs of induced recreation on law enforcement, medical, and search and rescue (risks, issues, mitigation)?

E.2 Overview of Socioeconomic Environment

E.2. 1 Regional Environment

To meet the study objectives described above, this socioeconomic analysis examined the general demographics, housing, employment and income for El Dorado County as well as the Sacramento region, or Primary Metropolitan Statistical Area (PMSA), which is comprised of Sacramento, El Dorado and Placer counties.

El Dorado County and the Sacramento region in general have been experiencing a steady population growth rate exceeding the State average. But, since 1995, El Dorado County's growth rate has slowed to be closer to that of the State and is anticipated through 2030 to grow at a rate that is slower than Sacramento County and the region, but faster than the State. According to the

US Census 2000, the population of El Dorado County is predominantly White[1] (about 90 percent). Hispanics, though Hispanic is an ethnic and not a racial classification, accounted for about 9 percent of the population in El Dorado County. From a regional perspective, the Sacramento PMSA is more racially diverse than El Dorado County with about 70 percent of the population being White and 30 percent non-White. Hispanics represent about 14 percent of the population of Sacramento PMSA.

Housing stock for El Dorado County as of January 1, 2004, was 77,181 units with the majority (over 80 percent or 64,227 units) being single-family homes. The median home price[2] in El Dorado County was $215,000 in December 2001. Housing vacancy rate was about 17.1 percent in 2004. Housing Stock for the Sacramento region, as of January 1, 2004, was 719,404, of which about 70 percent (527,273) were single-family units. Housing vacancy rate in Sacramento region in 2004 was 6.9 percent.

Services, government, and retail trade are the major industry sectors in El Dorado County and the Sacramento region. The Services sector, which includes recreation-related services, is the largest sector in El Dorado County and the Sacramento region, accounting for about 40 percent and 30 percent of all employment, respectively.

The average unemployment in the civilian labor force for 2003 was 5.4 percent for El Dorado County, 5.6 percent for Sacramento County, and 5.4 percent for the Sacramento region. These average unemployment rates compare favorably to the State's average unemployment rate in 2003 of 6.7 percent.

The 1999 per capita income for each county was: El Dorado ($25,560), Sacramento ($21,142), and Placer ($27,963) counties. Median family income in 1999 was estimated at $60,250 for El Dorado County, $50,717 for the Sacramento County, and $65,858 for Placer County, respectively.

E.2.2 Local Environment

A majority of the UARP facilities are located within the 85,000-acre Crystal Basin Recreation Area (Crystal Basin area or Crystal Basin). The three UARP storage reservoirs - Union Valley, Ice House and Loon Lake, shown in Figure 1-1, provide recreational opportunities to Crystal Basin visitors that create economic and social benefits for the local community. These recreational opportunities include: camping, fishing, boating, horseback riding, hiking, and cross-country snow skiing. The Crystal Basin area has over 700 developed campsites, most of which require fees and/or reservation. Camping is also available in undeveloped sites throughout the Eldorado National Forest (ENF). Recreational boating is available on all the storage reservoirs with free boat ramp access.

[1] White refers to people having origins in any of the original peoples of Europe, Middle East or North Africa. Thus, the recent immigrants into El Dorado County and the general Sacramento region from Russia, the Ukraine and a number of Eastern European states, are captured here.

[2] These are the latest government published data.

The public services most affected by the Crystal Basin area are: fire protection, law enforcement and emergency response. The El Dorado County Fire District (EDCFD) is the local agency that provides fire suppression to areas in the Crystal Basin that are outside the ENF. The El Dorado County Emergency Medical Services (EMS) is responsible for emergency medical service in the county. The El Dorado County Sheriff's Office (Sheriff's Office) provides law enforcement services to the unincorporated areas of El Dorado County, i.e., the whole county with the exception of the cities of Placerville and South Lake Tahoe. This area includes the Crystal Basin.

The roadway facilities in El Dorado County (and specifically in the SMUD project area) are primarily rural in character. The exception is U.S. Highway 50, the primary transportation corridor through the county from west to east that serves all of the county's major population centers. Within the Crystal Basin, the major road is Ice House Road, a rural country road with one lane in either direction.

E.3 Socioeconomic Impact Analysis

The socioeconomic impact analysis of the UARP includes an analysis of the benefits as well as the costs associated with the Project. These benefits and costs are evaluated at the local as well as the regional level.

E.3.1 Benefits of the UARP

E.3.1.1 Primary Benefits of the UARP

At the regional level, the generation of hydroelectricity from the UARP provides a number of benefits including operational flexibility, system reliability, economical generation and grid stability. In addition, by focusing generation during times of high demand or short supply, the clean hydroelectric power from the UARP displaces the more inefficient and older power plants that would otherwise be called into service to operate at those times. Thus, the UARP helps the Sacramento Valley region by not contributing to air quality problems.

Overview of SMUD and the UARP

The Sacramento Municipal Utility District (SMUD) is a customer-owned electric utility that generates and purchases electric power that it distributes to about 560,000 customers in the Sacramento area, including 46,500 small commercial and 11,500 industrial customers. SMUD is the sixth largest publicly-owned electric utility in the United States in terms of customers served. SMUD is a not-for-profit customer-owned utility and has no shareholders; all benefits are returned to its customer-owners in the form of lower rates and value to the community.

SMUD's Public Goods Program includes customer loans for energy efficiency upgrades, appliance rebates, reduced rates to limited-income customers, nationally-recognized solar and wind energy programs, and electric vehicle research and development projects. In 2003, SMUD committed $25.4 million to its Public Goods Program. SMUD's generation of economical and reliable hydro electricity at the UARP and SMUD's municipal status are among the primary

reasons that SMUD has been able to provide a significant Public Goods Program while keeping rates reasonable and competitive.

The UARP is a multi-development hydroelectric power project that generates enough electricity to meet about 20 percent of SMUD's customer demand. In a normal water year, the UARP provides approximately 1.8 billion kilowatt-hours of electricity – enough energy to power about 180,000 homes. The primary value of the UARP lies in the project's ability to provide operational flexibility, system reliability and economical generation. The value of the UARP extends beyond the boundaries of SMUD's service territory by (1) having a positive effect on regional air quality, and (2) helping to maintain the integrity of the Northern California electric transmission system. In addition, the UARP helps SMUD maintain reasonable rates for businesses, which benefits the Sacramento region.

Flexible and Economical Generation

Specific information concerning costs and revenues for the UARP can be found in the draft Exhibit D report, contained in Appendix E. As shown in the Exhibit D report, the total annual expenses for the UARP in 2003 are estimated to be $30.8 million, and the total annual value of project power – including capacity, ancillary services and transmission – is estimated to be $117.0 million, based primarily on estimated replacement costs.

In addition to being economical, the UARP provides production flexibility, within the limits of regulatory, operational, and recreational requirements. Power is most valued when local demand is high and/or supplies are low, or constrained – periods generally associated with the highest power prices. Thus, for example, on a hot summer day, when customer demand for electricity is high, SMUD will often release water from storage to generate electricity at near capacity, particularly during peak hours of the day such as late afternoon and early evening. SMUD may also generate electricity from the UARP when constraints on the western power supply occur due to such factors as unusually cold weather coupled with low precipitation in the Northwest, unexpected plant outages, or when natural gas supplies are constrained. Alternatively, when local demand for power is low or when the western power supply is abundant, water is held in the reservoirs, and the UARP generates at reduced capacity for shorter periods of time. It is this range of operational flexibility inherent in the UARP that is of significant value to SMUD and then region.

The general operational regime also provides secondary recreational benefits. By storing some of the spring runoff and releasing it in the summer and early fall, the UARP provides for more downstream summertime recreation than would otherwise be available if the system were unregulated. Thus, the UARP contributes to the whitewater boating industry on the South Fork American River, where the total annual output is about $15 million (El Dorado County, 1996). And in years with sufficient precipitation, near full reservoirs during the spring and summer provide an abundance of flat-water recreation opportunities in the Crystal Basin. The economic benefits of UARP-related recreation in the Crystal Basin are also substantial, as summarized in Section E.3.1.2 below.

Air Quality Benefits

Another key benefit of the UARP to the region is its effect on air quality. California's sunny climate, pollution-trapping mountains and valleys, along with the activities of 36 million residents, all contribute to air pollution in the state. The UARP hydroelectric facility has the capability to generate 688 megawatts of renewable electrical power with insignificant air emissions associated with this generation. The air quality impact of having to replace this mode of generation would likely contribute to the worsening of the Sacramento Valley's already degraded air quality. Adding 688 megawatts of peaking gas fired generation would result in approximately 250 tons per year of ozone precursor and 180 tons per year of air pollutants for the Valley where air-pollution already exceeds the state and federal ambient air quality standards.

By generating significant amounts of electricity without producing any undesirable air emission as a byproduct, the UARP has a positive effect on regional air quality. In an average water year, the UARP – through clean, hydroelectric generation – displaces about 200,000 tons of carbon-based emissions annually from a combination of natural gas, oil and coal-fired power plants. In addition, by focusing generation during times of high demand or short supply, the clean hydroelectric power from the UARP displaces the more inefficient and older power plants that would otherwise be called into service to operate at those times.

Grid Stability

Another important regional benefit of the UARP is the role it plays in helping ensure reliability of the electric transmission system within SMUD's service area and Northern California. The ability of the UARP to instantaneously generate electricity from up to 400,000 acre feet of stored water provides substantial operating reserves for mitigating both Sacramento area and state-wide grid related emergencies that jeopardize electric service reliability. The location of the UARP provides essential reliability services to the Central Valley and Northern California area. The reactive power support provided by the UARP is used to maintain system voltages throughout the area. The UARP units are fast-acting machines that can readily be used to manage grid regulation requirements and quickly match fluctuating demands or variable generation patterns anywhere on the grid. The UARP is used for minute-by-minute load following services necessary for reliable and stable transmission operations.

A number of ancillary reliability services are inherently imbedded in a hydro project such as the UARP. The UARP is used to provide spinning and operating reserves; this is done without burning fuel as would be required if a fossil plant were providing that service. Standby Reserves and Quick Start Reserves are also inherent parts of the UARP facility that contribute directly to the area system reliability and overall grid stability.

The UARP also provides frequency control during normal conditions, and during system disturbances is able to quickly assist in dampening out system swings and maintain system stability. And lastly, the UARP provides a significant amount of real power right near a major load center that is necessary to meet the demand requirements of the region. This unloads the constrained transmission lines serving the region, and allows the demand to be met.

Benefits of UARP to the local area

The UARP also provides direct benefits to both the USFS and El Dorado County. Some of these benefits, e.g., fees paid to the USFS for recreation facility administration, operation and maintenance and cost of snow plowing, are included in the budget used to derive the benefits described in Section E.3.1.2. SMUD provides the following in-kind services to the USFS and the local community:

- Snowplow parking areas for winter recreationists
- Road maintenance and improvements on various segments of roads
- Rock base for small road paving projects
- Hydrants available on penstocks for fire fighting
- Design and printing of the Crystal Basin Recreation Area brochure
- Telephone line to Loon Lake Chalet

In 2003, SMUD spent $562,000 on road maintenance and improvements in the UARP area. This roadwork included paving or repairing road segments, installing or repairing guard rails, cleaning out culverts and vegetation management.

SMUD provides 15,000 Crystal Basin Recreation Area brochures annually at a cost of $7,500 (in 2003 dollars). The cost associated with these brochures includes periodic updates to the brochures. In the past, the USFS requested snow plowing for winter recreation. SMUD spends $22,000 (in 2003 dollars) annually to open facilities in the spring and another $35,000 (in 2003 dollars) annually to create turnouts/parking areas after storms ($3,500 per storm, assuming 10 storms per year).

In addition to the above in-kind services, SMUD has also made significant contributions to special one-time projects such as:

- Helipad lighting projects
- Restoration of the Crystal Basin Information Station
- Lighting design for Loon Lake Chalet
- Reconstruction of the Forest Service Lookout at Big Hill

E.3.1.2 IMPLAN Analysis of the UARP

Four IMPLAN models were built to analyze the contribution of the SMUD UARP project. Two of the models analyzed the economic contribution of the Fresh Pond operations to El Dorado County's economy and the Sacramento Region's economy. The other two models analyzed the economic impacts of UARP-related Crystal Basin recreation to El Dorado County's economy and the Sacramento region's economy.

Some of the economic contributions to the El Dorado County economy include annual funds ($330,000 in 2003) paid by SMUD to the USDA Forest Service (USFS) for maintenance of

recreation facilities constructed after the Recreation Plan was revised in 1985 due to the addition of the Jones Fork Powerhouse. These funds are included in the operational budget used to analyze the economic contribution of the UARP. Other economic contributions include property taxes paid by SMUD to El Dorado County, which amounted to $184,000[3] in 2003.

Operations (Fresh Pond)

Regional economic analysis was used to estimate the economic contribution of the UARP Fresh Pond operation. The regional economic analysis was based on IMPLAN Input-Output models of El Dorado County and the Sacramento Region.

Findings

Local. According to the IMPLAN analysis, the O&M expenditures were responsible for the creation of 72 secondary (indirect and induced) jobs. These 72 jobs are in addition to the 59 direct jobs associated with Fresh Pond. Thus, operations at Fresh Pond are responsible for a total of 131 jobs in El Dorado County. The 131 jobs represent about three tenths of one percent (0.3 percent) of the total 2003 El Dorado County employment by industry of 48,200. In addition to the $7.6 million in direct income, the UARP Fresh Pond operations were responsible for approximately $2.1 million in secondary (indirect and induced) income. The total additional income of approximately $9.7 million represents about two tenths of one percent (0.2 percent) of the total El Dorado County personal income[4] in 2003 of about $6,189 million (USDOC, 2004). According to the IMPLAN analysis, the total O&M expenditures spent within El Dorado County of $11.1 million (in 2003 dollars) resulted in secondary (indirect and induced) output[5] of about $5.6 million. The total additional output of $26.2 million represents less than one percent (0.4 percent) of the El Dorado County total industry output for 2003 of $6,506 million (IMPLAN, 2001).

Regional. According to the IMPLAN analysis, the O&M expenditures at Fresh Pond are responsible for 77 direct jobs and 109 secondary (indirect and induced) jobs, for a total of 186 jobs. The additional 186 jobs represent less than one tenth of one percent (0.02 percent) of the total 2003 Sacramento PMSA employment by industry of 755,900. In addition to the $9.9 million in direct income, the UARP Fresh Pond operations were responsible for approximately $4.0 million in secondary (indirect and induced) income. The additional total income of $13.9 million represents less than one tenth of one percent (0.02 percent) of the total Sacramento region's personal income in 2003 of about $56,201 million (USDOC, 2004). According to the IMPLAN analysis, the total O&M expenditures spent within the Sacramento region of $14.2 million (in 2003 dollars) resulted in secondary (indirect and induced) output of about $10.7

[3] SMUD facilities and lands in El Dorado County are tax exempt for the most part. Under California law, lands owned by a local government (here SMUD) outside its boundaries are taxable only if those lands were taxable when acquired by that local government (California Constitution Article XIII, §§ 3 and 11(a)). SMUD has paid approximately $3 million in taxes to El Dorado County to date.

[4] Personal income refers to employee compensation (total payroll including benefits) and proprietary income (payments by self-employed individuals as income).

[5] Output refers to industry output which is a measure of the value of an industry's total production.

million. Thus, the additional total output of $37.0 million represents less than one tenth of one percent (0.04 percent) of the Sacramento region's total industry output for 2003 of $95,201[6] million (IMPLAN, 2001).

Recreation (Crystal Basin)

Regional economic impacts of recreation are typically assessed on the basis of visitor trip expenditures. The money spent by visitors on food, lodging, and transportation is the inputs into the local economy. Input-output analysis was used to determine the economic impacts of recreation.

Findings

Local. According to the IMPLAN analysis, expenditures by non-resident recreation visitors resulted in 133 direct jobs and 33 secondary (indirect and induced) jobs, for a total of 166 jobs. The total additional 166 jobs represent about three tenths of one percent (0.3 percent) of the total 2003 El Dorado County employment by industry of 48,200. In addition to the $2.7 million in direct income, recreation by non-residents in the Crystal Basin was responsible for approximately $866,900 in secondary (indirect and induced) income. The total additional income of $3.6 million represents less than one tenth of one percent (0.06 percent) of the total El Dorado County personal income in 2003 of about $6,189 million (USDOC, 2004). According to the IMPLAN analysis, the average expenditures by non-residential visitors within El Dorado County of $5.7 million[7] (in 2003 dollars) resulted in secondary (indirect and induced) output of about $2.6 million. Thus, the additional total output of $8.2 million represents slightly more than one tenth of one percent (0.13 percent) of the El Dorado County total industry output for 2003 of $6,506[8] million (IMPLAN, 2001).

Regional. According to the IMPLAN analysis, expenditures by non-resident recreation visitors resulted in 47 direct jobs and 16 secondary (indirect and induced) jobs, for a total of 63 jobs. The additional 63 jobs represent less than one tenth of one percent (0.01 percent) of the total 2003 Sacramento PMSA employment by industry of 755,900. In addition to the $1.2 million in direct income, recreation visitors from outside the Sacramento region were responsible for approximately $550,500 in secondary (indirect and induced) income. The additional total income of about $1.7 million represents less than one tenth of one percent (0.003 percent) of the total Sacramento region's personal income in 2003 of about $56,201 million (USDOC, 2004). According to the IMPLAN analysis, the average expenditures by non-residential visitors within the Sacramento region of approximately $2.4 million[9] (in 2002 dollars) resulted in secondary (indirect and induced) output of about $1.6 million. Thus, the additional total output of $4.0

[6] The 2001 IMPLAN estimates have been adjusted to 2003 dollars using the Consumer Price Index (CPI).
[7] This is the $5,526,280 in 2002 dollars (see Table 3-4), when adjusted for inflation using the Consumer Price Index (CPI).
[8] Difference between total personal income and total industry output is comprised of indirect business taxes and capital-type income (rents, royalties and dividends) which are paid to individuals or corporations.
[9] This is the $2,368,406 in 2002 dollars (see Table 3-5), when adjusted for inflation using the Consumer Price Index (CPI).

million represents less than one tenth of one percent (0.004 percent) of the Sacramento region's total industry output for 2003 of $95,201 million (IMPLAN, 2001).

E.3.2 Costs of the UARP

The impacts of recreation in the Crystal Basin were evaluated through three types of analyses: 1) an analysis of community attitudes toward the Crystal Basis Recreation Area; 2) a fiscal impact analysis; and 3) an analysis of public safety needs. The community attitude analysis is based on a survey of 153 residents in Placerville and Pollock Pines. The fiscal impact analysis uses cost data provided by each of the relevant public agencies. The analysis of public safety needs is also based on information provided by each of the affected public agencies.

Detailed discussion pertaining to the analysis of community attitudes and fiscal impact analysis are provided in Sections 3.2.1 and 3.2.2 of this report. Section 3.2.3 identifies the needs of public safety agencies to serve the Crystal Basin area.

E.3.2.1 Community Attitude Survey

The community attitude analysis is based on a survey of 153 residents in Placerville and Pollock Pines. The average age of the respondents was 43 years and a majority of them (76 percent) had lived in the study area for more than 5 years. Approximately 32 percent had an annual income of less than $40,000, 42 percent were between $40,000 and $80,000, and 26 percent had an annual income of more than $80,000. According to the survey, the respondents do not feel that their lifestyles are adversely affected by recreational visitors; they are happy to live near the reservoirs, which provide recreational opportunities for themselves and opportunities for physical exercise to assist them in maintaining good health. With regard to community cohesion (an indication of social and interactive aspects of the quality of community life), more than one-half of the residents interviewed feel some community pride as a result of being a recreation destination. Respondents seemed to agree that their opinions mattered on recreation development issues but were split evenly on the issue of crowding of areas surrounding Crystal Basin reservoirs as a result of visitor recreation. About one-third of the respondents said that the Crystal Basin was crowded, one-third said that it wasn't, and the remaining one-third were unsure. Detailed discussion pertaining to the analysis of community attitudes are provided in Sections 3.2.1 of this report.

E.3.2.2 Fiscal Impacts

Fiscal impacts are monetary impacts to public agencies. The USFS expenditures within the Crystal Basin total $820,000 a year (Bilyeu, 2004a). Of the total $820,000, $400,000 is non-appropriated. The remaining $420,000 comes from monies appropriated by US Congress for use in the Crystal Basin. Of the $400,000 in non-appropriated monies, $330,000 is funds from SMUD. The funds are monies that SMUD pays to the USFS to maintain recreational facilities that were constructed after the Recreation Plan was revised in 1985 due to the addition of the Jones Fork Powerhouse. The remaining $70,000 is partly from monies collected from users that remain for use within the Crystal Basin area under a special program called "Fee Demo." The remaining Fee Demo monies are remitted to the federal government. The $820,000

is used to pay for the following: public information, public safety, recreational facility maintenance, maintenance of trails, recreational support for wildlife, recreational support for watershed, capital improvements, and overhead (salaries and vehicles).

Based on information provided by the ENF, total user fees (concessionaire and fee demo) collected at UARP recreation facilities in 2002 was $497,200. Of this amount, about $113,850 was retained by the ENF while $383,350 was retained by the concessionaire. The results of the fiscal impacts analysis are presented in Section 3.2.2.

E.3.2.3 Needs of Public Safety Agencies

The findings in this section address Pertinent Issue Question # 25, "What are the public safety needs of induced recreation on law enforcement, medical, and search and rescue (risks, issues, mitigation)?" For purposes of this study, "needs" refer to specific requests or requirements identified by agency staff through telephone or email communication but for which no substantiating documents were provided.

Fire Suppression and Prevention Needs

According to the USFS, providing adequate fire suppression and prevention services to the Crystal Basin would require the addition of an engine module, a squad and one fire prevention technician. An engine module is comprised of a Type III engine operated by five firefighters. Since the engine module is needed seven days a week during the fire season, the USFS needs seven firefighters. A squad is comprised of a Type IV engine and four firefighters. The squad responds to medical and/or vehicle accidents. The fire prevention technician deals with fire related law enforcement issues, contractor and permittee fire inspections, camp fire issues and provides education to the public using the dispersed recreation areas (Johnson, 2004).

The USFS estimates the total average annual payroll costs for staffing the additional modules as well as for the fire prevention technician to be about $301,500 (Johnson, 2004). Of the $301,500, $141,400 is the average annual payroll associated with the Type III engine module, $101,600 is the average annual payroll of the Type IV engine (squad), $24,620 is the average annual salary for a fire prevention technician and $33,840 is the ongoing operational expenses associated with the modules. In addition to the payroll, the USFS expects to incur a one-time only cost of $150,000 in the purchase a Type IV engine. All of the needs identified above only apply during the fire season (assumed to be May through October).

Law Enforcement Needs

According to the Sheriff's Office, providing adequate patrol to the Crystal Basin would require three[10] additional deputy positions (one on day shift and two on swing shift) and three additional patrol cars. The total annual costs for these additional deputies, their equipment and the

[10] The three additional deputy positions are equivalent to 7.5 deputies (Egbert, 2004). Current annual salary (including benefits) for a mid-step Deputy Sheriff in El Dorado County is $90,000. For the 7.5 deputies the total payroll is 7.5 x $90,000, or $675,000.

operating expenses associated with the equipment is expected to be $743,400 per year. In addition to the ongoing expenses, the Sheriff's Office expects to have a one-time-only equipment cost of $90,400, of which $40,000 will be in additional patrol cars (Egbert, 2004).

To augment their patrol on the reservoirs and rivers, the Sheriff's Office anticipates that it will need one Deputy Sheriff per day, a patrol boat and the associated equipment and operational expenses. Thus, the Sheriff's Office estimates that it will need $80,000 in one-time-only equipment expenses and $155,000 per year in on-going operating expenses. The $155,000 in on-going operating expenses includes $135,000 in additional deputy payroll (salary and benefits) and $20,000 in operating expenses (maintenance and fuel) for the patrol boat.

Although the above estimates are for a full year, most of the recreation in the Crystal Basin occurs during a five-month period, i.e., May through September. Thus, the above personnel cost estimates can be adjusted to reflect the portion attributable to the Crystal Basin's primary recreation season. Five-twelfths of the $685,000 annual land-based patrol personnel costs is $285,000, and five-twelfths of the $135,000 annual water-based patrol personnel costs is $56,000.

E.3.3 Summary

While a number of social and economic impacts such as increased demand for fire suppression and law enforcement services have been associated with recreation in the Crystal Basin, the operation of the UARP project facilities at Fresh Pond and visitor expenditures within the area have been responsible for economic benefits. These economic benefits accrue to both El Dorado County and the Sacramento region. In 2003, both operational and visitor trip expenditures were responsible for a total of 297 jobs (131 from operations and 166 from recreation) in El Dorado County. The corresponding number for the Sacramento region was 249 jobs (186 from operations and 63 from recreation). In terms of income, the UARP operations at Fresh Pond and the visitor trip expenditures in Crystal Basin are responsible for a total of $13.3 million ($9.7 million from operations and $3.6 million from recreation expenditures) in contributions to the El Dorado County economy. At the regional level, the contribution of the UARP project (both operational and recreation) to Sacramento region's economy is roughly $15.7 million ($13.9 million from operations and $1.7 million from recreation). Since El Dorado County is part of the Sacramento region, the numbers shown for the Sacramento region are inclusive of those shown for El Dorado County.

At the regional level, the generation of hydroelectricity from the UARP provides a number of benefits including operational-flexibility, system reliability, economical generation and grid stability. In addition, by focusing generation during times of high demand or short supply, the clean hydroelectric power from the UARP displaces the more inefficient, more polluting, power plants that would otherwise be called into service to operate at those times.

1.0 INTRODUCTION

This report is a revision of the Socioeconomic Study for the UARP report previously prepared by CSUS (2004) and submitted to the Socioeconomic Technical Working Group (TWG). With the exception of the community attitude survey (Section 3.2.1) and recreation data (Section 3.1.2.2.3), all the information contained in this report, including the regional economic analysis, was specific developed for this revision.

1.1 Study Objectives

This section describes the study objectives as defined in the Socioeconomic Impact Study Plan approved by the Plenary Group and updated through collaboration with the socioeconomic technical workgroup (see Appendix A). The objectives of the socioeconomic study are:

- Identify the socioeconomic benefits of the Project-related recreation opportunities and other externalities to the region
- Identify the socioeconomic costs of the Project-related recreation opportunities and other externalities to the region

The above objectives are met through addressing the following Pertinent Issue Questions as set forth in the UARP Socioeconomic Impact Study Plan:

2. What are the socioeconomic benefits (direct, indirect and induced) and costs of the UARP to El Dorado County and the Region?

5. What are the benefits and costs (local and regional) of the UARP to federal land agencies?

25. What are the public safety needs of induced recreation on law enforcement, medical, and search and rescue (risks, issues, mitigation)?

1.2 Methodology and Assumptions

Regional economics is the study of the economy of a small region. Regional economic impacts are concerned with the effects of changes in the economy of the study region. The magnitude of the economic impacts is determined by the interactions between linkages within the local/regional economy and the leakages (i.e., money spent outside the region) from this economy to the larger economy. Economic linkages are the relationships between industries, businesses, factors[11] and government created by trade and other exchange, such as taxes, within and among regions. Economic linkages create multiplier effects in a regional economy as money is circulated by trade. For example, suppose a construction company is paid $100,000 to construct a fish hatchery. The construction company spends part of the $100,000 to purchase materials (such as concrete) and part to pay construction workers. The purchase of the materials constitutes a direct effect and would lead to increased output from the concrete manufacturing

[11] Factors refers to factors of economic production, i.e., land, labor and capital

sector, which in turn would lead to increased output from the sectors that provide input into the concrete manufacturing sector such as the cement manufacturers or sand suppliers (as well as those sectors that provide inputs to the cement and sand, and so on). The increased expenditures on construction materials would have the effect of not only increasing output from sectors directly linked to the economic activity but those that supply the inputs to the directly-affected sectors. Thus, the initial expenditure on materials (e.g., cement) is typically referred to as the direct effect or impact. The second set of impacts (those resulting from the purchases made by the directly affected sector) are referred as the indirect effect or impact. The construction workers hired for the project spend part of their income to purchase food at the grocery store, which in turn pays for labor at the store and other inputs from the food suppliers. The impacts resulting from construction worker payroll expenditures are referred to as the induced effect or impact.

The magnitude of impacts resulting from economic linkages is limited by the amount of leakage that occurs within the region. Economic leakages are a measure of the income shares spent outside of the region. Thus, the more economic leakage, the less the multiplier effect. Or conversely, the better a region is able to capture expenditures the higher the multiplier effect. Economic leakages are generally higher the smaller the regional economy because the local region may not supply all of the needs of the residents. For example, if one needs a new car, and there are no local car dealers, one may go to the next county to purchase a car. Therefore, the economic leakages for a county are larger than those for the state, which are larger than those for the nation.

A number of regional economic analysis modeling systems (consisting of data as well as analytical software) are available for use in regional economic analysis, e.g., REMI (Regional Economic Models Inc.), RIMS II (Regional Industrial Multiplier System II), and IMPLAN (IMpact Analysis for PLANning). IMPLAN is a computer database and modeling system used to create input-output (I-O) models for any combination of U.S. counties. For this study, IMPLAN was selected since it has a current database and is readily available. In addition, IMPLAN was selected because its database represents county-level economic activity for a total of 509 sectors and can, in addition to describing regional economies, show the effects of introducing new industries, removing existing industries, and changing demand or supply of some product in the economy. For detailed explanation of the IMPLAN model see Appendix B.

The IMPLAN package includes: (1) estimates of final demands and final payments for counties developed from government data, (2) a national average matrix of technical coefficients, (3) mathematical tools that help the user structure the input/output model, and (4) tools that allow the user to change data, conduct impact analysis, and generate reports.

The analyses presented in this report evaluate the regional economic impacts associated with recreation in the Crystal Basin area and with the operation of the SMUD UARP Fresh Pond hydroelectric facilities. Since the impacts associated with recreation are different from those associated with operation at Fresh Pond, the impacts are separately evaluated and presented.

1.3 Geographic Scope

A majority of the UARP project facilities are located within El Dorado County. However, the electricity generated by the project is used in SMUD's service territory, which is located mainly in Sacramento County. As such, the project's operational impacts (benefits as well as costs) and those impacts associated with the use of recreation facilities provided by the project are assumed to occur within El Dorado County as well as Sacramento County. For purposes of analyzing the socioeconomic impacts of the UARP project, the region of influence was determined to be comprised of (1) the local area and (2) regional area. The local area is defined as the area in close proximity to the project and is represented by El Dorado County as a whole and by communities in close proximity to the project where applicable. The regional area is defined as the Sacramento Primary Metropolitan Statistical Area (PMSA). The Sacramento PMSA is comprised of the counties of El Dorado, Placer and Sacramento (see Figure 1-1). These three counties are economically linked and are referred to as the Sacramento region in this report.

The socioeconomic factors that will be evaluated at the local level include local government fiscal resources, public services, recreation resources and infrastructure. The following socioeconomic factors will be evaluated at the regional level: population, housing, and economic development (including employment and income).

1.4 Definition of Terms

This section defines important terms used in the study. For ease of reference, they are listed in alphabetical order.

Community Cohesion

When residents have a similar cultural background, they tend to identify with each other to achieve their common goals. Therefore, resident relationships are directly related to the support for community cohesion. Without a meaningful and shared image, resident involvement can disappear, thus threatening the basis for community cohesion (Huang and Stewart, 1996). Community cohesion occurs when residents of a given community help each other out when in need (Lee, 2000). This study looks at community cohesion as a characteristic of community attachment and educational/cultural exchange.

Crowding

Crowding occurs when an attraction receives visitors in numbers in excess of its carrying capacity (Griffin et al., 2001).

Crystal Basin Recreation Area

The Crystal Basin Recreation Area, or Crystal Basin, is an 85,000-acre area of the Eldorado National Forest, located along the western slopes of the Sierra Nevada Mountains, primarily in El Dorado County (see Figure 1-1). The UARP's three primary storage reservoirs – Union Valley, Ice House and Loon Lake – are located in the Crystal Basin. Although a majority of the

Crystal Basin is federal lands managed by the USFS, a significant amount of the lands within the basin are private lands, most of which is owned by Sierra Pacific Industries.

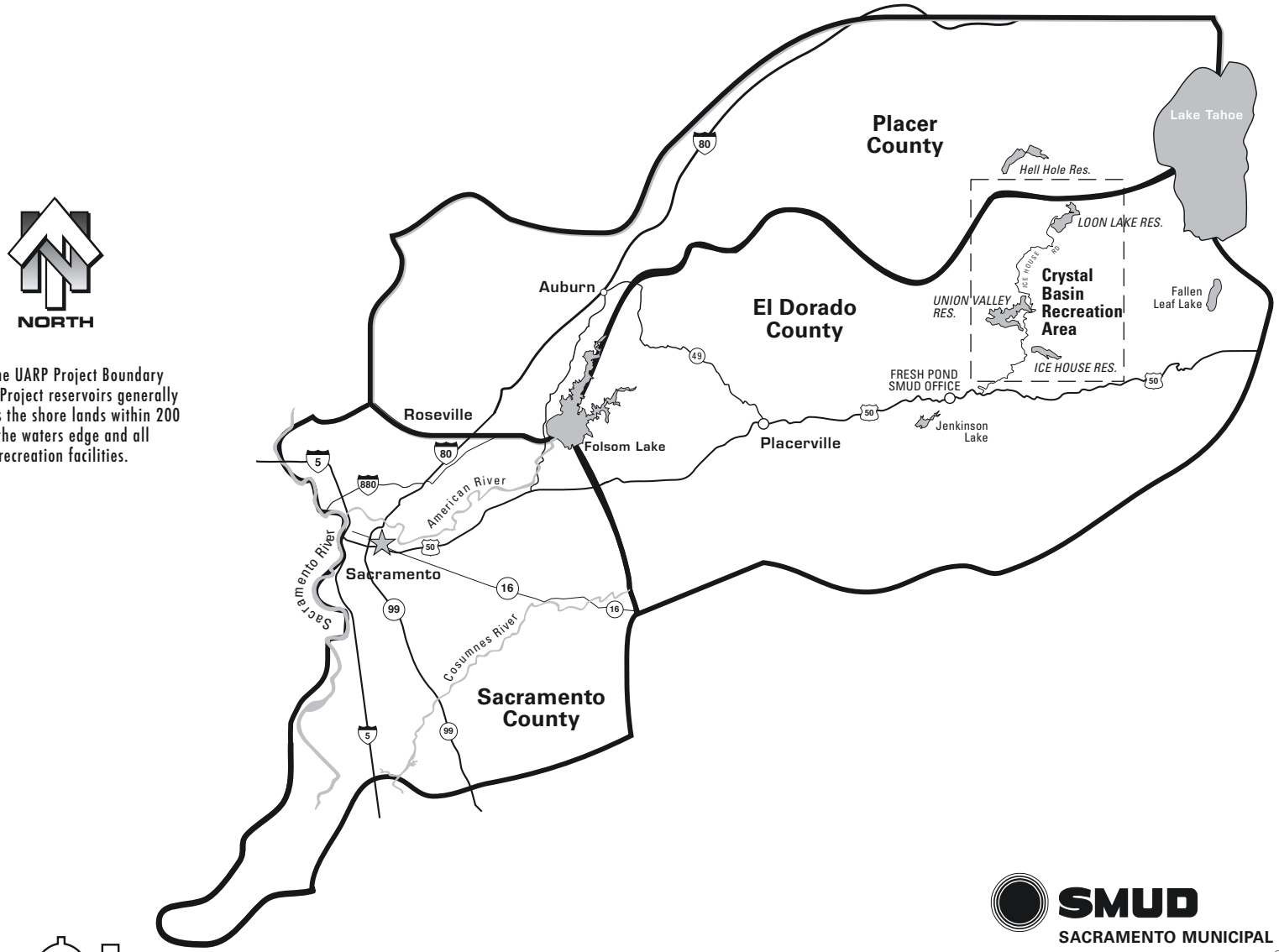
Economic Impact

Economic impact is defined as an analysis that traces the flow of spending associated with economic activity in a region to identify relationships between sales, income, and jobs. Economic impact analysis of recreation generally involves three steps: obtaining detailed visitor expenditure data, finding total expenditures, and applying appropriate multipliers to determine direct and indirect economic impacts (Gartner and Holecek, 1983).

"Direct" impacts result from the initial spending by visitors to the region. The "indirect" impacts come from the business purchases from other businesses (business to business) as a result of the initial spending. T he induced impacts show the increase in household spending resulting from increases in employee compensation in the direct and indirectly affected businesses.

Impacts are measured in terms of output, value added, and employment. Output is measured in millions of dollars. The dollars represent the value of the total production of the industry. Value added has four subcomponents: Employee Compensation, Proprietary Income, Other Property-Type Income, and Indirect Business Taxes. Employment is listed as a single number of jobs for each industry or all the industries as a whole.

Figure 1.1 Map of the Sacramento Region



Note: The UARP Project Boundary around Project reservoirs generally includes the shore lands within 200 feet of the waters edge and all Project recreation facilities.

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Input/Output Models

Input/output models help to determine the direct impact of recreation, as well as indirect and induced impacts for a region like El Dorado County or the Sacramento Primary Metropolitan Statistical Area (PMSA). Input/output models are defined as mathematical models that describe the flows of money between sectors in the economy of a region (Wagner 1997; English, 2000). A brief description of input/output models is provided in Section 1.2.

IMPLAN

IMPLAN was originally developed by the University of Minnesota for the United States Department of Agriculture (USDA) Forest Service (USFS) in cooperation with the Federal Emergency Management Agency (FEMA) and the United States Department of the Interior, Bureau of Land Management to assist the Forest Service in land and resource management planning (Alward, 1985). IMPLAN is a computerized database and modeling system that is used for constructing regional economic accounts and regional input/output tables. The IMPLAN model relies on two sets of data. The first set is a 509 sector input/output transaction table. This table describes the use and production of commodities by the 509 agriculture, manufacturing, commercial, and government sectors in the economy of the United States (U.S.). The second set of data is the county-level data used for examining a regional input-output structure that describes total output, employment, and the components of final demand and value added for the sectors within the region (Upneja et al., 2001). More information about the IMPLAN model is provided in Appendix B.

Lifestyle

Lifestyle is a person's "mode of expression…the outward manifestation of one's lifestyle includes such items as dress, speech patterns, language, activity selection, living arrangements" (Sessoms, 1985). This study defines lifestyle as social awareness and prescription for a particular way of living. Resident income, perceptions of safety, and attitude toward recreation and health issues represent lifestyle values.

Multipliers

Fletcher (1989) has defined multipliers as the ratio of one variable to the change in final demand brought about by the variable. These variables can refer to the level of output, income, employment, government revenue and so on of an economy. In this study, multipliers are defined as things that capture secondary economic effects (indirect and induced) of recreation and tourism activity. Multipliers generally come from an economic base or input/output model of a region's economy; in this case, the IMPLAN model will be used to determine this information. Type I multipliers measure the direct and indirect effects of change in economic activity. Social Accounting Matrix (SAM) multipliers capture direct, indirect, and induced effects including effects on households and local governments, which are not contained in the earlier types. It uses all the social accounting matrix information to generate a model that captures inter-industry and inter-institutional transfers.

Personal Income

Personal income, as used in the regional economic analysis section of this report, refers to employee compensation (total payroll including benefits) and proprietary income (payments by self-employed individuals as income).

Plenary Group

The Plenary Group is a self-governing group of interested parties – including SMUD, resource agencies, businesses and non-governmental organizations – formed specifically for the UARP Alternative Licensing Process. The responsibilities of the Plenary Group include establishing Technical Working Groups and determining which studies should be conducted for the UARP relicensing.

Pollution

Pollution is more than visible litter (Ap and Crompton, 1998). It can affect the quality of air, sound and water. Pollution on land also is related to traffic congestion that includes vehicle exhaust, noise, and accidents.
Primary Metropolitan Statistical Area (PMSA)

Primary Metropolitan Statistical Areas consist of a large urbanized county or cluster of counties that demonstrates very strong internal economic and social links, in addition to close ties to other portions of the larger area (CEDD, 2004a).

Recreation Sites

Individual recreation sites are where recreational activities and the direct economic impacts addressed in this study occur. The recreational focal area is the area surrounding the site/facility, which is considered the local impact zone.

UARP or Project Recreation Facilities

The UARP or Project recreation facilities are those developed campgrounds, boat launch and picnic facilities generally located along the shorelines of the UARP storage reservoirs that were constructed by SMUD as part of the 1964 original recreation plan for the UARP or the 1985 Exhibit R recreation plan. All of the Project recreation facilities are located on federal land and are owned by the USFS.

Visitors

Visitors are defined as people who participate in recreational activities at the Crystal Basin area. Local visitors are residents of El Dorado County while non-local visitors reside outside the County.

1.5 Documents Reviewed

This section describes the general resources that were used to obtain data and other relevant information. The list of general resources includes the following:

- Published literature;
- Public reports;
- Internet sources;
- Personal observations from site visit;
- Dialogues with members of communities, organizations, and agencies; and
- Information from socioeconomic work group members.

These information resources were accessed through a literature review, Internet searches, a site visit, and dialogues with representatives from local communities, non-governmental organizations, governmental organizations and agencies, and work group members.

A complete list of published literature, public reports, Internet sources and contacts is provided in Section 4.0, References.

In addition to the documents referenced in this report, the following documents were also reviewed:

- Upper American River Project FERC Project No. 2101 – Initial Information Package, July 2001.
- Upper American River Project (UARP), FERC Project No. 2101 – Scoping Document 2, May 2004.
- Sacramento Municipal Utility District - Annual Report: 2003.
- Sacramento Municipal Utility District EIA 412 - Annual Report of Public Electric Utilities, dated April 30, 2003.
- Exhibit D (Draft) per 18 CFR 4.41 – Statement of Costs and Financing.
- Exhibit H (Draft) per 18 CFR 16.10 – Plans and Ability of Applicant to Operate Project Efficiently for relicense.
- El Dorado County (EDC). 2004 El Dorado County General Plan - A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief.

2.0 SOCIOECONOMIC ENVIRONMENT

2.1 General Description of Setting

El Dorado County is at the heart of California's Gold Rush country, often called the "Mother Lode." Folsom Lake and rolling foothills are on the western border with Sacramento County. Lake Tahoe and the 10,000-foot mountain peaks are on the eastern border that El Dorado County shares with the State of Nevada. Within these borders are great rivers, lakes, gold mines, historic towns, incredible views and everything that nature has to offer.

El Dorado County is just 30 miles east of Sacramento, California's State Capitol, and only 40 miles west of Carson City, Nevada's State Capitol. San Francisco lies 125 miles to the west and Reno is a mere 50 miles to the northeast of the "Golden County."

The Crystal Basin Recreation Area is an 85,000-acre area of the Eldorado National Forest, located along the western slopes of the Sierra Nevada Mountains, primarily in El Dorado County (see Figure 1-1). The UARP's three primary storage reservoirs – Union Valley, Ice House and Loon Lake – are located in the Crystal Basin. Although a majority of the Crystal Basin is federal lands managed by the USFS, a significant amount of the lands within the basin are private lands, most of which is owned by Sierra Pacific Industries.

2.2 Regional Environment

2.2.1 Population

Table 2-1 presents the current, historical and projected population of El Dorado County. Table 2-1 also shows the population of Sacramento County and the Sacramento region as well as that of the State of California. According to the most current population estimates (as of January 1, 2004), El Dorado County had an estimated population of 168,100 (DOF, 2004a). About 80 percent of this population lives in the unincorporated parts of the county while the remaining 20 percent live in the two incorporated cities of Placerville (10,100 or 6 percent) and South Lake Tahoe (23,600 or 14 percent). In terms of population size, El Dorado County ranks 30 out of the 58 counties in California and the two cities within the county are among the smallest in the state (DOF, 2004b). The population of Sacramento County, as of January 1, 2004, was 1,335,400 while that of the Sacramento region was 1,795,000. In terms of population size, Sacramento County dominates the Sacramento region with about 74 percent of the region's population residing in Sacramento County.

El Dorado County, Sacramento and the Sacramento PMSA are expected to experience population growth in the coming decades. El Dorado County's population is projected to increase to 221,300 by the year 2020 (DOF, 2004c) while that for Sacramento, Sacramento PMSA and the State is projected to increase to about 1.9 million, 2.6 million and 43.9 million, respectively. Table 2-1 shows the historic and projected population for El Dorado County, Sacramento County, Sacramento PMSA and the State of California.

Table 2-1. Historical, Current and Projected Populations*

Area	1990	1995	2000	2004a	2010(p)	2020(p)	2030(p)
El Dorado County	127,300	144,900	156,299	168,100	188,500	221,300	250,200
Sacramento County	1,041,219	1,118,600	1,223,499	1,335,400	1,555,800	1,946,700	2,293,000
Sacramento Region[b]	1,340,010	1,469,700	1,628,197	1,795,600	2,093,400	2,624,000	3,087,900

Table 2-1. Historical, Current and Projected Populations*							
Area	**1990**	**1995**	**2000**	**2004a**	**2010(p)**	**2020(p)**	**2030(p)**
California	29,758,213	31,617,000	33,871,648	36,144,000	39,246,800	43,851,700	48,110,700

Source: DOF, 2004a; 2004c; 2004d; SACOG, 2001.
* Projected populations rounded to nearest 100.
[a] As of January 1, 2004.
[b] The Sacramento Region or the Sacramento Primary Metropolitan Statistical (PMSA) is comprised of the counties of El Dorado, Placer and Sacramento.
(p) = projected.

El Dorado County and the Sacramento region in general have been experiencing a steady population growth rate exceeding the State average. During the period between 1990 and 1995, El Dorado County grew faster than Sacramento County, the region and the State. The El Dorado County population increased by almost 14 percent between 1990 and 1995 (for an annual average compounded growth rate of 2.6 percent). Since 1995, its growth rate has slowed to be closer to that of the State and is anticipated through 2030 to grow at a rate that is slower than Sacramento County and the region, but faster than the State. Table 2-2 shows the historical and projected annual average compounded population growth rates for the region and the State.

Table 2-2. Historical and Projected Annual Average Compounded Population Growth Rates						
Area	**1990-1995**	**1995-2000**	**2000-2004**	**2004-2010**	**2010-2020**	**2020-2030**
El Dorado County	2.6%	1.8%	1.5%	1.9%	1.6%	1.2%
Sacramento County	1.4%	1.8%	2.2%	2.6%	2.3%	1.7%
Sacramento Region[a]	1.9%	2.1%	2.5%	2.6%	2.3%	1.6%
California	1.2%	1.4%	1.6%	1.4%	1.1%	0.9%

[a] The Sacramento Region or the Sacramento Primary Metropolitan Statistical (PMSA) is comprised of the counties of El Dorado, Placer and Sacramento.

According to the US Census 2000, the population of El Dorado County is predominantly White[12] (about 90 percent). Thus, only about 10 percent of the County's population is Minority. Of the 10 percent of the population that is Minority, 3.5 percent are individuals who identified themselves as "Some Other Race" while 3 percent are individuals who identified themselves as belonging to "Two or More Races." Though "Hispanic" is an ethnic and not a racial classification, Hispanics accounted for about 9 percent of the population in El Dorado County.

From a regional perspective, the Sacramento PMSA is more racially diverse than El Dorado County. The population in Sacramento PMSA is about 70 percent White with the remaining 30 percent being split between African American (7.7 percent), Asian (8.9 percent), and "Some Other Race" and "Two or More Races" together representing 11.7 percent. Hispanics are about 14 percent of the population of Sacramento PMSA. As with the discussion on the general

[12] White refers to people having origins in any of the original peoples of Europe, Middle East or North Africa. Thus, the recent immigrants into El Dorado County and the general Sacramento region from Russia, the Ukraine and a number of Eastern European states, are captured here.

population characteristics at the beginning of this section, the racial and ethnic distribution seen at the regional level, i.e., Sacramento region, is heavily influenced by Sacramento County's population. Sacramento County's population is 64 percent White and as such has more minority population. Sacramento County also has a greater Hispanic population distribution (16 percent) than that seen in El Dorado County or in the Sacramento region.

Table 2-3. Race and Ethnic Distributions, 2000 Census

Area	Total Population	White[a]	Black or African American	American Indian and Alaskan Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic[b]
El Dorado County	156,299	89.8	0.6	1.0	2.0	0.1	3.5	3.0	9.2
Sacramento County	1,223,499	64.0	10.0	1.1	11.0	0.6	7.5	5.8	16.0
Sacramento Region	1,628,197	70.3	7.7	1.0	8.9	0.5	6.5	5.2	14.4
California	33,871,648	59.4	6.6	0.9	10.9	0.3	16.9	5.0	32.4

Source: US Census 2000.
[a]Refers to persons having origins in any of the original peoples of Europe, the Middle East, or North Africa. Thus, includes the increasing numbers of Russian, Ukrainian and Romanian immigrant populations.
[b]Hispanics or Latinos are those people who classified themselves in one of the specific Spanish, Hispanic, or Latino categories listed on the Census 2000 questionnaire—"Mexican, Mexican Am., Chicano," "Puerto Rican," or "Cuban"—as well as those who indicate that they are "other Spanish/Hispanic/Latino." People who identify their origin as "other Spanish/Hispanic/Latino" may be of any race. Thus, the percent Hispanic should not be added to percentages for racial (i.e., minority) categories

2.2.2 Housing

As shown in Table 2-4, housing stock for El Dorado County as of January 1, 2004, was 77,181 units. Single-family homes accounted for 64,227 units, multiple-family dwellings accounted for 8,580 units, and mobile homes accounted for 4,374 units (DOF, 2004a). New housing authorizations for El Dorado County in 2002 totaled 1,947 units; about 90 percent were single-family and 10 percent were multiple-family units. These authorizations were valued at about $480 million (DOF, 2004e). In December 2001, the median home price in El Dorado County was $215,000 (DOF, 2004f). Housing availability, as measured by vacancy rate, has declined between 1990 (about 23.8 percent) and 2004 (about 17.1 percent).

Table 2-4 also shows housing estimates for Sacramento County and the region. Since housing and population estimates are closely linked, it is not surprising that there are more housing units in Sacramento and the region compared to El Dorado County. As of January 1, 2004, Sacramento had 512,912 housing units of which 359,751 were single family units,

Table 2-4. Housing Estimates for El Dorado County, Sacramento County, Sacramento Region and State of California, January 1, 2004

Area	Total Units	Single-Family	Multi-Family	Mobile Homes	Percent Vacant
El Dorado County	77,181	64,227	8,580	4,374	17.1
Sacramento County	512,912	359,751	137,577	15,584	4.3
Sacramento Region	719,404	527,273	167,456	24,675	6.9
California	12,759,585	8,216,731	3,965,206	577,648	5.8

Source: DOF, 2004a.

137,577 were multiple-family units, and 15,584 were mobile units (DOF, 2004a). New housing authorizations in Sacramento in 2002 totaled had 12,854 housing; about 80 percent were single-family and 20 percent were multiple-family units. These authorizations were valued at approximately $2.3 billion. In December 2001, the median home price in Sacramento County was $175,000 (DOF, 2004f). Housing availability, as measured by vacancy rate, has declined between 1990 (about 5.5 percent) and 2004 (about 4.3 percent), though not as significant as it has in El Dorado County.

2.2.3 Economic Development

This section describes employment and income in El Dorado County and the Sacramento region.

2.2.3.1 Employment

The El Dorado County economy is based on (in order of importance): services, government, retail trade, and construction (see Table 2.5). The Services sector is the largest sector in the county, accounting for about 40 percent of all employment. Between 1997 and 2002, the Services sector had an average annual compounded growth rate of 7.5 percent. During the same period, employment in the government sector accounted for about a fifth of total industry employment and experienced a 2.3 percent average annual compounded growth. Although the Services and Government sectors dominated the economy during the 1997 to 2002 period, the sector experiencing the largest growth was the Financial Activities sector. The Financial Activities sector had a 16.5 percent average annual compounded growth rate for the period. The Construction sector also showed a significant increase in employment—increasing from 2,500 to 4,500 during the 1997 to 2002 period. This increase in construction employment translates to an average annual compounded growth rate of 12.5 percent. Most of the increase in the Construction sector employment can be assumed to be as a result of the recent boom in housing development that has occurred in the western part of the county as well as in other part of the Sacramento region. Retail trade sector accounted for about 14 percent and 18 percent of employment in 1997 and 2002, respectively. However, the average annual compounded growth rate for the period was only 3.3 percent. Employment in the Agriculture, Natural Resources and Mining, and Information sectors did not grow during the 5-year period (1997 through 2002).

Table 2-5. Employment Distribution in El Dorado County, 1997 to 2002

Industry	1997		2002		1997-2002	
	Number of Employees	Employment Share	Number of Employees	Employment Share	Percentage Change	Average Annual Compound Growth Rate
Agriculture	300	1.0%	300	0.6%	0.0%	0.0%
Construction	2,500	7.4%	4,500	9.5%	80.0%	12.5%
Natural Resources, Mining	200	0.5%	200	0.4%	0.0%	0.0%
Manufacturing	1,900	5.1%	2,200	4.7%	15.8%	3.0%
Wholesale Trade	700	1.8%	900	1.9%	28.6%	5.2%

Table 2-5. Employment Distribution in El Dorado County, 1997 to 2002

Industry	1997		2002		1997-2002	
	Number of Employees	Employment Share	Number of Employees	Employment Share	Percentage Change	Average Annual Compound Growth Rate
Retail Trade	5,100	13.5%	6,000	12.7%	17.6%	3.3%
Transportation, Warehousing and Utilities	600	1.5%	800	1.7%	33.3%	5.9%
Information	600	1.5%	600	1.3%	0.0%	0.0%
Financial Activities	1,400	3.8%	3,000	6.4%	114.3%	16.5%
Services	14,200	42.1%	19,300	40.9%	43.4%	7.5%
Leisure & Hospitality	5,900	17.1%	7,400	14.8%	25.4%	4.6%
Government	8,400	21.7%	9,400	19.9%	11.9%	2.3%
Total Employment	35,900	100.0%	47,200	100.0%	31.5%	5.6%

Source: CEDD, 2004b.

The Services sector is comprised of the following four subsectors: Professional and Business Services, Education and Health Services, Leisure and Hospitality, and Other Services. The Leisure and Hospitality subsector is comprised of establishments primarily engaged in providing recreation-related services including accommodation. Employment in establishments that support recreation (including recreational fishing) are included in the Leisure and Hospitality services subsector. Employment in the Leisure and Hospitality subsector (5,900) in 1997 accounted for about 40 percent of the total employment in the Services sector (14,200). Thus, about 17 percent of the total industry employment in the Services sector (in 1997) was in the Leisure and Hospitality subsector. The estimates for 2002 show that employment in the Leisure and Hospitality subsector was 7,400 or about 40 percent of the total employment in the Services sector (19,300). The 7,400 jobs represent about 15 percent of the total industry employment in El Dorado County. Consequently, the Leisure and Hospitality subsector is an important contributor to the El Dorado County employment and its economy.

Table 2-6 shows the employment distribution within the Sacramento region for the most recent 5-year period (1998-2003). As mentioned previously in this report, the Sacramento region is comprised of the counties of El Dorado, Placer and Sacramento. Between 1998 and

Table 2-6. Employment Distribution in Sacramento Region, 1998 to 2003

Industry	1998		2003		1998-2003	
	Number of Employees	Employment Share	Number of Employees	Employment Share	Percentage Change	Average Annual Compound Growth Rate
Agriculture	3,700	0.0%	3,500	0.5%	-5.4%	-1.1%

Table 2-6. Employment Distribution in Sacramento Region, 1998 to 2003

Industry	1998		2003		1998-2003	
	Number of Employees	Employment Share	Number of Employees	Employment Share	Percentage Change	Average Annual Compound Growth Rate
Construction	37,300	5.6%	60,800	8.0%	63.0%	10.3%
Natural Resources, Mining	500	0.1%	500	0.1%	0.0%	0.0%
Manufacturing	43,900	6.6%	39,500	5.2%	-10.0%	-2.1%
Wholesale Trade	18,600	2.8%	21,100	2.8%	13.4%	2.6%
Retail Trade	73,900	11.1%	87,500	11.6%	18.4%	3.4%
Transportation, Warehousing and Utilities	14,600	2.2%	14,500	1.9%	-0.7%	-0.1%
Information	16,500	2.5%	20,400	2.7%	23.6%	4.3%
Financial Activities	60,200	9.0%	56,500	7.5%	-6.1%	-1.3%
Services	226,000	33.9%	260,000	34.4%	15.0%	2.8%
Leisure & Hospitality	59,400	8.9%	70,700	9.4%	19.0%	3.5%
Government	171,800	25.8%	191,600	25.3%	11.5%	2.2%
Total Employment	667,000	100.0%	755,900	100.0%	13.3%	2.5%

Source: CEDD, 2004b.

2003, employment in the Sacramento region increased by 88,900 jobs or about 13 percent. Most of the employment growth, in terms of overall job numbers and percent growth from 1998, was seen in the following sectors: Services (34,400 jobs or 15 percent); Construction (23,500 jobs or 63 percent); Government (19,800 jobs or 11.5 percent); and Retail (13,600 jobs or 18.4 percent). The following sectors saw declines in employment: Manufacturing (4,400 jobs or 10 percent); Agriculture (200 jobs or 5.4 percent), Financial Activities (3,700 jobs or 6.1 percent); and Transportation, Warehousing and Utilities (100 jobs or 0.7 percent).

The Sacramento region economy is based on (in order of importance): services, government and retail trade. The Services sector is the largest sector, accounting for about a third of all jobs. Between 1998 and 2003, the Services sector added 34,000 jobs for an average annual compounded growth rate of almost 3 percent. During the same period, employment in the Government sector accounted for about a quarter of total industry employment and added an additional 19,800 jobs for an average annual growth rate of 2.8 percent. Retail trade, on the other hand, continued to grow at a steady rate, increasing from 11.1 percent of the total employment in 1998 to 11.6 percent of total employment in 2003. The average annual compounded growth rate for Retail trade for the period 1998 to 2003 was 3.4 percent, a figure that is slightly above the rate observed for the entire region's total employment (2.5 percent). Although the Services and

Government sectors dominated the economy during the 1998 to 2003 period, the sector experiencing the largest growth was the Construction sector. Employment in the Construction sector increased from 37,300 to 60,800 during the 5-year period, for an average annual compounded growth rate of 10.3 percent—the highest average annual growth rate of all the sectors.

Table 2-7 provides details about the characteristics of the Sacramento region labor force. It shows 2003 employment data for El Dorado, Sacramento, and Sacramento region compared to the State employment data. The civilian labor force in El Dorado County in 2003 was about 82,600. The civilian labor force in Sacramento County and Sacramento region in 2003 was about 650,000 and 874,200, respectively. The average unemployment in the civilian labor force was 5.4 percent for El Dorado County, 5.6 percent for Sacramento County and 5.4 percent for the Sacramento region. These average unemployment rates compare favorably to the State's average unemployment rate in 2003 of 6.7 percent (CEDD, 2004c). Thus, both El Dorado County and the Sacramento region have unemployment rates that are lower than the State average.

Table 2-7. Employment Data, 2003

Area	Labor Force	Employment	Unemployment	Unemployment Rate
El Dorado County	82,600	78,200	4,400	5.4%
Sacramento County	650,000	613,700	36,300	5.6%
Sacramento Region	874,200	826,800	47,400	5.4%
California	17,460,000	16,282,700	1,177,300	6.7%

Source: CEDD, 2004c.

In May 2004, the unemployment rate in the Sacramento region was 5.1 percent, down from a revised 5.9 percent in March 2004, and close to the prior-year estimate of 5.2 percent. This compares with an unadjusted unemployment rate of 5.8 percent for California and 5.4 percent for the nation during May 2004. The unemployment rate was 5.6 percent in El Dorado County, 4.6 percent in Placer County and 5.2 percent in Sacramento County. Thus, the region as whole is continuing to do better in terms of employment when compared to the rest of the State or the nation.

According to the US Census 2000, El Dorado County is an exporter of labor, i.e., more people commute to employment outside the County than commute into the County to work. In 1999, about 45 percent of the workforce (defined as the workers 16 years and older) in El Dorado County worked outside the county (either in neighboring counties within California or outside the state). The proportion of workforce that worked outside the county was about the same for Placer County (40 percent) but significantly lower for Sacramento County (15 percent). Thus, both El Dorado and Placer are net exporters of labor. Table 2-8 shows the place of work for workers 16 years of age and older.

Table 2-8. Place of Work for Workers 16 Years and Older, 1999				
Area	**Total**	**Worked in County of Residence**	**Worked Outside County of Residence**	**Worked Outside State of Residence**
El Dorado County	72,119	55.1%	37.3%	7.6%
Placer County	116,409	59.7%	39.0%	1.3%
Sacramento County	536,310	84.5%	15.1%	0.3%
Sacramento Region	724,838	77.6%	21.2%	1.2%

Source: US Census 2000.

Table 2-9 shows the projected industry employment for El Dorado County for the period 2001 to 2008. According to the California Employment Development Department (CEDD), all industries are expected to show an increase in employment, with the lowest increase (1.1 percent) being in the Manufacturing sector. The Finance, Insurance & Real Estate sector is expected to show the highest growth at about 85 percent over the 7-year period (2001-2008), for an annual average compounded growth rate of 9.2 percent. The Finance, Insurance & Real Estate sector is now included in the Financial Activities sector shown in the preceding tables (Tables 2-5 and 2-6). Financial Activities sector is the sector representing the finance, insurance, real estate and rental and leasing sector in the new North American Industry Classification System (NAICS) which has replaced the Standard Industrial Classification (SIC) system previously used to classify sectors in the industry

Table 2-9. Employment Projections El Dorado County, 2001 to 2008				
	Annual Average Employment		**Percent Employment Change**	**Average Annual Compound Growth Rate**
Industry	**2001***	**2008**		
Total Nonfarm	44,800	56,600	26.3%	3.4%
Construction & Mining	4,600	5,800	26.1%	3.4%
Manufacturing	2,500	2,700	8.0%	1.1%
Transportation & Public Utilities	1,300	1,600	23.1%	3.0%
Wholesale Trade	1,000	1,300	30.0%	3.8%
Retail Trade	9,600	12,000	25.0%	3.2%
Finance, Insurance & Real Estate	2,000	3,700	85.0%	9.2%
Services	14,800	19,200	29.7%	3.8%
Government	9,200	10,300	12.0%	1.6%

Source: CEDD, 2004d.
*The annual average employment projections shown for 2001 do not include the agriculture or farm sector; whereas, the total industry employment in Table 2-5 includes employment in the agriculture sector.

Table 2-10 shows the projected industry employment for the Sacramento region for the period 2001 to 2008. As the numbers in the table show, all of the sectors, with the exception of the Government sector, are expected to have a double-digit growth over the 7-year period represented by the data. Employment in the Government sector is expected to increase by

Table 2-10. Employment Projections Sacramento Region, 2001 to 2008				
Industry	Annual Average Employment		Percent Employment Change	Average Annual Compound Growth Rate (%)
	2001*	2008		
Total Nonfarm	732,400	897,200	22.5	2.9
Construction & Mining	53,400	65,200	22.1	2.9
Manufacturing	51,300	61,100	19.1	2.5
Transportation & Public Utilities	28,200	39,600	40.4	5.0
Wholesale Trade	26,700	31,500	18.0	2.4
Retail Trade	129,900	158,700	22.2	2.9
Finance, Insurance & Real Estate	49,200	63,000	28.0	3.6
Services	205,700	272,200	32.3	4.1
Government	188,500	205,800	9.2	1.3

Source: CEDD, 2004d.
*The annual average employment projections shown for 2001 do not include the agriculture or farm sector whereas the total industry employment in Table 2-6 includes employment in the agriculture sector.

9 percent over the 7-year projection period, for an average annual compounded growth rate of 1.3 percent. The Transportation and Public Utilities sector is expected to show the greatest change (40 percent) during the 2001 to 2008 period. This change translates to a 5 percent average annual compounded growth rate. The second largest growth is expected to be in the Services sector, which is expected to increase employment by 32 percent for an average annual compounded growth rate of 4.1 percent over the 7-year projection period.

Table 2-11 shows the major employers in El Dorado County by location. According to the industry classification for most of these major employers, a significant proportion of employment in El Dorado County is associated with the Services sector. Of the 15 employers listed in Table 2-11, nine are in the Services sector. The remaining 6 employers are split between the government, construction, and retail sectors.

2.2.3.2 Income

As presented in Table 2-12, the 1999 per capita income for each county was: El Dorado ($25,560), Sacramento ($21,142), and Placer ($27,963) counties. Median family income in 1999 was estimated at $60,250 for El Dorado County, $50,717 for the Sacramento County, and $65,858 for Placer County, respectively. The percent of persons below the poverty level in 1999 (US Census 2000) was 7.1 percent, 14.1 percent and 5.8 percent, for El Dorado, Sacramento, and Placer counties, respectively. From the estimates shown in Table 2-12, the populations in both

Table 2-11. Major Employers in El Dorado County

Employer Name	Location	Industry
Barton Memorial Hospital	So Lake Tahoe	Hospitals
Blue Cross & Blue Shield	El Dorado Hills	Insurance Agents, Brokers, & Service
County of El Dorado	Multiple	Public Administration (Government)
DST Innovis	El Dorado Hills	Credit Reporting & Collection
El Dorado Union School District	Placerville	Elementary & Secondary Schools
Embassy Suites Resort	So Lake Tahoe	Hotels & Motels
End Wave	El Dorado Hills	Retail Stores, All Other
Fortune 800	El Dorado Hills	Misc. Business Services
Heavenly Valley Ski Resort	So Lake Tahoe	Hotels & Motels
Lake Tahoe Community College	So Lake Tahoe	Colleges & Universities
Lake Tahoe Unified School District	So Lake Tahoe	Elementary & Secondary Schools
Marshall Hospital	Placerville	Hospitals
Roebbelen Land Contracting	El Dorado Hills	Nonresidential Building Construction
Sierra at Tahoe	So Lake Tahoe	Hotels & Motels
US Government	Multiple	Public Administration (Government)

Source: CEDD, 2004e.

Table 2-12. Comparison of Income Estimates, 2000 Census

Area	Median Household Income	Median Family Income	Per Capita Income	Percent of Population Below Poverty
El Dorado County	$51,484	$60,250	$25,560	7.1
Sacramento County	$43,816	$50,717	$21,142	14.1
Placer County	$57,535	$65,858	$27,963	5.8
California	$47,493	$53,025	$22,711	14.2

Source: US Census 2000.

El Dorado County and Placer County, on average, enjoy higher incomes than those in Sacramento County. While the proportion of the population that is below the poverty level in Sacramento (14.1 percent) is about the same as the State average, it is almost double that of El Dorado County (7.1 percent) and almost 2.5 times that of Placer County (5.8 percent).

2.3 Local Environment

2.3.1 Recreation Resources

The local recreation resources associated with the UARP are considered a socioeconomic resource. A majority of the UARP facilities are located within the 85,000-acre Crystal Basin Recreation Area. The three UARP storage reservoirs—Union Valley, Ice House and Loon Lake provide recreational opportunities to Crystal Basin visitors that create economic and social benefits for the local community. These recreational opportunities include: camping, fishing, boating, horseback riding, hiking, and cross-country snow skiing. The Crystal Basin area has over 700 developed campsites, most of which require fees and/or reservation. Camping is also available in undeveloped sites throughout the El Dorado National Forest. Recreational boating is available on all three storage reservoirs with free boat ramp access. There are equestrian campgrounds at both Loon Lake and Wrights Lake, with access to scenic riding trails. The Crystal Basin provides a gateway to Desolation Wilderness, offering access to 117 miles of hiking trails across the Sierra Nevada. The trails located within the Crystal Basin offer easy to moderate day hikes. Cross-country snow skiing is available in the higher elevations near Loon Lake. Off-Highway Vehicle (OHV) use is also a popular activity in the Crystal Basin.

2.3.2 Local Government Fiscal Resources

The El Dorado County budget for fiscal years (FY) 1998-1999 through 2002-2003 is presented in Table 2-13. The county's revenues and expenditures have been increasing over the past five years, from approximately $100 million in FY 1998-1999 to about $160 million in FY 2002-2003. Major sources of El Dorado County revenues are intergovernmental transfers from the federal and state governments, and taxes and assessments. Intergovernmental transfers account for approximately half of all revenue sources while taxes and assessments account for about a third. Over the past five years, the proportion of County revenues from taxes and assessments has somewhat declined from about 32 percent in FY 1998-1999 to about 29 percent in FY 2002-2003. On the other hand, the proportion of the County's revenues from intergovernmental transfers has increased from about 45 percent in FY 1998-1999 to 51 percent in FY 2002-2003.

Over the past five years, significant fluctuations have been observed in the following revenue sources: Intergovernmental revenues, Use of Money and Property, and Charges for Current Services. Intergovernmental revenues increased by about 35 percent between FY 2000-2001 and FY 2001-2002. During the same period, Charges for Current Services went up by about 50 percent from what they were in FY 2000-2001 while Use of Money and Property declined by about 40 percent from what they were in FY 2000-2001. Attempts at getting an explanation of the causes behind these fluctuations have thus far proven unsuccessful even though the El Dorado County Auditor-Controller's Office has been contacted multiple times.

Table 2-13. County of El Dorado Revenues and Expenditures					
	FY 1998-1999	**FY 1999-2000**	**FY 2000-2001**	**FY 2001-2002**	**FY 2002-2003**
REVENUES					
Taxes & Assessments	$34,382,466	$38,513,769	$41,034,490	$43,653,776	$47,917,642
Licenses, Permits, & Franchises	$4,537,580	$5,150,433	$6,969,791	$6,687,090	$7,565,420
Intergovernmental Revenues	$47,709,924	$52,929,537	$61,772,651	$83,446,662	$84,950,482
Use of Money & Property	$1,789,452	$2,216,057	$2,548,881	$1,445,184	$644,847
Charges for Current Services	$11,107,517	$11,325,576	$13,014,339	$19,709,443	$19,235,528
Fines, Forfeitures & Penalties	$1,100,558	$1,374,788	$1,318,199	$1,405,983	$1,187,885
Other Revenues	$5,924,172	$6,108,177	$1,432,168	$1,991,925	$4,880,279
Total Revenues	**$106,551,669**	**$117,618,337**	**$128,090,519**	**$158,340,063**	**$166,382,083**
EXPENDITURES					
General Government	$16,326,125	$19,422,367	$20,825,773	$25,689,957	$25,966,526
Public Protection	$47,945,475	$50,522,955	$53,150,054	$61,321,586	$66,541,791
Public Ways and Facilities	$1,084,567	$1,266,131	$1,592,575	$0	$0
Health and Sanitation	$1,123,172	$2,086,165	$2,176,657	$24,908,095	$27,318,796
Public Assistance	$25,057,295	$25,718,176	$26,949,842	$33,860,486	$35,116,381
Education	$1,722,153	$2,083,945	$2,303,192	$2,236,101	$2,404,557
Recreation and culture	$586,364	$971,882	$710,171	$815,214	$1,037,306
Interest	$862,774				
Debt Service				$617,526	$209,585
Capital Outlay	$2,202,897	$2,014,078	$1,844,111	$3,007,758	$1,475,880
Total Expenditures	**$96,910,822**	**$104,085,699**	**$109,552,375**	**$152,456,723**	**$160,070,822**

Source: El Dorado County, 2004.
Numbers may not add up due to independent rounding.

According to the budget shown in Table 2-13 above, Public Protection[13], Public Assistance and General Government account for between 80 and 90 percent of the County's total annual expenditures. Of the three expenditure categories, Public Protection accounts for about a half of the total expenditures. During the 5-year period shown in Table 2-13 above, the share of these three expenditure categories has declined a little, e.g., Public Protection's share of the

[13] Public protection includes police, judicial, flood control and soil conservation, building inspector, animal control, emergency services, etc.

expenditures decreased from almost 50 percent in FY 1998-1999 to about 42 percent in FY 2002-2003.

2.3.3 Public Services in the Crystal Basin Area

This section describes the existing conditions of the following services:

- Fire Protection,
- Law Enforcement, and
- Emergency Response services (including Search and Rescue).

This information will be used to establish the baseline condition for evaluating Project effects on local government revenues and expenditures.

2.3.3.1 Fire Suppression and Prevention

The El Dorado County Fire District (EDCFD) is the local agency that provides fire suppression to areas in the Crystal Basin that are outside the Eldorado National Forest (ENF). The EDCFD has a total of 9 stations that serve El Dorado and Amador counties. Most stations are staffed by trained Firefighters who work in crews of two or four. Two of the stations are staffed by volunteers from the community while some of the stations with 2 crew members are augmented by volunteers. There are a total 7 fire engines and 3 ambulances spread over the 9 stations.

The Crystal Basin area is within the Station No. 21's area of service. Station No. 21, located in Camino, serves as the administrative headquarters for the EDCFD and thus is home to the Fire Chief and his staff. Station No. 21 has a crew of four: one captain and three firefighters. Two Firefighters are assigned to the ambulance. A Captain and one Firefighter are assigned to the Fire Engine. The ambulance out of this station works 12 hours a day, 7 days a week, to provide peak hour coverage during the day.

The Crystal Basin area is also served by the USDA Forest Service (USFS) as well as the California Department of Forestry and Fire Protection (CDF). Both of these agencies have fire prevention and suppression capabilities. The USFS fire suppression, prevention and preparedness in the Eldorado National Forest (ENF) are financed through funds appropriated by US Congress (Johnson, 2004). Since appropriated funds can and do vary from year to year, the funds received by ENF also vary. Typically, the funds are used to pay for staffing and training. Most of the training of new hires (both full-time as well as part-time) and the refreshers for existing staff is typically completed by the first week of May, in readiness for the fire season, which begins mid-April. Fire season in the ENF officially runs from mid-April through November 1. The USFS has mutual aid agreements with both the CDF and the EDCFD.

2.3.3.2 Law Enforcement

SMUD UARP project facilities, as well as the Crystal Basin area, are located within the service area of the El Dorado County Sheriff's Office (Sheriff's Office). The Sheriff's Office provides law enforcement services to the unincorporated areas of El Dorado County, i.e., the whole

county with the exception of the cities of Placerville and South Lake Tahoe. The Sheriff's Office has one deputy assigned to each of the five service areas (called zones) within the county. The Sheriff's Office has two main offices—one in Placerville and the other in South Lake Tahoe.

The Crystal Basin area is within Zone 5 of the Sheriff's Office service area. Zone 5 is patrolled by one Deputy Sheriff (Stewart, 2004). Because the Crystal Basin attracts more visitors during weekends from Memorial Day to Labor Day, the Sheriff's Office has an agreement with the USFS in which the Sheriff's Office provides a deputy and a vehicle to the Forest Service for patrol duties during the summer. In addition, the USFS assigns one Forest Service Law Enforcement Officer (LEO) to the Crystal Basin area. The USFS LEO is not under the jurisdiction of the Sheriff's Office and works in addition to those assigned by the Sheriff's Office.

2.3.3.3 Emergency Response

El Dorado County has a "Fire Based EMS system," which means that the fire departments coordinate the emergency response including emergency medical service, and thus Firefighters are also trained as Paramedics. The funding and equipment are provided through a Joint Powers Authority (JPA). This JPA is composed of Fire Departments, the EMS Agency office, and Health Department.

Emergency response in El Dorado County is coordinated through the Standardized Emergency Management System (SEMS). SEMS is the system required by California Government Code §8607(a) for managing response to multi-agency and multijurisdiction emergencies in California. Under the SEMS and the Incident Command System (ICS), which is part of SEMS, emergency responses are routed through the primary county call center (also known as PSAP) which is located in Placerville. In addition to the PSAP Dispatch Center, there is a Fire Dispatch Center located in Camino that handles calls for fire and medical emergencies. The cities of Placerville and South Lake Tahoe also have their own dispatch centers (Crawford, 2004).

The Dispatch Center notifies the appropriate agencies to respond to the emergency. The appropriate agencies include those that have the capability to deal with the emergency and those that may have jurisdictional authority. Under SEMS, all responding agencies go into Unified Command, where one agency is in control and coordinates the efforts of all the other responding agencies. The agency with control under the Unified Command is determined by the type of emergency.

2.3.3.4 Search and Rescue

The El Dorado County Search and Rescue Unit (SAR) is an all-volunteer arm of the Sheriff's Office with more than 150 members covering the west slope of the Sierra Nevada and the Lake Tahoe Basin in California (Stewart, 2004). The El Dorado County SAR unit is the largest Search and Rescue unit in the state. It is managed through the County Office of Emergency Services, which is under the Support Services Division in the Sheriff's Office. The SAR volunteers are members of the Sheriff's Office Standardized Emergency Management System, which uses the Incident Command System Protocol for Scene Management. Each of the 150 Search and Rescue

volunteers have primary training in one of the following areas and as such become members of the unit specializing in:

- Search Management,
- Mounted Unit – use horses,
- Air Team,
- High Angle - Swift Water Team,
- 4 x 4 Team (OHVs including snow mobiles, jeeps and cycles),
- K-9s (canines),
- Nordic Winter Rescue, and
- Foot Trackers.

Many of the volunteers are cross-trained in more than one primary area. About two-thirds are amateur radio operators and about half are EMTs. The SAR volunteers all have to provide their own equipment, although some may have their equipment purchased through funds raised by the El Dorado Search and Rescue (ESARC), the fundraising arm of the SAR unit.

2.3.3.5 Emergency Medical Services

Emergency Medical Services is provided by the El Dorado County Emergency Medical Services (EMS) Agency. The EMS system is charged with delivering the highest possible quality of prehospital emergency medical care to victims of illness and injury in El Dorado County. Once stabilized, victims in the western part of the county are taken to Marshall Hospital, the designated paramedic base hospital located in Placerville. Marshall is a fully-accredited, acute care facility with 103 beds and a dedicated team of 860 employees.

2.3.4 Infrastructure

This section describes the existing condition with respect to transportation and utilities. The inventory of utilities is restricted to the Crystal Basin area and is based on readily available information from the county, and service providers, including SMUD. 2.3.4.1 Transportation (Roadway Facilities)

The roadway facilities in El Dorado County (and specifically in the SMUD project area) are primarily rural in character. The exception is U.S. Highway 50, the primary transportation corridor through the county from west to east that serves all of the county's major population centers.

U.S. Highway 50 provides connections to Sacramento County and the State of Nevada. It accesses nearly all of the recreation areas and tourist attractions for visitors. U.S. Highway 50 is also the major commute route to employment locations in the greater Sacramento area and the major shipping route for goods movement by truck. From the Sacramento County line to the City of Placerville, U.S. Highway 50 is a four-lane freeway with an eastbound truck-climbing lane on the steep Bass Lake grade and short sections of high occupancy vehicle (HOV) lanes from the county line to El Dorado Hills Boulevard. This freeway segment of U.S. Highway 50 has two lanes in each direction, 10-foot paved outside shoulders and 5-foot paved inside shoulders, and a

70-foot wide grassy median. U.S. Highway 50 transitions to a conventional four-lane highway through the City of Placerville with traffic signals at three major intersections. East of the city and extending into the Lake Tahoe Basin, U.S. Highway 50 is an expressway with unsignalized intersections east to Ice House Road, where the highway narrows to two lanes with passing opportunities limited mostly to locations with passing lanes and turnouts. Current (2003) average daily traffic on U.S. Highway 50 at Ice House Road intersection is 12,800 (Caltrans, 2003).

Other roadway facilities in the SMUD project area are rural roads leading to resort areas. The 32-mile-long Ice House Road, maintained by El Dorado County, is the primary access road in the Crystal Basin area.

2.3.4.2 Utilities

This section describes utilities and utility providers in the Crystal Basin area.

Electricity and Gas. Electricity and natural gas are supplied by Pacific Gas & Electric Company (EDC, 2004a).

Sewer. Sanitary sewer and garbage disposal services are provided by the concessionaire, American Land and Leisure. Several attempts have been made to contact American Land and Leisure for information on disposal destinations for the sewer and garbage collected from the Crystal Basin recreation area. According to the El Dorado County's Environmental Management, solid waste from the Crystal Basin is taken by the American River Disposal Service to the Lockwood Regional Landfill in Reno, Nevada (EDC, 2004b). Thus, this section assumes that American Land and Leisure contracts with the American River Disposal Service.

Water. In general, potable water for the Crystal Basin area comes from wells (Mearse, 2004).

Telephone. Pacific Bell/SBC provides standard telephone service to the area (EDC, 2004a).

3.0 SOCIOECONOMIC IMPACT ANALYSIS

This section describes the socioeconomic impact analysis of the UARP. The socioeconomic impact analysis evaluates the benefits and costs associated with the UARP.

3.1 Benefits of the UARP

This section describes the benefits of the UARP.

3.1.1 Benefits of UARP to the local area

This section describes the direct benefits of the UARP to both the USFS and El Dorado County. Some of these benefits, e.g., fees paid to the USFS for recreation facility administration, operation and maintenance and cost of snow plowing, are included in the budget used to derive the regional benefits described in the Section 3.1.2. SMUD provides the following in-kind services to the USFS and the local community:

- Snowplow parking areas for winter recreationists,
- Road maintenance and improvements on various segments of roads,
- Rock base for small road paving projects,
- Hydrants available on penstocks for fire fighting,
- Design and printing of the Crystal Basin Recreation Area brochure, and
- Telephone line to Loon Lake Chalet.

In 2003, SMUD spent $562,000 on road maintenance and improvements in the UARP area. Approximately half of this amount was spent on paving or repairing road segments, installing or repairing guard rails, cleaning out culverts and vegetation management; and the other half was spent on snow removal activities.

nicipal status. However, asSMUD provides 15,000 Crystal Basin Recreation Area brochures annually at a cost of $7,500 (in 2003 dollars). The cost associated with these brochures includes periodic updates to the brochures. In the past, the USFS requested snow plowing for winter recreation. SMUD spends $22,000 (in 2003 dollars) annually to open facilities in the spring and another $35,000 (in 2003 dollars) annually to create turnouts/parking areas after storms ($3,500 per storm, assuming 10 storms per year).

In addition to the above in-kind services, SMUD has also made significant contributions to special one-time projects such as:

- Helipad lighting projects,
- Restoration of the Crystal Basin Information Station,
- Lighting design for Loon Lake Chalet, and
- Reconstruction of the Forest Service Lookout at Big Hill.

In general, SMUD is exempt from paying property taxes due to its mu described in the draft Exhibit D, contained in Appendix E, SMUD pays property taxes to El Dorado County each year. In 2003, SMUD paid approximately $184,000[14] in property taxes to El Dorado County. This property tax payment represent slightly more than one-third of one percent (approximately 0.37 percent) of the total El Dorado County taxes and assessments shown in Table 2-13.

3.1.2 IMPLAN Analysis of the UARP

This section evaluates the contributions of the Fresh Pond Hydroelectric generation activity to the local (El Dorado County) and regional (Sacramento region) economy. The section also evaluates the impact of UARP-related Crystal Basin recreation to the local and regional economy. Input data will be presented and explained and any pertinent assumptions not presented earlier in Section 1.2, Methodology and Assumption, will be presented here.

[14] SMUD facilities and lands in El Dorado County are tax exempt for the most part. Under California law, lands owned by a local government (here SMUD) outside it's boundaries are taxable only if those lands were taxable when acquired by that local government (California Constitution Article XIII, §§ 3 and 11(a)). SMUD has paid approximately $3 million in taxes to El Dorado County to date.

3.1.2.1 Operations (Fresh Pond)

This section describes the methodology and assumptions used to evaluate the regional economic contributions of the UARP Fresh Pond operations. The section also presents the data used as input into the IMPLAN model as well as the model results. Model results are described separately for the local area (El Dorado County) and regional area (Sacramento region).

3.1.2.1.1 Methodology

Regional economic analysis was used to estimate the economic contribution of the UARP Fresh Pond operation. The regional economic analysis was based on IMPLAN Input-Output models of the El Dorado County and the Sacramento region. IMPLAN Sector 498 was chosen as the sector to evaluate the impacts from operations of the UARP at Fresh Pond instead of IMPLAN Sector 30 "Power generation and supply" because Sector 498 more accurately represents the operations of a municipal-type electric utility whereas Sector 30 represents the operations of privately-owned electric utilities. IMPLAN, like other Input-Output (I-O) models, evaluates impacts based upon the linkages that a sector of the economy has with other sectors as providers of input. Any linkages that a sector may have going forward, i.e., where, how and who uses the output (electricity in this case) does not play a role in I-O modeling. Thus, the fact that SMUD generates electricity in El Dorado County that is not used within El Dorado county has no bearing on the evaluation of the economic impacts resulting from the hydroelectric operations at Fresh Pond.

Due to a discrepancy in the reporting of the Covered Employment and Wages[15] (CEW) data for El Dorado County, the IMPLAN model for El Dorado County did not have a sector representing municipal-type (state and local) hydroelectric sector, in other words the IMPLAN model showed that sector 498 "State and local government electric utilities" does not exist in El Dorado County. To get around this problem, data that is specific to the UARP Fresh Pond operations (see Section 3.1.2.1.3, Data) was used to build the representative IMPLAN sector for El Dorado County. Similarly, data developed for the Sacramento region was used to build the corresponding representative IMPLAN sector for the region.

3.1.2.1.2 Assumptions

Input-output analysis was used to evaluate the contribution of the UARP Fresh Pond operation to the El Dorado County economy. Estimates of the 2003 UARP Hydro Budget on capital, labor and operations and maintenance (O&M) were used to estimate the contribution of the UARP Fresh Pond operation. The estimates were provided by SMUD.
The following assumptions were used to evaluate the contribution of the UARP Fresh Pond operation to the El Dorado County economy, so impacts to the County and region can be assessed.

[15] The Covered Employment and Wages (CEW) program publishes a quarterly count of employment and wages reported by employers covering 98 percent of U.S. jobs, available at the county, MSA, state and national levels by industry. The US Bureau of Labor Statistics (BLS) publishes the CEW data.

- Two regions of influence were developed to determine the economic contribution of the UARP operations at Fresh Pond: El Dorado County and the Sacramento region.
- Only the local expenditures are used to determine the contribution of the project to the two regions of influence identified above.
- Forty percent of capital expenditures are assumed to stay within El Dorado County, in a normal year.
- Fifty percent of O&M expenditures are assumed to stay within El Dorado County, in a normal year.
- Fifty percent of capital expenditures are assumed to stay within the Sacramento region in a normal year.
- Sixty percent of O&M expenditures are assumed to stay within Sacramento region in a normal year.
- Base year of analysis is 2001 but the impacts were adjusted to reflect year 2003 price levels.

The above assumptions are based on average expenditure distributions from the UARP Hydro Budget and SMUD personnel expertise.

3.1.2.1.3 Data

The data used for analyzing the contribution of the Fresh Pond operation are the costs associated with the operation and maintenance (O&M) of the project, i.e., those relating to expenditures on labor, materials and supplies. Of the total $18.7 million spent in 2003 on Fresh Pond operations, about $10.6 million was in payroll (including benefits), about $5 million was in expenditures on capital items (e.g., refurbishment of generation equipment, facilities improvement, campground construction for the USFS, etc.), and $3.1 million was in expenditures on general operations and maintenance (e.g., fall maintenance outages, snow removal from roads, adjustment to minimum flow valves, etc.). Table 3-1 shows the breakdown of the 2003 O&M Hydro Budget between payroll, capital and other O&M activities. Although data on expenditures in previous years were available, only the 2003 estimates are presented here since these are the data that were used for the current regional economic analysis.

To determine the regional economic contribution of the Fresh Pond operation, the expenditures on locally-purchased goods and services and the payroll for the local labor were used as input into the IMPLAN Input-Output model. Two separate models were constructed, one for El Dorado County and the other for the Sacramento region.

Table 3-1. UARP Hydro Budget: Operational Payroll, Capital and O&M Expenditures, 2003			
	Total Cost	**Cost spent within El Dorado County**	**Cost spent within Sacramento Region**
Payroll[a]	$10,639,230[b]	$7,611,305	$9,905,123
Capital expenditures[c]	$4,981,008	$1,992,403	$2,490,504
Other O&M expenditures[d]	$3,078,355	$1,539,177	$1,847,013
Total	$18,698,592	$11,142,886	$14,242,640

Source: SMUD, 2004.
[a] Includes benefits. Payroll shown for El Dorado County is for the 59 Fresh Pond employees who are El Dorado County residents while that shown for the Sacramento region is for the 77 Fresh Pond employees who are residents of the Sacramento region (El Dorado, Placer and Sacramento Counties). Thus, 73% (59/81) of payroll expenditures are in El Dorado County while 95% (77/81) of payroll expenditures are in the Sacramento region.
[b] Includes 2% for SMUD Headquarter staff who charge to Fresh Pond. The payroll for the 81 Fresh Pond employees, adjusted for this 2%, is $10,426,445. The percentages in Note 1 above are applied to this estimate of payroll and not the $10,639,230 shown in this table.
[c] 40% of the O&M capital expenditures are spent within El Dorado County. Thus, of the total $4,981,000 in O&M capital expenditures, $1,992,403 (or 40%), is spent within El Dorado County. For the Sacramento region, the amount of O&M capital spent within the region is $2,490,504or 50% of the total O&M expenditures for Fresh Pond in 2003.
[d] 50% of the other O&M expenditures are spent within El Dorado County. Thus, of the total $3,078,360 in other O&M expenditures, $1,539,177 (or 50%), is spent within El Dorado County. For the Sacramento region, the amount of other O&M expenditures spent within the region is $1,847,013 or 60% of the total other O&M expenditures for Fresh Pond in 2003.

3.1.2.1.4 Findings

Local. Table 3-2 shows the economic contributions of the Fresh Pond operations to El Dorado County's economy. The data in the table are from the IMPLAN analysis and are based on the expenditure data in Table 3-1. According to the IMPLAN analysis, the O&M expenditures were responsible for the creation of 72 secondary (indirect and induced) jobs. These 72 jobs are in addition to the 59 direct jobs associated with Fresh Pond. Thus, operations at Fresh Pond are responsible for a total of 131 jobs in El Dorado County. The 131 jobs represent about three tenths of one percent (0.3 percent) of the total 2003 El Dorado County employment by industry of 48,200. In addition to the $7.6 million in direct income, the UARP Fresh Pond operations were responsible for approximately $2.1 million in secondary (indirect and induced) income. The total additional income of approximately $9.7 million represents about two tenths of one percent (0.2 percent) of the total El Dorado County personal income in 2003 of about $6,189 million (USDOC, 2004). Table 3-2 also shows the output impacts associated with operations at Fresh Pond. According to the IMPLAN analysis, the total O&M expenditures spent within El Dorado County of $11.1 million (in 2003 dollars) resulted in secondary (indirect and induced) output of about $5.6 million. The total additional output of $26.2 million represents less than one percent (0.4 percent) of the El Dorado County total industry output for 2003 of $6,506 million (IMPLAN, 2001).

Table 3-2. Estimates of Economic Contributions of Fresh Pond Operations to El Dorado County	
Employment	
Direct	59
Indirect	19
Induced	54
Total	131

Table 3-2. Estimates of Economic Contributions of Fresh Pond Operations to El Dorado County	
Income	
Direct	$7,611,300
Indirect	$719,500
Induced	$1,377,400
Total	$9,708,200
Output	
Direct	$20,565,900
Indirect	$1,431,600
Induced	$4,210,600
Total	$26,208,200

Numbers may not add up due to rounding.
Income and output estimates are in 2003 dollars.

Regional. Table 3-3 shows the economic contributions of the Fresh Pond operations to Sacramento region's economy. The data in the tables are from the IMPLAN analysis and are based on the expenditure data in Table 3-1. According to the IMPLAN analysis, the O&M expenditures at Fresh Pond are responsible for 77 direct jobs and 109 secondary (indirect and induced) jobs, for a total of 186 jobs. The additional 186 jobs represent less than one tenth of one percent (0.02 percent) of the total 2003 Sacramento PMSA employment by industry of 755,900. In addition to the $9.9 million in direct income, the UARP Fresh Pond operations were responsible for approximately $4.0 million in secondary (indirect and induced) income. This additional income of $13.9 million represents less than one tenth of one percent (0.02 percent) of the total Sacramento region's personal income in 2003 of about $56,201 million (USDOC, 2004). Table 3-3 also shows the output impacts associated with operations at Fresh Pond. According to the IMPLAN analysis, the total O&M expenditures spent within the Sacramento region of $14.2 million (in 2003 dollars) resulted in secondary (indirect and induced) output of about $10.7 million. The total additional output of $37.0 million represents less than one tenth of one percent (0.04 percent) of the Sacramento region's total industry output for 2003 of $95,201[16] million (IMPLAN, 2001).

Table 3-3. Estimates of Economic Contributions of Fresh Pond Operations to Sacramento Region	
Employment	
Direct	77
Indirect	26
Induced	83
Total	186

[16] The 2001 IMPLAN estimates has been adjusted to 2003 dollars using the Consumer Price Index (CPI).

Table 3-3. Estimates of Economic Contributions of Fresh Pond Operations to Sacramento Region	
Income	
Direct	$9,905,100
Indirect	$1,316,400
Induced	$2,705,800
Total	$13,927,300
Output	
Direct	$26,287,000
Indirect	$3,004,400
Induced	$7,709,200
Total	$37,000,700

Numbers may not add up due to rounding.
Income and output estimates are in 2003 dollars.

3.1.2.2 Recreation (Crystal Basin)

This section describes the methodology and assumptions used to evaluate the regional economic impacts associated with UARP-related Crystal Basin recreation. The section also presents the data used as input into the IMPLAN model as well as the model results. Model results are described separately for the local area (El Dorado County) and regional area (Sacramento region).

3.1.2.2.1 Methodology

Regional economic impacts of a project are defined as the changes in the economic activity within a region that result from the project. Regional economic impact analysis focuses on the exogenous changes in final demand for goods and services produced in that region. Any new spending in the region by persons and businesses located outside the region would be considered "exogenous." Total economic impacts are composed of direct, indirect and induced effects of the exogenous change in final demand. In the case of recreation, direct effects are represented by first-round purchases made by recreation visitors. Indirect effects occur as a result of purchases made by businesses to meet the increased demand for their products by recreation visitors. Direct and indirect effects lead to an overall production increase that can lead to more local or regional employment and income as other industries respond to meet the new demands of the directly affected industries. Induced impacts result from the increased spending by resident households whose incomes have increased as a result of the direct and indirect effects.

Regional economic impacts of recreation are typically assessed on the basis of visitor trip expenditures[17]. The money spent by visitors on food, lodging, and transportation are the inputs

[17] Expenditures on capital goods are not included since: (1) these goods are mostly likely purchased in the visitors home county/state (in which case none of that money finds its way into the local economy of the recreational area);

into the local economy. Management alternatives that impact/affect the amount or type of money spent will then affect the local economy.

Typically, only the trip expenditures of non-resident visitors are considered when assessing the impact of recreation on a local economy. The primary reason for excluding local residents trip expenditures is that they do not represent infusions of new dollars into the local economy. However, any changes in recreational management that results in increased recreation opportunities are likely to shift trip destinations so that more residents stay in the region. This would have the effect of reducing leakages out of the local economy. Thus, there would be a net increase in money spent on recreation in the local economy leading to a positive economic impact. But most studies do not include these impacts (English et al., 1995).

3.1.2.2.2 Assumptions

Input-output analysis was used to determine the economic impacts of recreation. Estimates of total trip expenditures were developed from data on number of visits to the Project area in combination with trip-related expenditures. Visitor trip expenditures were developed through interviews with area businesses. Campground expenditure data are based upon estimates provided by the ENF.

For this analysis the following assumptions were made:

- Two regions of influence were developed for the economic impact analysis: El Dorado County and the Sacramento region.
- Only non-resident visitor trip expenditures are assumed to result in economic impacts within the two regions of influence identified above.
- Seventy percent of all visitors are non-residents of El Dorado County.
- Thirty percent of all visitors are non-residents of the Sacramento region.
- Average number of nights spent in the Crystal Basin was three.
- The average number of people per group was four.
- All fees collected by USFS stay within El Dorado County.
- Base year of analysis is 2001 but the impacts were adjusted to reflect year 2003 price levels.

3.1.2.2.3 Data

Two data sources were used to derive the total trip expenditures: total number of visits and visitor expenditure data. Total number of visits per year were calculated from estimates of annual visitor use of UARP-related recreation facilities from May through September, and from estimates of annual use for dispersed recreation and winter recreation near the UARP. The range for the total number of visitors is estimated at 335,000-380,000 (SMUD, 2004). Hence, the total

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and (2) there is no easy way of splitting the cost between the various recreation trip destinations. This assumption results in a more conservative analysis.

annual recreation visitation in and near the UARP is estimated at 357,500. These visitation figures are based upon recreation-day use estimates. Recreation-days are defined as "one person for a day or a portion of a 24-hour period."

Visitor expenditure data for 4 years was obtained for the following sectors: lodging (private hotels and lodges), camping (fees paid to the ENF at the campground sites), food and beverage (restaurants), food stores (grocery), gasoline, and outdoor equipment (purchases and rentals). Campground expenditure data are based upon estimates provided by the ENF. Area businesses around the Crystal Basin Reservoir (Placerville and Pollock Pines) were interviewed to elicit information on the rest of the visitor expenditures.

For this study, the following proportions were applied to the visitor expenditures to derive the estimates that remain in the local economy: non-residents of El Dorado County are responsible for 70 percent of expenditures while non-residents of the Sacramento region are responsible for 30 percent of the expenditures.

In the absence of visitor expenditure data for 2003, the average (over the 1999 through 2002 period) estimated visitor expenditures were used to analyze the effects of recreation on the economies of the two regions. The estimated visitor expenditures were evaluated as a change in industry output or sales. Tables 3-4 and 3-5 show the average expenditures by non-resident visitors to El Dorado County and the Sacramento region. An IMPLAN input-output model was constructed for each of the two regions.

Table 3-4. Expenditures by Non-Resident Recreational Visitors within El Dorado County

Sector	Average (2002 $)
Restaurants	2,034,632
Recreation Equipment	1,536,791
Grocery Stores	709,691
Gasoline	555,995
Camping	379,605
Lodging	309,565
Total	**5,526,280**

In both Tables 3-4 and 3-5, expenditures on restaurants account for the largest proportion of the total expenditure. Approximately 37 percent of the visitor expenditures were at restaurants. The second largest visitor expenditure category was the sale and lease of recreation equipment, which accounted for about 28 percent of total expenditures. The remaining visitor expenditures were almost evenly split between grocery store purchases, gasoline purchases, and accommodation (both lodging and camping).

Table 3-5. Expenditures by Non-Resident Recreational Visitors within Sacramento Region	
Sector	**Average (2002 $)**
Restaurants	871,985
Recreation Equipment	658,625
Grocery Stores	304,153
Gasoline	238,284
Camping	162,688
Lodging	132,671
Total	**2,368,406**

The numbers shown in Table 3-5 above are less than those shown in Table 3-4 due to the fact that a large number of Crystal Basin recreation visitors are residents of the Sacramento region and as such their trip expenditures are assumed to be already accounted for in the region's economy and are thus not counted as nonlocal expenditures within the Sacramento region. The numbers shown in Table 3-5 are also a component of the numbers shown in Table 3-4.

3.1.2.2.4 Findings

Local. Table 3-6 shows the economic impacts associated with the recreational expenditures by non-residents in El Dorado County. The data in the table are from the IMPLAN analysis and are based on the average expenditure data in Table 3-4. According to the IMPLAN analysis, expenditures by non-resident recreation visitors resulted in 133 direct jobs and 33 secondary (indirect and induced) jobs, for a total of 166 jobs. The total additional 166 jobs represent about three tenths of one percent (0.3 percent) of the total 2003 El Dorado County employment by industry of 48,200. In addition to the $2.7 million in direct income, recreation by non-residents in the Crystal Basin was responsible for approximately $866,900 in secondary (indirect and induced) income. The total additional income of $3.6 million represents less than one tenth of one percent (0.06 percent) of the total El Dorado County personal income in 2003 of about $6,189 million (USDOC, 2004). Table 3-6 also shows the output impacts associated with recreation visitor expenditures. According to the IMPLAN analysis, the average expenditures by non-residential visitors within El Dorado County of $5.7 million[18] (in 2003 dollars) resulted in secondary (indirect and induced) output of about $2.6 million. The total additional output of $8.2 million represents slightly more than one tenth of one percent (0.13 percent) of the El Dorado County total industry output for 2003 of $6,506 million (IMPLAN, 2001).

[18] This is the $5,526,280 in 2002 dollars (see Table 3-4), when adjusted for inflation using the Consumer Price Index (CPI).

Table 3-6. Estimates of Direct, Indirect and Induced Impacts Associated with the Non-Resident Visitor Expenditures within El Dorado County	
Employment	
Direct	133
Indirect	11
Induced	22
Total	166
Income	
Direct	$2,717,700
Indirect	$304,700
Induced	$562,200
Total	$3,584,700
Output	
Direct	$5,650,800
Indirect	$862,300
Induced	$1,715,200
Total	$8,228,3004

Numbers may not add up due to rounding.
Income and output estimates are in 2003 dollars.

Regional. Table 3-7 shows the economic impacts associated with the recreational expenditures by non-residents in Sacramento region. The data in the tables are from the IMPLAN analysis and are based on the average expenditure data in Table 3-5. According to the IMPLAN analysis, expenditures by non-resident recreation visitors resulted in 47 direct jobs and 16 secondary (indirect and induced) jobs, for a total of 63 jobs. The additional 63 jobs represent less than one tenth of one percent (0.01 percent) of the total 2003 Sacramento PMSA employment by industry of 755,900. In addition to the $1.2 million in direct income, recreation visitors from outside the Sacramento region were responsible for approximately $550,500 in secondary (indirect and induced) income. The additional total income of about $1.7 million represents less than one tenth of one percent (0.003 percent) of the total Sacramento region's personal income in 2003 of about $56,201 million (USDOC, 2004). Table 3-7 also shows the output impacts associated with recreation visitor expenditures. According to the IMPLAN analysis, the average expenditures by non-residential visitors within the Sacramento region of approximately $2.4 million[19] (in 2003 dollars) resulted in secondary (indirect and induced) output of about $1.6 million. Thus, the additional total output of about $4.0 million represents less than one tenth of one percent (0.004 percent) of the Sacramento region's total industry output for 2003 of $95,201 million (IMPLAN, 2001).

[19] This is the $2,368,406 in 2002 dollars (see Table 3-5), when adjusted for inflation using the Consumer Price Index (CPI).

Table 3-7. Estimates of Direct, Indirect and Induced Impacts Associated with the Non-Resident Visitor Expenditures within Sacramento Region	
Employment	
Direct	47
Indirect	6
Induced	10
Total	63
Income	
Direct	$1,174,800
Indirect	$209,400
Induced	$341,100
Total	$1,725,300
Output	
Direct	$2,421,800
Indirect	$581,200
Induced	$979,000
Total	$3,981,900

Numbers may not add up due to rounding.
Income and output estimates are in 2003 dollars.

3.1.3 Primary Benefits of UARP

This section summarizes the primary benefits of the UARP to SMUD's customer-owners as well as the broader Sacramento region. More detailed information related to the primary benefits and cost of the UARP to SMUD's customer-owners and the region is located in the following documents, contained in Appendix E:

- Sacramento Municipal Utility District - Annual Report: 2003.
- Sacramento Municipal Utility District EIA 412 - Annual Report of Public Electric Utilities, dated April 30, 2003.
- Exhibit D (Draft) per 18 CFR 4.41 – Statement of Costs and Financing.
- Exhibit H (Draft) per 18 CFR 16.10 – Plans and Ability of Applicant to Operate Project Efficiently for Relicense.

The following section describes SMUD, the UARP and the primary benefits of the UARP. As described below, the primary benefits of the UARP go beyond flexible and economical generation of electricity to include air quality benefits and grid stability to the region.

3.1.3.1 Overview of SMUD and the UARP

The Sacramento Municipal Utility District is a customer-owned electric utility that generates and purchases electric power that it distributes to about 560,000 customers in the Sacramento area,

including 46,500 small commercial and 11,500 industrial customers. SMUD is the sixth largest publicly-owned electric utility in the United States in terms of customers served. Between 2000 and 2010, the total population served by SMUD is expected to grow from about 1.1 million to over 1.4 million. SMUD is a not-for-profit investor-owned utility and has no shareholders; all benefits are returned to its customer-owners in the form of lower rates and value to the community.

SMUD's Public Goods Program includes customer loans for energy efficiency upgrades, appliance rebates, reduced rates to limited-income customers, nationally-recognized solar and wind energy programs, and electric vehicle research and development projects. In 2003, SMUD committed $25.4 million to its Public Goods Program. This commitment has earned SMUD the recognition as one of the nation's most innovative and aggressive utilities on energy efficiency and renewable energy by the Natural Resources Defense Council. SMUD's generation of economical and reliable hydro electricity at the UARP and SMUD's municipal status are among the primary reasons that SMUD has been able to provide a significant Public Goods Program while keeping rates reasonable and competitive.

The UARP is a multi-development hydroelectric power project that generates enough electricity to meet about 20 percent of SMUD's customer demand. In a normal water year, the UARP provides approximately 1.8 billion kilowatt-hours of electricity – enough energy to power about 180,000 homes. The primary value of the UARP lies in the project's ability to provide operational flexibility, system reliability and economical generation. The value of the UARP extends beyond the boundaries of SMUD's service territory by (1) having a positive effect on regional air quality, and (2) helping to maintain the integrity of the Northern California electric transmission system.

3.1.3.2 Flexible and Economical Generation

Specific information concerning costs and revenues for the UARP can be found in the draft Exhibit D report, contained in Appendix E. As shown in the Exhibit D report, the total annual expenses for the UARP in 2003 are estimated to be $30.8 million, and the total annual value of project power – including capacity, ancillary services and transmission – is estimated to be $117.0 million, based primarily on estimated replacement costs.

In addition to being economical, the UARP provides production flexibility, within the limits of regulatory, operational, and recreational requirements. Power is most valued when local demand is high and/or supplies are low, or constrained – periods generally associated with the highest power prices. Thus, for example, on a hot summer day, when customer demand for electricity is high, SMUD will often release water from storage to generate electricity at near capacity, particularly during peak hours of the day such as late afternoon and early evening. SMUD may also generate electricity from the UARP when constraints on the western power supply occur due to such factors as unusually cold weather coupled with low precipitation in the Northwest, unexpected plant outages, or when natural gas supplies are constrained. Alternatively, when local demand for power is low or when the western power supply is abundant, water is held in the reservoirs, and the UARP generates at reduced capacity for shorter periods of time. It is this

range of operational flexibility inherent in the UARP that is of significant value to SMUD and the region.

The general operational regime also provides secondary recreational benefits. By storing some of the spring runoff and releasing it in the summer and early fall, the UARP provides for more downstream summertime recreation than would otherwise be available if the system were unregulated. Thus, the UARP contributes to the whitewater boating industry on the South Fork American River, where the total annual output is about $15 million (El Dorado County, 1996). And in years with sufficient precipitation, near full reservoirs during the spring and summer provide an abundance of flat-water recreation opportunities in the Crystal Basin. The economic benefits of UARP-related recreation in the Crystal Basin are also substantial, as described in Section 3.1.2.2 of this report.

3.1.3.3 Air Quality Benefits

Another key benefit of the UARP to the region is its effect on air quality. California's sunny climate, pollution-trapping mountains and valleys, along with the activities of 36 million residents all contribute to air pollution in the state. The UARP hydroelectric facility has the capability to generate 688 megawatts of renewable electrical power with insignificant air emissions associated with this generation. The air quality impact of having to replace this mode of generation would likely contribute to the worsening of the Sacramento Valley's already degraded air quality. Adding 688 megawatts of peaking gas fired generation would result in approximately 250 tons per year of ozone precursor and 180 tons per year of air pollutants for the Valley where air pollution already exceeds the state and federal ambient air quality standards.

By generating significant amounts of electricity without producing any undesirable air emission as a byproduct, the UARP has a positive effect on regional air quality. In an average water year, the UARP – through clean, hydroelectric generation – displaces about 200,000 tons of carbon-based emissions annually from a combination of natural gas, oil and coal-fired power plants. In addition, by focusing generation during times of high demand or short supply, the clean hydroelectric power from the UARP displaces the more inefficient and older power plants that would otherwise be called into service to operate at those times.

3.1.3.4 Grid Stability

Another important regional benefit of the UARP is the role it plays in helping ensure reliability of the electric transmission system within SMUD's service area and Northern California. The ability of the UARP to instantaneously generate electricity from up to 400,000 acre feet of stored water provides substantial operating reserves for mitigating both Sacramento area and state-wide grid related emergencies that jeopardize electric service reliability. The location of the UARP provides essential reliability services to the Central Valley and Northern California area. The reactive power support provided by the UARP is used to maintain system voltages throughout the area. The UARP units are fast-acting machines that can readily be used to manage grid regulation requirements and quickly match fluctuating demands or variable generation patterns anywhere on the grid. The UARP is used for minute-by-minute load-following services necessary for reliable and stable transmission operations.

A number of ancillary reliability services are inherently imbedded in a hydro project such as the UARP. The UARP is used to provide spinning and operating reserves; this is done without burning fuel as would be required if a fossil plant were providing that service. Standby Reserves and Quick Start Reserves are also an inherent part of the UARP facility that contribute directly to the area system reliability and overall grid stability.

The UARP also provides frequency control during normal conditions, and during system disturbances is able to quickly assist in dampening out system swings and maintain system stability. And lastly, the UARP provides a significant amount of real power right near a major load center that is necessary to meet the demand requirements of the region. This unloads the constrained transmission lines serving the region, and allows the demand to be met.

3.2 Costs of the UARP

This section evaluates the socioeconomic impacts of the UARP as it relates to recreation in Crystal Basin. Three types of analyses are presented: 1) an analysis of community attitudes toward the Crystal Basis Recreation Area; 2) a fiscal impact analysis; and 3) an analysis of public safety needs. The community attitude analysis is based on a survey of local residents. The fiscal impact analysis describes the cost to various public agencies to provide services to the Crystal Basin Area. The analysis of public safety needs is based on information provided by each of the affected public agencies. For purposes of this study, "needs" refers to specific requests or requirements identified by agency staff through telephone or email communication but for which no substantiating documents were provided. A regional economic impact analysis that evaluates the changes in the economic activity within the region as a result of recreation visitor expenditures is provided in Section 3.1.2.2.

3.2.1 Community Attitude Survey Results

Many impacts from the recreational activities of visitors occur as social, rather than economic. In this section, these social impacts are analyzed based on random surveys of local residents in the Placerville and Pollock Pines communities. The perceptions of those surveyed provide some insight into perceived benefits and costs of the UARP on residents in El Dorado County.

3.2.1.1 Methodology

The collection of data for this analysis was based on a large in-person survey of residents in the areas near the Crystal Basin area. A four-section interview survey was designed to examine the social impact of Crystal Basin recreation upon the local residents in the study area (Placerville and Pollock Pines). The survey had standardized 17 items (on a Likert scale of 1 to 5) to measure resident perceptions. The five-point Likert scale was rated as follows: 1 = strongly disagree, 2 = disagree, 3 = unsure, 4 = agree, 5 = strongly agree. Further, information on user profile of the residents was obtained. The sample constituted 153 respondents who were randomly intercepted from different locations in the study area (near local businesses, libraries, and parks). Tabulated totals of the questionnaire are provided in Appendix C.

3.2.1.2 Findings

This section analyzes respondent demographics, their travel behavior, and their perceptions related to resident lifestyle, community cohesion and local environment. Finally, residents' comments are presented on the overall benefits and impacts of Crystal Basin recreation.

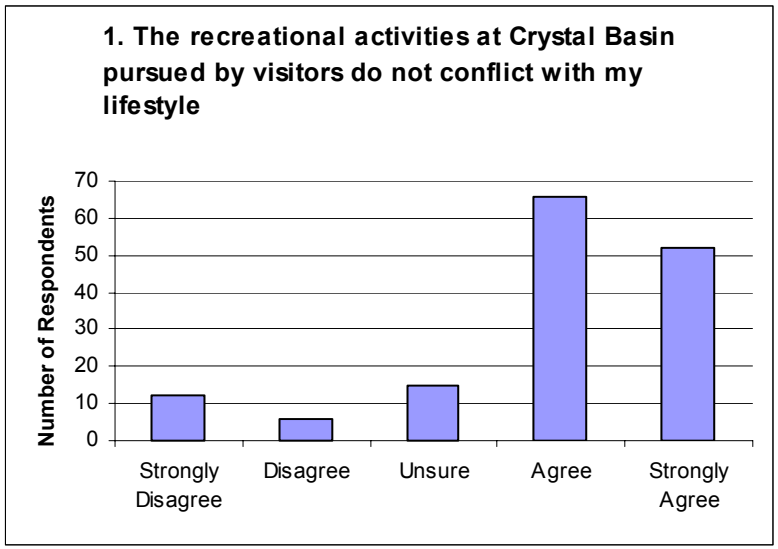
Demographics of Residents. The average age of the respondent was 43 years, with a standard deviation of 13 years. That is, the majority of the respondents were between 30 and 56 years old. Approximately 32 percent had an annual income of less than $40,000, 42 percent were between $40,000 and $80,000, and 26 percent had an annual income of more than $80,000. According to the US Census 2000, the median family income in El Dorado County in 1999 was $60,250. Thus, the survey results on income are representative of the income distribution within the county. About 58 percent of the respondents were female and 42 percent were male. The majority of respondents (76 percent) had lived in the study area for more than 5 years.

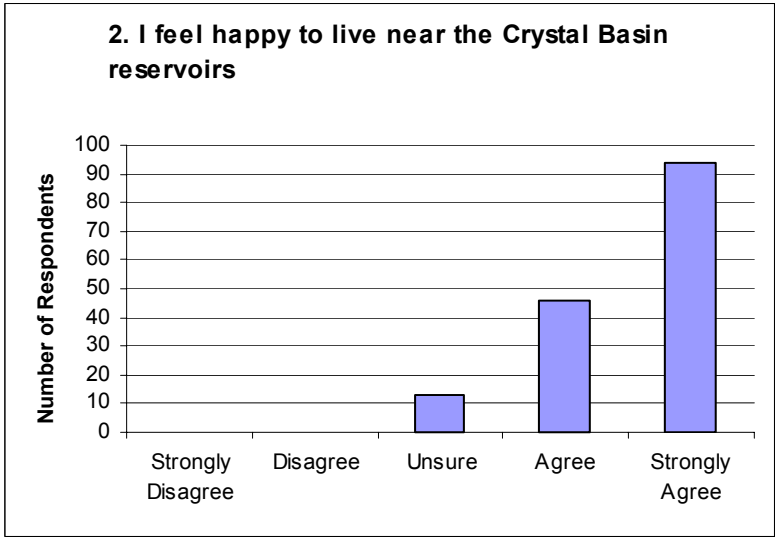
Distance from Recreation Area and Degree of Resident Use. Approximately 77 percent of the respondents said that they pursued recreation activities in the Crystal Basin area. In addition, the average distance traveled from their place of residence to Ice House Reservoir was estimated by the respondents to be 31 miles (standard deviation is 13 miles). The average number of times (per year) the respondents pursued recreation activities in the Crystal Basin area was 11 (standard deviation is 13 visits).

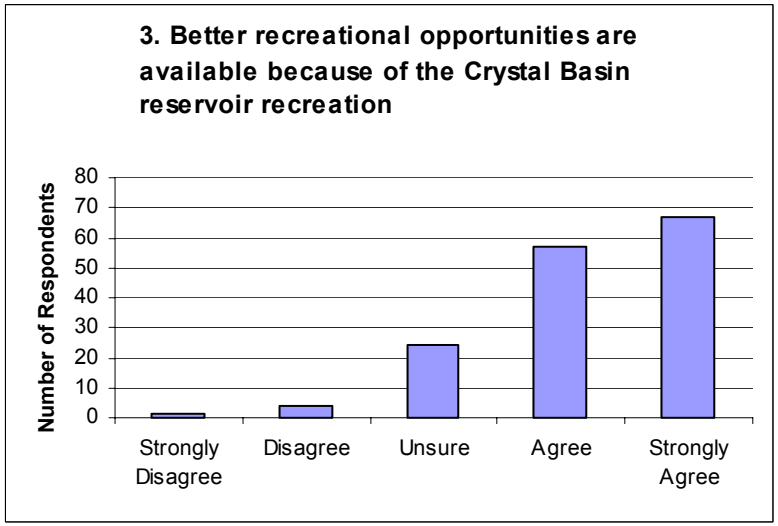
Resident Lifestyles. Ten questions were asked to determine the impact of Crystal Basin on residents' lifestyles. The results are presented in tabular form in Table 3-8, and graphically in Figure 3-1. The top number following the question is the number of respondents for that category, with the percent of respondents underneath.
The first five questions clearly show that respondents feel that Crystal Basin has a positive impact on their lifestyles. They do not feel that their lifestyles are adversely affected by recreational visitors (question 1), they are happy to live near the reservoirs, which provide recreational opportunities for themselves (questions 2, 3 and 4) and opportunities for physical exercise to assist them in maintaining good health (question 5). When asked about the impact of Crystal Basin on crime (questions 6 and 7), most of the respondents were unsure whether crime in their community was reduced or whether the level of police protection was improved. The use of Crystal Basin by tourists did not seem to have a strong financial impact (question 8) with 44 percent of respondents saying they were not sure if they had more money to spend because of the facilities, 20 percent saying they disagreed with the statement and about the same number stating that they agreed. Question 9, asking whether the respondents felt that their self-esteem was better because of their interactions with recreational visitors, had similar results with the majority of the respondents unsure of the impact, and about one-quarter of the respondents both agreeing and disagreeing with the statement. The last question, asking whether having Crystal Basin close by has enhanced their spirit of hospitality, seemed slightly positive with just over one-third agreeing with the statement and one-quarter unsure of any effect.

Community Cohesion. Community cohesion is widely used as an indication of social and interactive aspects of the quality of community life. With regard to community cohesion, Table 3-9 and Figure 3-2 show that more than one-half of the residents interviewed feel some

community pride as a result of being a recreation destination (question 1). The second question asks if public transit has improved due to the presence of Crystal Basin's recreation. More than one-third of the respondents did not think that the presence of Crystal Basin had improved public transport in their town and half were unsure. Almost three-fourths of the respondents felt that meeting diverse visitors was a positive educational experience (question 3). The response to question 4, that meeting diverse visitors makes the resident more tolerant, was not as strong, with just more than half agreeing with the statement and about one-third unsure. However, respondents seemed to agree that their opinions mattered on recreation development issues, with 45 percent strongly agreeing and 37.7 percent agreeing to the statement. Most of the respondents (over half) were unsure about questions 6 and 7; although just under one-third agree/strongly agree that Crystal Basin has brought the community closer together and that those involved in providing Crystal Basin also participate in other community activities.







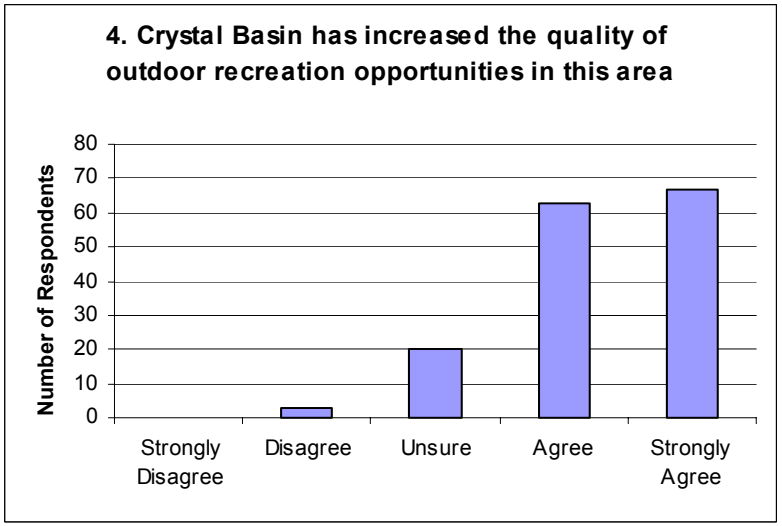
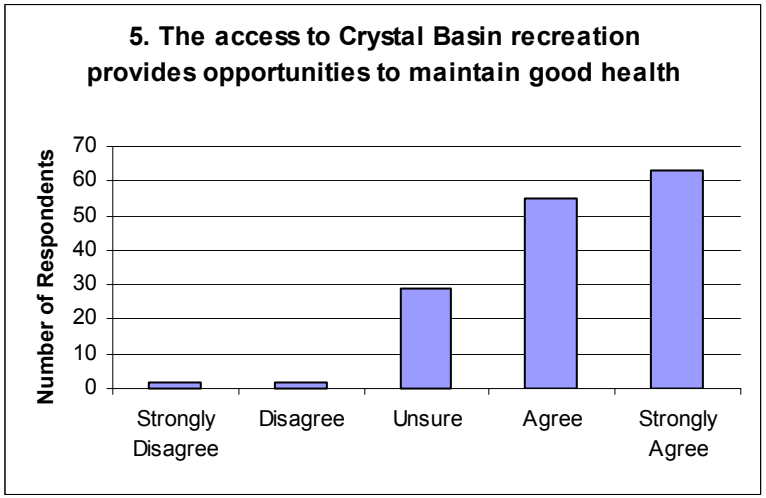
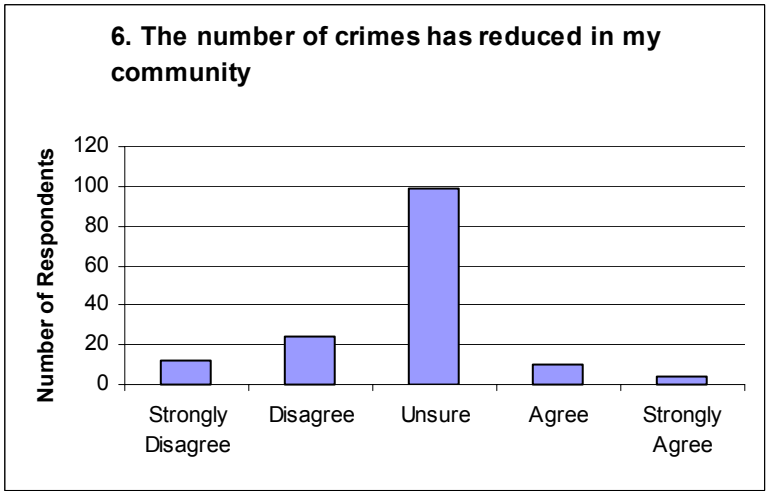
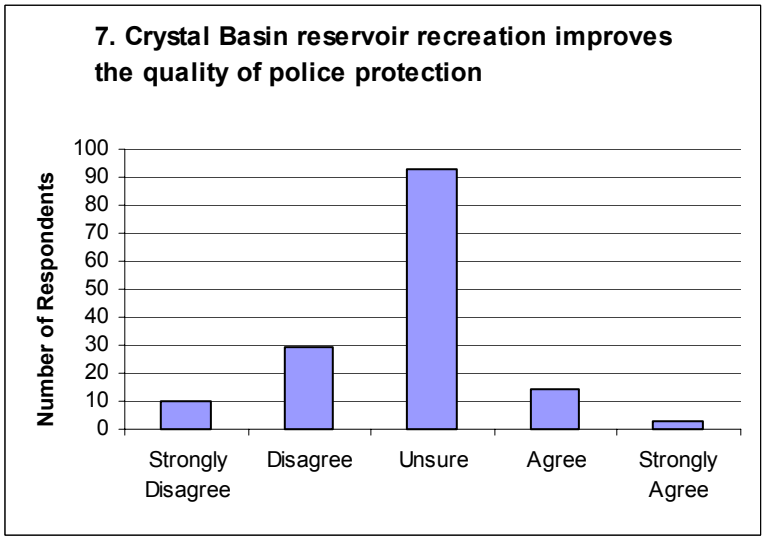


Figure 3-1. Resident Lifestyle







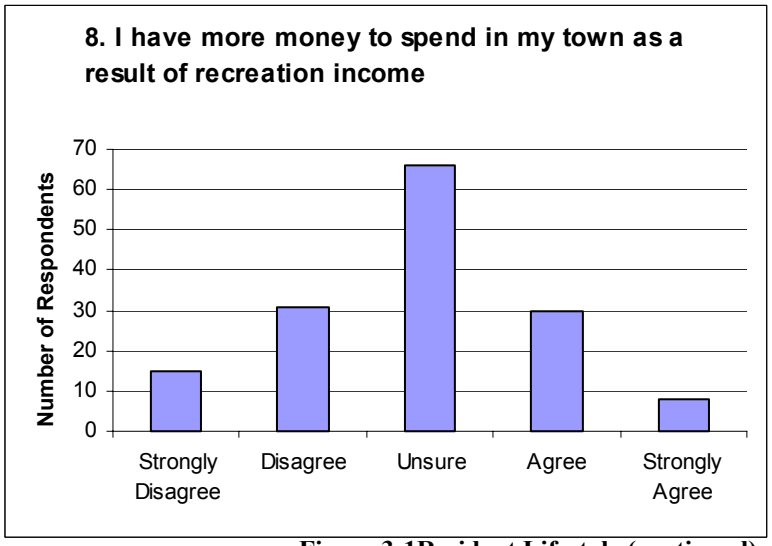
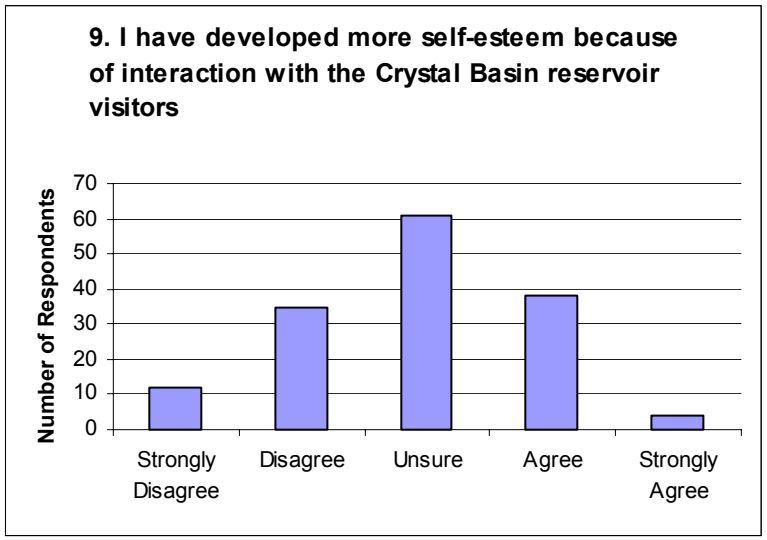


Figure 3-1Resident Lifestyle (continued)



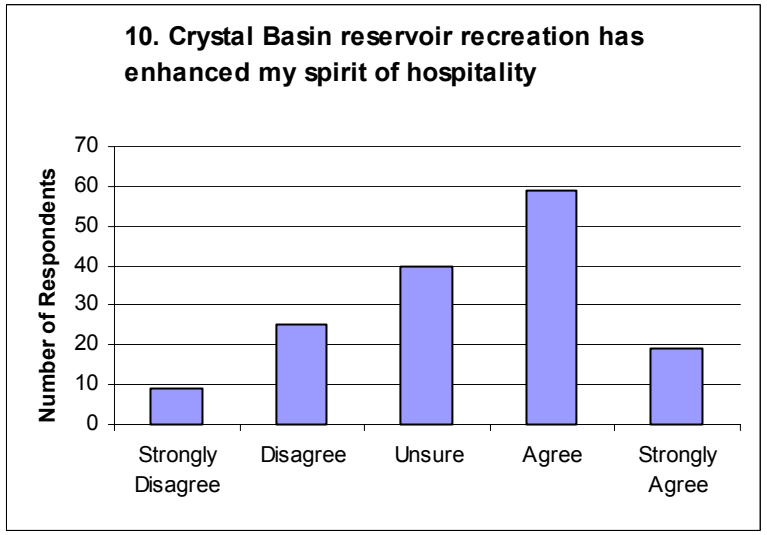
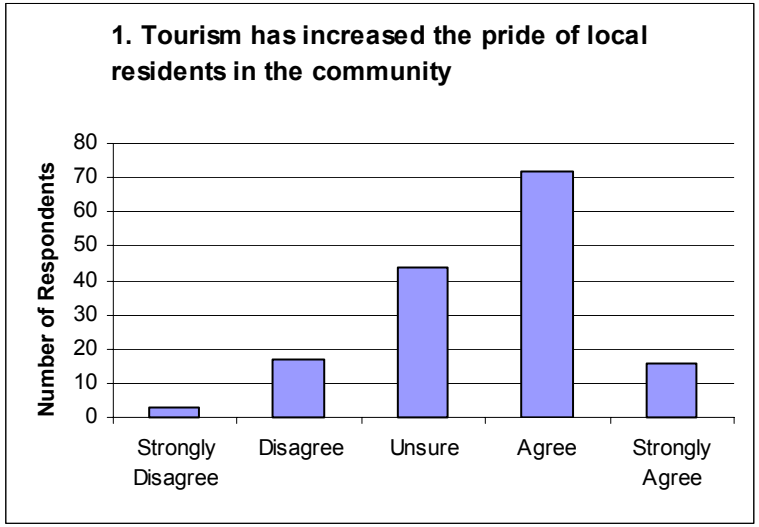
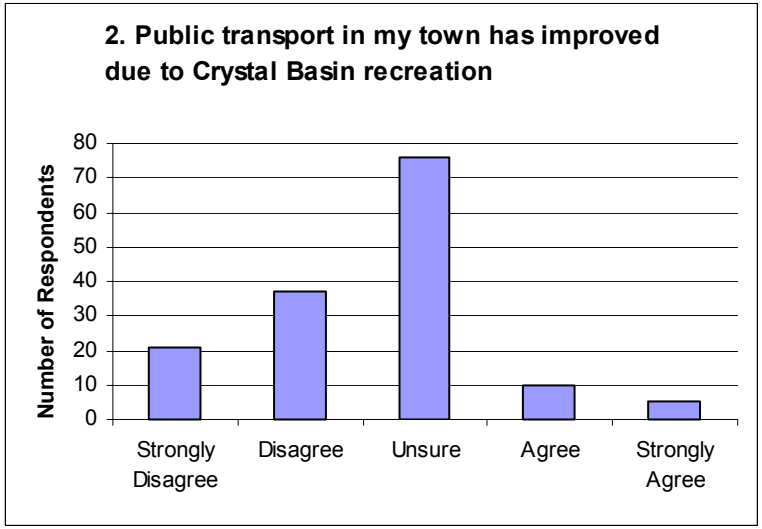


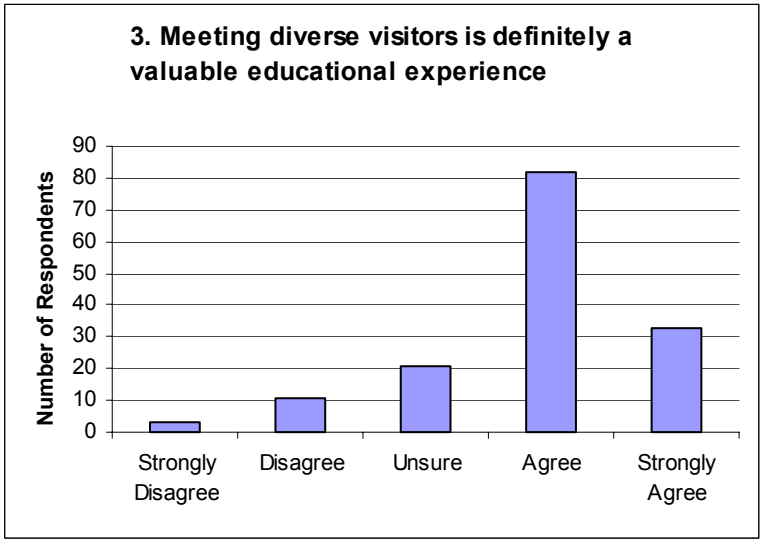
Figure 3-1 Resident Lifestyle (continued)

Table 3-8. Resident Attitudes Toward Lifestyle Issues

Variable	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1. The recreational activities at Crystal Basin pursued by visitors do not conflict with my lifestyle.	12	6	15	66	52
	7.9%	4.0%	9.9%	43.7%	34.4%
2. I feel happy to live near the Crystal Basin reservoirs.	0	0	13	46	94
	0.0%	0.0%	8.5%	30.1%	61.4%
3. Better recreational opportunities are available because of the Crystal Basin reservoir recreation.	1	4	24	57	67
	0.7%	2.6%	15.7%	37.3%	43.8%
4. Crystal Basin has increased the quality of outdoor recreation opportunities in this area.	0	3	20	63	67
	0.0%	2.0%	13.1%	41.2%	43.8%
5. The access to Crystal Basin recreation provides opportunities to maintain good health.	2	2	29	55	63
	1.3%	1.3%	19.2%	36.4%	41.7%
6. The number of crimes has reduced in my community.	12	24	99	10	4
	8.1%	16.1%	66.4%	6.7%	2.7%
7. Crystal Basin reservoir recreation improves the quality of police protection.	10	29	93	14	3
	6.7%	19.5%	62.4%	9.4%	2.0%
8. I have more money to spend in my town as a result of recreation income.	15	31	66	30	8
	10.0%	20.7%	44.0%	20.0%	5.3%
9. I have developed more self-esteem because of interaction with the Crystal Basin reservoir visitors.	12	35	61	38	4
	8.0%	23.3%	40.7%	25.3%	2.7%
10. Crystal Basin reservoir recreation has enhanced my spirit of hospitality.	9	25	40	59	19
	5.9%	16.4%	26.3%	38.8%	12.5%







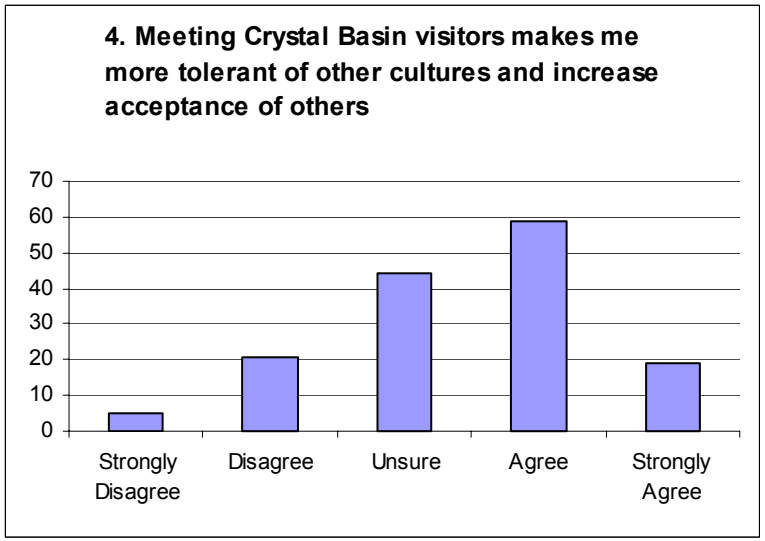
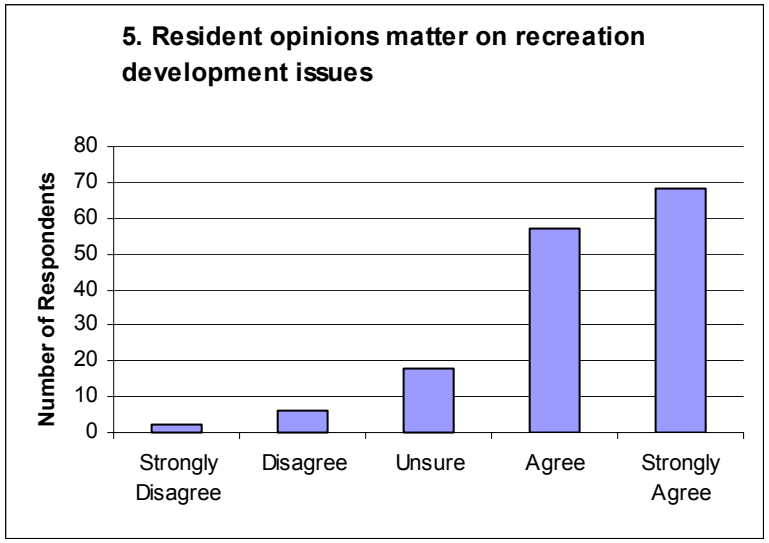
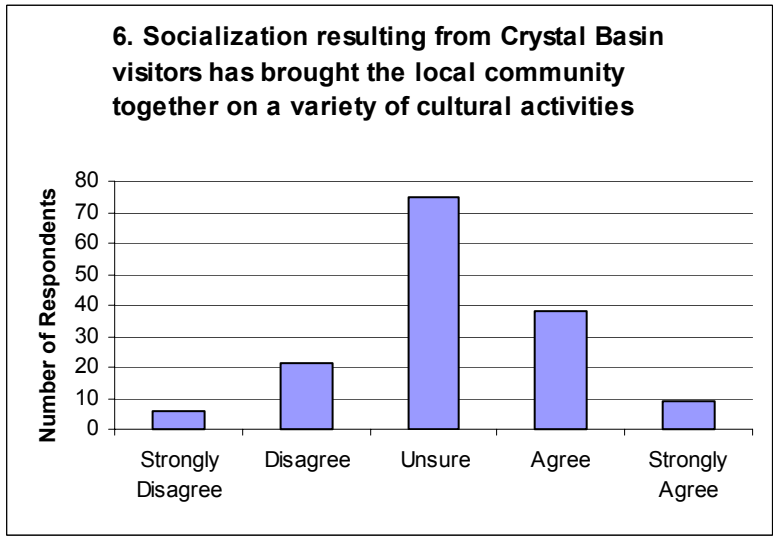


Figure 3-2. Community Cohesion





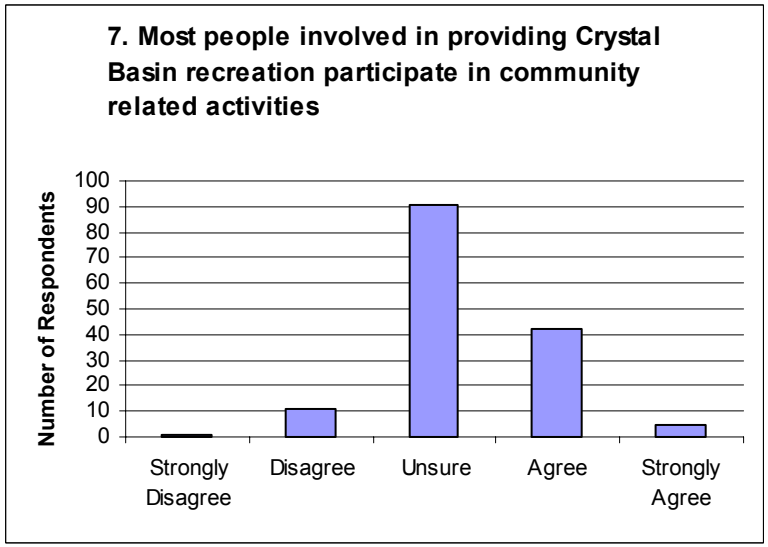


Figure 3-2. Community Cohesion (continued)

Table 3-9. Resident Attitudes Toward Community Cohesion Issues

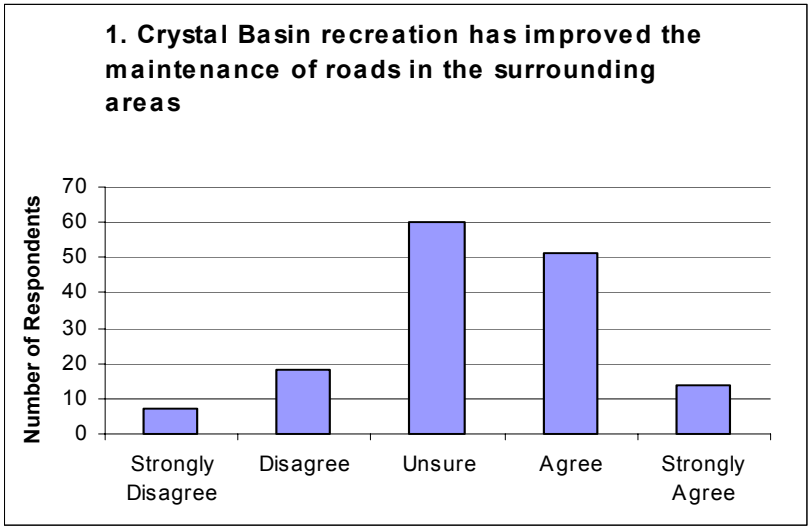
Variable	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1. Tourism has increased the pride of local residents in the community.	3	17	44	72	16
	2.0%	11.2%	28.9%	47.4%	10.5%
2. Public transport in my town has improved due to Crystal Basin recreation.	21	37	76	10	5
	14.1%	24.8%	51.0%	6.7%	3.4%
3. Meeting diverse visitors is definitely a valuable educational experience.	3	11	21	82	33
	2.0%	7.3%	14.0%	54.7%	22.0%
4. Meeting Crystal Basin visitors makes me more tolerant of other cultures and increase acceptance of others.	5	21	44	59	19
	3.4%	14.2%	29.7%	39.9%	12.8%
5. Resident opinions matter on recreation development issues.	2	6	18	57	68
	1.3%	4.0%	11.9%	37.7%	45.0%
6. Socialization resulting from Crystal Basin visitors has brought the local community together on a variety of cultural activities.	6	21	75	38	9
	4.0%	14.1%	50.3%	25.5%	6.0%
7. Most people involved in providing Crystal Basin recreation participate in community related activities.	1	11	91	42	5
	0.7%	7.3%	60.7%	28.0%	3.3%

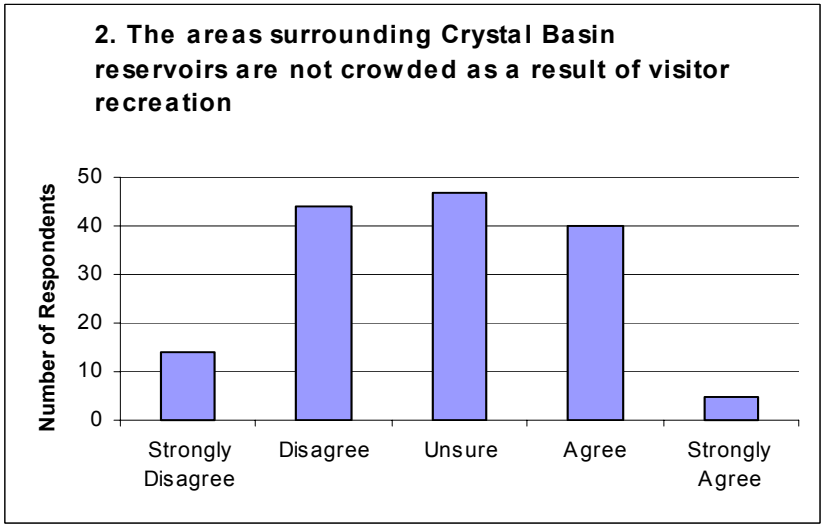
Local Environment. Infrastructure deterioration, crowding, pollution, and traffic are regarded as indicators of environmental costs. As with the other survey questions, the perception of the respondents was ascertained from in-person interviews. Table 3-10 and Figure 3-3 show frequency and percent of responses to these four questions.

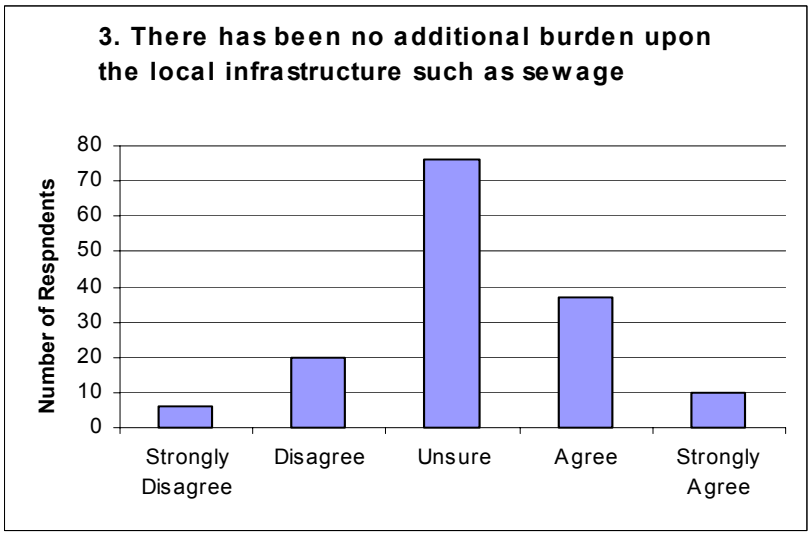
Table 3-10. Resident Attitudes Toward the Local Environment

Variable	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1. Crystal Basin recreation has improved the maintenance of roads in the surrounding areas.	7	18	60	51	14
	4.7%	12.0%	40.0%	34.0%	9.3%
2. The areas surrounding Crystal Basin reservoirs are not crowded as a result of visitor recreation.	14	44	47	40	5
	9.3%	29.3%	31.3%	26.7%	3.3%
3. There has been no additional burden upon the local infrastructure such as sewage.	6	20	76	37	10
	4.0%	13.4%	51.0%	24.8%	6.7%
4. Traffic congestion has not increased due to the Crystal Basin visitor recreation.	26	43	50	25	7
	17.0%	28.5%	33.1%	16.6%	4.6%

Question 1 in Table3-10 focuses on the effects on road infrastructure used by recreational visitors. The survey participants were asked their opinion as to whether road maintenance had improved as a result of Crystal Basin. Approximately 40 percent of the respondents







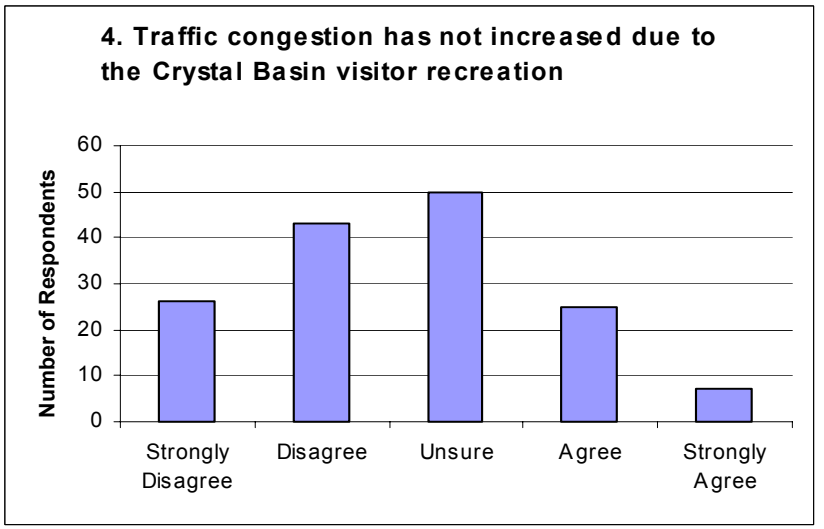


Figure 3-3. Local Environment

were unsure of any impact of Crystal Basin on road maintenance, while 43 percent of the participants indicated that the Crystal Basin recreation has improved the maintenance of roads in the surrounding areas.

In question 2, the participants were asked their opinion on crowding of areas surrounding Crystal Basin reservoirs as a result of visitor recreation. The respondents did not have a strong opinion on this issue. Just under one-third of survey respondents felt that the area is not crowded because of the recreation in the Crystal Basin (agree/strongly agree), while slightly more of the residents (39 percent) felt that the crowding of the area is affected due to the recreation and about 31 percent were unsure on the issue.

Question 3 queried residents about the burden upon the local infrastructure such as the sewage system from recreational use of Crystal Basin. A majority of the survey participants (51 percent) were unsure of any impact, while just under one-third felt that Crystal Basin recreation did not creates a burden on infrastructure such as the sewage system.

The last question about local environmental impacts addressed in the resident survey was traffic congestion. Approximately 33 percent of the people were unsure of the impact of Crystal Basin on traffic, while approximately 46 percent of the respondents (strongly disagree/disagree) felt that traffic congestion had increased due to recreation.

Open-ended Questions. Additional open-ended questions were asked of residents to further discover the attitudes toward Crystal Basin recreation. The first question regarded the participation of the residents in recreation at Crystal Basin. The most commonly mentioned recreation activities that residents had pursued in the Crystal Basin area included:

- Camping (59);
- Hiking (48);
- Fishing (45);
- Swimming (17);
- Boating (16); and
- Skiing (10).

For the question: “Do you think your organization benefits in any way due to the Crystal Basin recreation?” Residents running local businesses asserted that their businesses benefited from Crystal Basin. Their answers were as follows:

- Some local businesses such as my gift/craft store benefit from tourism dollars.
- Yes, my company profits due to recreation and tourism.
- Visitors do shop at my store.
- Some of the customers stop at my business on their way to Crystal Basin.

Most participants indicated a positive attitude toward the following statement: “The overall benefits of visitor recreation at the Crystal Basin area outweigh the negative impacts, please comment.” Comments were as follows:

- Visitors do not seem to be a problem.
- Schools and quality of life are better.
- People get to enjoy the outdoors and beautiful views.
- I do not see any negative impacts.
- Tourism is great from the local business owners' point of view as well as producing a fun way to recreate outdoors with others.
- I believe that Crystal Basin adds a positive impact for our areas.
- Yes, with proper policing or enforcement, the negative impact is mitigated and all are able to enjoy the beauty.
- It brings people together and serves a chance to enjoy the beautiful surroundings.
- Adults and children need a healthy outdoor environment. It helps to keep people occupied in summer and winter – rather than too much unnecessary free time.
- It is vital to the health of the community to provide a recreational resource for all members of the community.

The main complaints about tourism at the Crystal Basin area were environment, pollution, and traffic. The responses for this issue were as follows:

- Negative impact is litter/trash, but we are able to handle it.
- Tourism dollars do outweigh the trash problem.
- I am not sure; it increases pollution in most areas and creates a negative impact upon the environment.
- Pollution.
- I hate the increase in local traffic.
- Probably so – pollution/sewage problem should be watched carefully.
- Disagree; I feel strongly that the overall litter erosion and social impact are a bit negative; dirt roads are an environmental disaster due to four-wheel drives.

3.2.2 Fiscal Impacts

Fiscal impacts are monetary impacts to public agencies. This section looks at potential fiscal impacts to affected agencies such as El Dorado County and the USDA Forest Service from recreation in the Crystal Basin area.

3.2.2.1 Methodology

This section focuses on the fiscal impacts to the public agencies that provide services to the Crystal Basin area. The following agencies were interviewed to obtain information for a 4-year period (1999 through 2002): the El Dorado County Sheriff's Office, the Ambulance Service, the El Dorado County Water Agency, and the Search and Rescue Team. Costs incurred by the El Dorado County Fire District, El Dorado County Department of Transportation (though this agency is in the process of compiling the requested data), and the California Department of Forestry and Fire Protection (CDF) are not included due to lack of information. Since information for 1999 was not available from the agencies listed above, the average for the period 2000-2003 was used.

Safety considerations were assessed with the help of the El Dorado County dispatching service, the helicopter pad employees, the Sheriff's Office, and the Search and Rescue Team. With the assistance of the El Dorado County Dispatching Service, a log of ambulance and fire engine calls in the Crystal Basin area were made available for assessment. Economic costs such as gasoline for the ambulance and the medical supplies were considered.

3.2.2.2 Findings

Fire Suppression and Prevention.

USDA Forest Service General Operation Costs. The USFS Eldorado National Forest (ENF) operates and maintains most of the Project recreation facilities through a Special Use Permit issued to a third party. The current concessionaire is American Land and Leisure. Under the terms of this permit, a concessionaire agrees to collect fees for operating and maintaining government-owned facilities and returns a portion of the gross receipts to the Federal government. The concessionaire is responsible for all tenant types of maintenance such as broken infrastructure, utilities, grounds maintenance and enforcing campground/facility rules. In effect, the cost of daily operation and maintenance of the facilities is an operating expense borne by the concessionaire. The fees due to the Federal government under this arrangement can either be paid by the concessionaire or the concessionaire can provide work-in-lieu of fees. Under the latter, the ENF can work with the concessionaire to accomplish facility replacement or improvements such as modifications necessary to comply with the Americans with Disabilities Act. This allows a portion of the fees collected at the site to be used for replacement and improvements to the facilities.

Concessionaire gross revenues, in 2002, were $467,500. According to the agreement with the Federal Government, 18 percent of the gross revenues (or $84,150) goes to the Federal Government; or, as an option to sending this money to Washington D.C., up to 18 percent of gross revenues can be used on site (fee offset) to make improvements to the recreation facilities where the fees are collected. The remainder of the gross revenues went to the concessionaire.

In addition to the campground fees collected by the concessionaire, ENF collects user fees called "Fee Demo." In 2002, the ENF collected $29,700 in Fee Demo monies. The Fee Demo money is used to operate and maintain the facility where the fees are collected.

Total user fees (concessionaire and fee demo) collected at UARP recreation facilities in 2002 were $497,200. Of this amount, about $113,850 was retained by the ENF while $383,350 was retained by the concessionaire.

According to the USFS, its expenditures within the Crystal Basin total $820,000 a year (Bilyeu, 2004a). Of the total $820,000, $400,000 is non-appropriated. The remaining $420,000 comes from monies appropriated by US Congress for use in the Crystal Basin. Of the $400,000 in non-appropriated monies, $330,000 is in "Exhibit R" funds from SMUD. The Exhibit R funds are monies that SMUD pays to the USFS to maintain recreational facilities that were constructed after the Recreation Plan was revised in 1985 due to the addition of the Jones Fork Powerhouse. The remaining $70,000 is partly from Fee Demo monies collected from users that remain for use

within the Crystal Basin area. The remaining Fee Demo monies are remitted to the federal government. The $820,000 is used to pay for the following: recreational facility maintenance, maintenance of trails, recreational support for wildlife, recreational support for watershed, capital improvements, and overhead (salaries and vehicles).

USDA Forest Service. The USFS is responsible for providing fire prevention and suppression services within the ENF. In addition to the general operating costs, the USFS incurs additional expenses related to fire suppression, prevention and preparedness in the ENF. These additional expenses are financed through funds appropriated by Congress (Johnson, 2004) and as such vary from year to year. These funds are separate from those identified in the previous section (those appropriated for expenditures within the Crystal Basin). Since appropriated funds can and do vary from year to year, the funds received by ENF also vary. Typically, the funds are used to pay for staffing and training. Most of the training of new hires (both full-time as well as part-time) and the refreshers for existing staff is typically completed by the first week of May, in readiness for the fire season which begins Mid April. Fire season in the ENF officially runs from Mid April through November 1.

El Dorado County Fire District. The EDCFD is the local agency that provides fire suppression to areas in the Crystal Basin that are outside the ENF. Several attempts were made to contact the EDCFD for information relating to the provision of fire suppression services to the Crystal Basin as well as information pertaining to any needs identified but no response was received.

California Department of Forestry and Fire Protection. The California Department of Forestry and Fire Protection (CDF) is the state agency that provides fire protection services to state lands. Since the Crystal Basin is within the ENF and thus under the USFS jurisdiction, the USFS is charged with providing fire prevention and suppression services. In the event of a major fire, the CDF would come to the aid of the USFS as required by "California Fire Assistance Agreements". The "California Fire Assistance Agreements," calls for fire protection and suppression assistance between fire agencies within California (both state as well as local) and federal agencies.

Law Enforcement. Assessing safety involves studying the crime rate and the incidents that take place in the Crystal Basin Area.

USDA Forest Service. The USFS provided incident data for 2002 and 2003 for the Crystal Basin area. Data on USFS response was provided in two general categories: incidents and violations. As shown in Table 3-11, in 2002, 60 percent of the calls were for Fire and Forest Roads/Trails. In 2003, most of the calls were for Fire, Wilderness, Occupancy Use, and Off-highway vehicles (OHVs). Those four categories comprised about 83 percent of the calls. Although Fire was consistently high both years, there was substantial variation in the number of other calls. However, the total number of calls was almost identical both years. This data as well as a map of the locations of the incidents is provided in Appendix D.

Table 3-11. USDA FS Incident Data for 2002 and 2003

	2002				2003		
Incident Type	Incidents	Violations	Total		Incidents	Violations	Total
Fire	31	57	88		77	21	98
Wilderness	3	11	14		47	10	57
Occupancy Use	20	14	34		36	16	52
OHV	7	12	19		12	35	47
Sanitation	1	3	4		11	0	11
Other	16	6	22		10	3	13
Gen Forest Products	8	1	9		10	1	11
Forest Roads/Trails	53	71	124		7	35	42
Real Property	7	1	8		6	1	7
Civil	7	0	7		5	0	5
Unknown	0	0	0		2	0	2
Timber	9	5	14		1	4	5
Assault	0	0	0		1	0	1
Paleo	0	0	0		1	0	1
Threat Intimidation	0	0	0		1	0	1
Alcohol	1	1	2		0	0	0
Special Uses	1	1	2		0	1	1
Fish & Wildlife	2	0	2		0	1	1
Cultural	1	0	1		0	0	0
Drug Pos/Use	1	0	1		0	0	0
Interfere w/Officials	1	0	1		0	0	0
TOTALS	**169**	**183**	**352**		**227**	**128**	**355**

Source: USFS LEIMARS, 2004.

As the numbers in the table show, incidents and violations in the USFS Law Enforcement and Investigations Management Attainment Reporting System (LEIMARS) Incident Summary Report data are additive since they are generated from different activities. Incidents involve activities where the known violator was just given a warning or a law enforcement response to an activity where the violator cannot be identified. Violations involve the actual issuance of a violation notice to a known violator. According to the USFS, estimates in the LEIMARS incidents and violations report are less than 25 percent of the actual violations occurring (Bilyeu, 2004b). According to the USFS, the low rate of incidents and violations reported is due to the

lack of adequate number of Law Enforcement staff. However, no supporting documentation was provided.

El Dorado County Sheriff's Office. The El Dorado County Sheriff's Office also provided an incident directory report. The report contained a list of the incidents that took place in the recreation area from January 2000 through May 2003. The directory enabled the retrieval of specific information on crime rate and incidents at the Crystal Basin.

Tables 3-11 to 3-15 specify information obtained from the incident directory report. Each table represents a section of the Crystal Basin area. These tables are divided into five columns: type of incident and one column for each of the years. The number in each row under the appropriate year lists the number of times that particular crime took place. If it is blank, no incidents of that particular crime were reported for that year.

The crimes are listed and categorized by type, as determined by the reporting agencies. "Theft" includes burglary, grand theft, or stealing any form of property. "Investigation" includes any form of investigation that took place in the area such as, murder cases, lost and missing persons, for informational purposes (to obtain leads for other cases), search-and-rescue cases, or when someone is not found. There were two "Murder" cases that took place, and this category is titled for those two incidents. "Harbors and Navigation" include all incidents occurring on bodies of water such as boating accidents. The crime type labeled "Vehicle Code" includes all driving offenses and any incident involving a car. These incidents may include speeding, removal of unwanted vehicles, reckless driving, disobeying traffic regulations, driving without identification, unlawful operation, driving without privileges, not wearing a seat belt, driving without registration or insurance, and not obeying traffic devices. "Welfare Institution" includes anything involving a juvenile crime.

"Vandalism" represents the number of times that vandalism took place. Although it is not a high number, it is high enough to allot a row to vandalism. "County or Government Ordinance" is the next category, which involves a broken county or government code. "Sex Offense/Lewd Acts" includes prostitution, lewd acts with a minor, and sex offenses. "Arrests" include citizen arrests and re-arrests of probationers. "Other Penal Codes with Punishment" is a miscellaneous category and includes willful infliction of an injury, battery defined, forging bills or notes, unlawful possession of firearms, discharging a firearm in a gross manner, not having a legal firearm permit, hang-up phone calls, discharging an armed weapon, using a firearm or other deadly weapon, and false report of an emergency.

When assessing the crime rate, it is a noticeable factor that crime is slowly rising over time. The rate increased from 30 incidents in the year 2000 to 72 incidents in the year 2002. As far as the different areas are concerned, Ice House and the surrounding area have the most reported incidents. Since the year 2000, there have been a total of 86 crimes committed in that area. This is a high number compared to Robb's Hut (39 incidents), Loon Lake (31 incidents), and Tells Creek Equestrian (2 incidents) areas.

Table 3-12. Ice House and Surrounding Areas				
Type of Incident	**2000**	**2001**	**2002**	**2003***
Arrest	1	2		
County or Government Ordinance	3		1	2
Harbors and Navigation		3	1	
Investigation	6	2	7	
Murder			2	
Other Penal Codes with Punishment	2			
Sex Offense/Lewd Acts		2	2	
Theft		7	2	2
Vandalism		2	2	
Vehicle Code	7	11	15	
Welfare Institution	1		1	
Total	**20**	**29**	**33**	**4**

* These data are only through May 2003.

Table 3-13. Robb's Hut and Surrounding Areas				
Type of Incident	**2000**	**2001**	**2002**	**2003***
Arrest			1	
County or Government Ordinance			4	
Health and Safety	1			
Investigation		3	1	
Other Penal Codes with Punishment		1	4	
Sex Offense/Lewd Acts		1	1	
Theft		1		
Vehicle Code	3	1	14	
Vandalism		2	1	
Total	**4**	**9**	**26**	**0**

* These data are only through May 2003.

Table 3-14. Loon Lake and Surrounding Areas				
Type of Incident	**2000**	**2001**	**2002**	**2003***
County or Government Ordinance		1		
Harbors and Navigation			1	

Table 3-14. Loon Lake and Surrounding Areas				
Type of Incident	**2000**	**2001**	**2002**	**2003***
Investigation	4	5	4	
Other Penal Codes with Punishment	1	1	3	
Vehicle Code			4	4
Welfare Institution		1		
Total	**5**	**8**	**12**	**4**

* These data are only through May 2003.

Table 3-15. Tells Creek Equestrian and Surrounding Areas				
Type of Incident	**2000**	**2001**	**2002**	**2003***
Investigation		1		
Vehicle Code			1	

* These data are only through May 2003.

Therkildsen (2003) suggests that the crime rate in the Crystal Basin recreation area is very low compared to other rural areas and public parks. The biggest problem in the area pertains to vehicle codes.

Although the incident data is important to understand the types of crime and the amount of responses, it is the fiscal impact that is of concern to this study. The Sheriff's Office provides two additional deputies and vehicles during holiday weekends (Memorial Day, 4th of July, and Labor Day) for a total of three deputies and vehicles. The cost to the USFS for a deputy is $55 per hour, which includes the cost of the vehicle and the deputy's time. Deputies work a 10- to 12-hour shift (mostly 12-hour shifts). The contract with the USFS calls for a cap of $31,000 on payments to the Sheriff's Office by the USFS for backup patrol during the recreation season (Memorial Day to Labor Day) weekends (Egbert, 2004).

Emergency and Fire Response

The costs of medical and fire responses involve assessing any type of ambulance or fire calls made for the Crystal Basin area. With the assistance of the El Dorado County Dispatching Service, an incident log of the Crystal Basin area was made available for assessment. Table 3-16 represents the frequency of various emergency vehicles responding to incidents in the study area. The type of response is under "service," and the number under the years represents how many times that service was used that specific year.

The Type of Service category in the table describes the level or type of organization performing the service. A Battalion consists of between 5 and 8 stations. A station consists of an engine company, engine truck and firefighters. A station is led by a Captain while a Battalion is led by a Battalion Chief. Typically, an engine company (fire engine and 3 or 4 firefighters) responds to fire calls. Depending on the type (fire as well as medical) and severity of the incident, more than

one engine company or even station may respond. As shown in the table, the helicopter is not used frequently, except for dropping water over forest fires and transporting ambulance patients in emergency. The prevention unit is the

Table 3-16. Medical and Fire Incidents

Service	2000	2001	2002	2003*	Total Number of Incidents
Ambulance	30	34	35	2	101
Battalion	6	7	14		27
Fire Engine	21	28	13		62
Helicopter	7	4	3		14
Patrol Car	10	1	3		14
Prevention		10	15	3	28
Water Tender			1		1
Total Annual Incidents	74	84	84	5	247

* These data are only through May 2003.

public contact unit. The person operating the prevention unit vehicle has the responsibility to inform the public about area restrictions and ways to prevent forest fire and injury. "Water tender" is the next item listed, and was used only once in 2002, and is a fire response. Ambulance service was used a total of 101 times between 2000 and May 2003.

The total number of medical and fire incidents since 2000 was found to be 247. The annual total in 2000 was 74. Since that time, there has been a slight rise (10 incidents). Both in 2001 and 2002, the yearly tally of incidents was 84. Fire engine was the next response vehicle used frequently (reporting 62 incidents).

Search and Rescue. The El Dorado County Search and Rescue Unit is an all-volunteer arm of the Sheriff's Office with more than 150 members covering the west slope of the Sierra Nevada and the Lake Tahoe Basin in California (Stewart, 2004). Since the Search and Rescue Unit is an all-volunteer organization, the agency costs associated with this service is negligible.

Ski Patrol. Ski Patrol staff was interviewed to ascertain various costs associated with skiing or other emergencies to which the ski patrol is the primary responder. The ski patrol staff consists of volunteers who are on duty every ski weekend. Each patroller spends about $3,000 on equipment. The ENF provides a small amount of products and services such as batteries and printing/mailing services. This would amount to about $500 per year.

Popular visitor activities associated with snow were identified as cross-country skiing, snowmobiling, and snowshoeing. Ski injuries were reported to be mainly due to skiing in bad snow conditions. No exceptional amount of deterioration and disturbance of the natural ecology were noted at the recreation area designated for cross-country skiing. Illegal snowmobilers were

found to be the ones who abused the desolate wilderness lands. The Ski Patrol staff does not hear about any complaints from residents as a result of visitor recreational activities. They felt that the road conditions were not affected by skiing. They asserted that trails, on the other hand, were improving through their work.

3.2.3 Needs of Public Safety Agencies to Serve the Crystal Basin Area

This section will describe the impacts to the public service providers in the Crystal Basin area. The results in this section will address Pertinent Issue Question # 25 listed in Section 2.1, Study Objectives. The needs and adequacy determination identified in this section were provided via telephone and email communications with the USFS and the El Dorado County Sheriff's Office. No written documentation to substantiate these needs was provided by the agencies.

3.2.3.1 Fire Suppression and Prevention Needs

According to the USFS, providing adequate fire suppression and prevention services to the Crystal Basin would require the addition of an engine module, a squad and one fire prevention technician. An engine module is comprised of a Type III engine operated by 5 firefighters. Since the engine module is needed 7 days a week during the fire season, the USFS needs 7 firefighters. A squad is comprised of a Type IV engine and 4 firefighters. The squad responds to medical and/or vehicle accidents. The fire prevention technician deals with campfire issues and provides education to the public using the dispersed recreation areas (Johnson, 2004).

The USFS estimates the total average annual payroll costs for staffing the additional modules as well as for the fire prevention technician to be about $301,500 (Johnson, 2004). Of the $301,500, $141,400 is the average annual payroll associated with the Type III engine module, $101,600 is the average annual payroll of the Type IV engine (squad), $24,620 is the average annual salary for a fire prevention technician and $33,840 is the ongoing operational expenses associated with the modules. These payroll estimates are for staffing the engines during the fire season (assumed to be mid-May through October 1st, or about 130 days). In the case of the Type III engine module, the required staff include: a captain, an engineer, an assistant engineer, a senior firefighter, and three firefighters. The Type IV squad module, on the other hand, requires: a captain, an engineer, an assistant engineer and a senior firefighter. In addition to the payroll, the USFS expects to incur a one-time only cost of $150,000 in the purchase a Type IV engine.

3.2.3.2 Law Enforcement Needs

According to the Sheriff's Office, providing adequate patrol to the Crystal Basin would require three[20] additional deputy positions (one on day shift and two on swing shift) and three additional patrol cars. The total annual costs for these additional deputies, their equipment and the operating expenses associated with the equipment is expected to be $743,400 per year. Of the $743,400 in annual total costs, $675,000 is payroll (salary and benefits), $18,000 is expenditures on gasoline while $50,400 are in operating costs. In addition to the ongoing expenses, the Sheriff's Office

[20] The three additional deputy positions are equivalent to 7.5 deputies (Egbert, 2004). Current annual salary (including benefits) for a mid-step Deputy Sheriff in El Dorado County is $90,000. For the 7.5 deputies the total payroll is 7.5 x $90,000, or $675,000.

expects to have a one-time-only equipment cost of $90,400, of which $40,000 will be in additional patrol cars. The $40,000 in additional patrol cars is not included in the $743,400 total costs (Egbert, 2004).

To augment their patrol on the reservoirs and rivers, the Sheriff's Office anticipates that it will need one Deputy Sheriff per day, a patrol boat and the associated equipment and operational expenses. Thus, the Sheriff's Office estimates that it will need $80,000 in one-time-only equipment expenses ($10,000 in equipment for new staff, $50,000 in patrol boat and $20,000 in equipment for patrol boat) and $155,000 per year in on-going operating expenses. The $155,000 in on-going operating expenses includes $135,000 in additional deputy payroll (salary and benefits) and $20,000 in operating expenses (maintenance and fuel) for the patrol boat.

Although the above estimates are for a full year, most of the recreation in the Crystal Basin occurs during a five-month period, i.e., May through September. Thus, the above cost estimates may need to be adjusted to reflect the portion attributable to the Crystal Basin's primary recreation season. Five-twelfths of the $685,000 annual land-based patrol personnel costs is $285,000, and five-twelfths of the $135,000 annual water-based patrol personnel costs is $56,000.

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APPENDIX A

IMPLAN PRIMER

IMPLAN PRIMER

Regional Economics. The study of the economy of a small region.

Regional Economic Impacts. Regional economic impacts are concerned with the effects of changes in the economy of the small region. The magnitude of the economic impacts are determined by the interactions between linkages within the local/regional economy and the leakages from this economy to the larger economy.

Economic linkages are the relationships between industries, businesses, factors and government created by trade and other exchange, such as taxes, within and among regions. Economic linkages create multiplier effects in a regional economy as money is circulated by trade. The magnitude of impacts resulting from economic linkages are limited by the amount of leakage that occurs within the region. Economic leakages are a measure of the income shares spent outside of the region. Thus, the more economic leakage, the less the multiplier effect. Economic leakages are generally higher the smaller the regional economy, for example, the economic leakage for a county are larger than those for the state which are larger than those for the nation.

Regional Economic Analysis Modeling Systems: A number of regional economic analysis modeling systems (consisting of data as well as analytical software) are available for use in regional economic analysis, e.g., REMI (Regional Economic Models Inc.,), RIMS II (Regional Industrial Multiplier System II), and IMPLAN (IMpact Analysis for PlANning). IMPLAN is a computer database and modeling system used to create IO models for any combination of U.S. counties.

IMPLAN was originally developed by the U.S. Forest Service in cooperation with the Federal Emergency Management Agency and the U.S. Department of the Interior's Bureau of Land Management to assist in land and resource management planning. Since 1993, the IMPLAN system has been developed under exclusive rights by the Minnesota Implan Group, Inc. (Stillwater, Minnesota) which licenses and distributes the software to users.

The Value of IMPLAN. The IMPLAN Model is the most widely used input-output impact model system in the U.S. Much more than a set of multipliers, it provides users with the ability to define industries, economic relationships and projects to be analyzed. It can be customized for any county, region or state, and used to assess the "ripple effects" or "multiplier effects" caused by increasing or decreasing spending in various parts of the economy. This is used primarily to assess the economic impacts of facilities or industries, or changes in their level of activity in a given area.

The IMPLAN Package. This includes (1) estimates of final demands and final payments for counties developed from government data, (2) a national average matrix of technical coefficients, (3) mathematical tools which help the user make the I-O model, and (4) tools which allow the user to change data, conduct impact analysis, and generate reports.

The IMPLAN Database. The economic data for IMPLAN comes from the system of national accounts for the United States based on data collected by the U. S. Department of Commerce, the

U.S. Bureau of Labor Statistics, and other federal and state government agencies. Data are collected for 509 distinct producing industry sectors of the national economy corresponding to the North American Industry Classification System (NAICS). Industry sectors are classified on the basis of the primary commodity or service produced. Corresponding data sets are also produced for each county in the United States, allowing analyses at the county level and for geographic aggregations such as clusters of contiguous counties, individual states, or groups of states.

Data provided for each industry sector include outputs and inputs from other sectors, value added, employment, wages and business taxes paid, imports and exports, final demand by households and government, capital investment, business inventories, marketing margins, and inflation factors (deflators). These data are provided both for the 509 producing sectors at the national level and for the corresponding sectors at the county level. Data on the technological mix of inputs and levels of transactions between producing sectors are taken from detailed input-output tables of the national economy. National and county level data are the basis for IMPLAN calculations of input-output tables and multipliers for local areas.

IMPLAN Multipliers. The IMPLAN software package allows the estimation of the multiplier effects of changes in final demand for one industry on all other industries within a local economic area. Multipliers may be estimated for a single county, for groups of contiguous counties, or for an entire state; they measure total changes in output, income, employment, or value added. Definitions are provided below. More detail on the derivations of multipliers is available in the earlier cited IMPLAN Users Guide.

For a particular producing industry, multipliers estimate three components of total change within the local area:

- ***Direct effects*** represent the initial change in the industry in question.
- ***Indirect effects*** are changes in inter-industry transactions as supplying industries respond to increased demands from the directly affected industries.
- ***Induced effects*** reflect changes in local spending that result from income changes in the directly and indirectly affected industry sectors.

IMPLAN allows the analyst to choose from multipliers that capture only direct and indirect effects (Type I), multipliers that capture all three effects noted above (Type II), and multipliers that capture the three effects noted above and further account for commuting, social security and income taxes, and savings by households (Type SAM). Total effects multipliers usually range in size from 1.5 to 2.5 and are interpreted as indicated below:

- ***Output multipliers*** relate the changes in sales to final demand by one industry to total changes in output (gross sales) by all industries within the local area. An industry output multiplier of 1.65 would indicate that a change in sales to final demand of $1.00 by the industry in question would result in a total change in local output of $1.65.
- ***Income and employment multipliers*** relate the change in direct income to changes in total income within the local economy. For example, an income multiplier for a direct

industry change of 1.75 indicates that a $1.00 change in income in the direct industry will produce a total income change of $1.75 in the local economy. Similarly, an employment multiplier of 1.75 indicates that the creation of one new direct job will result in a total of 1.75 jobs in the local economy.

- ***Value added multipliers*** are interpreted the same as income and employment multipliers. They relate changes in value added in the industry experiencing the direct effect to total changes in value added for the local economy.

Terms used in IMPLAN

- Output/Industry output is a single number in dollars, or in millions of dollars. The dollars represent the value of an industry's total production. The data for industry output are derived from a number of sources, including the Bureau of Census economic censuses, Bureau of Economic Analysis (BEA) output estimates, and the Bureau of Labor Statistics (BLS) employment projections.
- Value Added is a measure of output and derived by subtracting the non-labor input costs from revenue. In IMPLAN, value-added has 4 sub-components. These are:

  - Employee Compensation – this describes the total payroll costs (including benefits) of each industry in the region. It includes wages and salaries as well as benefits such as health and life insurance, retirement payments, and non-cash payments. Employee compensation is derived for each industry from CEW and REIS data.

  - Property type income – this consists of any income received for payment of self-employed work, as reported on Federal tax forms, is counted here. This includes income received by private business owners, doctors, lawyers, and so forth.

  - Other property type income – this consists of payments to individuals in the form of rents received on property, royalties from contracts, and dividends paid by corporations are included here as well as corporate benefits earned by corporations. Other property type income numbers are derived from U.S. Bureau of Economic Analysis Gross State Product data.

  - Indirect Business Taxes (IBT) – this consists of excise taxes, property taxes, fees, licenses, and sales taxes paid by businesses. These taxes occur during the normal operation of businesses but do not include taxes on profit or income. Indirect business taxes are derived from U.S. Bureau of Economic Analysis Gross State Product data.

APPENDIX B

QUESTIONAIRE TOTALS

Appendix B Questionnaire - Data Summary

	Resident Lifestyle													Community Cohesion								User Profile				
Survey	Pursuit	Times	Conflict	Happiness	Availability	Quality	Health	Crime	Protection	Money	Self-esteem	Hospitality	Avresident	Pride	Transportation	Education	Tolerance	Opinion	Socialization	Community	Avcohesion	Gender	Age	Income	Length of Stay	Distance
CB1	1	6	4	5	5	5	5	3	4	3	2	4				1						1	46	6	2	25
CB2	1	4.5	5	5	5	5			1	1	1	1		2	1	1	1	4	2			1	67	3	1	30
CB3	2		4	4	4	4	4	4	4	3	4	4		4	4	1		4		4		2	37		1	
CB4	2		5	5	4	3	3	3	3	2	4	3		4	3	2	3	4	3	3		1	44	3	2	40
CB5	1	0.5	4	4	4	4	4	2	1	3	1	2		3	1	2	3	4	3	2		1	57	6		30
CB6	1		5	5	5	5	5	3	3	3	4	5		5	3	2	5	5	3			1	67	5	2	30
CB7	1	1.5	5	4	4	4	4	3	2	3	3	3		4	3	2	4	5	4	4		1	49	2	2	35
CB8	1		4	5	4	5	4	3	3	2	3	4		4	2	2	3	4	3	4		2	59	3	2	20
CB9	2		2	4	3	4	3	3	3	4	4	4		4	3	2	4	4	4	3		1	35	5	1	10
CB10	1	12	4	4	5	5	4	3	4	3	4	4		4	3	2	4	5	4	4		1	44	2	2	15
CB11	2		1	3	2	4	1	1	4	3	3	2		3	2	2	2	3		2		1	23	3	1	10
CB12	1	4	4	5	4	4	5	2	2	3	5	4		3	2	2	3	4	3	3		2	37	4	1	20
CB13	2		5	5	4	4	4	3	3	1	1	1		3	3	2	2	5	3	3		1	42	1	2	
CB14	1	4	4	3	4	4	4	1	2	3	3	2		4	2	2	2	4	2	3		1	54	4	1	20
CB15	1	12	4	5	4	4	4	3	3	2	3	4		4	3	3	4	4	4	3		2	49	2	2	22.5
CB16	1	24	3	5	4	4	4	2	1	5	4	4		5	1	3	4	5	5	3		1	24	2	2	10
CB17	1	12	5	5	5	5	4	3	3	3	4	5		4	3	3	2	5	2	3		1	26	6	2	45
CB18	2		1	4	4	5	4	3	4	3	4	4		4	3	3	4	4	4	4		2	51	3	1	30
CB19	1		5	4	4	4	3	3	3	5	3	4		4	2	3	4	4	3	3		2	31	2	2	10
CB20	1	72	3	5	5	5	5	5	4		3	4		4	3	3	4	5	2	4		1	19	2	2	
CB21	2		4	3	3	3	3	3	3	3	3	3		3	3	3	3	4	3	3		1	27	2	1	
CB22	2		4	5	2	4	5	5	5	5	3	4		5	4	3	5	1	5	3		2	34	1	2	40
CB23	1	24	4	5	5	5	5	4	2	4	2	4		3	3	3	3	5	4	4		2	53	4	2	15
CB24	1		5	5	4	4	3	3	3	5	2	3		4	2	3	5	5	2	4		2	29	4	2	15
CB25	2		4	4	5	5	5	1	3	1	2	2		4	3	3	4	4	4	4		1	61	2	2	30
CB26	1		4	5	5	3	3	4	3	2	2	3		4	3	3	4	5	3	3		2	20	3	1	10
CB27	2		4	3	5	5	5	3	3	2	4	5		4	2	3	5	5	3	3		1	66	1	2	23
CB28	1	3	5	5	5	5	5	1	3	2	4	4		4	3	3	4	4	3	4		2	37	1	1	12.5
CB29	1	20	4	4	5	5	5	3	2	2	2	3		3	2	3	4	4	2	4		1	50	6	2	20
CB30	1	4.5	5	5	5	5	4	3	3	3	3	4		4	3	3	4	4	4	4		2	31	3	1	25
CB31	1	0.5	5	5	5	5	5	3	4	4	4	4		4	3	3	4	5	5	5		2	47	4	2	25
CB32	1	1.5	4	5	4	5	3	3	3	3	4	5		1	1	3	4	4	1	2		2	40	3	1	20
CB33	1	4.5	5	5	5	5	5	3	3	3	4	4		4	3	3	3	5	5	4		2	22	2	2	30
CB34	1	20	1	5	4	4	5	2	2	3	2	3		2	2	3	2	3	1	3		2	38	6	2	30
CB35	1	3.5	1	5	5	5	3	1	1	3		1		3	1	3	1	5	1	4		2	34	4	2	25
CB36	1	12	5	5	3	4	5	3	3	2	3	4		4	2	4	5	5	3	3		1	44	6	1	100
CB37	1	17.5	4	4	5	5	4	3	3	4	2	2		3	3	4	4	4	3	3		2	44	5	2	35
CB38	1		3	5	5	5	5		2	3	4	4		3	3	4	2	5	3	3		1	42	4	2	20
CB39	1	2	2	4	4	4	3	3	3	4	2	2		3	2	4	4	5	4	3		1	45	3	2	27.5
CB40	1	1	3	4	3	4	3	4	2	2	2	3		4	2	4	3	5	4	3		2	16	2	2	31.3
CB41	1	1	5	4	3	4	3	3	2	2	3	4		2	2	4	3	5	4	5		2	16	3	2	31.3
CB42	1	24	1	5	5	5	5	4	4	4	4	5		3	3	4	4	5	4	4		2	45	3	2	20
CB43	1	21	1	5	5	5	5	3	3	4	1	2		4	3	4	1	5	3	2		2	44	5	2	20
CB44	2		4	5	5	5	5	3	3	4	4	4		3	3	4	4	4	3	3		1	41	6	2	30
CB45	2		5	5	4	5	5	2	2	4	3	3		4	3	4	4	4	4	3		2	59	5	2	30
CB46	1		5	5	5	5	5			4	4	4		4		4	4	5	4	3		2	41	1	1	
CB47	1		4	4	4	4	3	2	2	1	1	1		1	1	4	1	4	1	3		2			2	35
CB48	2		4	5	3	3	4	2	2	2	2	4		2	1	4	2	2	2	2		2	58		2	
CB49	1	10		5	5	5	5	3	3	3	3	5		5	3	4	4	5	3	4		2	54	5	2	27.5
CB50	2		3	3	3	3	3	3	3	3	3	3		3	3	4	5	5	3	3		2	56	3	2	
CB51	1	16	1	5	4	4	4	3	3	2	2	2		3	1	4	2	5	2	3		1	47	4	2	50
CB52	1	3.5	5	5	5	5	5	3	3	3	3	4		4	3	4	4	4	3	4		2	35		1	45
CB53	2		3	3	3	4	3	3	3	3	3	3		4	3	4	3	4	3	3		2	40	4	2	40
CB54	2		4	4	4	4	3	3	3	2	2	3		4	2	4	3	5	3	3		2	60	4	2	30
CB55	2		5	5	3	3	4	2	3	1	2	2		4	3	4	4	2	2	3		2	40	2	2	
CB56	1	2.5	4	5	5	5	5	3	3	3	3	3		4	3	4	4	5	3	3		2	34	4	1	50
CB57	2		5	3	3	3	4	3	3	3	1	1		4	3	4	2	4	3	3		2	27	2	1	20
CB58	1	25	2	5	5	5	5	3	3	2	3	3		3	3	4	4	4	3	3		1	42	3	2	20
CB59	2		4	4	4	4	2	2	2	3	1	2		4	1	4	2	2	2	2		2	59	4	2	15
CB60	1		4	5	4	4	4	3	3	3	2	4		4	2	4	3	5	3	4		2	50		2	25
CB61	1	8	4	4	4	4	4	3	3	3	3	3		3	2	4	2	2	3	3		1	45	6	2	40
CB62	1	24	1	5	5	5	5	1	3	4	4	5		5	3	4	4	4	4	4		1	43	5	2	50

Appendix B Questionnaire - Data Summary

	Resident Lifestyle													Community Cohesion								User Profile				
Survey	Pursuit	Times	Conflict	Happiness	Availability	Quality	Health	Crime	Protection	Money	Self-esteem	Hospitality	Avresident	Pride	Transportation	Education	Tolerance	Opinion	Socialization	Community	Avcohesion	Gender	Age	Income	Length of Stay	Distance
CB63	2		4	3	3	3	3	3	3	1	3	3		3	3	4	3	3	3	3		1	25	3	2	
CB64	1	12	4	5	4	4	4	1	1	2	2	4		4	1	4	4	1	1	2		1	52	2	2	15
CB65	2		3	5	5	4	3	1	1	3	5	5		5	5	4	5	5	5	5		2		3	2	
CB66	1		3	4	4	4	4	3	3	3	3	4		3	3	4	3	3	3	3		2	19	1	1	30
CB67	1	24	5	5	5	5	5	3	3	3	3	5		5	5	4	5	5	5	5		2	42	2	2	27
CB68	1	3	4	4	5	4	4	3	3	3	2	2		2	3	4	3	3	3	3		1	45	4	1	35
CB69	1	3.5	5	5	5	5	5	2	3	1	3	5		4	5	4	2	2	2	3		2	36	5	2	50
CB70	1	24	5	5	5	5	5	3	3	4	4	4		5	4	4	4	5	4	4		1	45	6	1	35
CB71	1		4	4	4	4	4	2	2	4	3	4		4	3	4	3	4	3	3		1	22	2	2	35
CB72	1	12	2	5	3	4	5	3	3	3	4	4		2	4	4	2	5	2	3		2	24	1	2	40
CB73	2		5	5	3	3	5	3	3	3	3	3		3	3	4	3	5	3	4		1	34	1	1	
CB74	1		4	4	4	4	4	3	3	3	3	3		4	3	4	3	4	3	3		1	42	4	2	25
CB75	2		5	4	1	2	3	3	2	2	2	2		3	3	4	3	5	3	3		2	34	5	2	30
CB76	1	3.5	5	5	5	5	5	3	3	3	3	3		3	3	4	3	5	3	3		1	33	3	1	30
CB77	1	8	5	5	5	5	5	3	3	3	4	4		4	1	4	5	5	4	3		2	48	6	2	30
CB78	1		4	4	4	4	4	3	3	3	2	2		3	1	4	4	3	4	4		2	46	3	2	50
CB79	1	12.5	4	5	4	3	4	3	2	2	3	4		4	2	4	4	5	3	2		2	30	3	2	14
CB80	1	2.5		5	5	4	4	3	3	4	3	3		4	3	4	4	5	3	3		2	55	5	2	30
CB81	1	5	4	5	4	3	5	3	3	3	4	4		4	1	4	5	3	3	3		2	67	4	2	20
CB82	2		5	5	4	5	5	3	3	4	3	3		4	3	4	5	5	5	3		2	52	3	2	35
CB83	1		4	4	4	4	4	5		2	2	2		2	1	4	1	5	1	1		1	48	5	2	24
CB84	2		4	4	3	3	3	3	3	4	2	3		4	3	4	4	4	3	3		2	53		2	60
CB85	2		3	3	3	4	4	3	5		4	5		3	4	4		5	4	3		2	44		1	60
CB86	1	3	4	4	4	4	4	2		3	3	4		4	2	4	4	5	3	3		1	41	5	2	30
CB87	1	20	4	5	4	4	4	3	3	2	4	4		3	3	4	4	4	4	4		2	38	4	2	35
CB88	1		2	3	3	3	4	4	2	2	1	2		3	2	4		3	2	3		1	49	3	2	30
CB89	1	1	5	5	5	3	3	1	3	1	1	1		3	3	4	3	5	3	3		2	26	4	2	
CB90	2		5	5	5	5	5	3	3	4	5	5		3	4	4	5	5	3	3		1	34	2	2	50
CB91	1	12.5	4	4	4	4	4	2	3	2	2	2		3	2	4	3	4	3	3		1	25	5	2	15
CB92	1	72	3	5	5	2	3	2	1	5	2	2		2	2	4	3	3	2	4		2	32	2	2	20
CB93	1		4	4	4	4	3	4	4	3	3	3		4		4		3	3	4		1	71		2	35
CB94	1		5	5	5	5	5	3	3	3	2	4		4	3	4	4	5	4	3		1	59	2	1	35
CB95	1	7.5	5	5	5	5	5	5	3	1	3	5		5	3	4	4	5	3	3		2	43	4	2	30
CB96	1	52	4	5	4	4	4	3	3	3	3	3		4	3	4	4			3		2	45		2	40
CB97	1	5	5	4	4	5	4	3	3	3	3	4		3	2	4	4	5	3	3		1	78	2	2	35
CB98	1	9	4	5	4	5	5	3	3	3	4	4		4	3	4	4	4	4	4		1	51	4	2	55
CB99	2		1	4	4	4	3	3	3	3	3	3		4	3	4	3	3	3	3		2	47	4	2	
CB100			5	5	5	5	5	3	3	4	4	4		4	2	4	4	4	4	4		1	56	6	2	30
CB101	1	12	3	5	5	5	5	3	3	3	4	4		4	3	4	3	5	4	4		2	36	5	1	30
CB102	1	4.5	1	5	2	2	4	1	1	1	2	2		1	1	4	2	2	2	2		2	55	3	2	50
CB103	1	1.5	4	5	2	3	2	3	2	1	2	3		3	1	4	2	5	2	2		1	56	5	1	30
CB104	1	3	5	5	5	5	5	3	3	3	3	2		2	2	4	2	4	2	3		1	56	3	2	35
CB105	1	12	4	4	4	4	4	3	2	5	3	4		3	2	4	3	4	4	3		1	51	3	2	20
CB106	1	17.5	5	5	5	5	5	3	3	5	3	4		4	3	4	3	5	3	3		1	25	2	2	30
CB107	1	6	1	5	5	5	5	3	3	3	2	4		2	3	4	4	5	3	3		2	28	6	2	25
CB108	2		4	4	4	4								3	2	4	3	5	3	3		2	63	2	2	48
CB109	1	2	4	5	3	4	4	3	4	4	3	4		4	3	4	4	3	4	4		1	58	6	2	30
CB110	2		5	5	5	5	5	3	4	3		5		5	4	4	5	4	4	4		1	53	5	2	25
CB111	1	5	5	5	5	5	5	3	3	4	4	4		4	3	4	4	4	4	4		1	50	1	2	40
CB112	1	10	5	5	5	4	4	3	3	4	4	4		5	3	4	3	4	4	4		1	44	5	1	19
CB113	2		5	5	5	5	5	3	2	3	3	5		5	3	4	2	5	5	5		2	20	2	1	
CB114	1	10	5	5	5	5	5	3	3	4	4	4		4	3	4	4	5	4	4		1	37	3	1	30
CB115	2		3	3	3	3	3	4	3	3	2	3		2	1	4	2	3	3	3		1	27	1	1	
CB116	1	10	3	4	4	4	4	3	3	3	3	3		3	3	4	4	3	3	3		2	39	3	2	20
CB117	1	40	5	4	3	3	4	3	3	3	3	3		3	4	4	5	4	3	3		1	18	1	2	20
CB118	1	2	5	5	4	4	5	3	1	2	3	4		2	5	5	3	5	2	3		2	43	4	1	
CB119	1	10	4	5	5	5	5	2	3	4	4	3		4	3	5	4	4	4	3		1	30	3	2	30
CB120	2		4	4	4	4	4	1	1	1	1	1		3	1	5	3	5	3	3		2	56	6	2	40
CB121	1	1.5	5	5	5	5	5	2	2	2	2	2		5	2	5	3	3	3	3		2	44	4	2	
CB122	1	1	5	5	5	5	5	4	4	4	5	5		5	3	5	5	4	3	3		2	18	1	2	30
CB123	1		5	5	5	5	5	3	3	3	3	5		3	3	5	5	5	3	3		2			2	
CB124	1	12.5	4	5	4	4	5	3	3	2	4	5		3		5	4	4	4	4						

Appendix B Questionnaire - Data Summary

	Resident Lifestyle													Community Cohesion								User Profile				
Survey	Pursuit	Times	Conflict	Happiness	Availability	Quality	Health	Crime	Protection	Money	Self-esteem	Hospitality	Avresident	Pride	Transportation	Education	Tolerance	Opinion	Socialization	Community	Avcohesion	Gender	Age	Income	Length of Stay	Distance
CB125	2		5	5	5	5	5	3	3	1	1	1		4	3	5	3	4	2	3		2	35	2	2	
CB126	1	12	5	5	5	5	4	3	3	3	4	3		4	3	5	5	5	4	3		2	25	1	2	50
CB127	1	12	4	5	5	5	5	3	3	2	3	4		4	3	5	4	4	3	3		2	52	3	2	35
CB128	1	1	4	4	4	4	4	4	3	2	4	4		4	4	5	4	5	5	4		1	20	1	2	60
CB129	1	20	4	4	4	4	4	3	3	3	3	3		4	3	5	4	4	3	3		2	42	2	2	40
CB130	1	3	5	5	5	5	5	3	3	3	3	3		3	2	5	2	5	3	3		1	49	4	2	30
CB131	1	25	1	5	5	5	5	3	3	3	3	3		4	1	5	5	3	3	4		2	21	3	2	25
CB132	1	3.5	4	5	4	4	4	2	2	2	2	2		3	3	5	3	4	3	3		2	57	3	1	8
CB133	1	3	4	4	5	5	4	3	3	4	2	4		4	4	5	4	4	4	4		2	51	3	2	30
CB134	1	13.5	5	5	5	5	3	2	2	1	1	1		3	2	5	2	4	3	3		1	55	5	2	30
CB135	1	2.5	4	5	5	5	3	2	3	3	4	4		4	3	5	3	5	3	3		2	38	6	2	45
CB136	1	6	4	4	4	5	5	3	3	4	3	4		2	2	5	4	4	4	3		2	30	3	2	40
CB137	1	10	4	5	4	4	3	3	3	2	3	4		4	2	5	3	4	4	4		2	50	4	2	25
CB138	1	5	4	5	5	4	4	3	3	3	3	3		4	3	5	4	4	3	4		2	44	5	2	15
CB139	1	4	4	5	4	4	4	2	3	3	3	4		2	3	5	4	4	3	3		1	47	3	1	45
CB140	1	5	5	5	5	5	5	2	2	4	2	2		3	2	5	4	4	3	3		2	55	6	2	50
CB141	1		4	4	4	4	3	3	3	4	4	4		4	3	5	4	4	3	4		2	71	5	2	30
CB142	1	3.5	5	5	5	5	5	3	2	5	3	5		5	1	5	4	5	2	2		1	49	4	2	
CB143	1	1.5	4	5	5	5	5	3	5	3	4	4		2	5	5	5	5	4	4		2	57	1	2	30
CB144	1	1.5	5	4	4	4	5	1	2	2	2	3		4	1	5	3	4	3	3		1	57	3	2	30
CB145	1	4	4	4	3	3	3	3	3	3	3	3		3	3	5	3	3	3	3		1	35	3	1	50
CB146	1	6	4	4	4	4	4	3	2	1	2	3		2	2	5	3	5	3	3		2	57	2	2	30
CB147	1	6	4	4	4	4	4	3	2	2	2	3		2	2	5	3	4	3	3		1	63	2	2	30
CB148	1	2	3	3	3	4	4	2	4	3	3	4		4	2	5	4	3	4	4		2	27	1	1	20
CB149			3	3	3	3	1	3	3	3	3	3		3	3	5	3	5	3	3		2	49	1	1	
CB150			4	5	5	5	5	3	4	4	3	2		5	3	5	3	5	3	3		2	53	4	2	35
CB151	1	2	2	4	3	3	4	2	3	4	3	2		4	2		3	5	3	3		2	43	2	2	30
CB152	1	15	4	5	4	4	4	2	2	2	4	2		4	2		2	5	2	3		2	33	1	2	20
CB153	1	2	4	4	3	4	4	3	3	3	3	4		4	3		3	4	3	3		2	52	6	2	25
	116	10.55	3.93	4.53	4.21	4.27	4.16	2.80	2.81	2.90	2.91	3.36		3.53	2.60	3.87	3.45	4.21	3.15	3.26		64.00	####	18.00	36.00	30.84
	34	6	4	5	4	4	4	3	3	3	3	4		4	3	4	4	4	3	3		88	44	27	115	30
		12	4	5	5	5	5	3	3	3	3	4		4	3	4	4	5	3	3			44	34		30
		12.67	1.15	0.65	0.85	0.76	0.88	0.79	0.78	1.01	0.96	1.08		0.90	0.93	0.91	1.00	0.90	0.89	0.67			####	26.00		12.93
																								20		
1	116		12	0	1	0	2	have	have	15	12	9		3	21	3	5	2	6	1				17		
2	34		6	0	4	3	2			31	35	25		17	37	11	21	6	21	11						
3			15	13	24	20	29			66	61	40		44	76	21	44	18	75	91						
4			66	46	57	63	55			30	38	59		72	10	82	59	57	38	42						
5			52	94	67	67	63			8	4	19		16	5	33	19	68	9	5						
N			151	153	153	153	151			150	150	152		152	149	150	148	151	149	150						

APPENDIX C

LEIMARS INCIDENT DATA AND LOCATION MAP

APPENDIX D

ADDITIONAL DOCUMENTS

EXHIBIT D

18 CFR 4.41 [Page 98-108]

TITLE 18--CONSERVATION OF POWER AND WATER RESOURCES
CHAPTER I--FEDERAL ENERGY REGULATORY COMMISSION, DEPARTMENT OF ENERGY
PART 4--LICENSES, PERMITS, EXEMPTIONS, AND DETERMINATION OF PROJECT COSTS

Subpart E--Application for License for Major Unconstructed Project and Major Modified Project
Sec. 4.41 Contents of application.

(e) Exhibit D is a statement of project costs and financing. The exhibit must contain:

(1) A statement of estimated costs of any new construction, modification, or repair, including:

(i) *The cost of any land or water rights necessary to the development;*

Later but not expected to be a significant Iowa Hill Development cost.

There are no additional land or water rights required for the remaining UARP Project.

(ii) The total cost of all major project works;

The total Iowa Hill Development is estimated at $445 million as shown in Table D-1 below.

Table D-1 Construction Cost estimates (2002 $000)	
1. Mobilization and water handling	$2,000
2. Permanent Access Roads	$1,650
3. Upper Reservoir	$68,000
4. Waterways and Intakes	$57,000
5. Powerhouse and Access Tunnels	$65,500
6. Equipment (installed)	$121,300
7. Transmission Lines and re-conductoring	$11,000
Subtotal	**$326,450**
Civil contingency (25% lines 1-5 &7)	$51,300
Equipment Contingency (10% line 6)	$12,130
Licensing, SMUD project management and Geotechnical Exploration	$55,250
Total Construction cost with Contingencies	**$445,130**

(iii) Indirect construction costs such as costs of construction equipment, camps, and commissaries;

These costs are included in the overall Iowa Hill Development estimate as part of the contingency.

(iv) Interest during construction; and

Interest during construction is charged at 4.1% APR on the outstanding balance at the end of each month. For the Iowa Hill Development this cost is estimated to be $18.7 million for the 4-year construction period.

(v) Overhead, construction, legal expenses, and contingencies;

Overhead, construction and legal expenses are included in the overall Iowa Hill Development estimate as part of the contingency. Contingencies of 25% for civil works and 10% for equipment were used for budgetary estimating. These estimates are shown in Table D-1 above.

(2) If any portion of the proposed project consists of previously constructed, unlicensed water power structures or facilities, a statement of the original cost of those structures or facilities specifying for each, to the extent possible, the actual or approximate total costs (approximate costs must be identified as such) of:
(i) Any land or water rights necessary to the existing project works;
(ii) All major project works; and
(iii) Any additions or modifications other than routine maintenance;

There are no previously constructed, unlicensed water power structures or facilities as part of the Iowa Hill Development or the UARP Project.

(3) If the applicant is a licensee applying for a new license, and is not a municipality or a state, an estimate of the amount which would be payable if the project were to be taken over pursuant to section 14 of the Federal Power Act, 16 U.S.C. 807, upon expiration of the license in effect including:
(i) Fair value;
(ii) Net investment; and
(iii) Severance damages;

SMUD is a political subdivision of the State of California and a municipal utility district formed pursuant to California Public Utilities Code sections 11501, *et seq.* Therefore, SMUD is not subject to this section.

(4) A statement of the estimated average annual cost of the total project as proposed, specifying any projected changes in the costs (life-cycle costs) over the estimated financing or licensing period if the applicant takes such changes into account, including:

(i) *Cost of capital (equity and debt);*

For the UARP Project the weighted average cost of debt is currently 4.4%. The interest expense for 2003 is estimated to be $7.1 million. The estimated return on equity is estimated at $1.6 million, based on using an 11% rate of return. These estimates are based on an allocation of SMUD's current debt to equity ratio of 92%/8% and a book value of $175.8 million.

EXHIBIT D

For Iowa Hill, SMUD's current estimate for the cost of capital is 6.0%. This includes allowances for all current Board Strategic Objectives including increasing Owner's Equity to an 80%/20% debt to equity ratio.

(ii) Local, state, and Federal taxes;

SMUD is a municipal utility district and is exempt from most Local, State and Federal taxes. SMUD's UARP Project is located outside its boundaries; therefore, SMUD's UARP facilities are taxed pursuant to Article XIII, Section 3 of the California Constitution. That section exempts property owned by a local government from taxation except as provided in Section 11(a), which states, in pertinent part: "*Lands* owned by a local government that are *outside its boundaries*, *including rights to use or divert water* from surface or underground sources and any other interests in lands, are *taxable if* . . . they were *taxable when acquired* by the local government. Improvements . . . are taxable if they were taxable when acquired or were constructed by the local government to replace improvements which were taxable when acquired." [Emphasis added.] In 2003 SMUD paid approximately $184,000 in property taxes to El Dorado County for UARP facilities.

For the Iowa Hill Development SMUD will pay sales taxes on equipment purchases. These taxes are assumed to be at the current rate of 7.75%. The amount of equipment subject to sales taxes is estimated to be $121.3 million resulting in estimated sales taxes of $9.7 million.

(iii) Depreciation or amortization, and

Depreciation expenses for the UARP Project in 2003 were $5.9 million.

Depreciation schedule and amortization schedule for the Iowa Hill Development is shown below in Table D-2.

Table D-2 Iowa Hill Development Depreciation and Amortization Schedule

	Life Years	Annual (000's)
Building/Structures	67.75	$900
Reservoir/Dam/Tunnel	73.75	$3,100
Turbine/Generator	44.1	$3,100
Generator Windings	20	$1,200
Road	89.6	$0.0
Transmission	44	$400
Total	53.8	$8,600

(iv) Operation and maintenance expenses, including interim replacements, insurance, administrative and general expenses, and contingencies;

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For the UARP Project the 2003 operations and maintenance, interest and depreciation expenses are shown in Table D-3.

Table D-3 Estimated annual expenses for the UARP Project ($000)	
Interest Expense	$7,100
Depreciation Expense	$5,900
Operations and Maintenance	$16,200
Estimated Return on Equity	$1,611
Total	$30,811

Ongoing annual cost estimates for the Iowa Hill Development are shown in Table D-4. These estimates are based on SMUD's experience with operation of the UARP Project and a survey of other pumped storage projects. Pumping cost estimates are based on 1361 gWhs of pumping energy using the 2003 Dow Jones NP15 Price Index at an average of $38 per MWh (off peak).

Table D-4 Estimated Annual Costs for the Iowa Hill Development ($000)	
Interest Expense	$21,700
Depreciation Expense	$8,600
Fixed Operations and Maintenance	$3,500
*Pumping Costs, Dow Jones NP15 Price Index, 2003 Off Peak	$52,000
Total	$85,800

*Pumping costs can vary considerably depending on electricity market price conditions.

(5) A statement of the estimated annual value of project power based on a showing of the contract price for sale of power or the estimated average annual cost of obtaining an equivalent amount of power (capacity and energy) from the lowest cost alternative source of power, specifying any projected changes in the costs (life-cycle costs) of power from that source over the estimated financing or licensing period if the applicant takes such changes into account;

The annual cost to replace the 688 MW UARP and average annual energy of 1765 GWhs is estimated using 2003 market prices.

Market prices for energy were developed using the Dow Jones NP15 Power Index for 2003. Based on average monthly on-peak and off-peak energy production over the past 25 years, the average market price is estimated at $47.5/MWh. Because the energy provided by the UARP is dispatchable and very flexible, a premium is added to the market value of the energy of $7.1/MWh. This results in a total market value for energy of $96.5 million.

EXHIBIT D

Market prices for capacity were developed assuming a reserve peaking capacity of 100 MW and a market value of $27/kW-yr using 2003 capacity call options. The value of this reserve capacity is estimated at $2.7 million.

Ancillary services to serve SMUD's load is estimated at 7 percent of load or 742 GWh. Regulation up/down services valued at $17.7/MWh and spinning reserves valued at $6.4/MWh were based on California Independent System Operator 2003 prices. Total market value for ancillary services is estimated at $8.9 million.

An additional cost is needed to provide transmission of the replacement power to the SMUD service territory. The cost of a 60 mile 230 kV transmission line to the Sacramento areas is estimated at $122 million. Amortizing this capital cost at a 6 percent rate over 30 years, the annual cost of transmission capacity is estimated at $8.9 million.

Market values for the UARP are summarized below in Table D-5.

Table D-5 Annual Cost to Replace Power Generation, $000's

Energy	$96,500
Capacity	$2,700
Ancillary Services	$8,900
Transmission	$8,900
*Total Annual Cost	$117,000

*Replacement power costs can vary considerably depending on electricity market price conditions.

The Iowa Hill Development is proposed to support SMUD's service territory and our customer owners. Iowa Hill is expected to supply critical energy, capacity and ancillary services to support anticipated future growth in the Sacramento regional area and to ensure that SMUD can continue meet it's obligation to service the local community and provide the highest level of service quality. Contracts with other utilities are currently not anticipated; however, sales of energy, capacity or ancillary serves will likely occur to shape the energy available in the market to match the needs of the District. Market indices were used to value similar energy products in the calculation and are shown in Table D-8 in the Exhibit D appendix.

Market energy value for energy was developed assuming generation of approximately 1075 GWH annually and an average market price of $48.5/MWh using the Dow Jones NP15 Power Index for 2003. Because the energy provided by the Iowa Hill is dispatchable and very flexible, a premium is added to the market value of the energy of $7.3/MWh. This results in a total market value for energy of $59.9 million.

Market value for capacity was developed assuming a dependable capacity of 400 MW and a market price of $27/kW-yr using 2003 capacity call options. In addition $1 million for transmission capacity is included for a total capacity value of $11.9 million.

Market value for ancillary services assumed 700 GWh of regulation up/down services valued at $17.7/MWh and 700 GWh of spinning reserves valued at $6.4/MWh. Ancillary Services market values were based on

EXHIBIT D

California Independent System Operator 2003 prices. Total market value for ancillary services is $16.9 million.

Market values for the Iowa Hill Development are summarized below in Table D-6.

Table D-6 Iowa Hill Market Value of Energy ($000)	
Energy Value, Dow Jones NP15 Price Index, 2003	$59,900
Capacity Value, 2003 capacity call options	$11,900
Ancillary Services Value, CA ISO 2003 market prices	$16,900
*Total Annual Value	$88,700

*Market value can vary considerably depending on electricity market price conditions.

(6) A statement describing other electric energy alternatives, such as gas, oil, coal and nuclear-fueled power plants and other conventional and pumped storage hydroelectric plants;

The primary alternatives to the Iowa Hill Development are increased market purchases or additional fossil fired peaking capacity. The cost of market purchases is considered in the previous section and natural gas fired combustion turbine power plant costs are shown in table D-7. The estimate assumes that permits and transmission capacity can be obtained and costs are in 2003 dollars. Oil, coal and nuclear fuels were not considered permit-able. Additional pumped storage projects were also not considered due to lack of available topography locations.

A natural gas combustion turbine used for peaking capacity is the most likely substitute for the Iowa Hill pumped storage project. The peaking turbine is typically used during on-peak time periods due to higher operating costs than other off peak alternatives. The variable cost of energy is based on a 9,300 Btu/kWh heat rate efficiency and gas price of $5.2/MMBtu (2003 Gas Daily). Operation and maintenance expenditures are estimated at $4/MWh for variable costs and $12/kW-yr for fixed costs. The capital cost to construct the power plant in California is estimated using the CEC Comparative Cost of California Central Station Generation Technologies report ($475/kW). Capital costs are amortized over 30 years using a third-party merchant discount rate of 11 percent. A combustion turbine is not able to provide the same level of ancillary services benefits (i.e. regulation and spinning reserves) as a pumped storage project. For this reason, the 2003 CAISO market value of ancillary services provided by the Iowa Hill Development is used to estimate costs.

Annual costs for a 400 MW natural gas fired power plant to replace the Iowa Hill Development are summarized below in Table D-7.

EXHIBIT D

Table D-7 Natural Gas Fired Peaking Plant Annual Costs ($000)	
*Fuel Costs, Gas Daily 2003	$52,000
Operations and Maintenance	$9,100
Capital amortization	$22,200
Ancillary Services, CA ISO 2003 market prices	$16,900
Total Annual Costs	$100,200

*Annual costs can vary considerably depending on electricity market price conditions.

(7) A statement and evaluation of the consequences of denial of the license application and a brief perspective of what future use would be made of the proposed site if the proposed project were not constructed; and

If this project were not approved, SMUD would be required to build additional facilities at a higher initial capital cost and higher annual operation costs in order to continue to met our obligation to serve our customer owners and provide a similar level of service we currently deliver. These additional costs and or service interruptions would be born by SMUD's customer owners.

(8) A statement specifying the sources and extent of financing and annual revenues available to the applicant to meet the costs identified in paragraphs (e) (1) and (4) of this section.

Annual financing for the existing UARP Project is provided through the issue of revenue-backed bonds. SMUD does not issue UARP project specific debt for the UARP project.

SMUD will likely issue debt for the Iowa Hill Development by issuing revenue-backed bonds. At this time project specific bonds are not the most likely method of financing this project, however this decision had not been made and may change at the time of Project financing.

EXHIBIT D

APPENDIX FOR EXHIBIT D

EXHIBIT D

Table D-8 MARKET PRICE ASSUMPTIONS

Dow Jones NP15 Power Index 2003 ($/MWh)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Avg
On Peak	43.8	57.8	57.9	45.4	43.3	49.2	55.2	50.3	48.8	45.3	42.6	49.7	49.1
Off Peak	32.8	45.6	44.9	34.7	24.5	30.3	42.5	39.8	38.2	34.4	35.4	38.7	35.3
Average	39.0	52.5	52.2	40.9	35.1	40.8	49.6	45.6	44.1	40.8	39.2	44.8	43.7

CA ISO NP15 2003 ($/MWh)

Regulation	17.7
Spinning Reserve	6.4

Gas Daily 2003 ($/MMBtu)

PG&E Citygate	5.2

SMUD Summer Capacity 2003 ($/kW-yr)

SMUD Call Options	27

EXHIBIT H

18 CFR 16.10 [Page 185-188]

TITLE 18--CONSERVATION OF POWER AND WATER RESOURCES
CHAPTER I--FEDERAL ENERGY REGULATORY COMMISSION, DEPARTMENT OF ENERGY
PART 16--PROCEDURES RELATING TO TAKEOVER AND RELICENSING OF LICENSED PROJECTS

Subpart B--Applications for Projects Subject to Sections 14 and 15 of the Federal Power Act
Sec. 16.10 Information to be provided by an applicant for new license: Filing requirements.

(a) Information to be supplied by all applicants. All applicants for a new license under this part must file the following information with the Commission:

(1) A discussion of the plans and ability of the applicant to operate and maintain the project in a manner most likely to provide efficient and reliable electric service, including efforts and plans to:

(i) Increase capacity or generation at the project;

(ii) Coordinate the operation of the project with any upstream or downstream water resource projects; and

(iii) Coordinate the operation of the project with the applicant's or other electrical systems to minimize the cost of production.

This section to be added later.

(2) A discussion of the need of the applicant over the short and long term for the electricity generated by the project, including:

(i) The reasonable costs and reasonable availability of alternative sources of power that would be needed by the applicant or its customers, including wholesale customers, if the applicant is not granted a license for the project;

(ii) A discussion of the increase in fuel, capital, and any other costs that would be incurred by the applicant or its customers to purchase or generate power necessary to replace the output of the licensed project, if the applicant is not granted a license for the project;

(iii) The effect of each alternative source of power on:

(A) The applicant's customers, including wholesale customers;

(B) The applicant's operating and load characteristics; and

(C) The communities served or to be served, including any reallocation of costs associated with the transfer of a license from the existing licensee.

This section to be added later.

(3) The following data showing need and the reasonable cost and availability of alternative sources of power:

(i) The average annual cost of the power produced by the project, including the basis for that calculation;

The majority of the UARP was constructed in the 1960s. The remaining book value is $176 million. Depreciation expense in 2003 was $5.9 million. Interest expense based on the average cost of debt of 4.4 percent is estimated at $7.1 million. The estimated return on equity is estimated at $1.6 million, based on using an 11% rate of return. Operations and maintenance expense in 2003 was $11.6 million. Ongoing capital expenditures are estimated at $4.6 million annually based on historical expenditures. These expenses total $30.8 million annually based on year 2003.

For the UARP the 2003 operations and maintenance, interim replacements, interest and depreciation expenses are shown in Table H-1.

EXHIBIT H

Table H-1 Estimated annual expenses for the UARP ($000)	
Interest Expense	$7,100
Depreciation Expense	$5,900
Operations and Maintenance	$16,200
Estimated Return on Equity	$1,611
Total	$30,800
2003 hydro generation, gWh	1575
Cost of Production for 2003, $/kWh	.0195

(ii) The projected resources required by the applicant to meet the applicant's capacity and energy requirements over the short and long term including:

(A) Energy and capacity resources, including the contributions from the applicant's generation, purchases, and load modification measures (such as conservation, if considered as a resource), as separate components of the total resources required;

(B) A resource analysis, including a statement of system reserve margins to be maintained for energy and capacity; and

(C) If load management measures are not viewed as resources, the effects of such measures on the projected capacity and energy requirements indicated separately;

This section to be added later.

(iii) For alternative sources of power, including generation of additional power at existing facilities, restarting deactivated units, the purchase of power off-system, the construction or purchase and operation of a new power plant, and load management measures such as conservation:

(A) The total annual cost of each alternative source of power to replace project power;

(B) The basis for the determination of projected annual cost; and

(C) A discussion of the relative merits of each alternative, including the issues of the period of availability and dependability of purchased power, average life of alternatives, relative equivalent availability of generating alternatives, and relative impacts on the applicant's power system reliability and other system operating characteristics; and

(iv) The effect on the direct providers (and their immediate customers) of alternate sources of power.

The annual cost to replace the 688 MW UARP and average annual energy of 1765 GWhs is estimated using 2003 market prices.

Market prices for energy were developed using the Dow Jones NP15 Power Index for 2003. Based on average monthly on-peak and off-peak energy production over the past 25 years, the average market price is estimated at $47.5/MWh. Because the energy provided by the UARP is dispatchable and very flexible, a premium is added to the market value of the energy of $7.1/MWh. This results in a total market value for energy of $96.5 million.

Market prices for capacity were developed assuming a reserve peaking capacity of 100 MW and a market value of $27/kW-yr using 2003 capacity call options. The value of this reserve capacity is estimated at $2.7 million.

Ancillary services to serve SMUD's load is estimated at 7 percent of load or 742 GWh. Regulation up/down services valued at $17.7/MWh and spinning reserves valued at $6.4/MWh were based on California Independent System Operator 2003 prices. Total market value for ancillary services is estimated at $8.9 million.

An additional cost is needed to provide transmission of the replacement power to the SMUD service territory. The cost of a 60 mile 230 kV transmission line to the Sacramento areas is estimated at $122 million. Amortizing this capital cost at a 6 percent rate over 30 years, the annual cost of transmission capacity is estimated at $8.9 million. Market values for the UARP are summarized below in Table H-2.

Table H-2 Annual Cost to Replace Power Generation, $000's	
Energy	$96,500
Capacity	$2,700
Ancillary Services	$8,900
Transmission	$8,900
*Total Annual Cost	$117,000

*Replacement power costs can vary considerably based on electricity market price conditions

(4) If an applicant uses power for its own industrial facility and related operations, the effect of obtaining or losing electricity from the project on the operation and efficiency of such facility or related operations, its workers, and the related community.

This section does not apply to SMUD.

(5) If an applicant is an Indian tribe applying for a license for a project located on the tribal reservation, a statement of the need of such tribe for electricity generated by the project to foster the purposes of the reservation.

This section does not apply to SMUD.

(6) A comparison of the impact on the operations and planning of the applicant's transmission system of receiving or not receiving the project license, including:

(i) An analysis of the effects of any resulting redistribution of power flows on line loading (with respect to applicable thermal, voltage, or stability limits), line losses, and necessary new construction of transmission facilities or upgrading of existing facilities, together with the cost impact of these effects;

(ii) An analysis of the advantages that the applicant's transmission system would provide in the distribution of the project's power; and

(iii) Detailed single-line diagrams, including existing system facilities identified by name and circuit number, that show system transmission elements in relation to the project and other principal interconnected system elements. Power flow and loss data that represent system operating conditions may be appended if applicants believe such data would be useful to show that the operating impacts described would be beneficial.

If the Project were to remain a power project, and SMUD were able to continue to operate and gain access the power generated from the Project, there would be little impact to SMUD's transmission system.

If SMUD were able to gain access to the power generated, but not operate the Project, SMUD would have to acquire generation facilities flexible enough to provide control area services now provided by the UARP.

If SMUD were to lose the Project completely, additional replacement generation and transmission would be required. Because of the difficulty of obtaining the necessary air credits to build a generation plant large enough to replace the UARP, generation would be located outside of SMUD's service territory and new transmission lines would be required to import this power.

(7) If the applicant has plans to modify existing project facilities or operations, a statement of the need for, or usefulness of, the modifications, including at least a reconnaissance-level study of the effect and projected costs of the proposed plans and any alternate plans, which in conjunction with other developments in the area would conform with a comprehensive plan for improving or developing the waterway and for other beneficial public uses as defined in section 10(a)(1) of the Federal Power Act.

SMUD has included in its license application a new 400 MW pumped storage development called Iowa Hill. This project will provide critical services to SMUD enabling it to serve its customer's into the future. In addition to the valuable generation and control area services Iowa Hill will provide, there is a provision to supply consumptive water to El Dorado County contingent on final contractual arrangements and the acquisition of water rights and approval of the water delivery project which is out of the Iowa Hill Development scope and boundary.

(8) If the applicant has no plans to modify existing project facilities or operations, at least a reconnaissance-level study to show that the project facilities or operations in conjunction with other developments in the area would conform with a comprehensive plan for improving or developing the waterway and for other beneficial public uses as defined in section 10(a)(1) of the Federal Power Act.

SMUD plans to modify the existing project as described in paragraph (7) above.

(9) A statement describing the applicant's financial and personnel resources to meet its obligations under a new license, including specific information to demonstrate that the applicant's personnel are adequate in number and training to operate and maintain the project in accordance with the provisions of the license.

This section to be added later.

(10) If an applicant proposes to expand the project to encompass additional lands, a statement that the applicant has notified, by certified mail, property owners on the additional lands to be encompassed by the project and governmental agencies and subdivisions likely to be interested in or affected by the proposed expansion.

This section to be added later.

(11) The applicant's electricity consumption efficiency improvement program, as defined under section 10(a)(2)(C) of the Federal Power Act, including:

(i) A statement of the applicant's record of encouraging or assisting its customers to conserve electricity and a description of its plans and capabilities for promoting electricity conservation by its customers; and

(ii) A statement describing the compliance of the applicant's energy conservation programs with any applicable regulatory requirements.

This section to be added later.

(12) The names and mailing addresses of every Indian tribe with land on which any part of the proposed project would be located or which the applicant reasonably believes would otherwise be affected by the proposed project.

This section to be added later.

(b) Information to be provided by an applicant who is an existing licensee. An existing licensee that applies for a new license must provide:

(1) The information specified in paragraph (a).

(2) A statement of measures taken or planned by the licensee to ensure safe management, operation, and maintenance of the project, including:

(i) A description of existing and planned operation of the project during flood conditions;
(ii) A discussion of any warning devices used to ensure downstream public safety;
(iii) A discussion of any proposed changes to the operation of the project or downstream development that might affect the existing Emergency Action Plan, as described in subpart C of part 12 of this chapter, on file with the Commission;
(iv) A description of existing and planned monitoring devices to detect structural movement or stress, seepage, uplift, equipment failure, or water conduit failure, including a description of the maintenance and monitoring programs used or planned in conjunction with the devices; and
(v) A discussion of the project's employee safety and public safety record, including the number of lost-time accidents involving employees and the record of injury or death to the public within the project boundary.

This section to be added later.

(3) A description of the current operation of the project, including any constraints that might affect the manner in which the project is operated.

This section to be added later.

(4) A discussion of the history of the project and record of programs to upgrade the operation and maintenance of the project.

This section to be added later.

(5) A summary of any generation lost at the project over the last five years because of unscheduled outages, including the cause, duration, and corrective action taken.

This section to be added later.

(6) A discussion of the licensee's record of compliance with the terms and conditions of the existing license, including a list of all incidents of noncompliance, their disposition, and any documentation relating to each incident.

This section to be added later.

(7) A discussion of any actions taken by the existing licensee related to the project which affect the public.

This section to be added later.

(8) A summary of the ownership and operating expenses that would be reduced if the project license were transferred from the existing licensee.

$21 Million

(9) A statement of annual fees paid under Part I of the Federal Power Act for the use of any Federal or Indian lands included within the project boundary.

In 2003 SMUD paid $877,473 in Federal fees. These fees are broken down as follows:

- Use and enjoyment of federal lands $292,473
- Federal License Administration $585,000

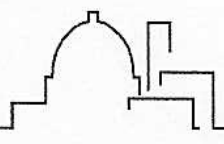
Sacramento Municipal Utility District

EIA 412

Annual Report of Public Electric Utilities

2003

April 30, 2004



U.S Department of Energy Energy Information Administratio Form EIA-412	*ANNUAL ELECTRIC INDUSTRY FINANCIAL REPORT*	Form Approved OMB No. 1905-0129 Approved Expires 12/31/04

ONSE DUE DATE: Please submit accounting data within four months following the end of the financial reporting year. All reports for given calendar year must be submitted by April 30

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING 12 - 31 - 2003

SURVEY CONTACTS: Persons to contact with questions about this form.

Contact Person 1: Beth Velasco **Title:** Principal Financial Accountant
Telephone: (916) 732 - 5528 Ext. **Fax:** (916) 732 - 6587 **Email:** bvelasc@smud.org

Contact Person 2: Jerry Hastings **Title:** Asst. Controller
Telephone: (916) 732 - 5530 Ext. **Fax:** (916) 732 - 6587 **Email:** jhastin@smud.org

SCHEDULE 1. IDENTIFICATION

LINE NO.	Survey Submit Status\Date:	Submitted 04/29/2004
1	**Company Name**	Sacramento Municipal Util Dist
2	**Current Address of Principal Business Office**	P O Box 15830, MS B302 : P.O. Box 6201 S Street : Street Address Sacramento CA 95817 1899 : City/State/Zip Code Cary Nethaway : Attention
3	**Classes of Company and Other Services Furnished by Respondent During the Year**	[X] **Electric** [ ] **Irrigation** [ ] **Natural Gas** [ ] **Television Cable** [ ] **Water and Sewage** [ ] **Internet** [ ] **Sanitation** [ ] **Other (specify):**
4	**Date of Report**	04-30-04

RT FOR: Sacramento Municipal Util Dist 16534

CIAL REPORTING PERIOD ENDING: 12 - 31 - 2003

SCHEDULE 2. ELECTRIC BALANCE SHEET

LINE NO.	ASSETS and OTHER DEBITS	AMOUNT (DOLLARS)	LINE NO.	LIABILITIES and OTHER CREDITS	AMOUNT (DOLLARS)
	ELECTRIC PLANT			PROPRIETARY CAPITAL	
1	Electric Plant and Adjustments (101-106, 114, 116)	2,667,549,651	29	Investment of Municipality (208)	
2	Construction Work in Progress (107)	419,679,404	30	Miscellaneous Capital (211,219,219.1)	
3	(Less) Accumulated Provision for Depreciation, Amortization and Depletion (108, 111, 115)	987,854,585	31	Retained Earnings (215, 215.1, 216)	218,454,678
4	Net Electric Plant (sum lines 1-2 less line 3)	2,099,374,470	32	Total Proprietary Capital (sum lines 29-31)	218,454,678
5	Nuclear Fuel (120.1-120.4, 120.6)			LONG TERM DEBT	
6	(Less) Accumulated Provision for Amortization of Nuclear Fuel Assemblies (120.5)		33	Bonds (221, 222)	2,436,935,000
7	Net Electric Plant including Nuclear Fuel (Sum of lines 4-5, less line 6)	2,099,374,470	34	Advances From Municipality and Other Long Term Debt (223, 224)	
	OTHER PROPERTY AND INVESTMENTS		35	Unamortized Premium on Long Term Debt (225)	89,723,262
8	Non-electric Plant Property (121)	136,974,767	36	(Less) Unamortized Discount on Long Term Debt (226)	8,595,731
9	(Less) Accumulated Provision for Depreciation and Amortization (122)	4,948,384	37	Total Long-Term Debt (sum of lines 33-35, less line 36)	2,518,062,531
10	Investment in Associated Enterprises (123-123.1)	7,672,097		OTHER NONCURRENT LIABILITIES	
11	Investments and Special Funds (124-129)	607,117,471	38	Accumulated Operating Provisions (228.1-228.4)	12,147,362
	Total Other Property and Investments Sum of lines 8, 10, 11 less line 9)	746,815,951	39	Accumulated Provision for Rate Refunds (229)	
	CURRENT AND ACCRUED ASSETS		40	Total Other Noncurrent Liabilities (sum of lines 38-39)	12,147,362
13	Cash, Working Funds, and Investments (131-136)	60,832,956		CURRENT AND ACRRUED LIABILITIES	
14	Notes and Other Receivables (141,143,145) 146,172)	136,306,312	41	Notes Payable (231)	51,000,000
15	Customer Accounts Receivable (142)	128,148,883	42	Accounts Payable (232)	251,839,707
16	(Less) Accumulated Provision for Uncollectible Accounts (144)	47,648,606	43	Notes and Accounts Payable to Associated Enterprises (233, 234)	
17	Fuel Stock and Expenses Undistributed (151-152)	1,620,083	44	Customer Deposits (235)	10,244,642
18	Plant Materials and Operating Supplies (154)	26,462,437	45	Taxes Accrued (236)	4,963,446
19	Other Supplies and Miscellaneous (153, 155-163)	1,765,873	46	Interests Accrued (237)	44,576,464
20	Prepayments (165)	23,826,421	47	Miscellaneous Current and Accrued Liabilities (239-245)	20,546,560
21	Accrued Revenues (173)		48	Total Current and Accrued Liabilities (sum of lines 41-47)	383,170,819
22	Miscellaneous Current and Accrued Assets (171, 174)	2,705,178			
23	Total Current and Accrued Assets (sum of lines 13-15, 17-22 less line 16)	334,019,537			
	DEFFERRED DEBTS			DEFFERRED CREDITS	
24	Unamortized Debt Expense (181)	31,066,476	49	Customer Advances for Construction (252)	7,557,144
25	Extraordinary Property Losses, Study Costs, and Charges (182.1, 182.2, 182.3, 183)	252,942,917	50	Other Deferred Credits (253,256,281-283)	444,135,475
26	Miscellaneous Debt, Research and Development Expenses and Unamortized Losses (184-191)	127,664,113	51	Unamortized Gain on Reacquired Debt (257)	8,355,455
27	Total Deferred Debits (sum of lines 24-26)	411,673,506	52	Total Deferred Credits (sum of lines 49-51)	460,048,074
28	Total Assets and Other Debits (sum of lines 7, 12, 23,27)	3,591,883,464	53	Total Liabilities and Other Credits (sum of lines 32, 37, 40, 48, 52)	3,591,883,464

1 RT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 3. ELECTRIC INCOME STATEMENT

LINE NO.		AMOUNT (DOLLARS)
1	Electric Operating Revenues (400)	1,032,866,763
2	Operation Expenses (401)	722,826,424
3	Maintenenace Expenses (402)	46,352,604
4	Depreciation Expenses (403)	97,519,214
5	Amortization of Electric Plant, Property Losses and Regulatory Study Cost (404-407)	76,299,590
6	Taxes and Tax Equivalents (see Schedule 6) (408.1,409.1)	
7	Total Electric Operarting Expenses (sum of lines 2-6)	942,997,832
8	Net Electric Operating Income (line 1, less line 7)	89,868,931
9	Income from Electric Plant Leased to Others (412, 413)	
10	Electric Operating Income (sum of lines 8,9)	89,868,931
11	Other Electric Income (explain significant amounts in a footnote on Schedule 12) (415,417,418,419,421,421.1)	36,679,090
12	Other Electric Deduction (explain significant amounts in a footnote on Schedule 12 (416,417.1,421.2)	6,068,212
13	Allowance for Other Funds Used During Constructrion (419.1)	69,403
14	Taxes Applicable to Other Income and Deductions (see Schedule 6) (408.2, 409.2)	
15	Electric Income (sum of lines 10,11,13, less line 12, 14)	120,549,212
16	Income Deductions from Interest on Long-Term Debt (427)	113,813,601
17	Other Income Deductions (explain significant amounts in a footnote on Schedule 12) (428-431)	14,364,175
18	Allowance for Borrowed Funds Used During Constructions (432)	-7,628,564
19	Total Income Deductions (sum of lines 16-18)	120,549,212
20	Income Before Extraordinary Items (line 15, less line 19)	
21	Extraordinary Items (434)	
22	Extraordinary Deductions (435)	
23	Net Income (sum of lines 20,21,less line 22)	

RT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 4. ELECTRIC PLANT

LINE NO.		BALANCE BEGINNING OF YEAR (DOLLARS) (a)	ADDITIONS DURING THE YEAR (DOLLARS) (b)	RETIREMENTS DURING THE YEAR (DOLLARS) (c)	TRANSFERS & ADJUSTMENTS (DOLLARS) (d)	BALANCE END OF YEAR (DOLLARS) (e)
1	Intangible Plant (301-303)	16,002,468		121,906		15,880,562
2	Steam Production (310-316)					
3	Nuclear Production (320-325)					
4	Hydraulic Production (330-336)	279,182,577	390,032	582		279,572,027
5	Other Production (340-346) Specify below	481,686,977	21,370,602	6,601,460		496,456,119
6	Total Production Plant (sum of lines 2-5)	760,869,554	21,760,634	6,602,042		776,028,146
7	Transmission Plant (350-359)	163,711,858	19,198,614			182,910,472
8	Distribution Plant (360-373)	1,043,621,601	64,411,960	4,623,546		1,103,410,015
9	General Plant (389-399)	492,278,819	34,363,426	36,510,455		490,131,790
10	Total Electric Plant in Service (sum of lines 1, 6-9)	2,476,484,300	139,734,634	47,857,949		2,568,360,985
11	Electric Plant Leased to Others (104)					
12	Electric Plant Held for Future Use (105)	111,127				111,127
13	Electric Plant Miscellaneous (102,103,106,114,116)	96,503,144				99,077,539
14	Electric Plant and Adjustments (sum of lines 10-13)	2,573,098,571				2,667,549,651
15	Construction Work in Progress-Electric (107)	279,805,585	286,512,431		-146,638,612	419,679,404
16	Total Electric Plant and Adjustments (sum lines 14,15)	2,852,904,156				3,087,229,055

For line 5 of schedule 4 - Other Production (340-346) Specify: Thermal and renewable

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 5. TAXES, TAX EQUIVALENTS, CONTRIBUTIONS, AND SERVICES DURING YEAR

LINE NO.		TOTAL AMOUNT OF CONTRIBUTION / VALUE OF SERVICE (DOLLARS)
	SUBJECT PAYMENTS TO MUNICIPALITY OR OTHER GOVERNMENT UNITS	
1	Taxes Other Than Income Taxes, Operating Income (408.1)	
2	Income Taxes, Operating Income (409.1)	
3	Taxes and Tax Equivalents (sum of lines 1,2)	
4	Taxes Other than Income taxes, Other Income and Deductions (408.2)	
5	Income Taxes, Other Income and Deductions (409.2)	
6	Taxes Applicable to Other Income and Deductions (sum of lines 4, 5)	
7	Transfers from Retained Earnings (State and Local)	
8	Other Transfers from Retained Earnings	
9	Total Taxes and Transfers (sum of lines 3, 6-8)	
	CONTRIBUTIONS OF SERVICES AND MATERIALS TO STATE AND LOCAL GOVERNMENTS	
10	Free or Below-Cost Electric Service	
	Use of Electric Department Employees	
12	Use of Electric Deaprtment Vehicles and Other Equipment	
13	Materials and Supplies	
14	Total Contributions Provided (sum of lines 10-13)	
	CONTRIBUTIONS OF SERVICE AND MATERIALS FROM STATE AND LOCAL GOVERNMENTS	
15	Free or Below-Cost Services	
16	Use of State or Local Employees (Not on Payroll or Reporting Entity)	
17	Use of State or Local Vehicles and Other Equipment	
18	Materials and Supplies	
19	Total Contributions Received (sum of lines 15-18)	
20	Net Contributions and Services to Municipality or Other Government Units (line 14, less line 19)	

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 6. SALES OF ELECTRICITY FOR RESALE (ACCOUNT 447)

LINE NO.	SALES MADE TO (Name of Entity) (a)	TYPE CODE (b)	ELECTRICITY SOLD (MEGA-WATTHOURS) (c)	ANNUAL MAXIMUM DEMAND (MEGAWATTS) (d)	DEMAND CHARGES (DOLLARS) (e)	ENERGY, OTHER CHARGES (DOLLARS) (f)	TOTAL REVENUES SETTLEMENT (DOLLARS) (g)
1	American Electric Power	FP	43,463			2,076,782	2,076,782
2	Arizona Public Service Co	FP	32			1,632	1,632
3	Avista Energy, Inc.	FP	43,725			1,619,613	1,619,613
4	Bonneville Power Admin.	FP	5,850			223,330	223,330
5	BP Energy Co	FP	151,616			7,768,731	7,768,731
6	Calpine Energy Services	FP	55,839			2,231,711	2,231,711
7	CA Dept of Water Resources	FP	5,488			144,560	144,560
8	Conoco, Inc.	FP	3,276			132,267	132,267
9	Coral Power, LLC	FP	381,373			15,714,503	15,714,503
10	Constellation Power Source, Inc.	FP	121,932			5,329,789	5,329,789
11	Cargill Power Markets, LLC	FP	8,373			380,118	380,118
12	Duke Energy Trading	FP	88,356			3,742,821	3,742,821
13	Entergy-Koch Trading, LP	FP	27,000			1,236,600	1,236,600
14	El Paso Merchant Energy, LP	FP	400			19,600	19,600
	Idaho Power Co	FP	400			17,100	17,100
16	LA Dept of Water & Power	FP	400			17,108	17,108
17	Mirant Americas Energy Mktg	FP	1,671			77,368	77,368
18	MIECO, Inc.	FP	5,625			252,963	252,963
19	Modesto Irrigation District	FP	4,567			219,238	219,238
20	Morgan Stanley Capital Group, Inc.	FP	212,628			9,263,326	9,263,326
21	Northern CA Power Agency	FP	3,210			106,470	106,470
22	Occidental Power Services, Inc.	FP	8,285			363,365	363,365
23	Pacificorp	FP	134,449			2,423,382	2,423,382
24	Pacific Gas & Electric Co	FP	70,929			3,449,498	3,449,498
25	Portland General Electric Co.	FP	8,419			337,470	337,470
26	PG&E Energy Trading Power, LP	FP	34,862			1,310,060	1,310,060
27	Pacificorp Power Marketing	FP	8,475			364,158	364,158
28	Puget Sound Energy	FP	10,470			373,280	373,280
29	Powerex Corp.	FP	22,630			893,400	893,400
30	City of Redding	FP	3,680			143,320	143,320
31	Southern California Edison	FP	13,045			599,880	599,880
32	Seattle City Light	FP	1,580			49,440	49,440
33	San Diego Gas & Electric Co.	FP	38,954			1,595,817	1,595,817
34	Sempra Energy Trading Corp.	FP	97,951			3,285,512	3,285,512
35	City of Santa Clara	FP	2,650			121,325	121,325
36	Snohomish County PUD	FP	16			768	768
	TransAlta Energy Mktg US, Inc.	FP	82,725			2,865,630	2,865,630
	Turlock Irrigation District	FP	3,844			183,622	183,622
39	UBS Energy LLC	FP	9,600			471,100	471,100

PORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 6. SALES OF ELECTRICITY FOR RESALE (ACCOUNT 447)

LINE NO.	SALES MADE TO (Name of Entity) (a)	TYPE CODE (b)	ELECTRICITY SOLD (MEGA-WATTHOURS) (c)	ANNUAL MAXIMUM DEMAND (MEGAWATTS) (d)	DEMAND CHARGES (DOLLARS) (e)	ENERGY, OTHER CHARGES (DOLLARS) (f)	TOTAL REVENUES SETTLEMENT (DOLLARS) (g)
40	Western Area Power Admin	FP	1,700			30,921	30,921
41	CA Independent System Oper.	FP	17,554			578,911	578,911
42	Financial Statement Values					875,680	875,680
43	Reclassification per FS Audit		-192,264			-8,518,994	-8,518,994
	Total on Final Page Count:	43	1,544,778			62,373,175	62,373,175

EPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING 12 31 2003

SCHEDULE 7 ELECTRIC OPERATION AND MAINTENANCE EXPENSES

LINE NO.		FUEL COST (DOLLARS) (a)	OPERATION (DOLLARS) (b)	MAINTENANCE (DOLLARS) (c)	TOTAL(b+c) (DOLLARS) (d)
	POWER PRODUCTION EXPENSES				
1	Steam Power Generation (500-507, 510-514) Fuel Cost (501)				
2	Nuclear Power Generation (517-525, 528-532) Fuel Cost (518)				
3	Hydraulic Power Generation (535-540, 541-545)		4,990,896	6,663,578	11,654,474
4	Other Power Generation (546-550, 551-554) Fuel Cost (547) Specify below	145,946,582	159,792,968	4,912,280	164,705,248
5	Purchased Power (555)		387,985,326		387,985,326
6	Other Production Expenses (556-557)		13,672,464		13,672,464
7	Total Production Expenses (sum of lines 1-6)		566,441,654	11,575,858	578,017,512
8	Transmission Expenses (560-567, 568-573)		17,317,423	2,861,702	20,179,125
9	Distribution Expenses (580-589, 590-598)		15,647,908	31,915,044	47,562,952
10	Customer Account Expenses (901-905)		38,591,046		38,591,046
11	Customer Service and Information Expenses (907-910)		36,199,544		36,199,544
12	Sales Expenses (911-916)		9,100,656		9,100,656
13	Administrative and General expenses (920-935)		39,528,193		39,528,193
14	Total Electric Operation and Maintenance Expenses (sum of lines 7-13)		722,826,424	46,352,604	769,179,028

NUMBER OF ELECTRIC DEPARTMENT EMPLOYEES

15	Payroll Ended (Date MM/DD/YYYY)	12/12/2003
16	Total Number of Regular Full-Time Employed (if Federal agency, full-time equivalent)	2,022
17	Total Number of Part-Time and Temporary Employees	197
18	Total Number of Employees (sum of lines 16 & 17)	2,219

For line 4 of Schedule 7, Other Power Generation (546-550, 551-554) Fuel Cost (547) Specify: Gas turbine, PV, wind

ANNUAL ELECTRIC INDUSTRY FINANCIAL REPORT

Form Approved
OMB No. 1905-0129
Approved Expires 12/31/04

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 8. PURCHASED POWER (ACCOUNT 555) AND POWER EXCHANGES

LINE NO.	PURCHASES FROM/EXCHANGES/ NET SETTLEMENTS (ENTER ENTITY NAME) (a)	TYPE CODE (b)	ELECTRICITY PURCHASED/ EXCHANGED (MEGA-WATTHOUR) (c)	ANNUAL MAXIMUM DEMAND (MEGAWATTS (d)	DEMAND CHARGES (DOLLARS) (e)	ENERGY, OTHER CHARGES (DOLLARS) (f)	TOTAL COST (DOLLARS) (g)
1	American Electric Power	FP	36,436			2,062,810	2,062,810
2	Arizona Public Service Co.	FP	200			4,100	4,100
3	Avista Energy, Inc.	FP	96,386			3,896,749	3,896,749
4	Avista Corporation	FP	185,672			6,695,852	6,695,852
5	Bonneville Power Admin.	FP	287,219			9,355,863	9,355,863
6	BP Energy Company	FP	62,149			2,828,476	2,828,476
7	Calpine Energy Services	FP	148,516			7,483,052	7,483,052
8	CA Dept. of Water Resources	FP	37,588			1,510,555	1,510,555
9	CA Dept. of Water Resources	EX	2,306			9,004	9,004
10	CA Energy Resources Scheduler	FP	1,784			92,768	92,768
11	City of Klamath Falls	FP	263,292		14,241,315	10,850,145	25,091,460
12	Conoco, Inc.	FP	24,028			1,083,964	1,083,964
13	Coral Power LLC	FP	96,100		1,055,000	4,728,207	5,783,207
	Constellation Power Source Inc.	FP	171,927		436,800	6,693,788	7,130,588
	Cargill Power Markets, LLC	FP	66,571			3,015,473	3,015,473
16	Duke Energy Trading & Mktg.	FP	972,550			104,460,675	104,460,675
17	El Paso Merchant Energy, LP	FP	480			43,200	43,200
18	Entergy-Koch Trading, LP	FP	2,600			124,800	124,800
19	LA Dept. of Water and Power	FP	6,624			345,773	345,773
20	Mirant Americas Energy Mktg	FP	71,400		450,000	5,860,288	6,310,288
21	MIECO, Inc.	FP	2,400			101,800	101,800
22	Modesto Irrigation District	FP	4,327			166,588	166,588
23	Modesto Irrigation District	NF	2,708			84,986	84,986
24	Morgan Stanley Capital Group	FP	88,678		118,750	3,877,749	3,996,499
25	Northern CA Power Agency	FP	7,785			303,945	303,945
26	Occidental Power Services, Inc	FP	10,505			559,745	559,745
27	Pacificorp	FP	773,651			16,864,878	16,864,878
28	Pacific Gas & Electric Company	FP	185,003			7,067,057	7,067,057
29	Portland General Electric Co.	FP	65,804			2,306,657	2,306,657
30	PG&E Energy Trading Power LP	FP	199,778			10,432,407	10,432,407
31	Pacificorp Power Marketing	FP	854,433		13,432,200	43,514,958	56,947,158
32	Puget Sound Energy	FP	81,450			3,165,267	3,165,267
33	Powerex Corp.	FP	46,725		620,000	2,254,468	2,874,468
34	City of Redding	FP	185,579			7,867,594	7,867,594
35	City of Redding	NF	13,579			1,206,570	1,206,570
	Southern California Edison	FP	75,761			2,905,749	2,905,749
	Seattle City Light	FP	108,289			4,243,541	4,243,541

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SCHEDULE 8. PURCHASED POWER (ACCOUNT 555) AND POWER EXCHANGES

LINE NO.	PURCHASES FROM/EXCHANGES/ NET SETTLEMENTS (ENTER ENTITY NAME) (a)	TYPE CODE (b)	ELECTRICITY PURCHASED/ EXCHANGED (MEGA-WATTHOUR) (c)	ANNUAL MAXIMUM DEMAND (MEGAWATTS (d)	DEMAND CHARGES (DOLLARS) (e)	ENERGY, OTHER CHARGES (DOLLARS) (f)	TOTAL COST (DOLLARS) (g)
38	Seattle City Light	NF	100			3,600	3,600
39	San Diego Gas & Electric	FP	96,333			3,404,149	3,404,149
40	Sempra Energy Trading Corp.	FP	114,427			4,191,075	4,191,075
41	City of Santa Clara	FP	5,947			285,370	285,370
42	Snohomish County PUD	FP	228,697		6,726,240	6,194,410	12,920,650
43	Tacoma City Light	FP	25,209			1,064,901	1,064,901
44	Tacoma Power	FP	19,500			756,682	756,682
45	TransAlta Energy Mktg US, Inc.	FP	122,279		914,350	7,800,927	8,715,277
46	Turlock Irrigation District	FP	5,485			231,099	231,099
47	UBS Energy LLC	FP	21,600			1,067,940	1,067,940
48	Western Area Power Admin	FP	2,255,411		1,412,035	42,031,062	43,443,097
49	County of Sacto - McClellan	FP	74,901			2,190,537	2,190,537
50	County of Sacto - Kiefer	FP	66,026			1,961,217	1,961,217
	Regents of University of CA	FP	20,289		110,000	917,717	1,027,717
	South Sutter Water District	FP	31,073			252,228	252,228
53	CA Independent System Oper.					9,797,087	9,797,087
54	Pacificorp - Amort. prep capacity				4,710,420		4,710,420
55	Losses		-68,393				
56	Imbalance		391				
57	Financial Statement Values					875,680	875,680
58	Gas Swaps for Power Contracts					-9,083,634	-9,083,634
59	Other					265,662	265,662
60	Reclassification per FS Audit		-192,264			-8,518,994	-8,518,994
61	CA Dept. of Water Resources	EX	-2,300			-9,004	-9,004
	Total on Final Page Count:	61	8,064,994		44,227,110	343,749,212	387,976,322

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SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: Camino	PLANT ID: 430
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Hydroelectric
2	Year Originally Constructed	1963
3	Year Last Unit Was Installed	1968
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	150,000
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	158,400
6	Plant Hours Connected to Load	8,760
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	338,230,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	23,455
10	Structures and Improvements (311, 321, 331, 332, 336)	43,986,647
11	Equipment Cost (312-316, 322-325, 333-335)	9,655,120
12	Total Cost (sum of lines 9-11)	53,665,222
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	357.77
	Gross Annual Capital Expenditures	23,554
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	60,696
16	Fuel Cost (501, 518)	
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	545,506
24	Hydraulic Expenses (537)	70,094
25	Electric Expenses for Hydraulic (538)	332,130
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	63,002
28	Maintenance, Supervision and Engineering (510, 528, 541)	58,829
29	Maintenance of Structures (511, 529, 542, 543)	148,277
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	1,088,620
32	Maintenance of Miscellaneous Plant (514, 532, 545)	134,787
	Total Production Expenses (sum of lines 15-32)	2,501,941
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.007

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SCHEDULE 9 ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: Jaybird	PLANT ID: 431
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Hydroelectric
2	Year Originally Constructed	1961
3	Year Last Unit Was Installed	1962
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	144,000
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	161,300
6	Plant Hours Connected to Load	8,760
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	488,950,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	174,972
10	Structures and Improvements (311, 321, 331, 332, 336)	18,433,969
11	Equipment Cost (312-316, 322-325, 333-335)	9,801,909
12	Total Cost (sum of lines 9-11)	28,410,850
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	197.30
	Gross Annual Capital Expenditures	10,626
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	87,743
16	Fuel Cost (501, 518)	
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	788,591
24	Hydraulic Expenses (537)	101,329
25	Electric Expenses for Hydraulic (538)	480,131
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	91,077
28	Maintenance, Supervision and Engineering (510, 528, 541)	85,045
29	Maintenance of Structures (511, 529, 542, 543)	214,352
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	1,573,724
32	Maintenance of Miscellaneous Plant (514, 532, 545)	194,849
	Total Production Expenses (sum of lines 15-32)	3,616,841
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.007

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SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: Loon Lake	PLANT ID: 432
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Hydroelectric
2	Year Originally Constructed	1971
3	Year Last Unit Was Installed	1971
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	82,000
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	86,400
6	Plant Hours Connected to Load	3,818
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	82,319,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	2,415,466
10	Structures and Improvements (311, 321, 331, 332, 336)	42,830,794
11	Equipment Cost (312-316, 322-325, 333-335)	6,076,801
12	Total Cost (sum of lines 9-11)	51,323,061
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	625.89
	Gross Annual Capital Expenditures	59,256
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	14,772
16	Fuel Cost (501, 518)	
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	132,766
24	Hydraulic Expenses (537)	17,060
25	Electric Expenses for Hydraulic (538)	80,834
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	15,334
28	Maintenance, Supervision and Engineering (510, 528, 541)	14,318
29	Maintenance of Structures (511, 529, 542, 543)	36,088
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	264,950
32	Maintenance of Miscellaneous Plant (514, 532, 545)	32,805
	Total Production Expenses (sum of lines 15-32)	608,927
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.007

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SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: Robbs Peak	PLANT ID: 433
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Hydroelectric
2	Year Originally Constructed	1965
3	Year Last Unit Was Installed	1965
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	25,000
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	28,400
6	Plant Hours Connected to Load	5,800
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	43,004,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	156,526
10	Structures and Improvements (311, 321, 331, 332, 336)	13,683,009
11	Equipment Cost (312-316, 322-325, 333-335)	4,049,695
12	Total Cost (sum of lines 9-11)	17,889,230
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	715.57
	Gross Annual Capital Expenditures	87,562
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	7,717
16	Fuel Cost (501, 518)	
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	69,358
24	Hydraulic Expenses (537)	8,912
25	Electric Expenses for Hydraulic (538)	42,228
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	8,010
28	Maintenance, Supervision and Engineering (510, 528, 541)	7,480
29	Maintenance of Structures (511, 529, 542, 543)	18,853
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	138,412
32	Maintenance of Miscellaneous Plant (514, 532, 545)	17,137
	Total Production Expenses (sum of lines 15-32)	318,107
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.007

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SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: White Rock/Slab Creek	PLANT ID: 435
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Hydroelectric
2	Year Originally Constructed	1968
3	Year Last Unit Was Installed	1983
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	224,400
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	266,400
6	Plant Hours Connected to Load	8,760
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	489,644,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	412,218
10	Structures and Improvements (311, 321, 331, 332, 336)	39,081,436
11	Equipment Cost (312-316, 322-325, 333-335)	17,743,763
12	Total Cost (sum of lines 9-11)	57,237,417
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	255.07
	Gross Annual Capital Expenditures	178,797
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	87,867
16	Fuel Cost (501, 518)	
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	789,711
24	Hydraulic Expenses (537)	101,472
25	Electric Expenses for Hydraulic (538)	480,813
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	91,206
28	Maintenance, Supervision and Engineering (510, 528, 541)	85,165
29	Maintenance of Structures (511, 529, 542, 543)	214,656
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	1,575,957
32	Maintenance of Miscellaneous Plant (514, 532, 545)	195,126
	Total Production Expenses (sum of lines 15-32)	3,621,973
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.007

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SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: Jones Fork	PLANT ID: 534
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Hydroelectric
2	Year Originally Constructed	1985
3	Year Last Unit Was Installed	1985
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	11,500
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	
6	Plant Hours Connected to Load	2,282
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	17,913,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	716,718
10	Structures and Improvements (311, 321, 331, 332, 336)	31,633,307
11	Equipment Cost (312-316, 322-325, 333-335)	6,911,107
12	Total Cost (sum of lines 9-11)	39,261,132
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	3,414.01
	Gross Annual Capital Expenditures	10,626
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	3,215
16	Fuel Cost (501, 518)	
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	28,891
24	Hydraulic Expenses (537)	3,712
25	Electric Expenses for Hydraulic (538)	17,590
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	3,337
28	Maintenance, Supervision and Engineering (510, 528, 541)	3,116
29	Maintenance of Structures (511, 529, 542, 543)	7,853
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	57,654
32	Maintenance of Miscellaneous Plant (514, 532, 545)	7,138
	Total Production Expenses (sum of lines 15-32)	132,506
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.007

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SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: Union Valley	PLANT ID: 6612
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Hydroelectric
2	Year Originally Constructed	1963
3	Year Last Unit Was Installed	1963
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	46,700
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	46,100
6	Plant Hours Connected to Load	3,910
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	115,474,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	2,091,300
10	Structures and Improvements (311, 321, 331, 332, 336)	25,406,040
11	Equipment Cost (312-316, 322-325, 333-335)	3,656,367
12	Total Cost (sum of lines 9-11)	31,153,707
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	667.10
	Gross Annual Capital Expenditures	19,613
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	20,722
16	Fuel Cost (501, 518)	
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	186,239
24	Hydraulic Expenses (537)	23,930
25	Electric Expenses for Hydraulic (538)	113,391
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	21,509
28	Maintenance, Supervision and Engineering (510, 528, 541)	20,085
29	Maintenance of Structures (511, 529, 542, 543)	50,623
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	371,662
32	Maintenance of Miscellaneous Plant (514, 532, 545)	46,017
	Total Production Expenses (sum of lines 15-32)	854,178
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.007

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SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: McClellan	PLANT ID: 535
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Gas Turbine
2	Year Originally Constructed	1986
3	Year Last Unit Was Installed	1986
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	77,000
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	72,000
6	Plant Hours Connected to Load	41
7	Average Number of Employees	4
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	2,568,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	
10	Structures and Improvements (311, 321, 331, 332, 336)	2,627,142
11	Equipment Cost (312-316, 322-325, 333-335)	28,074,131
12	Total Cost (sum of lines 9-11)	30,701,273
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	398.72
	Gross Annual Capital Expenditures	21,153
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	
16	Fuel Cost (501, 518)	109,380
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	57,591
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	
24	Hydraulic Expenses (537)	
25	Electric Expenses for Hydraulic (538)	
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	
28	Maintenance, Supervision and Engineering (510, 528, 541)	
29	Maintenance of Structures (511, 529, 542, 543)	
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	1,129,813
32	Maintenance of Miscellaneous Plant (514, 532, 545)	
	Total Production Expenses (sum of lines 15-32)	1,296,784
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.505

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SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: Solano Wind	PLANT ID: 7526
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Renewable
2	Year Originally Constructed	1994
3	Year Last Unit Was Installed	2003
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	13,200
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	128
6	Plant Hours Connected to Load	8,760
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	27,376,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	6,923,438
10	Structures and Improvements (311, 321, 331, 332, 336)	
11	Equipment Cost (312-316, 322-325, 333-335)	15,466,624
12	Total Cost (sum of lines 9-11)	22,390,062
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	1,696.22
	Gross Annual Capital Expenditures	13,499,424
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	
16	Fuel Cost (501, 518)	
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	
24	Hydraulic Expenses (537)	
25	Electric Expenses for Hydraulic (538)	
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	
28	Maintenance, Supervision and Engineering (510, 528, 541)	
29	Maintenance of Structures (511, 529, 542, 543)	
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	344,011
32	Maintenance of Miscellaneous Plant (514, 532, 545)	
	Total Production Expenses (sum of lines 15-32)	344,011
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.013

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING 12 31 2003

SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: Carson Ice-Gen Project	PLANT ID: 7527
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Gas Turbine
2	Year Originally Constructed	1995
3	Year Last Unit Was Installed	1995
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	99,000
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	94,080
6	Plant Hours Connected to Load	8,460
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	397,773,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	
10	Structures and Improvements (311, 321, 331, 332, 336)	6,719,882
11	Equipment Cost (312-316, 322-325, 333-335)	126,817,868
12	Total Cost (sum of lines 9-11)	133,537,750
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	1,348.87
	Gross Annual Capital Expenditures	433,805
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	
16	Fuel Cost (501, 518)	14,261,868
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	3,146,586
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	
24	Hydraulic Expenses (537)	
25	Electric Expenses for Hydraulic (538)	
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	129,326
28	Maintenance, Supervision and Engineering (510, 528, 541)	
29	Maintenance of Structures (511, 529, 542, 543)	
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	
32	Maintenance of Miscellaneous Plant (514, 532, 545)	
	Total Production Expenses (sum of lines 15-32)	17,537,780
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.044

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING 12 31 2003

SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: SCA Cogen 2	PLANT ID: 7551
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Gas Turbine
2	Year Originally Constructed	1997
3	Year Last Unit Was Installed	1997
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	164,300
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	158,923
6	Plant Hours Connected to Load	7,269
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	750,038,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	772,000
10	Structures and Improvements (311, 321, 331, 332, 336)	7,268,776
11	Equipment Cost (312-316, 322-325, 333-335)	165,566,488
12	Total Cost (sum of lines 9-11)	173,607,264
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	1,056.65
	Gross Annual Capital Expenditures	5,628,090
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	
16	Fuel Cost (501, 518)	27,338,673
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	6,134,686
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	
24	Hydraulic Expenses (537)	
25	Electric Expenses for Hydraulic (538)	
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	
28	Maintenance, Supervision and Engineering (510, 528, 541)	
29	Maintenance of Structures (511, 529, 542, 543)	
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	
32	Maintenance of Miscellaneous Plant (514, 532, 545)	
	Total Production Expenses (sum of lines 15-32)	33,473,359
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.045

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING 12 31 2003

SCHEDULE 9. ELECTRIC GENERATING PLANT STATISTICS

LINE NO.	(a) PLANT NAME: SPA Cogen 3	PLANT ID: 7552
1	Kind of Plant (Steam, Internal Combustion, Gas Turbine, Hydroelectric Nuclear, or Renewable)	Gas turbine
2	Year Originally Constructed	1997
3	Year Last Unit Was Installed	1997
4	Total Maximum Generator Nameplate Capacity in kilowatts (kw)	159,821
5	Net Peak Demand on Plant (kilowatts for 60 minutes)	169,920
6	Plant Hours Connected to Load	8,760
7	Average Number of Employees	
8	Net Generation, Exclusive of Plant Use in Kilowatthours (KWh)	1,144,368,000
	COST OF PLANT (DOLLARS)	
9	Land and Land Rights (310, 320, 330)	
10	Structures and Improvements (311, 321, 331, 332, 336)	9,978,230
11	Equipment Cost (312-316, 322-325, 333-335)	133,911,892
12	Total Cost (sum of lines 9-11)	143,890,122
13	Cost per Kilowatthour of Nameplate Capacity (divide line 12 by line 4)	900.32
	Gross Annual Capital Expenditures	
	PRODUCTION EXPENSES (DOLLARS)	
15	Operation, Supervision and Engineering (500, 517, 535)	
16	Fuel Cost (501, 518)	38,940,059
17	Coolants and Water (Nuclear Plants Only) (519)	
18	Steam Expenses (502, 520, 536, 537)	
19	Steam from Other Sources (503,521)	
20	Steam Transferred (Credit) (504, 522)	
21	Electric Expenses (505, 523)	8,073,932
22	Miscellaneous Steam/Nuclear Power Generation Expenses (506, 524)	
23	Water fro Power (536)	
24	Hydraulic Expenses (537)	
25	Electric Expenses for Hydraulic (538)	
26	Miscellaneous Hydraulics Power Generation Expenses (539)	
27	Rents (507, 525, 540)	45,433
28	Maintenance, Supervision and Engineering (510, 528, 541)	
29	Maintenance of Structures (511, 529, 542, 543)	
30	Maintenance of Boiler (Reactor) Plant (Steam only) (512, 530)	
31	Maintenance of Electric Plant (513, 531, 544)	
32	Maintenance of Miscellaneous Plant (514, 532, 545)	
	Total Production Expenses (sum of lines 15-32)	47,059,424
34	Expenses per Net Kilowatthours (dollars to 3 decimal places)	.041

)RT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 10. EXISTING TRANSMISSION LINES

LINE NO.		(a) TRANSMISSION LINE:	(b) TRANSMISSION LINE:	(c) TRANSMISSION LINE:
		1	2	3
1	Terminal Location, From	Rancho Seco	Union Valley	Union Valley
2	Terminal Locataion, To	Pocket	Camino	Jaybird
3	Percent Ownership	100.00	100.00	100.00
4	Line Length (miles)	29.13	11.82	5.87
5	Line Type	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM
6	Voltage Type	[X] AC [ ] DC	[X] AC [ ] DC	[X] AC [ ] DC
7	Voltage, Operating (Kilovolts)	230.00	230.00	230.00
8	Voltage, Design (Kilovolts)	230.00	230.00	230.00
9	Conductor Size (MCM)	954.00	795.00	795.00
10	Conductor Material Type	Aluminum	ACSR	ACSR
11	Conductor Configuration	Double	Single	Single
12	Circuit per Structure, Present	2	1	1
13	Circuit per Structure, Ultimate	2	1	1
14	Pole/Tower Type	Steel & Tower	Tower	Tower
	Rated Capacity (megavoltamperes)	632.00	281.00	281.00

Legend:

OH = Overheard,
UG = Underground
SM = Submarine

AC = Alternating Current
DC = Direct Current

)RT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 10. EXISTING TRANSMISSION LINES

LINE NO.		(a) TRANSMISSION LINE:	(b) TRANSMISSION LINE:	(c) TRANSMISSION LINE:
		4	5	6
1	Terminal Location, From	Jaybird	Camino	Camino
2	Terminal Locataion, To	White Rock	White Rock	Lake
3	Percent Ownership	100.00	100.00	100.00
4	Line Length (miles)	15.88	9.97	23.99
5	Line Type	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM
6	Voltage Type	[X] AC [ ] DC	[X] AC [ ] DC	[X] AC [ ] DC
7	Voltage, Operating (Kilovolts)	230.00	230.00	230.00
8	Voltage, Design (Kilovolts)	230.00	230.00	230.00
9	Conductor Size (MCM)	795.00	954.00	954.00
10	Conductor Material Type	ACSR	ACSR	Aluminum
11	Conductor Configuration	Single	Single	Single
12	Circuit per Structure, Present	1	1	1
13	Circuit per Structure, Ultimate	1	1	1
14	Pole/Tower Type	Tower	Tower	Tower
	Rated Capacity (megavoltamperes)	281.00	316.00	316.00

Legend:

OH = Overheard,
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RT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 10. EXISTING TRANSMISSION LINES

LINE NO.		(a) TRANSMISSION LINE:	(b) TRANSMISSION LINE:	(c) TRANSMISSION LINE:
		7	8	9
1	Terminal Location, From	White Rock	White Rock	Gold Hill
2	Terminal Locataion, To	Hedge	Orangevale	Lake
3	Percent Ownership	100.00	100.00	100.00
4	Line Length (miles)	39.60	29.56	.27
5	Line Type	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM
6	Voltage Type	[X] AC [ ] DC	[X] AC [ ] DC	[X] AC [ ] DC
7	Voltage, Operating (Kilovolts)	230.00	230.00	230.00
8	Voltage, Design (Kilovolts)	230.00	230.00	230.00
9	Conductor Size (MCM)	954.00	954.00	954.00
10	Conductor Material Type	Aluminum	Aluminum	Aluminum
11	Conductor Configuration	Single	Single	Single
12	Circuit per Structure, Present	1	1	1
13	Circuit per Structure, Ultimate	1	1	1
14	Pole/Tower Type	Tower	Steel & Tower	Tower
	Rated Capacity (megavoltamperes)	316.00	316.00	316.00

Legend:

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DC = Direct Current

)RT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 10. EXISTING TRANSMISSION LINES

LINE NO.		(a) TRANSMISSION LINE:	(b) TRANSMISSION LINE:	(c) TRANSMISSION LINE:
		10	11	12
1	Terminal Location, From	Rancho Seco	Rancho Seco	Elk Grove
2	Terminal Locataion, To	Hedge	Elk Grove	Hedge
3	Percent Ownership	100.00	100.00	100.00
4	Line Length (miles)	24.93	14.77	10.66
5	Line Type	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM
6	Voltage Type	[X] AC [ ] DC	[X] AC [ ] DC	[X] AC [ ] DC
7	Voltage, Operating (Kilovolts)	230.00	230.00	230.00
8	Voltage, Design (Kilovolts)	230.00	230.00	230.00
9	Conductor Size (MCM)	954.00	954.00	954.00
10	Conductor Material Type	Aluminum	Aluminum	Aluminum
11	Conductor Configuration	Double	Double	Double
12	Circuit per Structure, Present	1	1	1
13	Circuit per Structure, Ultimate	1	1	1
14	Pole/Tower Type	Steel & Tower	Steel & Tower	Steel
	Rated Capacity (megavoltamperes)	632.00	632.00	632.00

Legend:

OH = Overheard,
UG = Underground
SM = Submarine

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DC = Direct Current

)RT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 10. EXISTING TRANSMISSION LINES

LINE NO.		(a) TRANSMISSION LINE:	(b) TRANSMISSION LINE:	(c) TRANSMISSION LINE:
		13	14	15
1	Terminal Location, From	Lake	Hedge	Campbell
2	Terminal Locataion, To	Pocket	Campbell	Pocket
3	Percent Ownership	100.00	100.00	100.00
4	Line Length (miles)	23.22	7.20	1.54
5	Line Type	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM
6	Voltage Type	[X] AC [ ] DC	[X] AC [ ] DC	[X] AC [ ] DC
7	Voltage, Operating (Kilovolts)	230.00	230.00	230.00
8	Voltage, Design (Kilovolts)	230.00	230.00	230.00
9	Conductor Size (MCM)	954.00	636.00	636.00
10	Conductor Material Type	Aluminum	Aluminum	Aluminum
11	Conductor Configuration	Single	Double	Double
12	Circuit per Structure, Present	1	1	1
13	Circuit per Structure, Ultimate	1	1	1
14	Pole/Tower Type	Steel & Tower	Steel & Tower	Steel
	Rated Capacity (megavoltamperes)	316.00	490.00	490.00

Legend:

OH = Overheard,
UG = Underground
SM = Submarine

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DC = Direct Current

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 10. EXISTING TRANSMISSION LINES

LINE NO.		(a) TRANSMISSION LINE:	(b) TRANSMISSION LINE:	(c) TRANSMISSION LINE:
		16	17	18
1	Terminal Location, From	Hedge	Procter & Gamble	Hurley
2	Terminal Locataion, To	Procter & Gamble	Hurley	Natomas
3	Percent Ownership	100.00	100.00	100.00
4	Line Length (miles)	3.60	5.94	7.20
5	Line Type	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM
6	Voltage Type	[X] AC [ ] DC	[X] AC [ ] DC	[X] AC [ ] DC
7	Voltage, Operating (Kilovolts)	230.00	230.00	230.00
8	Voltage, Design (Kilovolts)	230.00	230.00	230.00
9	Conductor Size (MCM)	954.00	954.00	954.00
10	Conductor Material Type	Aluminum	Aluminum	Aluminum
11	Conductor Configuration	Single	Single	Single
12	Circuit per Structure, Present	1	1	1
13	Circuit per Structure, Ultimate	1	1	1
14	Pole/Tower Type	Steel & Tower	Steel & Tower	Tower
	Rated Capacity (megavoltamperes)	316.00	316.00	316.00

Legend:

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SM = Submarine

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DC = Direct Current

)RT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 10. EXISTING TRANSMISSION LINES

LINE NO.		(a) TRANSMISSION LINE:	(b) TRANSMISSION LINE:	(c) TRANSMISSION LINE:
		19	20	21
1	Terminal Location, From	Elverta	Elverta	Foothill
2	Terminal Locataion, To	Orangevale	Foothill	Orangevale
3	Percent Ownership	100.00	100.00	100.00
4	Line Length (miles)	21.73	13.27	19.49
5	Line Type	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM
6	Voltage Type	[X] AC [ ] DC	[X] AC [ ] DC	[X] AC [ ] DC
7	Voltage, Operating (Kilovolts)	230.00	230.00	230.00
8	Voltage, Design (Kilovolts)	230.00	230.00	230.00
9	Conductor Size (MCM)	954.00	954.00	954.00
10	Conductor Material Type	Aluminum	Aluminum	Aluminum
11	Conductor Configuration	Single	Single	Single
12	Circuit per Structure, Present	1	1	1
13	Circuit per Structure, Ultimate	1	1	1
14	Pole/Tower Type	Steel & Tower	Steel & Tower	Steel & Tower
	Rated Capacity (megavoltamperes)	316.00	316.00	316.00

Legend:

OH = Overheard,
UG = Underground
SM = Submarine

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DC = Direct Current

RT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 10. EXISTING TRANSMISSION LINES

LINE NO.		(a) TRANSMISSION LINE:	(b) TRANSMISSION LINE:	(c) TRANSMISSION LINE:
		22	23	24
1	Terminal Location, From	Lake	Captain Jack	Hurley
2	Terminal Locataion, To	Orangevale	Tracy	Transition Station
3	Percent Ownership	100.00	31.00	100.00
4	Line Length (miles)	10.90	339.00	4.80
5	Line Type	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM	[X] OH [ ] UG [ ] SM
6	Voltage Type	[X] AC [ ] DC	[X] AC [ ] DC	[X] AC [ ] DC
7	Voltage, Operating (Kilovolts)	230.00	500.00	230.00
8	Voltage, Design (Kilovolts)	230.00	500.00	230.00
9	Conductor Size (MCM)	954.00	1,950.00	954.00
10	Conductor Material Type	Aluminum	ACSR	Aluminum
11	Conductor Configuration	Single	Triple	Single
12	Circuit per Structure, Present	1	1	1
13	Circuit per Structure, Ultimate	1	1	1
14	Pole/Tower Type	Steel & Tower	Tower	Combination Wood & Steel
	Rated Capacity (megavoltamperes)	316.00	2,500.00	316.00

Legend:

OH = Overheard,
UG = Underground
SM = Submarine

AC = Alternating Current
DC = Direct Current

RT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 31 2003

SCHEDULE 10 - EXISTING TRANSMISSION LINES

LINE NO.		(a) TRANSMISSION LINE:	(b) TRANSMISSION LINE:	(c) TRANSMISSION LINE:
		25	26	
1	Terminal Location, From	Transition Station	Carmichael	
2	Terminal Locataion, To	Carmichael	Orangevale	
3	Percent Ownership	100.00	100.00	
4	Line Length (miles)	3.53	6.10	
5	Line Type	☐ OH ☒ UG ☐ SM	☐ OH ☒ UG ☐ SM	
6	Voltage Type	☒ AC ☐ DC	☒ AC ☐ DC	
7	Voltage, Operating (Kilovolts)	230.00	230.00	
8	Voltage, Design (Kilovolts)	230.00	230.00	
9	Conductor Size (MCM)	1,750.00	1,750.00	
10	Conductor Material Type	Copper	Copper	
11	Conductor Configuration	Single	Single	
12	Circuit per Structure, Present	1	1	
13	Circuit per Structure, Ultimate	1	1	
14	Pole/Tower Type	Other (Underground)	Other (Underground)	
	Rated Capacity (megavoltamperes)	316.00	413.00	

Legend:

OH = Overheard,
UG = Underground
SM = Submarine

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DC = Direct Current

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 - 31 - 2003

SCHEDULE 11: TRANSMISSION LINES ADDED WITHIN LAST YEAR

LINE NO.		(a) TRANSMISSION LINE: 1	(b) TRANSMISSION LINE:	(c) TRANSMISSION LINE:
1	Terminal Location, From	Natomas		
2	Terminal Location, To	Elverta		
3	Percent Ownership	100.00		
4	Line Length (miles)	4.30		
5	Line Type	[X] OH [ ] UG [ ] SM		
6	Voltage Type	[X] AC [ ] DC		
7	Voltage, Operating (kilovolts)	230.00		
8	Voltage, Design (kilovolts)	230.00		
9	Conductor Size (MCM)	954.00		
10	Conductor Material Type	Aluminum		
11	Conductor Configuration	Single		
12	Circuits per Structure, Present	1		
13	Circuits per Structure, Ultimate	1		
14	Pole/Tower Type	Tower		
15	Rated Capacity (megavoltamperes)	316.00		
16	Land and Land Right Costs (dollars)	.00		
17	Pole, Tower, Fixtures Costs (dollars)	.00		
18	Conductor and Device Costs (dollars)	.00		
19	Construction and Other Costs (dollars)	.00		
20	Total Line Costs (dollars) (sum of lines 16-19)	.00		
21	In-Service Date (month-year)			

Legend:

OH = Overheard,
UG = Underground
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DC = Direct Current

US Department of Energy Energy Information Administration Form EIA-412	*ANNUAL ELECTRIC INDUSTRY FINANCIAL REPORT*	Form Approved OMB No. 1905-0129 Approved Expires 12/31/04

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 - 31 - 2003

SCHEDULE 12. FOOTNOTES

SCHEDULE NO. (a)	PAGE NO. (b)	LINE NO. (c)	COLUMN NO. (d)	COMMENTS (e)
2	2	8		See Excel File (e-mailed) for all footnotes.
9	16	4		McClellan's nameplate capacity was upgraded from 49,999 KW to 77,000 KW.

US Department of Energy Energy Information Administratio Form EIA-412	*ANNUAL ELECTRIC INDUSTRY FINANCIAL REPORT*	Form Approved OMB No. 1905-0129 Approved Expires 12/31/04

REPORT FOR: Sacramento Municipal Util Dist 16534

FINANCIAL REPORTING PERIOD ENDING: 12 - 31 - 2003

EIA-412 ERROR LOG

Schedule		Error Description
7	5	Purchased power reported in Schedule 7 must equal that reported in schedule 8

Schedule 7 does not include power exchange delivered in the amount of $9,004, which is included in Schedule 8.

U.S. Department of Energy
Energy Information Administration
Form EIA-412

REPORT FOR: Sacramento Municipal Util Dist
FINANCIAL REPORTING PERIOD ENDING: 12 - 31 - 2003

SCHEDULE 12. FOOTNOTES

Schedule Number	Page Number	Line Number	Col.	Comments	Amount
2	2	8		Investment in Rosa Reserves	$ 136,629,022
				Asset Retirement Obligations - Rosa Reserves	345,745
				TOTAL	$ 136,974,767
2	2	9		Accumulated Depletion - Rosa Reserves	$ (4,941,469)
				Accumulated Depreciation - Rosa ARO	(6,915)
					$ (4,948,384)
2	2	22		Interest Receivable - Investments	$ 1,197,042
				Interest Receivable - Decommissioning	172,950
				Interest Receivable - LAIF	1,118,200
				Interest Receivable - Energy Efficiency Financing	216,986
				TOTAL	$ 2,705,178
2	2	25		Regulatory Costs - Decommissioning	$ 227,679,127
				Regulatory Costs - Nuclear Plant	1,139,447
				Regulatory Costs - TANC Wheeling	16,960,168
				Regulatory Costs - DOE Assessment	4,557,788
				Regulatory Costs - ISO Receivable	40,192,859
				Regulatory Costs - Contract Valuations	(47,241,996)
				Preliminary Survey and Investment	9,648,856
				Natural Gas R&D	6,668
				TOTAL	$ 252,942,917
2	2	26		Advance Capacity Payments	$ 4,116,095
				Unamortized Loss on Debt	123,463,357
				A/P/HR/Travel Clearing	84,661
				TOTAL	$ 127,664,113
2	2	38		Workers Comp Reserves	$ 5,284,963
				Long-term Disability Reserves	2,232,743
				401K Plan - Funds Due Participants	330,049
				Asset Retirement Obligations	4,299,607
				TOTAL	$ 12,147,362

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REPORT FOR: Sacramento Municipal Util Dist
FINANCIAL REPORTING PERIOD ENDING: 12 - 31 - 2003

SCHEDULE 12. FOOTNOTES

Schedule Number	Page Number	Line Number	Col.	Comments	Amount
2	2	47		Vacation and Compensatory Time	$ 19,252,349
				Goods Received/Invoices Received	4,019,876
				Unclaimed Checks	35,795
				Consignment Payable	106,540
				Derivative Financial Instruments	(2,868,000)
				TOTAL	$ 20,546,560
2	2	50		Decommissioning Liability - Rancho Seco	$ 279,566,309
				Due to TANC	16,960,168
				General/Auto Insurance Reserves	3,055,061
				Advanced Funds - CEC SB5X	32,100
				Advanced Funds - UAL/CARB/EPRI	124,569
				Accrued Nuclear Plant Lay-up Costs	2,464,585
				Deferred Revenue - Rate Stabilization Fund	87,316,792
				Deferred Revenue - Public Goods	714,116
				Deferred Revenue - Pacificorp Provisional Energy	2,477,800
				Deferred Revenue - CIAC	150,776,500
				Derivative Financial Instruments	(99,647,619)
				Pledges Payable	2,502
				Arbitrage Rebate Liability	277,276
				Retained Funds-PQMC	15,316
				TOTAL	$ 444,135,475
3	3	1		Includes transfer to Rate Stabilization Fund of $56,068,759 and Bad Debts Expense of $4,206,938	
3	3	2		Production Expenses including Purchased Power	$ 566,441,654
				Transmission Expenses	17,317,423
				Distribution Expenses	15,647,908
				Customer Accounts Expenses	38,591,046
				Customer Service and Information Expenses	36,199,544
				Sales Expenses	9,100,656
				Administrative and General Expenses	39,528,193
				TOTAL	$ 722,826,424

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REPORT FOR: Sacramento Municipal Util Dist
FINANCIAL REPORTING PERIOD ENDING: 12 - 31 - 2003

SCHEDULE 12. FOOTNOTES

Schedule Number	Page Number	Line Number	Col.	Comments	Amount
3	3	5		Amortization of Regulatory Asset - Plant	$ 23,528,053
				Amortization of Regulatory Asset - Decommissioning	29,708,494
				Amortization of Regulatory Asset - SMUDGEO	3,750,361
				Amortization of Regulatory Asset - CCPA	6,077,681
				Amortization of Energy Efficiency Investment	12,946,054
				Accretion Expense - ARO	288,947
				TOTAL	$ 76,299,590
3	3	11		Interest Income	$ 15,108,547
				Interest on Conservation Loans	4,238,757
				Securities Lending Revenue	316,430
				Miscellaneous Non-Operating Income	3,040,877
				Grants Revenue	6,523,747
				RS Park Revenue	236,134
				Fee-Based Product Revenue	1,688,070
				Market Adjustments - FAS 133	294,000
				Revenue - CIAC	5,232,528
				TOTAL	$ 36,679,090
3	3	12		Write-off of Preliminary Project Studies & Other	$ 371,392
				Unrealized Holding Loss	2,547,666
				Fee-Based Product Costs	2,508,557
				RS Park Expenses	640,597
				TOTAL	$ 6,068,212
3	3	17		Amortization of DDE/Discount/Loss on Long-Term Debt	$ 13,393,229
				Amortization of Gain/Premium on Long-Term Debt	(4,682,094)
				Loss on Extinguishment of Debt	3,031,514
				Arbitrage Rebate Liability Expense	146,391
				Securities Lending Expense	300,254
				Interest on Customer Deposits	84,540
				Other Interest Expense	27,169
				Interest on Commercial Paper	2,063,172
				TOTAL	$ 14,364,175

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REPORT FOR: Sacramento Municipal Util Dist
FINANCIAL REPORTING PERIOD ENDING: 12 - 31 - 2003

SCHEDULE 12. FOOTNOTES

Schedule Number	Page Number	Line Number	Col.	Comments	Amount
5	5	1		Property taxes, social security/medicare and unemployment compensation are allocated to operating expenses. Amounts for 2003 are $1,369,455, $11,099,452 and $255,270, respectively.	
6	7	42		This represents valuation of buy/sell energy transactions for financial statement purposes.	
6	7	43		This represents year-end adjustments to net power sales to purchases on buy/sell agreements.	
7	8	4	b	Includes: Gas Turbine, Photovoltaic, Wind	
7	8	5	b	Purchased power does not include power exchange delivered in the amount of $9,004, which is included in schedule 8.	
8	10	57		This represents valuation of buy/sell energy transactions for financial statement purposes.	
8	10	60		This represents year-end adjustments to net power sales to purchases on buy/sell agreements.	
9	11-18	5		Net Peak Demand on Plant (kW for 15 minutes) reported for Jaybird, Union Valley, Camino, Robb's Peak, White Rock and Loon Lake.	
9	19	5		Net Peak Demand on Plant (kW for 15 minutes) reported for Solano Wind.	
9	9-19	14		Gross annual capital expenditures include unitized assets only. Construction in progress is not included.	
9	9-16	15-34		Jaybird, Union Valley, Camino, Robb's Peak, White Rock, Slab Creek, Jones Fork and Loon Lake are operating generation plants, all part of an integrated hydroelectric generation project known as the Upper American River Project. Most of the reservoir costs and many of the other plant costs of the project are common to two or more of the generation plants. None of the plants are staffed. All are operated and maintained by a common group of personnel working out of a central office.	

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SCHEDULE 12. FOOTNOTES

Schedule Number	Page Number	Line Number	Col.	Comments	Amount
				We have allocated costs to each plant based on net generation. Slab Creek, which is a 400kW facility, was rebuilt in 2002 and is combined with the White Rock facility for reporting purposes.	
11				The transmission line reported is a split from Line 18 on Schedule 10 due to a line loop in at the Natomas Substation.	

ANNUAL REPORT:
2003

THE POWER TO GROW

SMUD
SACRAMENTO MUNICIPAL UTILITY DISTRICT
The Power To Do More.®

SMUD generates, transmits and distributes electric power to a 900-square-mile service area that includes Sacramento County and a small portion of Placer County.

As a customer-owned electric utility, SMUD is governed by a board of seven directors elected by the voters of the District. The board appoints the general manager, who is the chief executive officer.

Service area population: 1.33 million

Number of customers: (year-end) 553,337

Total revenues: $1.03 billion

Record peak demand: 2,809 megawatts on July 22, 2003

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2003

A MESSAGE FROM THE GENERAL MANAGER

At SMUD, 2003 was about finishing unfinished business and laying the foundation for a secure future.

We paid off the last of the Rancho Seco plant investment, which had been on our books since 1989, and began dismantling the reactor building equipment and spent fuel pool. We replaced our original wind turbines with more efficient ones. And we ended the year with $87 million in our Rate Stabilization Fund, which exceeded our target of $70 million.

We met our customer service objectives, adding Internet service options and improving our customer contact center with a new specialist group focusing on commercial customers. Collaborating with builders, we devised better processes for hooking up residential and commercial development projects. We also increased maintenance activities to maintain a very high level of distribution system reliability.

The Board of Directors spent much of the year taking a hard look at our options for the future, formulating the principles for a strategic business plan to guide us for a decade. Our directors adopted a clear statement of purpose for the District: "Provide solutions for meeting our customers' electrical energy needs." Six value statements provide the policy framework for the plan. A Sacramento community stakeholder advisory panel met side by side with Board members and staff to engage in discussion about how to weigh and balance these values.

We went from plan to reality as we started construction on the Cosumnes Power Plant, which you will read more about in this report. After a thorough, two-year review at the California Energy Commission, we received permission to build the 500-megawatt, natural gas-fired project, and in so doing, took a giant step forward in our drive to become more self-reliant in energy supply and control our destiny. We also were one of the first municipal utilities in the nation to acquire natural gas reserves in the ground, a decision that will help stabilize our fuel source.

Successfully managing risk during uncertain times in this industry is the name of the game, and SMUD has gotten off to a running start.

Jan Schori
General Manager

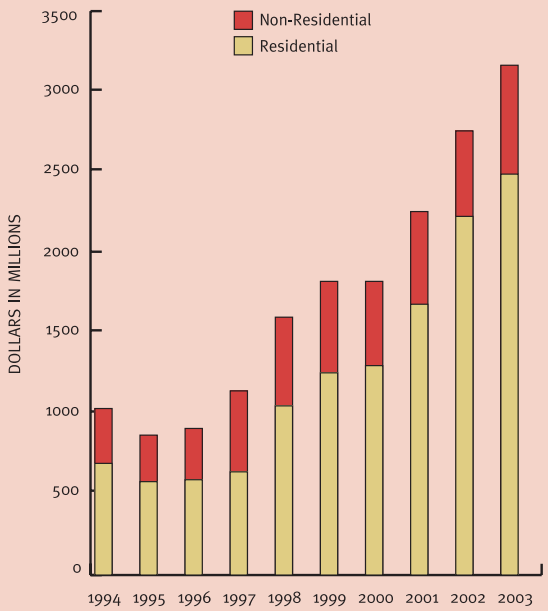
THE POWER TO GROW

With one of the most vibrant economies in California, the capital region enjoyed steady economic diversification in the 1990s and early 2000s. In 2003, a five-year construction boom hit a crescendo as Sacramento continued to attract people from the pricier San Francisco Bay Area.

Laboring under an extremely heavy workload, SMUD set an all-time record in connecting 11,500 new subdivision lots to its power distribution system. Commercial construction also increased, with SMUD extending service to some 400 new business sites in 2003.

On a blistering hot day in late July, customers used a record amount of electricity for a one-hour period. It was no surprise, given the growth trend: Over the last 10 years, SMUD has seen maximum demand for power grow by approximately 30 percent.

Value of Sacramento County building permits



In keeping pace with growth, SMUD successfully concluded the regulatory review process allowing the start of construction on a 500-megawatt power plant that will be a cornerstone of local energy supply for decades to come. In addition, the utility completed a new bulk substation, the first in nearly 10 years, to serve the rapidly expanding Natomas area.

THE POWER TO DO MORE

As the economy has diversified, so too has the population. Responding to growth and changing demographics, the utility has been tailoring new programs and services to better meet the specific needs of different customer segments.

> *SMUD is the 6th largest customer-owned electric utility in the nation.*

SMUD maintained a solid record for service reliability and stable rates in 2003, with an average system rate 30 percent below that of neighboring Pacific Gas & Electric. In addition, SMUD customers will benefit from a modest rate reduction in May 2004 when the utility removes a surcharge that was enacted in 2001 to cope with soaring wholesale power costs.

In demonstrating the benefits of public ownership and local control, SMUD stands out to the point that local governments in Yolo County have asked SMUD to consider annexing their jurisdictions. SMUD directors authorized a feasibility study, which will be completed in 2004. The utility would proceed only if the expansion were determined to be beneficial for existing customers as well as annexation customers.

REACHING OUT

Bilingual SMUD employees have taken to the airwaves as part of a multi-pronged effort the utility expanded in 2003 to address language and cultural barriers in customer communications.

Select employees have been trained to be interviewed on local radio stations in Russian, Spanish, Vietnamese or Hmong, telling listeners how to use energy safely and efficiently and how low-income families can take advantage of discount rates.

SMUD's Aleks Obraztsov speaks his native Russian to tell KLIB AM listeners about SMUD programs.

Sacramento City Unified School District Superintendent M. Magdalena Carrillo Mejia reads to a group of second graders.

Reaching out to the 10 percent of Sacramento County residents who prefer to speak Spanish at home, SMUD also introduced a Spanish version of its do-it-yourself home energy audit and produced Spanish-language public service announcements for television.

Just how diverse is Sacramento?

Consider that Sacramento County has the highest population, per capita, of Russian-speaking immigrants in the United States and that parents of students in the Sacramento city school district speak more than four dozen languages. In April, Time *magazine proclaimed Sacramento "America's most diverse city," based on research conducted by the Civil Rights Project at Harvard.*

FINANCIAL POWER

SMUD reached two major financial milestones in 2003, took advantage of historically low interest rates, and publicly committed to making the utility more credit worthy in the years ahead.

With investors still wary of the energy industry in the wake of Enron's collapse, the SMUD Board of Directors declared creditworthiness a "core value."

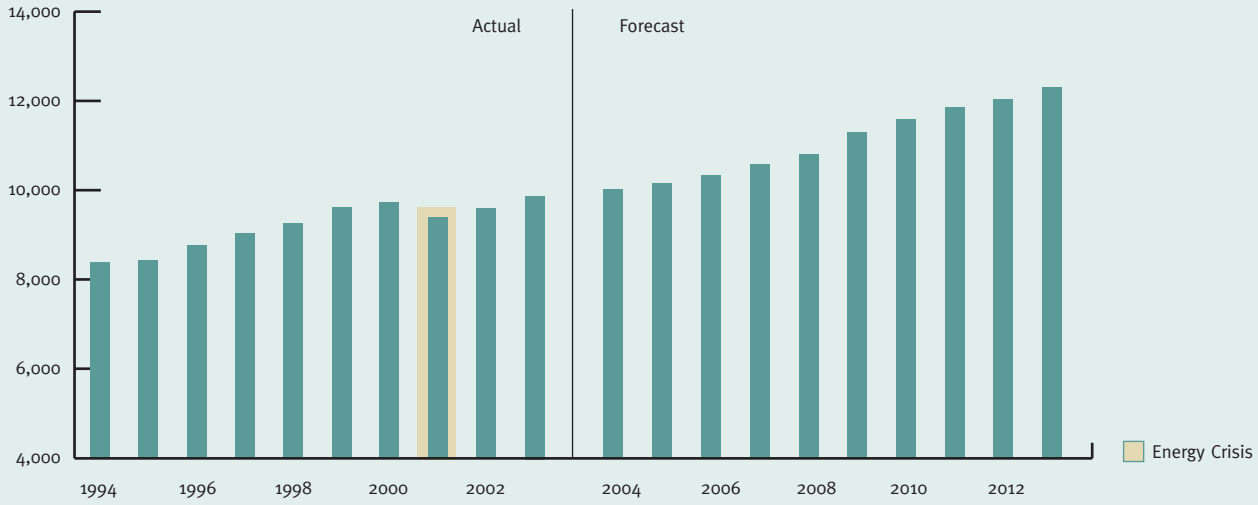
The Board backed up its commitment to maintaining SMUD's `A´ credit rating by pledging to increase net assets, also referred to as customer equity. (Akin to homeowner's equity, net assets or customer equity represents the percentage of assets the utility owns outright.) The goal is to raise net assets from 7 percent in 2003 to 20 percent in 2007 to assure that the utility will continue to be able to finance capital projects at a reasonable cost.

At the end of December, SMUD closed the books on the Rancho Seco nuclear plant, geothermal generation and other assets that were no longer contributing to revenues. That freed up approximately $45 million in annual revenues to flow to the bottom line and add to net assets beginning in 2004.

Total revenues: $1.03 billion
Rate Stabilization Fund: $87 million

With interest rates near historical lows for much of the year, SMUD made several trips to Wall Street to refinance long-term debt. In refunding outstanding bonds, SMUD whittled $100 million from the cost of future debt repayments, saving customers $64 million on a present-value basis.

Annual Energy Sales, Actual and Forecast, in gigawatt hours



HOLDING THE LINE ON RATES

SMUD held rates stable in 2003 and socked away money for the future as the Board of Directors publicly committed to keeping rates lower than those of PG&E, which is the largest electric utility in Northern California.

Bond ratings
Standard & Poor's: A
Moody's: A2
Fitch: A

Annual revenues exceeded projections, which helped SMUD transfer $56 million into the utility reserve account known as the Rate Stabilization Fund. This boosted the fund to $87 million to serve as a financial buffer against adverse developments in markets, industry regulation or weather patterns, particularly the potential for dry weather to curtail hydroelectric production.

CAPITAL POWER

SMUD was instrumental in helping the state of California design the most energy-efficient project it has ever built. Completed in 2003, the East End complex (colored blue in the model at right) offers 1.5 million square feet of space in five office buildings just east of the Capitol. It also has a built-in, "building integrated" solar system that SMUD helped design.

While the state budget deficit may mean somewhat lower government employment in the short run, state facility needs and usage are not expected to decline significantly. In fact, the state is proceeding with design of the West End complex, a 1 million-square-foot state office project to be built on the other side of the Capitol. The West End complex and the planned modernization of the state's Central Plant were funded by a 2001 bond measure and are scheduled for completion in 2009.

The state of California remains a major employer in Sacramento. But government employment has declined in overall importance over the last two decades. While the state budget could be a negative for the local economy in 2004, it is not expected to have a major impact on the area's population, energy use, or SMUD revenues.

CHARTING THE FUTURE

SMUD directors and senior staff spent hundreds of hours in 2003 assessing the energy business and laying the foundation for a strategic plan to guide the utility through 2011.

The directors listened to experts, boned up on market conditions and the regulatory environment, and talked about where they want the utility to go from here. They looked hard at the relative costs and merits of developing renewable energy and greater energy efficiency, weighing competing values and seeking balance. They worked with senior management to come up with different scenarios for how SMUD might provide reliable power while minimizing environmental impacts and keeping rates in check.

Utility rate comparisons

Reflecting rates in effect in August 2003, residential customers using an average of 750 kilowatt hours a month on an annualized basis paid the following per month:

Roseville Electric	$67.08
SMUD	$69.99
L.A. Department of Water & Power	$78.11
Southern California Edison	$97.87
Pacific Gas & Electric	$102.55
San Diego Gas & Electric	$109.53

In November, they invited members of each customer class to review alternatives for meeting future energy needs and to share their views of the potential trade-offs and consequences.

Directors expect to put the finishing touches on the updated strategic plan by mid-2004. Providing the policy framework for the plan are six value statements that set forth SMUD's commitment to competitive rates, financial creditworthiness, reliability, customer service, safety and environmental protection.

CULTIVATING THE WORK FORCE

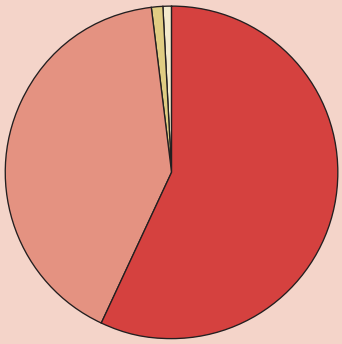
Like many industries, the electric utility business is facing higher turnover rates as the leading edge of the baby boom generation reaches retirement age. In recent years, SMUD has increased recruitment and training efforts for line workers and other skilled positions where experience is crucial to maintaining a high-quality work force.

Work force planning intensified in 2003 with the development of better tools and processes for attracting and hiring the best qualified, most motivated employees. Plans for 2004 include more career development options for existing employees and expanded efforts to ensure the transfer of knowledge to new employees.

SMUD has 2,166 permanent full-time employees

Resource planning principles:

- *Reduce costs to customers and provide greater price stability*
- *Improve reliability of electrical system*
- *Retain flexibility in evolving energy markets*



Power Generation

SMUD-owned generation resources supply approximately 50 percent of customers' energy needs with the following types of energy production.

- Hydroelectric: **57.1** Percent
- Thermal (natural gas): **41.1** Percent
- Wind: **1.2** Percent
- Solar: **0.7** Percent

POWER FOR THE FUTURE

Lining up low-cost, reliable energy supplies for the long term is a critical function for any utility, and SMUD made tremendous progress on this front by beginning construction of a 500-megawatt power plant that will support local growth for decades to come. The $380 million plant is being built at SMUD's Rancho Seco property in southeast Sacramento County and is due to be completed in August 2005.

The Cosumnes Power Plant will increase SMUD-owned generating capacity by slightly more than 40 percent, dramatically lowering SMUD's dependence on imported power and bringing the utility a giant step closer to its goal of greater self-sufficiency in energy supply.

Generation from the Cosumnes project will greatly increase SMUD's local energy resources, boosting available power in the event that cascading outages – like the ones that swept the Northeast and Canada in August – were to shut off the flow of imported power.

The Cosumnes Power Plant, as pictured in this artist's conception, will be a major source of affordable, reliable power for decades to come.

Carol Backert of the Southeast Area Community Planning Advisory Council with Cosumnes Power Plant Director Colin Taylor, left, and Bob Nelson, superintendent of project development.

A JOB WELL DONE

"As they have proven time and time again, SMUD's commitment to this community is genuine," said Carol Backert, who heads the Southeast Area Community Planning Advisory Council. Backert was impressed enough by SMUD's conduct during the regulatory review of the Cosumnes Power Plant that she took the microphone to say so during a ceremony observing the start of construction. "[SMUD] went much further than the required public meetings," Backert said. "When a neighbor brought it to SMUD's attention that the intersection at Twin Cities Road and Clay East Road might prove to be a dangerous route, SMUD agreed and redesigned their access" to the plant site.

COST SAVINGS

Sufficient to meet the average annual power needs of 450,000 households, the electricity generated at Cosumnes will replace more expensive power purchased on the open market, saving customer-owners as much as $25 million a year.

SMUD directors will decide in the next year or so whether to proceed with or defer a second phase of construction that would boost plant capacity to a total of 1,000 megawatts as early as 2008.

The natural gas-fired plant will be highly efficient and clean, using the latest in natural gas and steam turbine technology. Plus, the utility will save millions of dollars in construction costs by using existing resources at Rancho Seco, including a water delivery system, substation, and transmission lines that served SMUD's nuclear plant until it ceased operation in 1989.

SMUD-owned generating capacity will increase by more than 40 percent when the Cosumnes Power Plant begins operating in 2005.

FUEL FOR POWER PLANTS

To lessen exposure to the volatility of natural gas markets, SMUD paid $136 million to acquire proven natural gas reserves in New Mexico. These reserves will reliably supply as much as one-third of the utility's existing fuel needs for power generation. Management continues to look for opportunities to lock in additional long-term gas supplies at reasonable prices.

A steam turbine deck takes shape in the background during the early stages of construction of the Cosumnes Power Plant in southeast Sacramento County.

PERPETUAL POWER

While working to contain the cost of fossil-fuel generation, SMUD expanded renewable energy supplies with the aim of increasing its renewable portfolio (excluding hydroelectric generation) to 20 percent of total power supplies by 2011. In addition to helping the environment, developing renewable energy reduces the financial risk associated with over-reliance on any single generating source.

SMUD's commitment to renewable energy was evident in the completion of a 10-megawatt expansion of its Solano Wind Project near the Delta town of Rio Vista in Solano County. The utility also did planning and regulatory groundwork for further expansion of that project, with the intent of reaching 100 megawatts of wind generation in 2006.

Work to support renewal of SMUD's hydroelectric operating license continued in 2003 with the completion of numerous field studies. In addition, SMUD directors decided to include in the relicensing application a proposal for a new reservoir to enhance the system's current production capacity of 688 megawatts. The new reservoir could add as much as 400 megawatts of generation for use during the hours of peak energy demand. SMUD will realize significant cost savings in the approval process by incorporating the proposal in relicensing. The new reservoir would be finished in 2013, at the earliest.

SERVICE RELIABILITY

SMUD puts a high priority on the reliability of its power distribution system and compares favorably to other utilities in measurements the industry uses to gauge service reliability.

Beginning in 2005, the Cosumnes Power Plant will provide voltage support to further enhance reliability, a critical issue particularly on hot summer days when power demand soars.

In the meantime, the utility has substantially increased its investment in corrective and preventive maintenance over the last few years. Total spending to support reliability rose from $44 million in 2000 to more than $60 million in 2003, and directors earmarked $72 million for this purpose in 2004.

SMUD is devoting more resources to underground cable, which has been the single largest cause of power outages in recent years.

SMUD replaced a record 200,000 feet of underground cable in 2003 – double the replacement rate of just a few years ago. In addition, SMUD tested the rehabilitation of underground cable with silicone injection, an innovative technology that can prolong cable life by 20 years. Finding the repair technique more cost-effective and far less

disruptive than the replacement alternative, SMUD will quadruple silicone-injection work in 2004.

NEW SERVICE

Amid the flurry of new construction in Sacramento County, SMUD worked with the Building Industry Association of California to address a backlog of new service requests from developers anxious for electrical connections.

The utility changed work procedures to better meet the needs of builders and developers, and more improvements are in store for 2004. These include assignment of a SMUD "point person" to each work request and a program that will allow developers to check the progress of their work orders at any time of day or night via the Internet.

Spending to support reliability increased by more than 35 percent over the last three years.

CUSTOMER SERVICE

For the second year in a row and the third time in four years, SMUD ranked No. 1 among California electric utilities in satisfaction surveys the independent J.D. Power Associates conducted with residential customers.

As Sacramento has grown, SMUD has developed specialized programs delivering new services to both commercial and residential customers while continuing to improve on the basics.

Customers who phoned or e-mailed the Contact Center in 2003 spent significantly less time on "hold" and got answers to their queries faster, continuing a trend that began in 2001. Improvements were achieved through a combination of factors, including greater employee involvement in decision-making and problem solving.

SMUD intensified efforts to understand what customers need and want, which resulted in a number of new programs and services. Among them, a repair service for home wiring attracted more than 9,000 customers in its first year of operation. And a new Commercial Account Management Center began

In the Commercial Account Management Center, representatives are well versed in electric rates, energy efficiency, and the various SMUD products and services geared to business customers.

GOOD BUSINESS

SMUD's new Commercial Account Management Center completed its first year of operation in 2003, introducing a higher level of service for 60,000 small- and medium-sized business customers. By year-end, the center was handling more than 200 phone calls a day.

Commercial customers account for 54 percent of SMUD's revenue, and the utility has long had account representatives dedicated to the largest of those customers. Now SMUD has extended this service concept to small business owners as well. SMUD recognizes that a vibrant commercial sector with healthy businesses of all sizes is crucial to Sacramento's future.

Connecting by phone

Average call-answering time:

2001	7 minutes, 46 seconds
2002	1 minute, 3 seconds
2003	0 minutes, 38 seconds

catering to the needs of small- and medium-sized businesses, extending the service concepts that have long been in place for the largest commercial accounts.

The utility continued to offer customers new ways to contact SMUD, find information, sign up for programs, and use energy more efficiently. SMUD revamped its Web site (www.smud.org) to make it more user-friendly and plans additional features in 2004, including online bill-payment and Web pages in Spanish.

Also in 2004, SMUD will begin to use a new suite of computer programs integrated to track and coordinate its response to power outages and support other key service delivery processes. Known as Service Delivery Information Technology, these systems will help in pinpointing outage causes and dispatching field crews to restore service more quickly. Customers and SMUD employees alike will have better access to more accurate outage information, including estimated restoration times.

Dorothy Clement of Fair Oaks was one of more than 9,000 customers who signed up in 2003 for SMUD's new HomePower℠ program, taking advantage of a convenient and inexpensive electric repair service that offers peace of mind for homeowners.

HOMEPOWER℠

One of a number of new programs that have grown out of SMUD's efforts to better understand what customers need and want, the optional HomePower℠ service provides diagnosis of home electrical problems and up to $500 a year in repair services for a modest monthly fee. When participating customers have a problem that qualifies for the repair service, they simply place a toll-free call to SMUD, and the utility dispatches one of the program's licensed and insured electrical contractors.

ENVIRONMENTAL POWER

SMUD's renewable energy and energy efficiency programs help air quality by avoiding the pollution that occurs when fossil fuels are burned to generate electricity. The utility's energy efficiency programs alone obviated the need for 75 gigawatt hours of fossil-fuel generation in 2003. That's enough to satisfy the annual electricity needs of 8,000 residential customers and reduce emissions of nitrogen oxides by more than 24 tons. In addition, SMUD's electric transportation projects reduced nitrogen oxide emissions by 12 tons. Together with the impact of energy efficiency, this was equivalent to taking more than 16,000 cars off the road.

The utility added new dimensions to its solar power and electric vehicle efforts in 2003, including an incentive program that helps business customers buy clean electric forklifts.

SMUD also looked inward for ways to help the environment.

LEADING BY EXAMPLE

Taking the first step toward a formal environmental procurement policy, the utility committed to buying products containing recycled materials whenever price, quality and availability are comparable to those of competing materials. And SMUD stepped up internal recycling efforts as well: Employees pitched in to divert from local landfills 9,800 cubic yards of paper, plastic, glass and other recyclable waste in 2003.

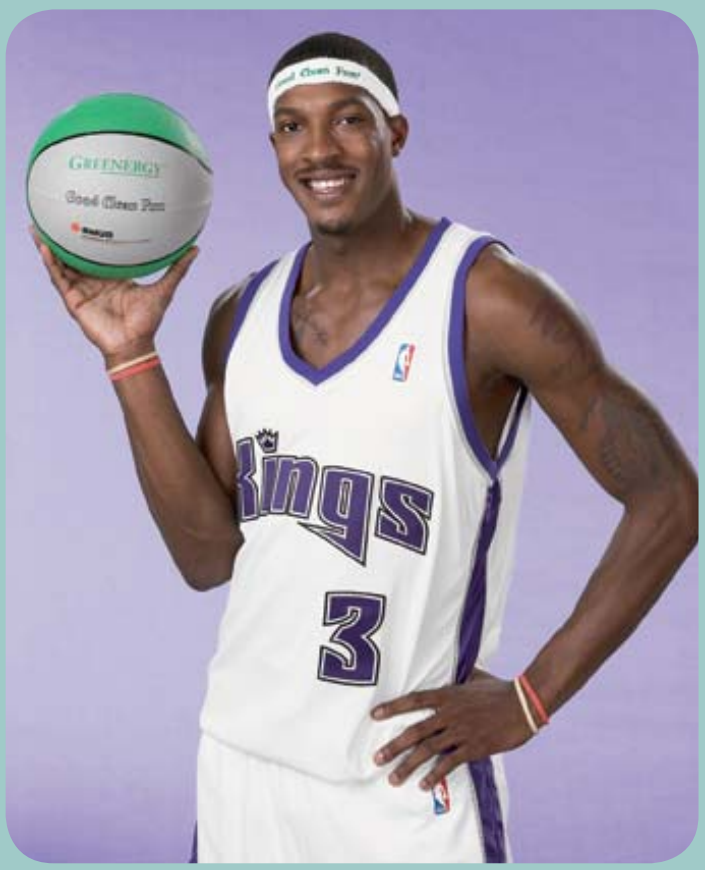
To lower pollution emissions from its own vehicles and heavy equipment, SMUD began adding gasoline-electric hybrid vehicles to its fleet and switched to ultra-low sulfur diesel fuel and re-refined motor oil.

The utility also switched to earth-friendly power poles and transformer oil in 2003.

GOOD CLEAN FUN

Sacramento Kings forward Gerald Wallace helps promote a variety of SMUD programs under a SMUD advertising contract with Maloof Sports & Entertainment, owner of the Sacramento Kings and Monarchs basketball teams. Wallace, for example, has encouraged Kings fans to help the environment by signing up for Greenergy℠.

SMUD customers who participate in Greenergy℠ pay a small premium on their monthly electric bill to support renewable energy generation from resources such as wind, small hydroelectric and landfill gas. Enrollment in Greenergy℠ in 2003 grew by more than 5,800, with approximately 24,000 customers participating in the program at year-end.



SMUD now buys a readily biodegradable, organic transformer oil and red cedar power poles. The latter need only a fraction of the preservative that is applied to prevent rot on the more commonly used Douglas fir poles.

Customers can count on SMUD to continue to search for and promote innovative ways to improve the quality of life for all who live and work in Sacramento.

SMUD's renewable-energy subscription program is the third largest in the nation.

Source: U.S. Department of Energy

CLEAN TRUCKIN'

When long-distance truckers pull over for the night, they typically leave their engines idling to power the heater, air conditioning or other creature comforts in the cab. To reduce fuel consumption and air pollution, SMUD is trying to make it easy for truckers to change that habit. (Nationwide, long-haul trucks idling consume more than 750 million gallons of fuel annually.) In a demonstration project begun in 2003, the utility is providing auxiliary power hook-ups at a giant truck stop near the intersection of Interstate 80 and I-5 so truckers can turn off their engines. With federal and state agencies interested in promoting and expanding the concept, SMUD is gathering technical data that will help determine whether "truck stop electrification" is commercially feasible.

The Power To Recycle

SMUD recycled 9,800 cubic yards of waste in 2003. This is equivalent to 27 full garbage trucks (front-end loaders holding 30 cubic yards apiece) each month.

5 Year Summary of Operating Statistics
(Unaudited)

Operating Statistics (i)	2003	2002	2001	2000	1999
Customers at year-end	553,337	541,296	528,969	517,613	508,422
KWH Sales (thousands)					
Sales to customers —					
Residential	4,372,111	4,093,714	3,929,563	4,140,219	3,944,244
Commercial, industrial & other	5,547,617	5,413,730	5,379,658	5,480,108	5,342,690
Subtotal	9,919,728	9,507,444	9,309,221	9,620,327	9,286,934
Sales of surplus power	1,547,595	2,502,646	3,610,564	1,070,266	1,111,772
Total	11,467,323	12,010,090	12,919,785	10,690,593	10,398,706
Revenues (thousands of dollars)					
Sales to Customers —					
Residential	$ 444,713	$ 411,993	$ 380,378	$ 359,876	$ 338,762
Commercial, industrial & other	516,562	506,613	490,580	427,775	398,466
Subtotal	961,275	918,606	870,958	787,651	737,228
Sales of surplus power	62,382	66,521	606,931	153,365	29,953
Sales of surplus gas	65,279	29,413	-0-	-0-	-0-
Total (ii)	$1,088,936	$1,014,540	$1,477,889	$ 941,016	$ 767,181
Average kWh sales per residential customer	8,998	8,629	8,476	9,096	8,834
Average revenue per residential kWh sold (cents)	10.11	10.03	9.63	8.58	8.49
Power supply (thousands of kWh)					
Hydroelectric	1,575,534	1,409,537	415,530	1,943,493	2,315,540
Cogeneration	2,292,179	2,482,552	2,767,246	2,618,212	2,242,709
Windpower	27,376	4,521	7,243	6,815	3,977
Photovoltaic	2,380	2,834	2,953	2,297	2,133
Gas turbine/Fuel cell	2,568	19,710	79,623	16,848	8,289
Purchases	8,067,294	8,566,718	10,013,909	6,895,933	6,442,781
Net system peak demand — 1 hour (kW)	2,809,000	2,779,000	2,484,000	2,688,000	2,759,000
Employees (permanent & other) at year-end	2,219	2,191	2,140	2,132	2,141
Financial Statistics (thousands of dollars)					
Operating revenues	$1,032,867	$1,012,073	$1,520,751	$ 967,198	$ 775,497
Operating expenses —					
Purchased and interchanged power	387,985	363,338	863,472	364,567	170,827
Operation and maintenance	386,423	400,026	405,797	296,658	254,519
Depreciation and amortization	138,881	134,958	144,222	206,582	221,271
Decommissioning	29,708	31,552	30,346	25,728	26,193
Total operating expenses	942,997	929,874	1,443,837	893,535	672,810
Operating income	89,870	82,199	76,914	73,663	102,687
Other income	29,828	39,555	53,839	62,590	54,094
Income before interest charges	119,698	121,754	130,753	136,253	156,781
Interest charges	119,698	121,754	130,753	136,253	156,781
Net increase in net assets	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-
Funds available for revenue bond debt service	$ 254,036	$ 256,413	$ 252,260	$ 262,144	$ 329,227
Revenue bond debt service	$ 119,238	$ 127,487	$ 159,063	$ 183,826	$ 172,978
Revenue bond debt service coverage ratio	2.13	2.01	1.59	1.43	1.90
Electric utility plant-net	$2,239,073	$1,918,966	$1,819,751	$1,683,942	$1,665,004
Capitalization					
Long-term debt	$2,358,710	$2,058,280	$2,073,721	$1,953,500	$2,073,168
Customer's equity	$ 218,455	$ 219,652	$ 219,652	$ 219,652	$ 219,652

i Financial information is consolidated (except the debt service information).

ii Prior to the net deferral/transfer of revenues to/from the Rate Stabilization Fund and deferral of Public Good revenue.

FINANCIAL STATEMENTS

Report of Independent Auditors

To the Board of Directors of Sacramento Municipal Utility District:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of revenues, expenses and changes in net assets and of cash flows present fairly, in all material respects, the financial position of Sacramento Municipal Utility District (the "District") and its subsidiaries at December 31, 2003 and December 31, 2002, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the District's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in Note 3 to the consolidated financial statements, in 2003 the District adopted Statement of Financial Accounting Standards No. 143, *Accounting for Asset Retirement Obligations*, which changed the District's recognition and measurement of its decommissioning liabilities.

The management's discussion and analysis included on pages 22 through 29 is not a required part of the basic consolidated financial statements but is supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and express no opinion on it.

PricewaterhouseCoopers LLP

February 25, 2004
Sacramento, California

The following discussion and analysis of the Sacramento Municipal Utility District and its component units (District) financial performance provides an overview of the District's financial activities for the years ended December 31, 2003 and 2002. This discussion and analysis should be read in conjunction with the District's financial statements and accompanying notes, which follow this section.

BACKGROUND

The District was formed by a vote of the electors in 1923, under provisions of the State of California Municipal Utility District Act, and began electric operations in 1947. The District is governed by an elected Board of Directors and has the rights and powers to fix rates and charges for commodities or services furnished, to incur indebtedness and issue bonds or other obligations, and, under certain circumstances, to levy and collect ad valorem property taxes. The District is responsible for the acquisition, generation, transmission, and distribution of electric power to its service area, which includes most of Sacramento County and a small adjoining portion of Placer County.

Setting of Rates. The District's Board of Directors (Board) has autonomous authority to establish the rates charged for all District services. Changes in such rates require formal action, after public hearing, by the Board.

On May 3, 2001, in response to market disruptions and the high costs of purchased power and natural gas (energy crisis) the Board unanimously approved the District's first rate increase in more than ten years. The rate action included a 16 percent average rate increase along with two temporary surcharges of three percent each, one to cover reduced hydroelectric production, resulting in increased power costs in 2001 and one intended to replenish the Rate Stabilization Fund. The first surcharge expired May 2, 2002, while the other is scheduled to remain in effect through May 2, 2004.

Financial Reporting. The District's accounting records are maintained in accordance with generally accepted accounting principles for proprietary funds as prescribed by the Governmental Accounting Standards Board (GASB) and, where not in conflict with GASB pronouncements, accounting principles prescribed by the Financial Accounting Standards Board (FASB). The District's accounting records generally follow the Uniform System of Accounts for Public Licensees prescribed by the Federal Energy Regulatory Commission (FERC), except as it relates to the accounting for contributions of utility property in aid of construction.

In accordance with Financial Accounting Standards (SFAF) No. 71, "Accounting for the Effects of Certain Types of Regulation", the Board has taken various regulatory actions for ratemaking purposes that result in the deferral of expense or revenue recognition. As of December 31, 2003, the District had total regulatory costs for future recovery of $291 million, which is a reduction of $62 million from 2002. The reduction is due to the planned collection in rates of the deferred nuclear plant costs, the impairment loss on CCPA No. 1, the loss on the sale of SMUDGEO, and the continued work on the nuclear decommissioning project at Rancho Seco. The District also had total regulatory credits of $286 million as of December 31, 2003, which is an increase of $86 million over 2002. The increase is primarily due to deferral of revenue into the rate stabilization fund, the change in value of derivative financial instruments and the deferral of gains from contribution in aid of construction. The regulatory costs and regulatory credits will be recognized in the consolidated statement of revenues, expenses and changes in net assets in future periods as determined by the Board for ratemaking purposes.

Using This Financial Report. This financial annual report consists of management's discussion and analysis and the consolidated financial statements, including notes to the consolidated financial statements. The financial annual report reflects the activities of the District primarily funded through the sale of energy, transmission, and distribution services to its customer-owners.

Consolidated Balance Sheets, Statements of Revenues, Expenses and Changes in Net Assets, and Statements of Cash Flows. The consolidated financial statements provide both short-term and long-term information about the District's financial status. The consolidated Balance Sheets include all of the District's assets and liabilities, using the accrual method of accounting, as well as an indication about which assets can be utilized for general purposes, and which assets are restricted as a result of bond covenants, Board action and other commitments. The consolidated Balance Sheets provide information about the nature and amount of resources and obligations at a specific point in time. The consolidated Statement of Revenues, Expenses and Changes in Net Assets report all of the District's revenues and expenses during the periods indicated. The consolidated Statements of Cash Flows report the cash provided and used by operating activities, as well as other cash sources such as investment income and debt financing, and other cash uses such as payments for bond principal and capital additions and betterments.

FINANCIAL HIGHLIGHTS

Summary of Consolidated Financial Position and Change in Net Assets (millions)

	December 31,		
Assets	2003	2002	2001
Electric Utility Plant – net	$ 2,239	$ 1,919	$ 1,819
Restricted Assets	271	228	247
Current Assets	724	762	790
Noncurrent Assets and Deferred Charges	403	417	431
	$ 3,637	$ 3,326	$ 3,287
Liabilities and Net Assets			
Long-Term Debt - net	$ 2,359	$ 2,058	$ 2,073
Current Liabilities and Deferred Credits	461	513	507
Noncurrent Liabilities and Deferred Credits	599	535	487
Net Assets	218	220	220
	$ 3,637	$ 3,326	$ 3,287

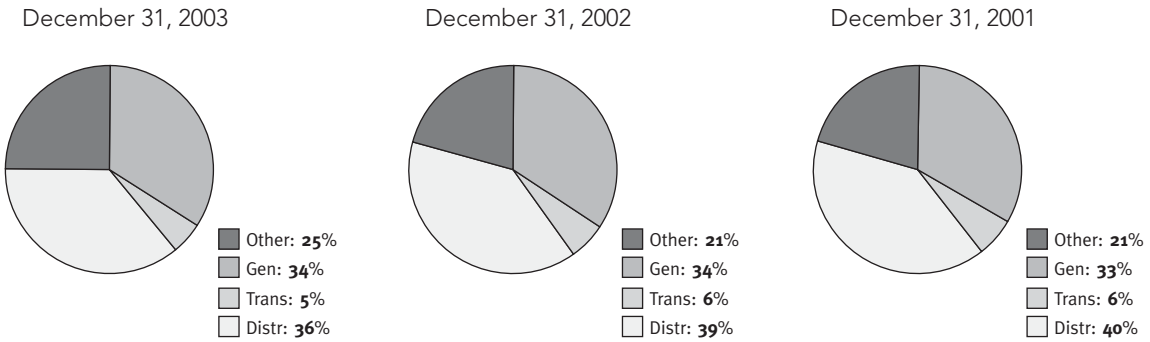
ASSETS

Utility Plant—net

2003 Compared to 2002. The District has invested approximately $2.2 billion in utility plant assets and construction work in progress net of accumulated depreciation at December 31, 2003. Net utility plant makes up about 62 percent of the District's assets, approximately 4 percent greater than the previous year. During 2003, the District capitalized approximately $371 million of additions to Utility Plant, including additions to Construction Work in Progress in the District's consolidated financial statements. The primary increase was due to the purchase of the Rosa gas field natural gas reserves for $136 million, which is included in Other in the chart below. A second major increase was in generation plant, which includes the 2003 additional costs of approximately $118 million for the 500 MW, gas-fired Cosumnes Power Plant project (Project). The Project has received its license and has begun the construction phase. The Project is currently planned to cost approximately $380 million and to be completed by August 2005.

2002 Compared to 2001. The District has invested approximately $1.9 billion in utility plant assets and construction work in progress net of accumulated depreciation at December 31, 2002. Net utility plant makes up about 58 percent of the District's assets, approximately the same as the previous year. During 2002, the District capitalized approximately $202 million of additions to Utility Plant, including additions to Construction Work In Progress in the District's consolidated financial statements. The primary increase was in generation plant and reflects the preliminary costs of approximately $55 million for the 500 MW, gas-fired Cosumnes Power Plant project.

The following charts show the breakdown of net utility plant by major plant category—Generation (Gen), Transmission (Trans), Distribution (Distr), and Other:



Restricted Assets

2003 Compared to 2002. The District's level of restricted assets (noncurrent) increased by $43 million during 2003 reflecting a $56 million deposit into the Rate Stabilization Fund, higher decommissioning trust fund balance as the District continues to fund the decommissioning of the Rancho Seco nuclear power plant through rates, and higher securities lending, partially offset by a higher current portion of restricted assets.

2002 Compared to 2001. The District's level of restricted assets (noncurrent) decreased by $19 million during 2002 reflecting lower revenue bond reserve funds due to refunding existing revenue bonds with auction rate securities, lower decommissioning trust fund balance as the decommissioning of the Rancho Seco nuclear power plant continues, and lower securities lending as a result of the decline in interest rates.

Current Assets

2003 Compared to 2002. Current assets decreased by $38 million in 2003 as a result of a lower level of unrestricted cash and investments and a lower level of regulatory costs to be recovered in one year, reflecting the completion of recovering certain regulatory charges through rates. These decreases were partially offset by a higher current portion of restricted assets, higher receivables for wholesale and customer energy sales, and higher prepayments due a credit from the energy contract with Western Area Power Administration.

2002 Compared to 2001. Current assets decreased by $28 million in 2002 as a result of a lower current portion of restricted assets, lower receivables for energy sales reflecting lower prices in 2002, lower conservation loans due to normal collections and a low amount of new lending, and lower regulatory costs to be recovered within one year as a result of the change in value of the derivative financial instruments and precipitation hedges. These decreases were partially offset by a higher level of unrestricted cash and investments, a higher level of materials and supplies, and higher prepayments.

Noncurrent Assets and Deferred Charges

2003 Compared to 2002. The noncurrent assets and deferred charges decreased by $14 million. This decrease reflects a reduction in the amount of regulatory assets to be recovered in future periods and the completion of recovering certain stranded costs in 2003. The long-term amount of conservation loans is also lower reflecting the continued normal collections and a low amount of new lending activity. The decreases were partially offset by changes in the valuation of derivative financial instruments, which are deferred for rate-making purposes and higher unamortized debt issuance costs.

2002 Compared to 2001. The noncurrent assets and deferred charges decreased by $14 million. This decrease reflects a reduction in the amount of regulatory assets to be recovered in future periods due to continued amortization of the regulatory assets. The long-term amount of conservation loans is also lower reflecting the continued normal collections and low amount of new lending activity. This category also reflects a reclassification of $56 million of advance capacity payments to derivative financial instruments.

LIABILITIES

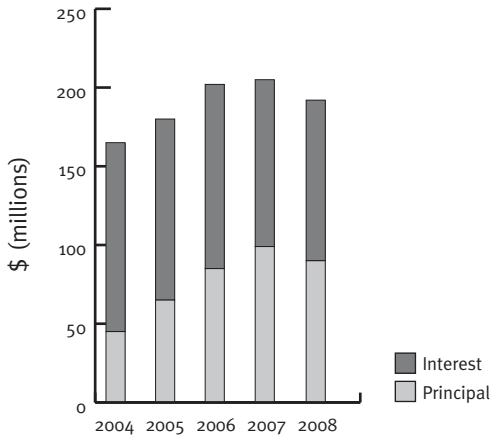
Long-Term Debt

2003 Compared to 2002. Long-term debt increased by over $300 million in 2003. The District completed four debt issuances for a total of $924 million. The 2003 Series R Electric Revenue Bonds were issued for $481 million and were used to refund $115 million of Commercial Paper Notes and $134 million of previously issued revenue bonds through legal defeasance. The 2003 Series S Electric Revenue Refunding Bonds were issued for $331 million and were used to refund $360 million of previously issued revenue bonds through a legal defeasance. The 2003 Subordinated Electric Revenue Bonds (2003 Series H and 2003 Series I) were issued for $112 million and were used to refund $106 million of previously issued revenue bonds.

2002 Compared to 2001. Long-term debt has remained nearly constant at $2.1 billion in 2002. The District completed two refunding debt issuances for a total of $407 million. The first issuance was actually issued as five series of subordinated auction rate securities, 2002C through 2002G, for a total of $269 million. The proceeds were used to refund existing debt. Simultaneously, the District's second issuance was for $138 million of senior debt. The senior debt was used to refund existing long-term debt, as well as, $40 million of commercial paper notes. Additionally, the District also utilized $20 million of cash to defease debt.

The following table shows the District's future debt service requirements through 2008 as of December 31, 2003:

DEBT SERVICE REQUIREMENTS



As of December 31, 2003, the District had an underlying rating of "A" from both Standard & Poor's and Fitch, and an equivalent rating of "A2" from Moody's. Most of the District's bonds are insured and are therefore rated "AAA" by the rating agencies.

Current Liabilities and Deferred Credits

2003 Compared to 2002. Current liabilities and deferred credits decreased by approximately $52 million during 2003. As described in Long-Term Debt above, the District refunded $115 million of commercial paper notes through long-term senior debt. The current portion of long-term debt also decreased by $6 million. The decreases were partially offset by increases in accounts payable, accrued decommissioning, accrued interest, and higher securities lending.

2002 Compared to 2001. Current liabilities and deferred credits increased by approximately $6 million during 2002. As described in Long-Term Debt above, the District refunded $40 million of commercial paper notes through long-term senior debt, but later in the year issued approximately $100 million of commercial paper notes to reimburse the District for prior capital expenditures. The increase is partially offset by lower securities lending as a result of the decline in interest rates.

Noncurrent Liabilities and Deferred Credits

2003 Compared to 2002. Noncurrent liabilities and deferred credits have increased by $64 million as a result of the increase in the rate stabilization fund of $56 million and increases in other regulatory credits of $24 million. The increases were partially offset by reductions in the accrued decommissioning and changes in the valuation of derivative financial instruments.

2002 Compared to 2001. Noncurrent liabilities and deferred credits have increased by $48 million as a result of the increase in regulatory credits for contribution in aid of construction and a deposit to the rate stabilization fund.

Summary of Revenues, Expenses and Changes in Net Assets (millions)

	December 31,		
	2003	2002	2001
Operating revenues	$ 1,033	$ 1,012	$ 1,521
Operating expenses	(943)	(930)	(1,444)
Operating income	90	82	77
Interest and other income	30	40	54
Interest charges	(120)	(122)	(131)
Increase in net assets	$ -0-	$ -0-	$ -0-

CHANGES IN NET ASSETS

Operating Revenues

2003 Compared to 2002. Operating revenues were $1,033 million in 2003, an increase from 2002 of $21 million even after transferring approximately $56 million to the Rate Stabilization Fund versus a $2 million transfer in 2002. Sales to customers were $953 million in 2003, an increase of $39 million over 2002 sales. The District sold 4.3 percent more energy to its retail customers, which grew from 541,296 customers in 2002 to 553,337 customers in 2003, at average rates that remained the same as the previous year. Although average rates for the year remained stable, the three percent hydro surcharge was removed from rates in May 2002.

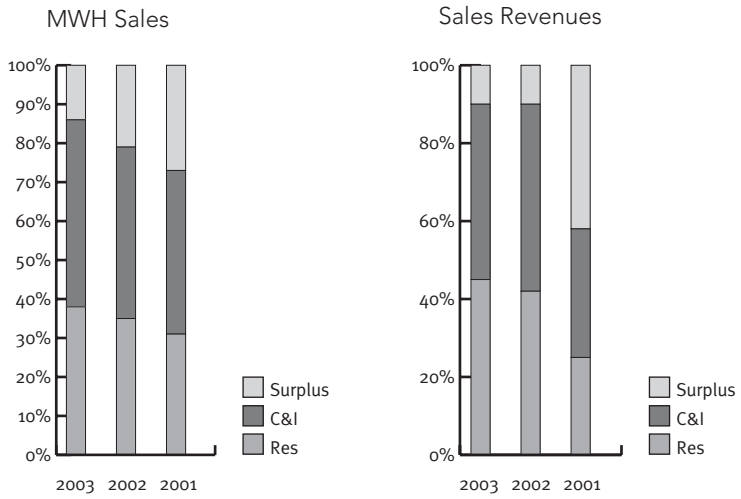
Wholesale revenues are comprised of both surplus energy and gas sales. In 2003, surplus gas sales exceeded surplus energy sales for the first time as a result of the investment in the Rosa gas field. The District had over $65 million of surplus gas sales in 2003 as compared to $29 million in 2002. The increase was due to both higher amounts sold (27 percent) and higher average prices (75 percent) as compared to 2002. Surplus energy sales in 2003 were $4 million lower than in 2002. The decrease is due to lower volume (28 percent) partially offset by higher average prices than in 2002.

2002 Compared to 2001. Operating revenues were $1,012 million in 2002, a decrease from 2001 of $509 million. The major cause of the variance was the 2001 energy crisis and the impact it had on energy prices. In 2002, the District had lower revenue from surplus power sales of $511 million. The District sold approximately 30 percent less energy in 2002 at prices that were 82 percent lower than in 2001. This decrease was partially offset by surplus gas sales of $29 million.

Sales to customers were $913 million in 2002, an increase of $61 million over 2001 sales. The District sold two percent more energy to its retail customers, which grew from 528,969 customers in 2001 to 541,296 customers in 2002, at average rates that were almost five percent higher. The higher average rates in 2002 reflect a full year of operations with the rate increase adopted in May 2001, as compared with only seven months of operations with the higher rates in 2001.

The District also transferred into revenue $43 million from the Rate Stabilization Fund in 2001 to offset the additional costs related to the energy crisis as compared to a transfer of $2 million to the Rate Stabilization Fund in 2002.

The following charts show the percentage of megawatt (MWh) sales and sales revenue in 2003, 2002 and 2001 by surplus energy sales (surplus), commercial and industrial (C&I), and residential (Res) customers:



Operating Expenses

2003 Compared to 2002. Operating expenses were $943 million in 2003 as compared to $930 million in 2002. The District spent $25 million more for purchased power in 2003 than in 2002. Approximately two percent less energy was purchased in 2003 at average prices that were nine percent higher than in 2002. The production fuel costs in 2003 were approximately $93 million in 2003, or $56 million lower than 2002. Less fuel was used in 2003 (1.4 million decatherms) at average prices that were 33 percent lower than in 2002.

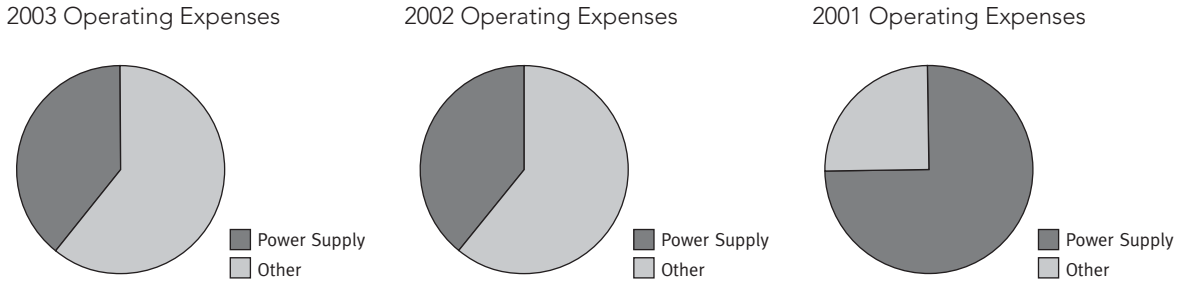
The District also had higher expenses for administrative and general due to higher property insurance, Service Delivery Information Technology project data conversion costs and renewable technology expenses not included in public Good expense. Maintenance and depreciation expenses were also higher, all of which were partially offset by lower expenses for public good and decommissioning.

In both 2003 and 2002, power supply costs made up approximately 61 percent of total operating expenses.

2002 Compared to 2001. Operating expenses were $930 million in 2002 as compared to $1,444 million in 2001. Once again, the effect of the energy crisis in 2001 was reflected in the higher cost of purchased power and fuel costs for production in 2001 as compared to 2002. The District spent $500 million less for purchased power in 2002 than in 2001. Approximately 57 percent less energy was purchased in 2002 at average prices that were half as much as in 2001. The production fuel costs were $40 million

lower in 2002, or 21 percent, as compared to 2001. Less fuel was used in 2002 (2.8 million Dth) at average prices that were 11 percent lower than in 2001.

In 2002, purchased power and production costs made up approximately 61 percent of total operating expenses as compared to 75 percent in 2001.



The following charts compare the relative cost of purchased power, production expenses, and depletion of the Rosa gas field (power supply) to all other operating expenses in 2003, 2002 and 2001:

Interest and Other Income

2003 Compared to 2002. Interest and other income was lower by $10 million in 2003 as compared to 2002. This was primarily a result of lower interest rates in 2003 as compared to 2002.

2002 Compared to 2001. Interest and other income was lower by $14 million in 2002 as compared to 2001. This was primarily a result of lower interest rates in 2002 as compared to 2001.

Interest Charges

2003 Compared to 2002. Interest charges in 2003 were $2 million lower than in 2002, which is due primarily to higher allowance for funds used during construction as a result of the progress on the Cosumnes Power Plant project.

Interest Charges

2002 Compared to 2001. Interest charges in 2002 were $9 million lower than in 2001, which is due primarily to the refunding of certain debt with lower interest rate debt.

Consolidated Balance Sheets

Assets	December 31, 2003	2002
	(thousands of dollars)	
Electric Utility Plant		
Plant in service	$ 2,806,386	$ 2,575,359
Less accumulated depreciation and depletion	(992,803)	(942,236)
Plant in service - net	1,813,583	1,633,123
Construction work in progress	425,490	285,843
Total electric utility plant - net	2,239,073	1,918,966
Restricted and Designated Assets		
Revenue bond, debt service and construction reserves	203,253	209,764
Nuclear decommissioning trust fund	91,346	86,558
Rate stabilization fund	87,317	31,248
Securities lending collateral	65,486	30,246
Other funds	3,625	5,818
Less current portion	(180,258)	(135,432)
Total restricted and designated assets	270,769	228,202
Current Assets		
Cash, cash equivalents and investments		
Unrestricted	226,965	280,219
Restricted and designated	180,258	135,432
Receivables - net:		
Customer	125,616	120,871
Wholesale	42,844	41,545
Conservation loans due within one year, accrued interest and other	19,776	21,148
Regulatory costs to be recovered within one year	71,329	115,954
Derivative financial instruments maturing within one year	3,448	4,815
Materials and supplies	29,848	28,807
Prepayments	23,302	13,622
Total current assets	723,386	762,413
Noncurrent Assets and Deferred Charges		
Regulatory costs for future recovery - net	219,200	236,509
Derivative financial instruments	106,597	101,498
Unamortized debt issuance costs	31,066	26,728
Conservation loans - net	31,276	39,447
Advanced capacity payments and other	16,118	12,766
Total noncurrent assets and deferred charges	404,257	416,948
Total Assets	$ 3,637,485	$ 3,326,529

Consolidated Balance Sheets

Liabilities	December 31, 2003	2002
	(thousands of dollars)	
Long-term Debt—net	$ 2,358,710	$ 2,058,280
Current Liabilities And Deferred Credits		
Commercial paper notes	51,000	166,300
Accounts payable	84,066	68,127
Purchased power payable	72,850	71,681
Long-term debt due within one year	44,245	50,370
Accrued decommissioning	39,081	32,534
Accrued interest	44,576	36,438
Accrued salaries and compensated absences	27,184	26,265
Derivative financial instruments maturing within one year	580	-0-
Regulatory credits to be recognized within one year	7,912	9,860
Securities lending collateral	65,486	30,246
Customer deposits and other	23,749	21,604
Total current liabilities and deferred credits	460,729	513,425
Noncurrent Liabilities And Deferred Credits		
Accrued decommissioning—net	283,866	304,983
Derivative financial instruments	6,949	13,190
Regulatory credits	278,137	190,481
Due to affiliated entity	16,960	15,221
Self insurance, deferred credits and other	13,679	11,297
Total noncurrent liabilities and deferred credits	599,591	535,172
Total Liabilities	3,419,030	3,106,877
Net Assets		
Invested in capital assets, net of related debt	(72,985)	(214,652)
Restricted	50,871	60,949
Unrestricted	240,569	373,355
Total Net Assets	218,455	219,652
Commitments And Contingencies (Notes 18 and 19)		
Total Liabilities And Net Assets	$ 3,637,485	$ 3,326,529

Consolidated Statements of Revenues, Expenses and Changes in Net Assets

	Year Ended December 31, 2003	2002
	(thousands of dollars)	
Operating Revenues		
Residential	$ 444,713	$ 411,993
Commercial and industrial	503,668	495,509
Street lighting and other	12,894	11,104
Wholesale	127,661	95,934
Rate stabilization fund transfers	(56,069)	(2,467)
Total operating revenues	1,032,867	1,012,073
Operating Expenses		
Operations:		
Purchased power	387,985	363,338
Production	178,745	210,082
Transmission and distribution	32,965	30,073
Administrative, general and customer	97,998	82,703
Public good	25,421	35,742
Maintenance	46,353	41,426
Depreciation	92,578	88,672
Depletion	4,941	-0-
Decommissioning	29,708	31,552
Regulatory deferrals collected in rates	46,303	46,286
Total operating expenses	942,997	929,874
Operating Income	89,870	82,199
Nonoperating Revenues And Expenses		
Other revenues		
Interest income	19,664	26,592
Other income - net	10,164	12,963
Total other revenues	29,828	39,555
Interest charges		
Interest on debt	127,326	127,995
Allowance for funds used during construction	(7,628)	(6,241)
Total interest charges	119,698	121,754
Increase In Net Assets	$ -0-	$ -0-
Net Assets—Beginning of Year	$ 219,652	$ 219,652
Cumulative effect of change in Accounting Principle	(1,197)	-0-
Net Assets—Beginning of Year As Adjusted	218,455	219,652
Increase in Net Assets During the Year	-0-	-0-
Net Assets—End of Year	$ 218,455	$ 219,652

Consolidated Statements of Cash Flows

	Year Ended December 31, 2003	2002
	(thousands of dollars)	
Cash Flows From Operating Activities		
Receipts from electric customers	$ 949,397	$ 917,798
Receipts from surplus power sales	66,548	90,964
Receipts from surplus gas sales	60,640	28,644
Receipts from federal and state grants	6,212	11,897
Receipts from steam sales	7,369	8,050
Receipts from conservation loans	15,989	18,173
Payments to employees - payroll & other	(159,199)	(144,464)
Payments for wholesale power	(390,867)	(379,440)
Payments for gas purchases	(143,213)	(182,440)
Payments to vendors	(81,969)	(88,683)
Payments for decommissioning	(26,320)	(40,075)
Payment for Rosa gas imbalance	(3,703)	-0-
Other payments - net	(4,190)	(4,696)
Net cash provided by operating activities	296,694	235,728
Cash Flows From Investing Activities		
Sales and maturities of securities	251,152	121,088
Purchases of securities	(251,201)	(60,355)
Interest and dividends received	15,019	21,450
Securities lending collateral - net	35,256	(31,781)
Net cash provided by investing activities	50,226	50,402
Cash Flows From Capital And Related Financing Activities		
Construction expenditures	(380,657)	(158,718)
Contributions in aid of construction	15,014	15,067
Net proceeds from bond issues	993,595	406,439
Repayment and defeasance of debt	(715,189)	(418,130)
Issuance/repayment of commercial paper—net	(115,300)	60,000
Interest on debt	(107,745)	(129,395)
Net cash used by capital and related financing activities	(310,282)	(224,737)
Net increase (decrease) in cash and cash equivalents	36,638	61,393
Cash and cash equivalents at the beginning of the year	515,288	453,895
Cash and cash equivalents at the end of the year	$ 551,926	$ 515,288
Cash and cash equivalents at the end of the year consist of		
Unrestricted	$ 226,965	$ 280,219
Restricted and designated - current portion	180,258	135,432
Restricted and designated - noncurrent portion	144,703	99,637
	$ 551,926	$ 515,288

NOTE 1. ORGANIZATION

The Sacramento Municipal Utility District (District) was formed and operates under the State of California Municipal Utility District Act (Act). The Act confers upon the District the rights and powers to fix rates and charges for commodities or services furnished, to incur indebtedness and issue bonds or other obligations and, under certain circumstances, to levy and collect ad valorem property taxes. As a public utility, the District is not subject to regulation or oversight by the California Public Utilities Commission (CPUC). The District is responsible for the acquisition, generation, transmission, and distribution of electric power to its service area, which includes most of Sacramento County and a small adjoining portion of Placer County. The Board of Directors (Board) determines the District's rates. The District is exempt from payment of federal and state income taxes and real and personal property taxes.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Method of Accounting. The District's accounting records are maintained in accordance with generally accepted accounting principles for proprietary funds as prescribed by the Governmental Accounting Standards Board (GASB) and, where not in conflict with GASB pronouncements, accounting principles prescribed by the Financial Accounting Standards Board (FASB). The District's accounting records generally follow the Uniform System of Accounts for Public Utilities and Licensees prescribed by the Federal Energy Regulatory Commission (FERC), except as it relates to the accounting for contributions of utility property in aid of construction (CIAC). The District's consolidated financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows. Electric revenues and costs that are directly related to generation, purchase, transmission, and distribution of electricity are reported as operating revenues and expenses. All other revenues and expenses are reported as non-operating revenues and expenses.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

The Financial Reporting Entity. These consolidated financial statements include the District and its component units. Although the component units are legally separate from the District, they are blended into and reported as part of the District because of the extent of their operational and financial relationships with the District. All significant inter-component transactions have been eliminated in consolidation.

Component Units. The component units include the Central Valley Financing Authority (CVFA), the Sacramento Cogeneration Authority (SCA), and the Sacramento Power Authority (SPA). The primary purpose of the component units is to own and operate electric utility plants that supply power to the District. The District's Board comprises the Commissions that govern these entities.

Plant in Service. The cost of additions to Plant in Service and replacement property units is capitalized. Repair and maintenance costs are charged to expense when incurred. When the District retires portions of its Electric Utility Plant, retirements are recorded against Accumulated Depreciation and the retired portion of Electric Utility Plant is removed from Plant in Service. The costs of removal and the related salvage value, if any, are charged or credited as appropriate to Accumulated Depreciation.

The District generally computes depreciation on Plant in Service on a straight-line, service-life basis. The consolidated average annual composite depreciation rates for 2003 and 2002 were 3.56 percent and 3.53 percent. Depreciation is calculated using the following estimated lives:

Generation	5 to 74 years
Transmission and Distribution	5 to 50 years
General	2 to 45 years

Investments in Joint Power Agency. The District's investment in Transmission Agency of Northern California (TANC) is accounted for under the equity method of accounting and is reported as a component of Plant in Service. The District's share of the TANC debt service costs and operations and maintenance expense, inclusive of depreciation, are included in Transmission and Distribution expense in the consolidated statements of revenues, expenses and changes in net assets.

Investments in Gas Properties. In March 2003, the District acquired an approximate 23 percent non-operating ownership interest in the Rosa Unit gas properties in New Mexico for $136.6 million. The District transports the gas extracted from the Rosa Unit for use in its natural gas fired cogeneration power plants (see Note 7). The District uses the successful efforts method of accounting for its investment in gas producing properties. Costs to acquire mineral interests in gas properties, to drill and equip exploratory wells that find proved reserves, and to drill and equip development wells are capitalized as a component of Plant in Service on the consolidated balance sheets. Costs to drill exploratory wells that do not find proved reserves, geological and geophysical costs, and costs of carrying and retaining unproved properties are expensed. Capitalized costs of producing gas properties, after considering estimated residual salvage values, are depleted by the unit-of–production method.

The District depletes its acquisition of gas properties based on the estimated future production of the entire proved interest acquired and depletes the cost of developing wells over the estimated future production of proved developed producing wells.

Restricted Assets. Cash, cash equivalents and investments, which are restricted under terms of certain agreements for payments to third parties or Board actions limiting the use of such funds are included as restricted assets.

Restricted Bond Funds. The District's Indenture Agreements and Bond Resolutions require the maintenance of minimum levels of reserves for debt service and to be held for certain construction costs intended by the related debt offerings.

Nuclear Decommissioning Trust Fund. The District makes annual contributions to its Nuclear Decommissioning Trust Fund (Trust Fund) to cover the cost of its primary decommissioning activities associated with the Rancho Seco facility. The District annually evaluates its contribution rate to ensure the Trust Fund will fully fund active decommissioning, which is currently expected to be completed in 2008. The annual contribution rate is determined in advance of each year, during the budget process, based on a straight-line calculation of the estimated liability over the remaining number of years estimated to complete the primary decommissioning activities. Changes in the estimate of the decommissioning liability serve to increase the contribution rate in future years (not in the year the estimate is updated, if changed).

Annual contributions to the Trust Fund are expensed when made. Interest earnings on the Trust Fund assets are recorded as Interest Income and are accumulated in the Trust Fund. Such interest is also included in Decommissioning Expense in the year earned. Expenditures for decommissioning activities are recorded as reductions to Accrued Decommissioning liability. Changes

in decommissioning liability estimates, arising from updated studies or annual inflation adjustments, are recorded directly to Accrued Decommissioning with a corresponding adjustment to the related regulatory deferral.

Accrued Decommissioning. Effective January 1, 2003, the District implemented Statement of Financial Accounting Standards (SFAS) No. 143, "Accounting for Asset Retirement Obligations," which significantly changed the methodology for estimating the District's decommissioning liability (see Note 3). The District accrues decommissioning costs related to Utility Plant when an obligation to decommission facilities is legally required. Adjustments are made to such liabilities based on estimates by District staff in accordance with SFAS No. 143. For active plants, such costs are included in the Utility Plant's cost and included as a component of Depreciation expense over the Utility Plant's life. For Rancho Seco decommissioning changes there is no effect on net assets (see Notes 3 and 14), because of the regulatory accounting applied to Rancho Seco decommissioning costs. At December 31, 2003 and 2002, the District's Accrued Decommissioning balance on the consolidated balance sheets comprises such costs relating to Rancho Seco of $318.0 million and $332.6 million, respectively, and other electricity generation and gas production facilities of $4.9 million in both 2003 and 2002.

Securities Lending Transactions. The District lends its securities to broker-dealers and other entities for collateral with a simultaneous agreement to return the collateral for the same securities in the future. District policy requires cash collateral of 102 percent of the market value of the loaned securities. Both the investments purchased, with the collateral received, and the related liability to repay the collateral are included in the consolidated balance sheets.

Cash Equivalents. Cash equivalents include all debt instruments purchased with an original maturity of three months or less and all investments in the Local Agency Investment Fund (LAIF) and money market mutual funds. The debt instruments and money market mutual funds are reported at amortized cost and the LAIF is reported at the value of its pool shares.

Investments. The District's investments are reported at fair value. Realized and unrealized gains and losses are included in Interest and Other Income in the consolidated statements of revenues, expenses and changes in net assets. Premiums and discounts on zero coupon bonds are amortized using the effective interest method. Premium and discounts on other securities are amortized using the straight-line method, which approximates the effective interest method.

Unbilled Operating Revenues. The District records an estimate for unbilled revenues earned from the dates its retail customers were last billed to the end of the month. At December 31, 2003 and 2002, unbilled revenues were $53.8 million and $53.6 million, respectively.

Purchased Power Expenses. A portion of the District's power needs is provided through power purchase agreements. Expenses from such agreements, along with associated transmission costs paid to other utilities, are charged to Purchased Power expense, on the consolidated statements of revenues, expenses and changes in net assets, in the period the power is received. The costs, or credits, associated with energy swap agreements (gas and electricity) or other arrangements that affect the net cost of Purchased Power, are recognized in the period in which the underlying power delivery occurs. Contract termination payments and adjustments to prior billings are included in Purchased Power expense once the payments or adjustments can be reasonably estimated.

Advanced Capacity Payments. Some long-term agreements to purchase energy from other providers call for up-front payment. Such costs are generally recorded as an asset and amortized over the length of the contract. One advance capacity contract, with a fair value of $98.0 million at December 31, 2003, is accounted for as a derivative financial instrument (see Note 10).

Credit and Market Risk. The District enters into forward purchase and sales commitments for physical delivery of gas and electricity with utilities and power marketers. The District is exposed to credit risk related to nonperformance by its wholesale counterparties under the terms of these contractual agreements. In order to limit the risk of counterparty default, the District has a wholesale counterparty evaluation policy, which includes the assignment of internal credit ratings to the District's counterparties based on counterparty and/or debt ratings; the requirement for credit enhancements for counterparties that do not meet an acceptable risk level; and the use of standardized agreements that allow for the netting of positive and negative exposures associated with a single counterparty. The District is also subject to similar requirements for many of its gas and electricity purchase agreements.

Allowance for Doubtful Accounts. The District recognizes an estimate of uncollectible accounts for its receivables related to electric service, wholesale activities and conservation loans based upon its historical experience with collections, and current energy market conditions. The District records bad debts for its estimated uncollectible accounts related to electric service and wholesale activities as a reduction to the related operating revenues in the consolidated statements of revenues, expenses and changes in net assets. The District records bad debts for its estimated uncollectible accounts related to energy loans in Administrative, General and Customer in the consolidated statements of revenues, expenses and changes in net assets. At December 31, 2003 and 2002, the District maintained an allowance for doubtful accounts related to its receivables from its customers for electric services of $2.5 million and $2.4 million, respectively, and for energy efficiency conservation loans of $1.2 million and $1.8 million, respectively. At December 31, 2003 and 2002, the District also maintained an allowance for doubtful accounts for its receivables related to wholesale power sales of $40.2 million and $39.6 million, respectively, due to collectibility issues and disputes over amounts billed for transactions executed through the California Independent System Operator (ISO) and Power Exchange (PX) from October 2000 through June 2001.

Regulatory Deferrals. The Board has the authority to establish the level of rates charged for all District services. As a regulated entity, the District's financial statements are prepared in accordance with SFAS No. 71, "Accounting for the Effects of Certain Types of Regulation", which requires that the effects of the rate-making process be recorded in the financial statements. Accordingly, certain expenses and credits, normally reflected in Net Increase (Decrease) in Net Assets as incurred, are recognized when included in rates and recovered from, or refunded to, customers and the District records various regulatory assets and credits to reflect rate-making actions of the Board.

Materials and Supplies. Materials and supplies are stated at average cost, which approximates the first-in, first-out method.

Unamortized Debt Issuance Costs. The costs incurred in connection with the issuance of debt obligations, principally underwriter's fees and legal costs, are recorded as Unamortized Debt Issuance Costs and are amortized over the terms of the related obligations using the bonds outstanding method.

Compensated Absences. The District accrues vacation leave and compensatory time when the employees earn the rights to the benefits. The District does not record sick leave or other leave as a liability until it is taken by the employee, since there are no cash payments for sick leave or other leave made when employees terminate or retire. At December 31, 2003 and 2002, the total estimated liability for vacation and other compensated absences was $19.3 million and $18.8 million, respectively.

Public Good. Public Good expenses consist of non-capital expenditures for energy efficiency programs, renewable energy resources and technologies research.

Gains/Losses on Bond Refundings. Gains and losses resulting from bond refundings are included as a component of Long-Term Debt on the consolidated balance sheets and amortized as a component of Interest on Debt in the consolidated statements of revenues, expenses and changes in net assets, over the shorter of the life of the refunded debt or the new debt using the bonds outstanding method.

Gains/Losses on Bond Defeasances. Gains and losses resulting from bond defeasances that were not financed with the issuance of new debt are included as a component of Interest on Debt in the consolidated statements of revenues, expenses and changes in net assets.

Allowance for Funds Used During Construction. The District capitalizes, as an additional cost of Construction Work In Progress (CWIP), an Allowance for Funds Used During Construction (AFUDC), which represents the cost of borrowed funds used for such purposes. The amount capitalized is determined by a formula prescribed by FERC. The AFUDC rates for 2003 and 2002, were 3.6 percent and 5.9 percent of eligible CWIP, respectively.

Derivative Financial Instruments. The District records derivative financial instruments (interest rate swap, gas and electricity price swaps, certain wholesale sales agreements, certain electricity purchase agreements and option agreements) at fair value on its consolidated balance sheets. The District generally does not enter into agreements for trading purposes. However, the District does not designate any contracts as hedging activities. Fair market value is estimated by comparing contract prices to forward market prices quoted by third party market participants and/or provided in relevant industry publications. The Board defers recognition of the unrealized gains or losses from such instruments for rate-making purposes. The District is exposed to risk of nonperformance if the counterparties default or if the swap agreements are terminated. The District reports derivative financial instruments with remaining maturities of one year or less as current on the consolidated balance sheets.

Interest Rate Swap Agreements. The District enters into interest rate swap agreements to modify the effective interest rates on outstanding debt. Interest expense is reported net of the swap payments received or paid as a component of Interest on Debt in the consolidated statements of revenues, expenses and changes in net assets.

Gas and Electricity Price Swap and Option Agreements. The District uses forward contracts to hedge the impact of market volatility on gas commodity prices for its gas fueled power plants and for energy prices on purchased power, for the District's retail load. Net cash payments or receipts incurred under the price swap and option agreements are reported as a component of Production for fuel related contracts and Purchased Power for electricity contracts in the consolidated statements of revenues, expenses and changes in net assets over the periods of the agreements.

Weather Hedge Agreements. The District enters into non-exchange traded weather hedge agreements to hedge the increased cost of power caused by low precipitation years (Precipitation Agreements). The District records the intrinsic value of the Precipitation Agreements on the consolidated balance sheets. Settlement of the Precipitation Swaps is not performed until the end of the period covered (water year ended September 30). The intrinsic value of a Precipitation Agreement is the difference between the expected results from a monthly allocation of the cumulative rainfall amounts, in a normal rainfall year, and the actual rainfall during the same period. There was no intrinsic value accrued under these agreements at December 31, 2003 and 2002. Precipitation was near normal for the 2003 and 2002 water years and, accordingly, no payment was made or received.

Insurance Programs. The District records liabilities for unpaid claims at their present value when they are probable of occurrence and the amount can be reasonably estimated. The District records a liability for unpaid claims associated with general, auto, workers' compensation, and short-term and long-term disability, based upon estimates derived by the District's claims administrator or District staff. The liability comprises the present value of the claims outstanding, and includes an amount for claim-events incurred but not reported based upon the District's experience.

Net Assets. The District classifies its net assets into three components – invested in capital assets, net of related debt; restricted; and unrestricted. These classifications are defined as follows:

- Invested in capital assets, net of related debt – This component of net assets consists of capital assets, net of accumulated depreciation reduced by the outstanding debt balances, net of unamortized debt expenses.
- Restricted – This component consists of net assets with constraints placed on their use, either externally or internally. Constraints include those imposed by Debt Indentures (excluding amounts considered in net capital, above), grants or laws and regulations of other governments, or by law through constitutional provisions or enabling legislation or by the Board.
- Unrestricted – This component of net assets consists of net assets that do not meet the definition of "restricted" or "invested in capital, net of related debt."

Contributions in Aid of Construction (CIAC). The District records CIAC from customer contributions, primarily relating to expansions to the District's distribution facilities, as Nonoperating Revenues in the consolidated statements of revenues, expenses and changes in net assets. Contributions of capital are valued at estimated market cost. For rate-making purposes, the District's Board does not recognize such revenues when received; rather CIAC is included in revenues as such costs are amortized over the estimated useful lives of the related distribution facilities.

Grants. The District receives grant proceeds from federal and state assisted programs for its advanced and renewable technologies, electric vehicle, and energy efficiency programs. The District also periodically receives grant proceeds from federally assisted programs as partial reimbursements for costs it has incurred as a result of storm damages. When applicable, these programs may be subject to financial and compliance audits pursuant to regulatory requirements. The District considers the possibility of any material disallowances to be remote. During 2003 and 2002, the District recognized grant proceeds of $6.5 million and $10.7 million, respectively, as a component of Interest and Other Income, in the consolidated statements of revenues, expenses and changes in net assets.

Recent Accounting Pronouncements. In March 2003, GASB issued Statement of Governmental Accounting Standards (SGAS) No. 40 "Deposit and Investment Risk Disclosures," which updates the custodial credit risk disclosure requirements of SGAS No. 3 and establishes additional disclosure requirements addressing other common risks of deposits and investments. This Statement is effective for the District beginning in 2005. The District is currently assessing the new Statement.

In November 2003, GASB issued SGAS No. 42 "Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries," which establishes accounting and financial reporting standards for impairment of capital assets and accounting requirements for insurance recoveries. This Statement is effective for the District beginning in 2005. The District has not yet determined the financial statement impact of adopting the new Statement.

Reclassifications. Certain amounts in the 2002 consolidated financial statements have been reclassified in order to conform with the 2003 presentation.

NOTE 3. ACCOUNTING CHANGE

SFAS No. 143. Effective January 1, 2003, the District adopted SFAS No. 143, "Accounting for Asset Retirement Obligations." SFAS No. 143 sets forth accounting requirements for the recognition and measurement of liabilities for legal obligations associated with the retirement of tangible long-lived assets. Under the standard, asset retirement obligations (AROs) are recognized at fair value as incurred and capitalized as part of the cost of the related tangible long-lived assets. Fair value is determined based on quoted prices or discounted cash flows using the probability-weighted future cash flows for the associated retirement costs, using a credit-adjusted risk-free rate. Upon initial recognition, an ARO is recognized as both a liability and as an increase in the capitalized carrying amount of the related long-lived assets. Annual accretions of ARO liabilities are recorded as operating expenses and the capitalized costs are depreciated over the useful life of the related long-lived assets.

Prior to adopting SFAS No. 143, the District recorded a decommissioning liability when such obligation was reasonably certain. Under SFAS No. 143, an obligation is recorded only when legally binding retirement obligations exist under enacted laws, statutes, written contracts or oral contracts, including obligations arising under the doctrine of promissory estoppel. On January 1, 2003, the District adjusted its ARO liabilities related to its Rancho Seco and Carson facilities (CVFA's power plant) and adjusted the net book value of the Carson plant assets to conform to the standard. The implementation of SFAS No. 143 in 2003 resulted in a cumulative effect charge of $1.2 million relating to the Carson facility, which is treated as an adjustment to beginning net assets in the accompanying financial statements. Changes in the recognized ARO liability totaling $20.0 million for the Rancho Seco facility did not have a cumulative effect impact on net assets because of the regulatory accounting described in Note 14. This change was primarily comprised of a reduction of $49.3 million in site restoration costs for which there is no constructive legal obligation, partially offset by additions of $29.3 million relating to various dismantlement, decommissioning and spent fuel management costs, which were remeasured under the new standard. Other changes in the Rancho Seco decommissioning liability during 2003 relating to changes in cost assumptions are described in Note 14.

The District has identified potential retirement obligations related to certain generation, transmission, distribution and gas pipeline facilities located on properties that do not have perpetual lease rights. The District's nonperpetual leased land rights generally are renewed continuously because the District intends to utilize these facilities indefinitely. Since the timing and extent of any potential asset retirements are unknown, the fair value of any obligations associated with these facilities cannot be reasonably

estimated. Accordingly, a liability has not been recorded at December 31, 2003. The District has no other potential asset retirement obligations that represent a material ARO.

Amounts recorded under SFAS No. 143 are subject to various assumptions and determinations, such as determining whether an obligation exists to remove assets, estimating the fair value of the costs of removal and estimating when final removal will occur. Changes that may arise over time with regard to these assumptions and determinations will change amounts recorded for asset retirement obligations.

NOTE 4. FACTORS AFFECTING THE UTILITY INDUSTRY IN CALIFORNIA

California's electric utility industry has been undergoing change since the enactment of Assembly Bill 1890 in 1996, which was primarily designed to facilitate deregulation of electricity generation in California. Among other structural changes, the bill caused the creation of a Power Exchange, responsible for managing the dispatch of generation from California's investor owned utilities, and an Independent System Operator responsible for managing the transmission grid in California, both of which became operational in March 1998. Over the ensuing years, load growth in California and surrounding states outpaced construction of supporting generation resulting in diminished reserve capacity margins. As a result of this and other market factors, west coast wholesale prices began to escalate dramatically during the summer of 2000. In late 2000 and early 2001, the California electric utility industry experienced severe crisis conditions, which included runaway prices, rolling blackouts, and liquidity shortages of California's investor owned utilities and the California PX and the California ISO. In 2001 both the PX and Pacific Gas & Electric (PG&E) filed for bankruptcy protection. In late 2003, the CPUC and the Bankruptcy Court have approved plans to remove PG&E from bankruptcy. While the District has participated in PG&E's bankruptcy proceedings, there is some uncertainty as to how the PG&E restructuring plan will impact the District. In 2001, the CPUC suspended the provisions of Assembly Bill 1890 relating to retail competition in California. Since 2000, the FERC has taken several actions to attempt to mitigate unreasonably high prices including proceedings intended to apply a retroactive price mitigation plan relating to certain energy transactions in 2000 and 2001. In addition, FERC is advocating various Standard Market Design and Generator Interconnection regulations that will affect the District. The District has not determined the effect, if any, that these matters will have on its future operations.

Business Strategy. The District's "Competitive Business Strategy" balances the competing goals of competitive rates and providing municipal services that District customers' value. The District has taken a number of steps to help stabilize its rates, mitigate its exposure to volatile wholesale price spikes and to assert the best interests of its customer-owners in a diverse arena of regulatory forums. To mitigate the short-term volatility of wholesale energy prices, the District continues to enter into long-term energy contracts with the goal of creating a predictable cost of energy. These contracts are augmented by the District's purchase of natural gas reserves thereby locking in fuel prices for a portion of its fuel needs as a hedge against natural gas supply and demand volatility. The District is building and owning additional generation resources, including a 500 megawatts (MW) gas fired plant scheduled for completion in late 2005.

In June 2002, the District left the control area, overseen and coordinated by the California ISO, and established an independent control area within the Western Electric Coordinating Council. As a control area, the District manages its electric supply, demand and reserves independently without having to operate through the ISO, except for the use of transmission facilities under the ISO's control.

Effects of these Factors. The District is actively participating in various forums to protect the interests of its ratepayers as these challenges are addressed by FERC, California Legislature, CPUC, Bankruptcy courts and various other jurisdictional entities. However, the ultimate impact of these matters on the District's financial position is uncertain.

NOTE 5. UTILITY PLANT

The summarized activity of the District's utility plant during 2003 is presented below (thousands of dollars):

	Balance December 31, 2002	Additions	Transfers and Deletions	Balance December 31, 2003
Nondepreciable Utility Plant:				
Land	$ 63,970	$ 736	$ (14)	$ 64,692
CWIP	285,843	283,134	(143,487)	425,490
Total nondepreciable utility plant	349,813	283,870	(143,501)	490,182
Depreciable Utility Plant:				
Generation	769,868	23,623	(6,602)	786,889
Transmission	155,105	19,139	(338)	173,906
Distribution	1,028,581	63,676	(4,611)	1,087,646
Investment in gas properties	-0-	136,975	-0-	136,975
General	557,835	35,075	(36,633)	556,277
	2,511,389	278,488	(48,184)	2,741,693
Less: accumulated depreciation and depletion	(942,236)	(97,529)	46,963	(992,802)
Total depreciable plant	1,569,153	180,959	(1,221)	1,748,891
Total Utility Plant - net	$1,918,966	$464,829	$(144,722)	$2,239,073

In 2002 the District began active development of the Cosumnes Power Plant (Project), a 500 MW natural gas fueled generation facility located on the Rancho Seco site. The Project is expected to be operational in August 2005. Included in CWIP at December 31, 2003 and 2002 are cumulative capitalized costs of $182.3 million and $70.0 million, respectively, relating to the Project's construction and development.

NOTE 6. INVESTMENT IN JOINT POWERS AGENCY

TANC. The District and fourteen other California municipal utilities are members of TANC, a JPA. TANC, along with the other California municipal utilities, own and operate the California-Oregon Transmission Project (COTP), a 500-kilovolt transmission line between central California and southern Oregon. The District is obligated to pay 27.1 percent of TANC's COTP debt service and operations costs in exchange for ownership of 339 MW of TANC's 1,269 MW transfer capability. Additionally, the District has a 46 MW share of TANC's 300 MW firm, bi-directional transmission over PG&E's system between PG&E's Tesla and Midway substations. The District recorded transmission expenses related to TANC of $11.5 million and $11.2 million in 2003 and 2002, respectively.

Summary financial information for TANC is presented below:

	December 31, 2003 (Unaudited)	2002 (Unaudited)
	(thousands of dollars)	
Total assets	$ 489,779	$ 476,977
Total liabilities	$ 489,424	$ 476,675
Total net assets	355	302
Total liabilities and net assets	$ 489,779	$ 476,977
Revenues, expenses and changes in net assets	$ 2	$ 5

The long-term debt of TANC, which totals $416.4 million (unaudited) at December 31, 2003, is collateralized by a pledge and assignment of net revenues of TANC, supported by take-or-pay commitments of the District and other members. Should other members default on their obligations to TANC, the District would be required to make additional payments to cover a portion of such defaulted payments, up to 25 percent of its current obligation of 27.1 percent.

NOTE 7. COMPONENT UNITS

CVFA Carson Cogeneration Project. CVFA is a JPA formed by the District and the Sacramento Regional County Sanitation District. CVFA operates the Carson Project, a 57 MW (net) natural gas-fired cogeneration facility and a 43 MW (net) natural gas-fired simple cycle peaking plant, which became commercially operable in 1995 and was financed primarily by CVFA non-recourse revenue bonds.

SCA Procter & Gamble Cogeneration Project. SCA is a JPA formed by the District and the Sacramento Municipal Utility District Financing Authority (SMUDFA). SMUDFA is a JPA formed by the District and the Modesto Irrigation District. SCA operates the Procter & Gamble Project, a 164 MW (net) natural gas-fired cogeneration facility which was financed primarily by SCA non-recourse revenue bonds and became commercially operable in 1997 (120 MW) and 2001 (44 MW).

SPA Campbell Soup Cogeneration Project. SPA is a JPA formed by the District and SMUDFA. SPA operates the Campbell Soup Project, a 160 MW (net) natural gas-fired cogeneration facility, which became commercially operable in 1997 and was financed primarily by SPA non-recourse revenue bonds.

Copies of CVFA's, SCA's, and SPA's annual financial reports may be obtained from their Executive Office at 6201 S Street, P.O. Box 15930, Sacramento, California 95852.

NOTE 8. CASH, CASH EQUIVALENTS, AND INVESTMENTS

At December 31, 2003 and 2002, the District's cash, cash equivalents and investments consist of the following:

	December 31, 2003	2002
	(thousands of dollars)	
Description		
Cash and Cash Equivalents:		
Investments:		
LAIF	$ 292,204	$ 184,120
United States (U.S.) government securities	102,066	37,601
Money market mutual funds	52,340	191,285
Securities lending transactions	65,486	30,246
Commercial paper	39,830	72,036
Total cash and cash equivalents	551,926	515,288
Investments:		
U.S. government securities	126,066	118,617
Corporate securities	-0-	9,948
Total investments	126,066	128,565
Total cash, cash equivalents and investments	$ 677,992	$ 643,853

At December 31, 2003 and 2002, the District reported its book overdraft of $11.8 million and $1.4 million, respectively, as a component of Accounts Payable on the consolidated balance sheets.

The District's cash, cash equivalents, investments and securities lending collateral are classified in the consolidated balance sheets as follows:

	December 31, 2003	2002
	(thousands of dollars)	
Total Cash, Cash Equivalents and Investments:		
Revenue bond reserve, debt service and construction funds:		
Revenue bond reserve fund	$ 89,624	$ 79,885
Debt service fund	45,134	37,543
Component unit bond reserve and construction funds	68,495	92,336
Total revenue bond reserve, debt service and construction funds	203,253	209,764
Nuclear decommissioning trust fund	91,346	86,558
Rate stabilization fund	87,317	31,248
Securities lending collateral	65,486	30,246
Other restricted funds	3,625	5,818
Unrestricted funds	226,965	280,219
Total cash, cash equivalents and investments	$ 677,992	$ 643,853

Investment Risk Categories. Investments held by the District are classified as to credit risk by categories and summarized as follows: Category 1 includes investments that are insured or registered or for which securities are held by the District or its agent in the District's name and Category 2 includes uninsured and unregistered investments for which securities are held by the counterparty's trust department or agent in the District's name. At December 31, 2003 and 2002, investments in U.S. government securities and Commercial Paper totaling $202.6 million and $197.8 million, respectively are classified as Category 1 investments. At

December 31, 2002, investments in corporate securities totaling $10.0 million are classified as Category 2 investments. All other investments, which comprise of LAIF, Money Market Mutual funds, and Securities Lending transactions, are uncategorized.

Cash Equivalents and Investments. Cash deposits held in the District's name are fully insured by the Federal Deposit Insurance Corporation or are collateralized in accordance with the terms of the District's indentures and applicable federal and state laws. In accordance with state laws and the bond resolutions, the District is authorized to invest in the following types of instruments: obligations which are unconditionally guaranteed by the U.S. or its agencies or instrumentalities; direct and general obligations of the State of California (State) or any local district within the State; bankers' acceptances; certificates of deposit; repurchase agreements; reverse repurchase agreements; interest rate swap agreements; securities lending agreements; and corporate indebtedness, including commercial paper and medium-term notes with a maximum term of five years. Investments in corporate indebtedness must be rated "A-1" or its equivalent for commercial paper, and "A" or equivalent for medium-term notes by a nationally recognized rating agency. The component units' bond indentures allow investing in various other securities in addition to the ones described above. The District's custodial agent maintains records showing the securities are solely owned by the District, or by one of its component units, where applicable. A portion of these securities may be pledged as collateral or for other purposes. The District's investments in money market mutual funds are comprised of only non-derivative financial securities that are backed by federal or corporate issuers. The LAIF is a component of the Pooled Money Investment Account Portfolio managed by the State Treasurer. At December 31, 2003 and 2002, the Pooled Money Investment Account Portfolio includes approximately 2.1 percent and 2.4 percent, respectively, in certain derivative-type products, which are in the form of structured notes and asset-backed securities.

Securities Lending Transactions. The District enters into securities lending agreements for up to 20 percent of its investment portfolio only with counterparties that are primary dealers of the Federal Reserve Bank of New York. At December 31, 2003, the District had no credit risk exposure to borrowers because the amount the District owes the borrowers exceeds the amounts the borrowers owe the District. The contract with the District's custodial bank requires it to indemnify the District if the borrowers fail to return the securities (and the collateral is inadequate to replace the securities lent) or fail to pay the District for income distributions by the securities' issuers while the securities were on loan.

Interest Rate Swap Agreements. The District has two variable–to-fixed rate swap agreements with notional amounts of $50.0 million each for the purpose of fixing interest rates on short-term investments. Both swap agreements expire in November 2004. Under the terms of the swap agreements, the District pays a variable rate equal to the Bond Market Association (BMA) index and receives fixed rates of 3.863 percent and 3.873 percent.

NOTE 9. REGULATORY DEFERRALS

The District's Board has taken various regulatory actions that result in differences between the recognition of revenues and expenses for rate-making purposes and their treatment under generally accepted accounting principles for non-regulated entities. These actions result in regulatory assets and liabilities, which are summarized in the tables below.

Decommissioning. The District's regulatory asset relating to the unfunded portion of its decommissioning liability is being collected in rates and through interest earnings on the Trust Fund, through 2008 when radiological decommissioning is expected to be complete. Subsequently, nuclear fuel storage costs and non-radiological decommissioning costs are to be collected in rates commencing in 2009.

Deferred Nuclear Plant Costs. The District's regulatory asset relating to a portion of abandoned nuclear plant costs (see Note 14) was collected in rates through 2003.

Energy Efficiency Investments. The District's regulatory asset for certain energy efficiency investment expenditures was collected in rates through 2003.

Enrichment Facility Decommissioning Assessment. The District's regulatory asset relating to obligations associated with the federal nuclear fuel enrichment program is being collected in rates, based on cash payments made, through 2008.

Wholesale Power Receivables. In 2001, the District established a regulatory asset to defer expense recognition of the wholesale receivables that were fully reserved as uncollectible in 2001. These wholesale receivable reserves relate to amounts due from the ISO and PX totaling $40.2 million and $39.6 million at December 31, 2003 and 2002, respectively. The ultimate recovery of these amounts is dependent on numerous factors (see Note 4) and cannot be determined at this time. This regulatory asset will be reversed concurrent with the reasonable certainty of collections, if any, on these accounts with any remaining amount being amortized into future rates.

TANC Operations Costs. The District's regulatory asset relating to deferred TANC costs comprises the difference between its cash payments made to TANC and its share of TANC's accrual-based costs of operations. This regulatory asset is being collected in rates over the life of TANC's assets during the period that cash payments to TANC exceed TANC's accrual-based costs.

Impairment of Investment in CCPA No. 1 Project. The District's regulatory asset relating to CCPA No. 1 impairment charges was collected in rates through 2003.

Loss on Sale of SMUDGEO. The District's regulatory asset relating to the loss on the disposition of the SMUDGEO plant was collected in rates through 2003.

The District's total regulatory costs for future recovery are presented below:

	December 31, 2003	2002
	(thousands of dollars)	
Regulatory Costs for Future Recovery:		
Decommissioning	$ 227,679	$ 245,723
Deferred nuclear plant costs	-0-	22,408
Energy efficiency investment	-0-	12,946
Enrichment facility decommissioning assessment	5,697	6,719
Wholesale power receivables	40,193	39,619
TANC operations costs	16,960	15,221
Impairment of investment in CCPA No. 1 project	-0-	6,077
Loss on sale of SMUDGEO	-0-	3,750
Total regulatory costs	290,529	352,463
Less: regulatory costs to be recovered within one year	(71,329)	(115,954)
Total regulatory costs for future recovery - net	$ 219,200	$ 236,509

CIAC. In 2003 and 2002, the District capitalized CIAC totaling $20.9 million and $19.0 million, respectively, in Plant in Service on the consolidated balance sheets and recorded $5.3 million and $4.6 million, respectively, of depreciation expense on the consolidated statements of revenues, expenses and changes in net assets. The District's regulatory credit relating to CIAC is intended to offset the revenue and expense associated with this accounting treatment. Thus, this regulatory credit is being amortized into rates over the depreciable lives of the related contributed plant assets in order to offset the earnings effect of these nonexchange transactions.

Rate Stabilization. The District's regulatory credit relating to Rate Stabilization is intended to defer the need for future rate increases when costs exceed existing rates. Each year, at the direction of the Board, amounts are either transferred into this fund (which reduces revenues) or amounts are transferred out of this fund (which increases revenues). In 2003 and 2002, the District deferred $54.9 and $2.5 million of revenues into the Rate Stabilization Fund, respectively.

Derivative Financial Instruments. The District's regulatory credit relating to derivative financial instruments is intended to defer the net difference between the fair value of derivative instruments and their cost basis, if any. The balance is charged or credited into rates as the related asset or liability is utilized.

Public Good. The District's regulatory credit relating to Public Good comprises the amounts collected in rates for specifically identified Public Good programs that have not been fully expended. These regulatory deferrals are credited to revenue in the period when the expenditures on identified projects occurs.

The District's total regulatory credits for future revenue recognition are presented below:

	December 31, 2003	2002
	(thousands of dollars)	
Regulatory Credits for Future Revenue Recognition:		
CIAC	$ 150,776	$ 135,128
Rate stabilization	87,317	31,248
Deferred gain on derivative financial instruments	47,242	33,251
Public good	714	714
Total regulatory credits for future revenue recognition	286,049	200,341
Less – regulatory credits to be recognized within one year	(7,912)	(9,860)
Total regulatory credits – net	$ 278,137	$ 190,481

NOTE 10. DERIVATIVE INSTRUMENTS

The District enters into contracts for electricity and natural gas contracts to meet the expected needs of its retail customers. The District sells excess capacity during periods when it is not needed to meet its retail requirements. The District's energy risk management program uses various physical and financial contracts to hedge exposure to fluctuating commodity prices. The District also enters into interest rate swap agreements to reduce interest rate risk or to enhance the relationship between the risk and return regarding the District's assets or debt obligation.

The fair value of the District's derivative financial instruments, are as follows:

	12/31/2003	12/31/2002
	(thousands of dollars)	
Gas related agreements	$ 9,494	$ 6,867
Power purchase agreements	98,034	99,446
Other electric related agreements	(580)	-0-
Treasury related agreements	(4,432)	(13,190)

The Board has deferred recognition of the effects of SFAS No. 133 for rate-making purposes, and in 2001, established a regulatory account to defer the accounting impact of these accounting adjustments (see Note 9).

NOTE 11. LONG-TERM DEBT

The District's total long-term debt is presented below:

	December 31, 2003	2002
	(thousands of dollars)	
Electric Revenue Bonds:		
Electric revenue bonds, 2.5%-6.0%, 2004-2033	$1,638,760	$1,486,455
Subordinated electric revenue bonds, 1.6%-8.0%, 2004-2028	487,650	384,125
Total electric revenue bonds	2,126,410	1,870,580
Component unit cogeneration project revenue bonds, 5.0%-7.0%, 2004-2022	310,525	332,590
Total long-term debt outstanding	2,436,935	2,203,170
Bond premiums - net	84,881	154
Deferred losses on bond refundings - net	(118,861)	(94,674)
Total long-term debt	2,402,955	2,108,650
Less: amounts due within one year	(44,245)	(50,370)
Total long-term debt - net	$2,358,710	$2,058,280

The summarized activity of the District's long-term debt during 2003 and 2002 are presented below (thousands of dollars):

	December 31, 2002	Additions	Payments or Amortization	December 31, 2003	Amounts Due Within One Year
Electric revenue bonds	$ 1,486,455	$ 812,445	$ (660,140)	$ 1,638,760	$ 25,245
Subordinate electric revenue bonds	384,125	111,900	(8,375)	487,650	8,400
Component unit cogeneration project revenue bonds	332,590	-0-	(22,065)	310,525	10,600
Total	2,203,170	924,345	(690,580)	2,436,935	44,245
Unamortized premiums – net	154	81,636	3,091	84,881	
Deferred losses on bond refundings - net	(94,674)	(33,972)	9,785	(118,861)	
Total long-term debt	$ 2,108,650	$ 972,009	$ (677,704)	$ 2,402,955	

At December 31, 2003, scheduled annual principal maturities and interest are as follows (thousands of dollars):

	Principal	Interest	Total
2004	$ 44,245	$ 119,697	$ 163,942
2005	70,080	117,164	187,244
2006	87,400	112,984	200,384
2007	98,290	107,872	206,162
2008	88,140	103,537	191,677
2009 – 2013	529,475	480,219	1,009,694
2014 – 2018	648,455	290,771	939,226
2019 – 2023	486,395	146,817	633,212
2024 – 2028	314,220	57,029	371,249
2029 – 2033	70,235	9,561	79,796
Total Requirements	$2,436,935	$1,545,651	$3,982,586

Interest includes interest requirements for variable rate debt ranging from 2.15 percent to 4.5 percent using the debt interest rate in effect at December 31, 2003 for each issue.

2003 Electric Revenue Bonds. In June 2003, the District issued $481.3 million of 2003 Series R Electric Revenue Bonds at a premium of $41.0 million. Proceeds from the 2003 Series R Bonds and $10.7 million of available District funds were used to refund $115.3 million of Commercial Paper Notes and $134.0 million of previously issued revenue bonds through a legal defeasance, and accordingly, the liability for the defeased bonds has been removed from Long-term Debt. The refunding resulted in the recognition of a deferred accounting loss of $15.5 million, which is being amortized over the life of the refunding issue; and a current accounting loss of $0.3 million, which is included in Interest on Debt in the consolidated statements of revenues, expenses and changes in net assets. Proceeds from the 2003 Series R Bonds were also used to fund $243.0 million of capital expenditures.

In August 2003, the District issued $331.2 million of 2003 Series S Electric Revenue Refunding Bonds at a premium of $40.6 million. Proceeds from the 2003 Series S Bonds and $25.2 million of available District funds were used to refund $360.2 million of previously issued revenue bonds through a legal defeasance, and accordingly, the liability for the defeased bonds has been removed from Long-Term Debt. The refunding resulted in the recognition of a deferred accounting loss of $34.4 million, which is being amortized over the life of the refunding issue; and a current accounting loss of $0.8 million, which is included in Interest on Debt in the consolidated statements of revenues, expenses and changes in net assets.

2003 Subordinated Electric Revenue Bonds. In July 2003, the District also issued $111.9 million of 2003 Subordinated Electric Revenue Bonds (2003 Series H and 2003 Series I). Proceeds from the 2003 Subordinated Bonds and $7.0 million of available District funds were used to refund $106.1 million of previously issued revenue bonds through a legal defeasance, and accordingly, the liability for the defeased bonds has been removed from Long-term Debt. The 2003 Subordinated Refunding Bonds are variable rate notes, the interest on which has been fixed through a floating-to-fixed interest rate swap. The refunding resulted in the recognition of a deferred accounting loss of $15.2 million, which is being amortized over the life of the refunding issues; and a current accounting loss of $0.9 million, which is included in Interest on Debt in the consolidated statements of revenues, expenses and changes in net assets.

The 2003 refundings reduced future aggregate debt service payments by $101.9 million and resulted in a total economic gain of $71.7 million, the difference between the present values of the old and new debt service payments.

Interest Rate Swap Agreements. The District has a fixed-to-variable interest rate swap agreement with a notional amount of $131.0 million, which is equivalent to the principal amount of the District's 1997 Series K Electric Revenue Bonds. Under this swap agreement, the District pays a variable rate equivalent to the BMA Index (1.14 percent at December 31, 2003) and receives fixed rate payments of 5.15 percent. In connection with the swap agreement, the District has a put option agreement, also with a notional amount of $131.0 million which gives the counterparty the right to sell to the District, at par, either the 1997 Series K bonds, or a portfolio of securities sufficient to defease the 1997 Series K bonds. The exercise of the option terminates the swap at no cost to the District. The combination of these financial transactions brings the District's net cost of borrowing to the BMA Index less 8 basis points. The term of both the swap and the put is equal to the maturity of the 1997 Series K bonds.

Additionally, the District has three variable-to-fixed rate interest swap agreements with a combined notional amount of $420.5 million, including a swap executed in August 2003 with a notional amount of $111.9 million, for the purpose of fixing the effective interest rate associated with certain of its Subordinated Bonds. Under these agreements, the District makes fixed payments of between 2.894 percent and 4.50 percent and receives variable payments from the counterparties of between 63 percent and 70 percent of the one month London Interbank Offered Rate for U.S. dollar deposits. The swap agreements expire in 2010 ($39.5 million notional value), 2018 ($269.1 million) and 2028 ($111.9 million). The notional values of all three swaps are amortized over the life of the respective swap agreements, concurrently with scheduled principle payments. The District can terminate all swap agreements at any time, with payment or receipt of the fair market value of the swaps as of the date of termination.

Subordinated Electric Revenue Bonds. Payment of and interest on the Subordinated Electric Revenue Bonds is subordinate to the payment of the principal and interest on the District's Electric Revenue Bonds.

Variable Rate Bonds. The District's variable rate bonds bear interest at daily, weekly and monthly rates, ranging from 0.75 percent to 0.85 percent at December 31, 2003. The District can elect to change the interest rate period or fix the interest rate, with certain limitations. Certain variable rate bondholders have the right to tender the bonds to the tender agent. The District's variable rate bonds can not be put to the District by the bondholders. Accordingly, the District has recorded such bonds as long-term debt, less amounts scheduled for redemption within one year.

Component Unit Cogeneration Bonds. The component units of the District have each issued bonds to finance their respective cogeneration projects. These bonds are non-recourse to the District. Principal and interest associated with these bonds are paid solely from the component units' revenues and receipts collected in connection with the operation of the cogeneration projects. Most operating revenues earned by the component units are collected from the District in connection with the sale of electricity to the District. The ability of the component units to service the debt is dependent upon the successful operation of the respective cogeneration projects (see Note 7).

Callable Bonds. In November 2003, the District called $27.7 million of 1993 Series D Electric Revenue Bonds due in November 2004 at a cost of $28.3 million. The call reduced the District's 2004 debt service by $29.0 million. The District has $24.6 million of fixed rate bonds that are currently callable by the District and $831.3 million of bonds that become callable from 2004 through 2013. These bonds can be called until maturity. In addition, all $463.1 million of the District's variable rate subordinated bonds are currently callable.

Collateral. The principal and interest on the District's bonds are payable exclusively from, and are collateralized by a pledge of, the net revenues of the electric system of the District. Neither the credit nor the taxing power of the District is pledged to the payment of the bonds and the general fund of the District is not liable for the payment thereof.

Covenants. The District's bond resolutions contain various covenants that include requirements to maintain minimum debt service coverage ratios, certain other financial ratios, stipulated minimum funding of revenue bond reserves, and various other requirements.

NOTE 12. COMMERCIAL PAPER NOTES

The District issues commercial paper notes (Notes) to finance or reimburse capital expenditures. At December 31, 2003 and 2002, Notes principal totaled $51.0 million and $166.3 million, respectively. The effective interest rate for the Notes outstanding at December 31, 2003 and 2002 was 0.98 percent and 1.29 percent, respectively, and the average term was 37 days and 36 days, respectively. The District maintains a $173.0 million letter of credit to support the sale of these outstanding Notes and incurs an annual fee of 0.50 percent. There has not been a term advance under the letter of credit agreement.

NOTE 13. FAIR VALUE OF FINANCIAL INSTRUMENTS

The following methods and assumptions were used to estimate the fair value of each class of financial instruments for which it is practicable to estimate the value:

Investments. The fair values of investments, including cash equivalents, are based upon quoted market prices.

Long-term Debt. The fair value of Long-term Debt, which includes the short-term portion, was calculated by determining the value of each individual series using a standard bond pricing formula and market yields from representative yield curves. The District's electric revenue bonds, including subordinated bonds, were priced using the fair market curve for insured municipal revenue bonds, except the taxable Series F bonds, which were priced using the taxable general obligation bond curve. A similar fair value calculation was performed for the component units' bonds, except that all uninsured component unit debt was priced using the yield curve for "BBB" rated municipal power bonds and insured component debt was calculated using the yield curve for "A" rated municipal power bonds. All yield curves were obtained from Bloomberg L.P.

Interest Rate Swap and Put Agreements. The fair values of interest rate swap and put agreements are based on quoted market prices.

Gas and Electricity Related Derivatives. The fair values of gas and electricity price swap agreements and electricity option agreements are based on forward prices from established indexes for the applicable regions. The fair values of electricity purchase agreements are based on forward prices from established indexes from applicable regions and discounted using established interest rate indexes. Additionally, for electricity purchase contracts that include options and/or exchanges, the fair values of such contracts are based on models prepared by District staff that includes forecasted future usage and/or exchanges and electricity pricing based on price curves as described above for the periods covered by the agreements.

The estimated fair values of the District's financial instruments are presented below:

	December 31, 2003	
	Recorded Value	Fair Value
	(thousands of dollars)	
Investments, including cash and cash equivalents	$ 677,992	$ 677,992
Long-term debt	(2,402,955)	(2,606,844)
Interest rate swap and put agreements	(4,432)	(4,432)
Gas and electricity related derivatives	106,948	106,948

	December 31, 2002	
	Recorded Value	Fair Value
	(thousands of dollars)	
Investments, including cash and cash equivalents	$ 643,853	$ 643,853
Long-term debt	(2,108,650)	(2,358,815)
Interest rate swap and put agreements	(13,190)	(13,190)
Gas and electricity related derivatives	106,313	106,313

NOTE 14. RANCHO SECO NUCLEAR POWER PLANT

Rancho Seco, a 913 MW nuclear power plant, was in commercial operations between 1974 and 1989.

Nuclear Decommissioning. Nuclear decommissioning is the process of safely removing nuclear facilities from service and reducing residual radioactivity to a level that permits termination of the Nuclear Regulatory Commission (NRC) license and release of the property for unrestricted use. The NRC has approved the District's decommissioning plan, which provides for removing low-level radioactive material beginning in 1997 and completing decommissioning in 2008. The Department of Energy (DOE), under the Nuclear Waste Policy Act of 1982, is responsible for permanent disposal of spent nuclear fuel and high-level radioactive waste. The District has a contract with the DOE for the removal and disposal of spent nuclear fuel and high-level radioactive waste. The DOE currently estimates that a site may be available to begin accepting nuclear fuel in 2010, in which case the Rancho Seco fuel removal may start about 2013. At the projected DOE acceptance rates, it is anticipated that the DOE would complete removal of the District's nuclear fuel between 2028 and 2035, assuming the transfers commence between 2013 and 2020. The District has constructed an on-site independent spent fuel storage facility (Storage Facility) for dry storage of the fuel in sealed canisters and began moving fuel into the Storage Facility in 2001 and completed movement of the fuel in August 2002. The Storage Facility will remain under the regulation of NRC until such time as the DOE removes the nuclear fuel and the Storage Facility is decommissioned.

Rancho Seco is one of the first large commercial nuclear power plants to be removed from service. Due to the substantial technical, regulatory and legal issues in connection with its nuclear decommissioning, the District cannot predict with certainty how long various decommissioning processes will take nor the eventual cost of decommissioning. These financial statements reflect the District's current estimate of its obligation for the cost of decommissioning under the requirements of SFAS No. 143 (see Note 3).

Financial Effects. In 1989, the Board approved the recovery of $661.9 million of abandoned Rancho Seco costs through future rates to be charged to customers. The Board's rate action addressed $499.2 million of Rancho Seco assets that had been written-off and $162.7 million of unfunded decommissioning liability. Several studies and updates to the cost of the District's nuclear decommissioning have been conducted since 1989, which have resulted in adjustments to the decommissioning liability in addition to annual adjustments for inflation. The most recent study was completed in December 2003, using the SFAS No. 143 methodology (see Note 3) and resulted in a remaining decommissioning liability totaling $318.0 million. Significant changes

in the District's decommissioning liability in 2003 include a decrease of $20.0 million due to the change in accounting principle described in Note 3, a decrease of $11.4 million related to identified efficiencies relating to various dismantlement and decommissioning activities and an increase of $35.3 million in estimated spent fuel management costs which is primarily due to significant increases in expected labor requirements for monitoring and security from 2009 through the date of removal of spent nuclear fuel. The District contributed $27.0 million to the Decommissioning Trust Fund in 2002 and 2003, and plans the same contribution rate in 2004.

NOTE 15. PENSION PLANS

Defined Benefit Pension Plan. The District participates in the California Public Employee's Retirement System (PERS), an agent multiple-employer public employee defined benefit pension plan. PERS provides retirement and disability benefits, annual cost-of-living adjustments, and death benefits to plan members and beneficiaries. PERS acts as a common investment and administrative agent for participating public entities within the State. Benefit provisions and all other requirements are established by State statute and District policies. Copies of PERS' annual financial report may be obtained from their Executive Office at 400 P Street, Sacramento, California 95814.

Funding Policy. Participants are required to contribute approximately 7.0 percent of their annual covered salary. The District makes either the full or partial contributions required of District employees on their behalf and for their account. The District is not currently required to contribute to the plan because of its current funding excess. The contribution requirements of plan members and the District are established and may be amended by PERS.

Annual Pension Cost. For 2003, 2002 and 2001, the District's annual pension cost was $0 for PERS since it was not required to make, and did not make, pension contributions. The lack of required contributions was determined by PERS as part of the annual actuarial valuation based on the entry age normal actuarial cost method. The actuarial assumptions included (a) an 8.25 percent investment rate of return (net of administrative expenses), (b) projected annual salary increases that vary by duration of service, and (c) 3.5 percent per year cost-of-living adjustments. Both (a) and (b) also included an inflation component of 3.5 percent. The actuarial value of PERS' assets was determined using techniques that smooth the effects of short-term volatility in the market value of investments over a four-year period (smoothed market value).

Three-year trend information for PERS is presented below:

Fiscal Year	Annual Pension Cost (APC)	Percentage of APC Contribution
6/30/01	$ -0-	100%
6/30/02	-0-	100
6/30/03	-0-	100

Required supplementary information for PERS is presented below (dollars in thousands) for the three most recent years for which the District has available data:

Actuarial Valuation Date	Entry Age Normal Liability	Actuarial Value of Assets	Funding Excess	Funded Status Percent	Annual Covered Payroll	Funding as a Percent of Payroll
6/30/00	733,871	1,093,921	360,050	149.1	124,927	288.2
6/30/01	791,426	1,120,055	328,629	141.5	128,366	256.0
6/30/02	858,245	1,043,256	185,011	121.6	137,257	134.8

Other Plans. The District provides its employees with two cash deferred compensation plans, one pursuant to Internal Revenue Code (IRC) Section 401(k) [401(k) Plan] and one pursuant to IRC Section 457 (457 Plan) (collectively, the Plans). The Plans are contributory plans in which the District's employees contribute the funds. Each of the District's eligible full-time or permanent part-time employees may participate in either or both Plans and amounts contributed are vested immediately. Such funds are held by a Trustee in trust for the employees upon retirement from District service and, accordingly, are not subject to the general claims of the District's creditors. The District is responsible for ensuring compliance with IRC requirements concerning the Plans and has the duty of reasonable care in the selection of investment alternatives, but neither the District nor its Board or officers have any liability for market variations in the Plans' asset values. District employees are responsible for determining how their funds are to be invested and pay all ongoing fees related to the Plans. The Plans are currently not subject to discrimination testing or the requirements of the Employee Retirement Income Security Act of 1974. The District employees participating in the Plans are allowed to contribute up to a portion of their gross income not to exceed the annual dollar limits prescribed by the IRC.

The District makes annual contributions to the 401(k) Plan on behalf of certain employees pursuant to a memorandum of understanding with one of its collective bargaining units. The District does not match employee contributions nor make contributions on behalf of its employees to the 457 Plan. Participating employees and the District made contributions into the Plans totaling $12.1 million and $0.3 million in 2003, respectively, and $10.8 million and $0.3 million in 2002, respectively.

NOTE 16. OTHER POST-EMPLOYMENT BENEFITS

The District provides post-employment health care benefits, in accordance with District policy and negotiated agreements with employee representation groups, to all employees who retire from the District, and their dependents, on or after attaining age 50 with at least 5 years of service. The District also provides post-employment health care benefits to covered employees who are eligible for disability retirement. The District contributes the full cost of coverage for employees hired before January 1, 1991, and a portion of the cost based on credited years of service for employees hired after January 1, 1991. The District also contributes a portion of the costs of coverage for these employees' dependents. Currently 2,294 post-employment participants, including retirees, spouses of retirees, surviving spouses, and eligible dependents participate in the District's health care benefits program.

The post-employment health care benefits are unfunded. The District records post-employment health care benefit expenses on a pay-as-you-go basis. During 2003 and 2002, post-employment health care benefit expenditures were $7.9 million and $6.5 million, respectively. At December 31, 2003 and 2002, the District estimates that the accumulated post-employment benefit obligation was approximately $394.6 million and $223.0 million, respectively. The significant increase in this estimate in 2003 was caused primarily by increased starting claims cost assumptions, morbidity adjustments, and cost assumptions used in the actuarial calculation of the liability and normal growth. The health care inflation rate assumption used to estimate the net present value of the post-employment benefit obligation for 2003 ranged between 5.0 percent and 15.0 percent compared to a range of 5.0 percent to 12.0 percent used in the 2002 study for various elements of the health care obligations. In addition, the discount rate was reduced from 6.75 percent to 6.25 percent. The effect of a one percent change in these assumed health care cost trends would increase or decrease the District's total benefit obligation by approximately $67.0 million or $42.0 million, respectively.

NOTE 17. INSURANCE PROGRAMS AND CLAIMS

The District is exposed to various risks of loss related to torts, theft of and destruction to assets, errors and omissions, and natural disasters. In addition, the District is exposed to risks of loss due to injuries to, and illnesses of, its employees. The District

carries commercial insurance coverage to cover most claims in excess of specific dollar thresholds, which range from $0.2 million to $1.0 million per claim with total excess liability insurance coverage for most claims of $100.0 million. District property insurance coverage is based on the replacement value of the asset. There have been no significant reductions in insurance coverage in 2003. In 2003 and 2002, the insurance policies in effect have adequately covered all settlements of the claims against the District. The claims liability is included as a component of Self Insurance, Deferred Credits and Other in the consolidated balance sheets.

The District's total claims liability at December 31, 2003 and 2002 is presented below:

	2003	2002
	(thousands of dollars)	
Workers' compensation claims	$ 5,285	$ 4,382
General and auto claims	3,055	1,174
Short- and long-term disability claims	2,233	1,567
Claims liability	$ 10,573	$ 7,123

Changes in the District's total claims liability during 2003 and 2002, is presented below:

	2003	2002
	(thousands of dollars)	
Claims liability, beginning of year	$ 7,123	$ 7,340
Add: Provisions for claims	7,248	3,638
Less: payments on claims	(3,798)	(3,855)
Claims liability, end of year	$ 10,573	$ 7,123

NOTE 18. COMMITMENTS

Electric Power Purchase Agreements. The District has numerous power purchase agreements with other power producers to purchase capacity and associated energy to supply a portion of its load requirements. The District has minimum take-or-pay commitments for energy on most contracts. Certain contracts allow for the District to exchange energy, primarily in the summer months, when the District most needs the energy and to provide energy during the winter months, or other subsequent periods.

At December 31, 2003, the approximate minimum obligations for these contracts over the next five years are as follows:

Year ending:	Amount (thousands of dollars)
2004	$254,605
2005	202,936
2006	204,263
2007	133,112
2008	124,094

Contractual Commitments beyond 2008. Several of the District's purchase power contracts extend beyond the five-year summary presented above. These contracts expire between 2010 and 2024 and provide for power under various terms and conditions. The District estimates its annual minimum commitments under these contracts range between $125.1 million in 2009 and $49.6 million in 2024. The District's largest purchase power source is the Western Area Power Administration contract (Western), whereby the District can purchase up to 360 MW of capacity at cost-based rates, depending on the amount of energy available from Western in any given year. The Western contract expires in 2024.

Gas Supply Agreements. The District has numerous long-term natural gas supply agreements with Canadian and U.S. companies to supply a portion of the consumption needs of the District's natural gas fired cogeneration power plants, which expire through 2008.

Gas Transport Capacity Agreements. The District has numerous long-term gas transport capacity agreements with Canadian and U.S. companies to transport natural gas to the District's natural gas fired cogeneration power plants from the California-Oregon border to gas supply basins in Alberta, Canada and the Southern California border to supply basins in the southwest. These gas transport capacity agreements provide for the delivery of gas into District owned pipeline capacity within California. The gas transport capacity agreements provide the District with 32,000 decatherms per day (Dth/d) of natural gas pipeline capacity to the Canadian Basins through 2023 and 30,000 Dth/d to the Southwest or Rocky Mountain Basins through at least 2018.

Gas Storage Agreements. The District also has three agreements for the storage of up to 1.5 million Dth of natural gas at regional facilities. The gas storage agreements expire in 2004, 2005 and 2009.

At December 31, 2003, the approximate minimum obligations for these natural gas related contracts over the next five years are as follows:

Year ending:	Amount (thousands of dollars)
2004	$73,318
2005	71,452
2006	61,301
2007	56,972
2008	24,692

Contractual Commitments beyond 2008. Several of the District's gas transport and gas storage contracts extend beyond the five-year summary presented above. These contracts expire between 2009 and 2023 and provide for transportation and storage under various terms and conditions. The District estimates its annual minimum commitments under these contracts range between $10.9 million in 2009 and $5.3 million in 2023.

Gas Price Swap Agreements. In 2002 and 2003, the District entered into numerous variable to fixed rate swaps with notional amounts totaling 47,630,000 million British Thermal Units (mmbtu) for the purpose of fixing the rate on the District's natural gas purchases for its gas fueled power plants and gas indexed electric contracts. These gas price swap agreements result in the District paying fixed rates ranging from $3.20 to $4.84 per mmbtu. The swap agreements expire periodically from March 2004 through March 2008.

Capital Expenditures. The District's 2004 budget for capital expenditures (excluding AFUDC) total $348.7 million of which approximately $225.0 million is for power supply projects (of which, $138.5 million relates to the construction of a 500 MW power plant), $68.3 million is for distribution projects and $55.4 million is for other capital projects.

NOTE 19. CONTINGENCIES

U.S. Bureau of Reclamation Water Service Contract Billing Dispute. The District entered into a 40-year water service contract with the U.S. Bureau of Reclamation (Bureau), which expires in 2012, for the delivery of up to 75,000 acre-feet of water per year to originally meet the District's needs at Rancho Seco. This amount includes 60,000 acre-feet of municipal and industrial (M&I) water from the Central Valley Project (CVP). Over time, Bureau revenues have been insufficient to cover

actual CVP operations and maintenance (O&M) costs; contractor payments have been insufficient to cover amortization of their respective shares of CVP capital costs and, in the case of M&I contractors, have been insufficient to cover interest on unpaid capital. Although the District's contract contains a specific rate methodology, the Bureau maintains that the District and other M&I contractors are running substantial O&M deficits which, by the Bureau's definition, includes as O&M costs both unpaid interest on capital and interest on the O&M deficit. The Bureau also claims interest has compounded on the O&M deficits.

The Bureau's draft 2004 rate book (reflecting the obligation at September 30, 2002) lists a total deficit of approximately $23.4 million for the District. In late 2000, federal legislation was passed authorizing the sale, to specific water agencies, of certain CVP facilities and removing all of the capital costs and retroactive interest associated with those facilities. During 2003, the sale and transfer of the Sly Park and Sugar Pine facilities to the main users of the facilities was completed. While not reflected in the draft 2004 rate book, the Bureau is expected to reduce the District's deficit by approximately $8.5 million relating to this sale. Since these amounts are based on financial data from fiscal year 2002, the actual deficit claimed by the Bureau, as of the most recent federal year-end will likely be larger. The District estimates that the Bureau's net claim, as of September 30, 2002, will be approximately $14.9 million.

Management believes the District complied fully with the terms and conditions of its contract, which contains specific rate methodology for recovery of O&M costs, and will continue to vigorously oppose any action by the Bureau to recover its purported billing deficit from the District. The District is working with several M&I contractors, with similar contracts and significant deficits claimed by the Bureau, to resolve this matter with the Bureau. In August 2002, it became apparent that the M&I contractors and Bureau could not resolve the dispute without litigation and filed their complaint against the Bureau on March 21, 2003 in the U.S. District Court. A settlement conference has been scheduled for March 18, 2004, the deadline for motions for summary judgment to be filed is April 15, 2004, and trial has been set for August 10, 2004. Numerous meetings have been held between the parties since the complaint was filed and the parties continue to work on development of a stipulated set of facts. District management believes that it will prevail and will have no liability to the Bureau when this matter is resolved. As such, no liability has been recorded. However, the ultimate outcome of this matter could result in material additional costs to the District through direct settlement payment or acceptance of a liability that is paid through incremental costs embedded in future water rates.

California Energy Market Refund Dispute. In July 2001, FERC issued an order establishing evidentiary hearings for the purpose of determining the amount of refunds, if any, due to customers of the ISO and PX spot markets from market participants selling into those markets for the period October 2, 2000 through June 20, 2001. During this time period, the District was both a seller and a buyer in the California spot markets. The Administrative Law Judge (ALJ) assigned to the proceedings adopted hearing procedures for a three-phase hearing. Phase 1 of the hearing, held in March 2002, addressed the calculation of the price to be applied to sales into the ISO and PX market retroactively. Phases 2 and 3 addressed the calculation of refunds and identification of the amount currently owed to each supplier (with separate quantities due from each entity) by the ISO, the investor owned utilities, and the State of California. Hearings on Phases 2 and 3 concluded in August 2002. On December 12, 2002, the ALJ issued his Certification of Proposed Findings (Findings) for all three phases. On March 26, 2003, FERC issued an Order accepting most of the Findings. Of particular relevance to the District, FERC ordered that the formula used to calculate the mitigated market-clearing price (MMCP) be revised to replace the existing gas proxy price based on market indices with a gas proxy price based on producing basin spot prices plus transportation costs. Such a change will reduce the gas proxy price

and produce a lower MMCP, thereby increasing the refund liability for sellers. In its Order, FERC noted that any future FERC findings of energy market manipulation that results from its ongoing review of additional evidence filed would neither result in a resetting of the refund effective date for this proceeding, nor impact the just and reasonable MMCP developed for the refund period. On April 25, 2003, the District filed a request for rehearing of FERC's March 26 Order.

On October 16, 2003, FERC issued an Order on Rehearing, where in relevant part (1) rejected the District's request for rehearing regarding the District's $4.1 million sleeve transaction, (2) rejected the District's request for rehearing regarding adjustments made by the PX, (3) declined to address the issue of FERC's jurisdiction over municipal sellers and (4) determined that individual sellers, and not the PX, should be subject to refund liability and refunds should be paid on a pro rata basis. The Order on Rehearing requires the ISO and PX to submit compliance filings containing the results of their revised market reruns no later than March 16, 2004. The District has filed a Petition for Review of the Order on Rehearing with the Court of Appeals for the Ninth Circuit, for the purposes of appealing the decision regarding the sleeve transactions.

Under the original MMCP formula, the District estimated that its potential refund liability could be as high as approximately $7.4 million. Although the District's liability will likely increase under the revised MMCP formula, the District cannot reasonably estimate the amount of any such increase. Throughout the process, the District has vigorously challenged FERC's jurisdiction over public power in these proceedings and believes it is likely to prevail in this matter; thus, removing any potential liability. If the District is found to be subject to FERC's authority in this matter, the District's liability would likely be partially offset by refunds it would eventually realize as a buyer in the ISO and PX spot markets.

Scheduling Coordinator Services (SCS) Tariff Dispute. In January 2000, PG&E filed its proposed SCS Tariff with FERC. The proposed SCS Tariff is designed to charge the District and other existing wholesale contract customers for the various scheduling services that PG&E provides. PG&E claims that such services were new services that were due to the advent of industry restructuring in California and the ISO. The District and others believe that their existing contracts require PG&E to provide such services under the terms of their existing contracts. Accordingly, the District and other utilities affected by the proposed SCS Tariff filing are rigorously opposing the proposed tariff action and have participated in numerous FERC proceedings in this regard. Although PG&E's tariff filing was made in 2000, PG&E is seeking to have the proposed SCS Tariff charges apply retroactively from April 1998 when the operations of the ISO commenced and PG&E began incurring the ISO-related costs it is attempting to recover.

In January 2000, FERC accepted for filing PG&E's proposed SCS Tariff, suspended the filing for five months, and set the matter for hearing. Since that time there have been several judicial proceedings on specific elements of the proposed SCS Tariff. However, to date FERC has yet to make any ruling on the core issue being contested - whether or not the service at issue was a "new service".

On March 28, 2003, PG&E filed a supplemental filing updating SCS Tariff language, providing SCS cost and credit information through August 31, 2002, and describing the cost allocation formula used to determine each entity's share of SCS costs. In its filing, PG&E claims that the District owes it approximately $15.5 million for unpaid SCS charges through August 2002. On April 18, 2003, the District filed a protest to PG&E's supplemental filing, in which the District challenged PG&E's application of the SCS Tariff charges. On June 11, 2003, the ALJ issued an order adopting a procedural schedule with hearings commencing on January 6, 2004. The District filed for rehearing of FERC's May 15 order on June 16, 2003. On August 11, 2003, the ALJ issued an Order Phasing Proceeding bifurcating the proceeding into two phases. The hearing on Phase 1 liability issues commenced on January 6, 2004. An initial decision on liability issues is expected in mid-April 2004.

If PG&E is successful, the District estimates that its exposure ranges between $3.7 million and $12.0 million for periods covered by the proposed SCS Tariff through June 2002. In June 2002, the District commenced operations as a separate control area and, therefore, is not subject to the proposed SCS Tariff. The District will continue to vigorously contest any charges associated with the proposed SCS Tariff at FERC. District management believes it is possible, but not likely, that PG&E will be successful in asserting the proposed SCS Tariff charges against the District. Accordingly, no liability has been recorded at December 31, 2003.

Replacement Reserves Dispute. In March 2002, PG&E sent a letter to the District claiming that it was owed approximately $6.5 million in Replacement Reserve charges allegedly associated with energy scheduled through its Rancho Seco intertie point. PG&E functioned as the Scheduling Coordinator on the District's behalf for transactions with the ISO at this intertie point until June 2002, when the District became its own control area. These Replacement Reserve charges purportedly relate to power purchased by the ISO to cover deviations between actual load and forecasted load. In May 2002, the District sent PG&E a notice of dispute contesting the entire amount of charges due to the fact that the billing was inconsistent with the Restated Interim Agreement, the primary agreement between the parties governing such transactions and, therefore, there should never have been any Replacement Reserve charges incurred in connection with the power deliveries at issue. The billing for Replacement Reserve charges covered the period from July 2000 through September 2001; therefore, the District believes that, even if the charges were appropriate, PG&E's delay in billing within a reasonable timeframe compromised the District's ability to modify its operations or scheduling procedures to eliminate or mitigate the charges. Further, it is unclear whether PG&E has attempted to recover for these Replacement Reserve charges twice, once under the proposed SCS Tariff described above, and once through the Restated Interim Agreement.

In July 2003, PG&E withdrew the replacement reserve invoices, and in August 2003, issued invoices totaling $2.2 million for replacement reserve charges purportedly incurred by PG&E from July 2000 through June 2002. In light of PG&E's statement, the District sent a letter to PG&E providing a notice of termination of the tolling agreement. In September 2003, the District provided PG&E notice of dispute of the invoices.

District management believes that it will be successful in refuting, at a minimum, the majority of these charges. Accordingly, no liability has been recorded at December 31, 2003. Regardless of the outcome, the District believes this matter will not have a material adverse impact on the District's financial position or results of operations.

Construction Matters. The District contracts with various firms to design and construct facilities for the District. Currently, the District is party to various claims, legal actions and complaints on these construction projects. District management believes that it will be successful in refuting these allegations, and estimates that the ultimate resolution of these matters will not have a material adverse effect on the District's financial position. Accordingly, no liability has been recorded at December 31, 2003. Regardless of the outcome, the District believes this matter will not have a material adverse impact on the District's financial position or results of operations.

Environmental Matters. The District is one of many potentially responsible parties that have been named in a number of actions relating to environmental claims and/or complaints. Due to the nature of these claims, legal actions or complaints, the District is unable to predict the range of costs for resolution of these actions and intends to take all actions necessary to defend its position. Some of these matters name the District along with other electric utilities (including California investor owned utilities) as potentially responsible parties. The District has estimated its exposure to such costs based on its proportionate share

of the potential claim and recorded its share as a liability; in most instances this is a relatively small percentage. However, should other named responsible parties become insolvent and unable to pay their share of the claims, the District's share of these contingent liabilities would increase and could be material. District management does not believe this will occur, and accordingly, management believes that the outcome of these environmental claims will not have a material adverse impact on the District's financial position or results of operations.

Other Matters. In the normal operation of business, the District is party to various claims, legal actions and complaints. Management and the District's legal counsel believe that there are no other material loss contingencies that would have a material adverse impact on the financial position of the District.

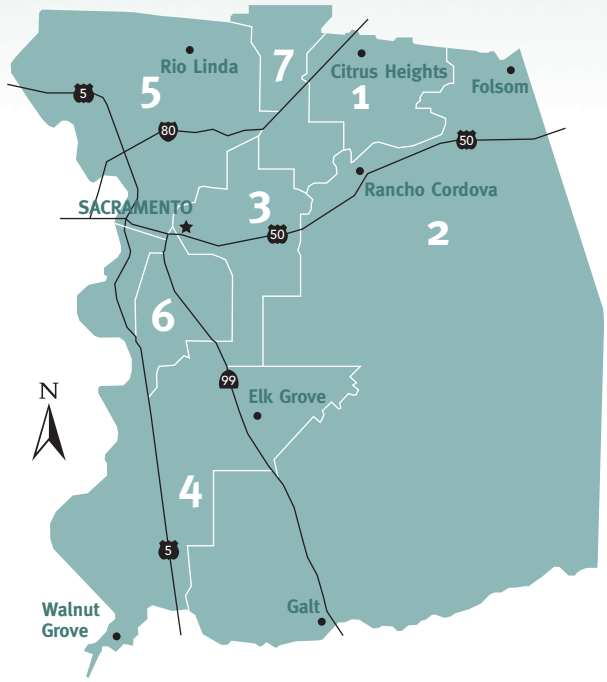
NOTE 20. SUPPLEMENTAL CASH FLOW INFORMATION

A reconciliation of the consolidated statements of cash flows operating activities to operating income is as follows:

	Year Ended December 31, 2003	2002 (Restated)
	(thousands of dollars)	
Operating income	$ 89,870	$ 82,199
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	92,578	88,672
Depletion	4,941	-0-
Regulatory deferrals collected in rates	76,011	77,838
Amortization of advance capacity	4,711	4,711
Revenue deferred to regulatory credits	56,069	2,467
Federal and State grants revenue	6,212	11,897
Interest income from energy efficiency loans	15,989	18,173
Other	2,406	1,705
Changes in operating assets and liabilities:		
Customer and wholesale receivables	(8,502)	18,205
Other assets	(14,370)	(17,668)
Payables and accruals	(2,481)	(11,345)
Decommissioning	(26,739)	(41,126)
Net cash provided by operating activities	$ 296,694	$ 235,728

The supplemental disclosure of noncash financing and investing activities is as follows:

	Year Ended December 31, 2003	2002 (Restated)
	(thousands of dollars)	
Gain (loss) on defeasance of debt	$ (3,032)	$ (1,818)
Amortization of debt related costs	8,711	10,182
Unrealized holding loss	(2,548)	(1,941)
Change in valuation of derivative financial instruments	9,393	65,782
Assets contributed in aid of construction	5,867	3,883
Allowances for funds used during construction	7,628	6,241
Construction costs included in accounts payable	27,334	18,687
Increase in decommissioning liability relating to change in accounting principle	20,245	-0-



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