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**RESPONSE TO DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR
OROVILLE FACILITIES**

Docket No. P-2100

Appendix A

by

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and

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Review of Socioeconomic Model and Related Documents

INTRODUCTION

This report responds to Appendix A of the FERC Draft Environmental Impact Statement (DEIS) for the Oroville Facilities Project (or "Project"), Docket No. P-2100, "Review of Socioeconomic Model and Related Documents. The Appendix A to the DEIS is provided as support for the conclusions reached in section 3.3.10 *Socioeconomics* and concerns the Project's impact on services provided by Butte County.

As set forth below, the methodology used by DWR and its consultants to gather the data that was used to measure visitation to the project and the expenditures made by those visitors is seriously flawed; so flawed that the data is unreliable for the purpose of estimating visitation to the project or to estimate visitor spending. Further, this methodology and data collection acts to create a fundamental bias—a bias in favor of DWR as well as a bias toward inaccuracy.

SUMMARY OF FINDINGS

In Appendix A, the DEIS admits that many of our prior criticisms of DWR's conclusions are reasonable. However, the DEIS, after admitting the reasonableness of our views, proceeds nonetheless to approve DWR's methodology. The DEIS also overlooks the failures in the DWR methodology even though they could have had material impacts on the accuracy of DWR's conclusions. The two essential problems with the comments in the DEIS are:

1. The DEIS conducted no evidentiary review and instead reviewed only DWR's conclusions. This failure eliminates any possibility of evaluating the accuracy and reliability of DWR's conclusions; and
2. The DEIS fails to subject each of DWR's conclusions to a cumulative analysis and fails to evaluate the impact of *all* of the errors made by DWR to the conclusions reached. Instead the DEIS treats each data error separately and in a piecemeal fashion, as if each error had no effect on the balance of the analysis.

The only way to determine accuracy and reliability is to review both the data entered into the IMPLAN model and *all* relevant survey methodological protocol. Although the DEIS discusses some survey protocols, the DEIS reviews only conclusions. Further, it substitutes one form of artificial analysis for another. For example, the Monte Carlo analysis that is used is a poor substitute for reliable data and fails to address the deficiencies in the DWR data.

The "Group A" section of this Response looks at the DEIS discussion of seven items beginning on page A-9 of the DEIS Appendix A:

1. DWR has underestimated the size of the population of interest. Its conclusions are unreliable because the size of the population that DWR attempted to survey was extremely small in relation to the size of the actual population of interest (i.e., visitors to the Project).
2. The survey data collection methods used by DWR were inadequate and the response rate of 37.5 percent is extremely poor. Survey responses this low cannot be relied on as a good estimate of behavior.
3. The DWR Survey results could be biased because people who did respond to the survey may retain unobservable characteristics (which are therefore impossible to adjust for) that make them different from those who did not respond. Further, the use of a convenience survey in this situation does not provide reliable data.
4. The process DWR used to "clean" the survey data is not properly explained and is not justifiable.
5. Input data are point estimates rather than a range of values around a distribution. IMPLAN should have been run under three different scenarios and a range of results should have been provided. Using a single scenario increases the potential bias in the analysis and is not consistent with proper social science methodology.

6. The model used by DWR is static and does not account for the dynamics of Project visitation that are affected by exogenous factors such as varying Lake Oroville water levels, gasoline prices, population and population demographics.
7. The DWR survey questions failed to determine where Project visitor spending occurred, making it impossible to determine whether spending was in the incorporated or unincorporated areas of Butte County.
8. DWR failed to explain its deletion of responses with "observations that were not intuitively plausible." The term "plausible" is neither defined nor explained.

The "Group B" section of this response examines the defects associated with the Project's claimed Net Benefits including:

1. Indirect effects of the Project are not explained.
2. Forecasts of fiscal impacts of the Project on Butte County were generated using only one year of actual budget data.
3. The DWR model fails to separate fiscal impacts from the Project on incorporated and unincorporated areas.

GROUP A ISSUES:

1. DWR FAILED TO PROVIDE FERC STAFF WITH DATA ENTERED INTO THE IMPLAN MODEL

Before commenting on individual Group A issues, it should be noted that the DEIS states several times that Staff had no access to the survey data that was collected by DWR and its consultants. As noted below, DWR's failure to provide FERC with information entered into the IMPLAN model does not comport with recognized social service survey standards. It is also inconsistent with the Federal standards for data collection and analysis, as promulgated by the Executive Office of the President, Office of Management and Budget (OMB).

The Office of Management and Budget's Statistical Policy states:

*"To help guard against misunderstanding and misuse of data, **full information** should be available to users about sources, definitions, and methods used in collecting and compiling statistics, and their limitations."*¹

¹ Executive Office of the President, Office of Management and Budget, Statistical Policy Office, Office of Information and Regulatory Affairs, Statistical Policy Working Paper, 31, "Measuring and Reporting Sources of Error in Surveys," pp. 1-3. (Emphasis added.)

Similarly, one of the fundamental principles of the social science survey research field is that *one should avoid relying on results generated by a computer model, without first reviewing data entered into the model for accuracy and reliability.*

Because the DEIS did not review the underlying data, the results generated by IMPLAN cannot reasonably be relied upon.

2. OVERALL RESEARCH APPROACH BY DWR

In general, DWR's consultants used four stages of analysis: 1) collecting data from the field on visitor spending; 2) constructing profiles of spending and integrating that with attendance at the facilities; 3) using that data to produce the IMPLAN results of the economic impact of the Dam; and 4) examining the economic impact on the Butte County Budget.

Overall, the surveying methodologies employed by DWR and its consultants were sloppy and did not follow established guidelines and protocols to achieve clear, unbiased results.

3. VISITORS TO THE OROVILLE FACILITIES

DWR's estimate of visitation to the Project is not correct and is underestimated by a significant amount. For example, DWR has indicated that the number of visitor days at the Oroville Facilities has been declining or is flat.² Yet as reported by DWR in its required Fourth and Fifth Biennial Recreation Reports to FERC, total visitor days increased over 1 million visitor days in one year from CY 2002 ("modestly less" than CY 2001's 700,000 visitor days) to CY 2003 (1,704,799 visitor days).³

This increase constituted more than a 140% increase in one year, yet DWR chose not to include this data in its analysis. This indicates that the data entered into the IMPLAN model, and hence the IMPLAN model estimates, are biased, and therefore underestimate the economic impacts of the Oroville Facilities. It is not clear why the DEIS fails to mention such inconsistencies and fails also to acknowledge that they constitute evidence that the IMPLAN model was used in a biased manner.

Dr. Ebeling commented in a previous filing that DWR failed to adjust the elevation of Lake Oroville during the visitor survey period upward in order to

² "[T]here is a negative trend downward in recreation attendance in the period FY 1981-82 to FY 2000-01." Report R-12 at p. B-17.

³ Appendix A to Butte County, California's Comments in Opposition to and Contest of the California Department of Water Resources' Settlement Agreement for Licensing of the Oroville Facilities and Request for Evidentiary Hearing, dated April 26, 2006.

reach an average lake elevation. This would have resulted in an estimate which reflected average visitation. The failure to make this adjustment, however, means that DWR underestimated visitation to the project. The DEIS agrees that the DWR failed to account for the low water levels, but does not compensate for the error, instead noting that the study plan did not require such an adjustment.⁴

The above statement in the DEIS completely misses the point. The question is whether DWR's estimate of visitation to the project is accurate and reliable, and hence, useful. If DWR's estimate of visitation to the project is *not* accurate and reliable, because one or more fundamentally important computations were not performed, then it is presumptively inaccurate and unreliable, and hence, not useful.

The same principle applies to DWR's estimates of visitor spending. As set forth below, several fundamental errors occurred, any one of which would call DWR's spending estimates into question. The DEIS treats each error Dr. Ebeling identified separately, and separately dismisses each of these errors. However, this "piecemeal" analysis unrealistically fails to make any connections between the various errors identified.

The DEIS fails to recognize any potential for cumulative impacts due to the combination of all of the visitor spending assessment errors made. In fact, by making fundamental survey coverage errors, DWR lost control of survey instruments, and then engaged in only partially documented data cleaning, in order to attempt to make up for those errors.

4. SPENDING PROFILES SURVEY ERRORS

The spending profile data is the core of the analysis of the socioeconomic impacts of this relicensing effort. However, the DEIS contains no data review whatsoever in this critical area. All that is presented in the DEIS is a statement from DWR about the spending profiles and a Monte Carlo simulation. Neither is an adequate scientific method for estimating the economic impacts of the Project on Butte County. This is because neither is an adequate substitute for a review of the data entered into the IMPLAN model.

Spending profiles of visitors to the lake and its facilities are derived from data in the returned surveys. As DWR study R-18 states:

The methodology for developing the recreation spending profiles used in the economic impact modeling ...consists of a series of steps followed to process expenditure data obtained from mail-back

⁴ DEIS at A-12.

surveys and to convert them into units needed as inputs to the economic impact model.⁵

The issue of whether the surveys conducted are biased is critical, because the IMPLAN visitor spending profiles are based solely upon the survey data.

5. Coverage Error and Non Response Bias

The first stage is sampling the visitors to Lake Oroville and its facilities and collecting spending data from the visitors to these facilities. The population of interest, or the target population, as it is sometimes referenced, is visitors to the project. From this population it is desirable to have **100% coverage** of the sample frame, or the segment of the target population which DWR attempted to survey.

The objective in survey research of any kind is to minimize non coverage, which is defined as missing units of analysis or incomplete sampling frames. In this case, however, DWR used a survey method of leaving a questionnaire on the windshields of Project visitors with a request that the visitor fill out and return the questionnaire. This is a convenience sample, and it has a high likelihood of producing biased survey data. This is called "coverage error." One of the experts in this field, Robert Groves, states that coverage error "*... exists because some persons are not part of the list or frame...used to identify members of the population.*"⁶ When coverage error exists, Schaeffer, Mendenhall and Ott state "*This coverage problem should be clearly elucidated in the report on the data analysis so that those using the results of the study can see clearly how the sampled population differs from the target population*"⁷

DWR did not report thoroughly on the total number of contacts that it made in the field. For example, DWR failed to disclose the number of surveys placed on windshields which were unaccounted for, and/or the number of questionnaires given to persons who refused to participate. As a result, we do not know the number of persons contacted in the field who refused to participate and/or the number of those who were present, but were not contacted (did not receive a questionnaire). Hence, it is impossible to estimate either the direction or the extent of the bias created through DWR's convenience sampling.

DWR's R-9 and R-18 study reports indicate that there were approximately 2,500 contacts in the field but less than 1,000 useable spending behavior surveys. This

⁵ DWR "Recreation Activity, Spending, and Associated Economic Impacts, Final, R-18, May 2004, page, b-1.

⁶ Robert Groves, Survey Errors and Survey Costs, (New York: John Wiley & Sons, 1989) p.11. Groves is Program Director at the Survey Research Center at the University of Michigan.

⁷ Richard L Sheaffer, William Mendenhall III, and Lyman Ott, Elementary Survey Sampling, Firth Edition (New York: Duxbury Press, 1996) p. 52.

is a drop of 1,500 completed surveys from a contact rate of 2,500 contacts in the field, a loss of 62.5%. Useable surveys were received from 480 people that live in Butte County and 482 out of county respondents. As shown in Table 1, this small sample size produces the potential for significant sampling errors. The smaller the sampling error the more precise is the estimate of the spending behavior. DWR's failure to be precise in survey reporting is apparent in the statement that 1,000 completed responses for spending behavior were used yet fails to note that this was out of 2,500 contacts in the field. Further, this sample size drops to less than five hundred when analyzing spending behavior between respondents living in Butte County and out-county respondents.⁸

Table 1 shows the loss of precision in a random sample as a partial function of sample size.

**TABLE 1
SAMPLING ERRORS IN PERCENTAGES AT VARIOUS CONFIDENCE
LEVELS AND SAMPLE SIZES**

Sample Sizes	95% CONFIDENCE	99% CONFIDENCE
3000	1.8	2.4
1000	3.1	4.1
500	4.4	5.8
250	6.2	8.2

DWR did not specify that *any* protocols were followed to ensure minimum errors in coverage. On the contrary, rather than follow protocols necessary to ensure that a representative sample frame was obtained, it appears that DWR simply took convenience samples. A convenience sample is defined as "*a group of individuals who are readily available to participate in a study.*"⁹

Normally, contacts are offered a financial incentive to complete the interview or fill out a survey questionnaire. Interviewers and survey administrators usually also collect the respondents' address, telephone number, and in a survey such as this, the expected time to return home.

DWR surveyors, however, simply placed surveys on visitors' windshields and waited for returned surveys from those recreational users who found it convenient to return them. The resulting convenience sample excludes people

⁸ See DWR R-18 "Recreations Activity, Spending, and Associated Economic Impacts, Final, May 2004 pages B-4,5. and Jon S. Ebeling, Ph.D. and Frederica Shockley, Ph.D. Response to Draft Environmental Impact Statement for Oroville Facilities Docket No. P-2100 Appendix A Review of Socioeconomic Model and Related Documents.

⁹ Gary T. Henry, Practical Sampling, (Newbury Park, CA: Sage Publications, 1990), p. 18. Henry is Associate Professor of Public Administration at Virginia Commonwealth University.

from the sampling frame, because some potential respondents threw the requests for information away, or they never had the opportunity to answer the survey, due to field data problems, such as the wind blowing the questionnaires away.

In addition to the windshield sampling effort, the DWR conducted face to face interviews, but DWR has failed to thoroughly report on that activity. DWR should have reported how many individuals were contacted, how many people agreed to be interviewed and contacted at a later time and how many refused to be interviewed. This failure to report thoroughly on either the windshield surveys or the face to face interviews, and thereby disclose potential problems with the sample frame, creates the possibility that the spending estimates are significantly biased.

In the second stage, in order to get a representative (random) sample, research managers must monitor the surveys to make sure there is appropriate variation by time of day, and days of the year. It is important to obtain both a random selection of respondents in the field and the cooperation of potential respondents.

The National Center for Educational Statistics states that *“Non response bias is likely to occur as a result of not obtaining 100 percent response from the selected cases.”* The Center further states that non response bias occurs *“when the observed value deviates from the population parameter due to differences between respondents and non respondents.”*¹⁰ In this case, the sample frame (total number of selected cases) is comprised of the recreational users whose cars were “tagged” with surveys and those who were contacted face to face. Those who responded comprise only 37.5%, of the sample frame. Since DWR’s sample only covers 37.5% of the sample frame, it is reasonable to conclude that there is a significant possibility that a material non response bias exists.

The DEIS states *“In our experience, a response rate of 37.5 percent is actually quite high for a mail survey. Dr. Ebeling offers no evidence for his assertion that the response rate is inadequate. Moreover, even small sample sizes are adequate as long as they are representative of the population.”*¹¹

The DEIS goes on to suggest that Dr. Ebeling has a reasonable point in that *“...neither Dr. Ebeling nor we can assess the possibility of bias in a study without examining the distribution of data collected.”*¹²

¹⁰ From the web site for National Center for Educational Statistics “Planning and Design of Surveys” Survey Response Rate Parameters
http://nces.ed.gov/statprog/2002/std2_2.asp

¹¹ DEIS at p. A-10.

¹² DEIS for Oroville Facilities, Docket No. P-2100, Appendix A, Review of Socioeconomic Model and Related Documents, P. A-10.

The DEIS statement that “a response rate of 37.5 percent is not only adequate, but actually quite high, is simply incorrect. It represents a major shortcoming in the DEIS and acts to systematically underestimate the impacts of the Project on Butte County. The DEIS assertion that a response rate of slightly over one-third is adequate, fails to comport with established scientific standards. The Reference Manual On Scientific Evidence states:

“...for quantifying a tolerable level of non-response in a probability sample is based on the guidelines for statistical surveys issued by the former U.S. Office of Statistical Standards. According to these guidelines, response rates of 90% or more are reliable and generally can be treated as random samples of the overall population. Response rates between 75% and 90% usually yield reliable results, but the researcher should conduct some check on the representativeness of the sample. Potential bias should receive greater scrutiny when the response rate drops below 75%. **If the response rate drops below 50%, the survey should be regarded with significant caution as a basis for precise quantitative statements about the population from which the sample was drawn.**¹³

The DEIS also indicates that no review whatsoever of the visitor spending data entered into the IMPLAN model was conducted. Under such circumstances, it is difficult to imagine how the IMPLAN model results could be useful at all.

In order to assess the accuracy of DWR’s IMPLAN results in a manner generally accepted in the scientific field, FERC should follow the Federal criteria as stated by the OMB:

“The policy of openness in providing full descriptions of data, methods, assumptions, and sources of error is one that is universally accepted by United States statistical agencies as well as the statistical agencies of other countries. As a policy and as a characteristic of a government statistical system, it is non controversial. **There is general agreement that data users need information on the sources and methods used to compile the data.** They also need to understand the nature and sources of error in sample surveys. **Correct interpretation or re-analysis of data relies on the availability of such information.**”¹⁴

¹³ Second Edition, Federal Judicial Center, 2000. (Emphasis added).

¹⁴ OMB, Statistical Policy Working Paper 31, page 1.4. (Emphasis added).

Failing to conduct a review of the data entered into the IMPLAN model is entirely contrary to the review standard generally accepted in the scientific field. As set forth above, the DEIS admits the possibility of bias, by stating: "...neither Dr. Ebeling nor we can assess the possibility of bias in a study without examining the distribution of data collected. The DEIS further states: "... if all respondents belong to just one income, race or other demographic and the universe is known to contain two or more classes, then the data could be biased." ¹⁵ Hence, the DEIS admits the possibility of bias, yet rejects our criticism for precisely the same reason that its analysis fails: There is no evidence of bias discussed in the DEIS, because there was no review conducted at the evidentiary level. The DEIS reviews only conclusions. This is a fundamental defect.

6. Unit Non Response And Data Cleaning

In addition to a problem with coverage error, as noted above, there are two other problems in the compilation of the spending profiles, namely: (1) unit non response, and (2) data cleaning.

Unit Non Response

Unit non response refers to data that is missing in the returned questionnaires because respondents chose to leave some questions unanswered. This does not usually happen in telephone or face to face surveys, as the interviewer can probe to get an answer. As set forth above, survey administrators usually collect the respondents' address, telephone number, and expected time to return home. This is done, in order to facilitate probing, and hence, completion of partially completed survey questionnaires.

However, researchers lose control of the survey instrument when they fail to provide potential respondents a financial incentive to participate and then simply rely upon respondents to mail back the survey, without facilitating any further contact by interviewers. We could not find references in the reports submitted by DWR about the unit non response in returned questionnaires.

When using a self administered questionnaire, it is necessary for the research manager to report on how many and in what sections there has been missing data, called unit non response. Unit non response can be illustrated as the case in which the respondent either decides not to answer a set of questions or answers in such away as to make little sense.

DWR does not indicate tabulated frequencies of responses to the expenditure surveys. DWR has not provided either the zero frequencies, or other response frequencies. Most professional survey organizations provide such data in a

¹⁵ DEIS, Appendix A, Page A-10.

tabulation format. This is the generally accepted method of reporting on unit response/non response.

The problem then becomes what to do with the response and ultimately the questionnaire. The DWR Report R-18 has an extensive statement about how the data was cleaned by those who found problems in data processing because there was unit non response, or there were nonsensical responses. (The descriptions of unit non response or nonsensical responses are described on pages B-2 and B-3 of R18.) The problem with this DWR explanation, however, is that the report does not adequately describe how data was adjusted or thrown out to get a "clean" set of data.

Data Cleaning

The DEIS states that data cleaning is "not unusual" and speculates that it may be necessary, because survey respondents "may have malicious intents." (See p. A-10, #3). However, what DWR fails to acknowledge is that data cleaning is not acceptable in all circumstances. Data cleaning should be avoided, unless necessary, and can be obviated by adequate survey design and implementation. Certainly data cleaning cannot legitimize a fatally flawed survey, such as the ones used here.

Because DWR Failed to adequately design and implement surveys, the fundamental survey coverage errors which occurred here caused DWR to lose control of survey instruments. Hence, the fatal errors had already occurred when DWR engaged in only partially documented data cleaning, in order to attempt to make up for those errors. This is very poor survey protocol. Contrary to the implication in the above referenced statements in the DEIS, data cleaning is *never* an adequate substitute for adequate survey design and implementation.

DWR's R-18 study report indicates that "data cleaning" was used to fill in where there was information missing on expenditures. "*A significant number of the mail-back surveys had no expenditure reported.*" This behavior of "no expenditure information" in the questionnaire "*...was fairly common for day-users of the Oroville facilities, but also included people who stated that they stayed overnight during their recent visit.*"¹⁶ The report states in step 4C "*To determine whether these respondents actually spent no money on their visit or if they elected not to fill out the expenditure portion of the mail back survey, the completed survey forms were reviewed*".

Unfortunately, DWR's surveys yielded the result that mean spending by visitors from outside of the County is lower than for in-County recreationists, except at

¹⁶ DWR, Recreation Activity, Spending, and Associated Economic Impacts, Final, May 2004. Page B-3.

the Oroville Wildlife Area ("OWA").¹⁷ This is quite odd since one could logically expect a higher average spending rate among those who come from outside of the County, because non-resident visitors would be expected to purchase at least some food and other incidentals while in the area, and also would probably purchase gasoline in the County in order to return home.

The OMB guidelines on survey research suggests:

*The extent of activity to minimize non-response can also be an indicator of data quality, and descriptions of these efforts can provide the data user with useful information. The quality profile describes the use of monetary incentives to improve completion rates of automobile use diaries.*¹⁸

If a researcher designs a survey to use methods of contact that are "repeatable," it will reduce the unit non response and reduce reliance on data cleaning. As the Statistical Policy Working paper suggests, "*Recontact and follow-up efforts may be used to improve item response rates, particularly on critical data items. Measures of these efforts may also serve as indicators of data quality.*" For example, an interviewer could get the recreational user's phone number on the initial contact, and then someone could call the respondent back if there were questions about how the respondent filled out the mail-in survey. A telephone follow-up survey is a common technique used to avoid unit non response, and possibly obviate the need for "cleaning data."

This methodology would also have provided opportunities to sample those who refused to answer the questionnaire. In our experience, we have found that one can get a significant number of completed questionnaires by repeated phone sampling, using interviewers who can convert persons who were initially unwilling to participate.

The research manager can then do a sub-sample analysis of those who initially did not respond. Then survey statistics can be calculated for the sub-sampled non-respondents and used to estimate parameters and differences for all of the non-respondents. This is a good way to test for bias. For example, the National Education Longitudinal Survey used these techniques between the base year and the first follow-up to improve the estimates for students with disabilities and for students with limited English proficiency.¹⁹ DWR does not report the use of any of these techniques.

¹⁷ DWR, Recreation Activity, Spending, and Associated Economic Impacts, page B-4

¹⁸ OMB, Statistical Policy Working Paper 31, Page 4-15. An example is the U.S. Energy Information Administration's *Quality Profile of the Residential Energy Consumption Survey* (U.S. Energy Information Administration 1996).

¹⁹ (NELS:88)(Ingels 1996). Page 4-11

DWR should have used monetary incentives to increase the number of respondents, obtained addresses and telephone numbers, and conducted telephone follow-up surveys to improve what is otherwise very poor quality survey work.

These types of responses were flagged and dealt with in Step 4D. The report goes on to state that the reader, to follow the procedures used to clean the data, should read step 4D entitled "Refine mail-back datasets ("DATA Cleaning")...." DWR does not describe how the data was made "legitimate" to be used in the final spending profiles. Here, the range of spending behaviors runs from zero to a high of \$335.00 for in county recreationists. There is nothing in this section to indicate how zeros in the expenditures were refined. This is important, since zeros are used in the averages and they are also used in the Monte Carlo simulations in the Appendix A of the DEIS.

Since the spending data from the questionnaires was primarily based on convenience sampling procedures, and there is no description of how the field data collectors tried to randomize their contacts, there is potentially significant error in the estimates of spending. The DEIS attempts to overcome this set of errors and lack of information from the surveys by suggesting the use of a log normal distribution in a Monte Carlo simulation. However, even if done correctly, such a simulation is not an adequate substitute for a review of the data entered into the IMPLAN model.

The DEIS indicates repeatedly that the original data was unavailable yet fails to explain why the data was unavailable. It is important for any decision document to state whether FERC asked DWR for the data and whether DWR then failed to give FERC the data.

Further, it is not reasonable to assume that no spending occurred among visitors, merely because DWR failed to report thoroughly on the missing data in the questionnaires, i.e. the unit non response. In addition, using zeros for spending in the simulation will systematically create a lower simulation outcome, in comparison with the actual data.

Finally, it is necessary to have the actual survey data in order to transform from numeric to log normal. Without the data, it is impossible to derive a log normal distribution, which is the purpose of a Monte Carlo simulation. Hence, the Monte Carlo simulation is not useful.

The DEIS implies that the lower simulated outcome of the Monte Carlo analysis somehow renders DWR's spending estimates legitimate, presumably because DWR's spending estimates, although flawed, are higher by comparison. This simplistic statement is the equivalent of arguing that DWR's underestimate of visitor spending makes up for the fact that DWR underestimated visitation to the

Project, thereby underestimating the Project's operational impacts to Butte County services. Of course, neither of these assertions is true.

One survey or data inadequacy does not make up for another, and the simulated Monte Carlo analysis does not adequately compensate for the failure of the DEIS to conduct an evidentiary analysis.

7. Use Of A Static Model

The model used by DWR is static and does not account for the dynamics of visitation due to exogenous factors and input data are point estimates, rather than a range of values around a distribution

The fourth stage of the research conducted on Project impacts is a forecast of costs and revenues generated in the County's unincorporated areas and the incorporated cities. This work is found in DWR's R-19 study report, *Phase 1 Background Report Economic and Fiscal Conditions*.

Dr. Ebeling has previously criticized DWR for using one year of budget data, FY 2002-2003, to forecast County costs associated with the project.²⁰ Further, DWR used this one year of budget data to project County costs out to the year 2020. One year of budget data is inadequate, since that one year could be an abnormal year, perhaps a time of recession or a temporary period of expensive gasoline, or, on the other hand, there may be a sustained trend in the data. Instead of basing their forecast on one year, DWR should have used data over a much longer period of time, at least a 5-year period. In this way DWR would have produced a more reliable estimate of the County's losses than what was produced in the R-19 study report.

Further, DWR erred by using the County's entire budget as a basis for its analysis. California counties actually deliver most State and Federal social service programs, which are "subvented" or partially funded by the Federal government and the State of California. Using subventions and subvented expenditure revenue in this type of analysis inherently skews a county's budget, because it does not isolate general purpose revenues available to a county for discretionary expenditures. California counties are required by state mandates to maintain subvented programs at specified levels. A more appropriate analysis would have focused on general purpose revenues available to Butte County from which to fund programs, as well as discretionary expenditures.

The R-19 study report indicates on page 4-4, that DWR attempted to use time-series budget data, but discovered that "*budget processes had changed over time for several service providers, making it difficult to develop consistent data sets for time series analysis. Additionally, several service providers indicated that past budget data are not necessarily reflective of current service levels,*

²⁰ R-19, p. 4-13.

technology and efficiencies.” DWR does not describe the nature of these problems nor cite examples. In fact, the California State Controller’s office regularly publishes data, which is available on its website, which would have enabled DWR to conduct a time series analysis of the County’s budget. DWR could easily have done a time series analysis of Butte County’s budget.

During the ALP process, Dr. Ebeling participated in DWR’s Technical Review Team meetings. Dr. Ebeling told Team members that a time series analysis of the County’s budget should be conducted, but this suggestion was ignored by the participants of the Team, most of whom were DWR or State Water Contractor employees or consultants.

To produce reliable estimates, DWR should have used time series regression for both the expenditures of the County and for the revenue estimates for the County.

DWR further compounded County cost estimation problems by relying on the opinion of just one member of the Butte County Sheriff’s office to determine the percent of calls to the Oroville Facilities. This person we have since been told was not in a position to know Department-wide information and is now retired. Thus, the basis for DWR’s conclusions were much like the “convenience sample” used for the recreational visitors--unreliable.

8. Survey questions failed to operationalize “elsewhere” by separating visitor spending into incorporated and unincorporated areas

Step 5C sets forth another lack of precision. Here is an effort by the researchers to code “Elsewhere in Butte County.” This is a category in the survey for the respondents to mark, which is unclear. It is unclear whether this category is within the unincorporated areas or some other area of Butte County. Moreover, respondents may not have been familiar with the boundaries of areas defined as the primary cities. Hence, it is unclear what “elsewhere in Butte County” means.

Since the incorporated cities are non operational categories in the survey, both the respondent and the researcher are left with a significant amount of ambiguity as to what these categories mean. This is unfortunate, because the lack of definitions for the geographic areas considered creates the basis for a poor estimation of spending in the four model areas and the “elsewhere” group. Hence, the surveys failed to clearly identify spending patterns in unincorporated Butte County. As set forth in the Operation and Maintenance (“O & M”) spending analysis below, this lack of precision, significantly impairs the attempt to estimate tax revenues attributable to O & M spending which are allocated to Butte County, from those allocated to incorporated cities within Butte County.

9. DWR failed to operationalize (define) the term “plausible.”

The DWR R-18 study report states: “*Observations that were not intuitively plausible were deleted.*”²¹ Yet DWR failed to operationalize (define) the term “plausible.” The failure to define this term creates yet another possibility for a biased result. Particularly when one considers that, as set forth above, some very unusual and seemingly implausible responses were reported.

Conclusion—DWR’s visitor spending estimates are not reliable

DWR’s survey work is of extremely poor quality. The use of the spending profiles derived from the surveys renders the IMPLAN model’s conclusions useless. The DEIS’s reliance upon these estimates ignores any cumulative analysis of the multitude of errors committed. DWR began by underestimating the target population. DWR then inadequately designed and implemented the visitor spending surveys, so that the response rate was just over one-third.

DWR lost control of the survey instrument, through poor coverage and then engaged in poorly documented data cleaning. The use of a point estimate of the Butte County budget, rather than utilizing a time series analysis, is woefully inadequate; it is an inadequate informational basis upon which to forecast. Finally, important operative terms that DWR included in surveys and reported on, were not defined, which has resulted in a lack of precision. This is not adequate social science research and can not be relied on by the FERC.

Finally, the DEIS is deficient because it simply reviews conclusions, not actual evidence. Instead of conducting a transparent review of conflicting evidence, the DEIS has further clouded the factual picture by presenting more artificial analyses (i.e. Monte Carlo) and other techniques, that are not adequate substitutes for a review of the actual data.

GROUP B ISSUES:

ALLEGED NET BENEFITS TO BUTTE COUNTY

Introduction

The DEIS states: “Because the net benefits to Oroville and other communities exceed Butte County’s deficit, DWR concludes that the project provides a net fiscal benefit overall.”²² First, the claim that Project benefits to Butte County

²¹ DWR R-18, page B-3.

²² FERC, Draft Environmental Impact Statement, September 29, 2006, p. 318-319.

exceeds the Project costs has not been substantiated and has been strongly challenged by the County and several consultants. Second, the DEIS estimates of tax revenue benefits to Butte County are clearly inaccurate because they fail to separate tax revenue allocated to the incorporated cities from tax revenue allocated to Butte County. By failing to separate revenue by jurisdiction, DWR's analysis assumes that incorporated cities share revenue with the County. This is simply not the case. City and County budgets are operated independently of each other. Further, cities and counties in California are faced with such fiscal stress that it is not feasible for them to share deficits and surpluses in their annual budgeting decisions. Calculating the net benefits for the four model areas and the County too, we find that the loss is still there. That annual loss is over \$400,000 according to DWR's own estimates.

We find that the net fiscal benefits for all of Butte County described in DEIS's pp. 318-319 does not exist. Using the material in R-19 tables 5.1-1 and 5.1-2 we find a net deficit of \$440,200.

The net benefit, just from this crude estimate does not exist. Note further these estimates by DWR's own admission do not include indirect effects. The authors of DWR Report R-19 state "The net fiscal impacts on Biggs, Chico, Gridley and Paradise are uncertain because indirect (growth-related) expenditures and revenue effects were not evaluated"²³

These calculations include the DWR's estimates of fiscal impact for O&M and for visitor spending. It is clear that the authors of the DEIS and DWR do not understand much about local government structures and processes in California. There is little or no sharing of surpluses and deficits in counties and there is severe competition for sales tax revenues resulting from the addition of Redevelopment Agencies, city annexations and new incorporations.²⁴

Indirect Jobs

The DEIS states an assumption of the IMPLAN model, as if it were a fact. However, DWR's data indicate that average income per induced job due to the Project is \$19,000. According to Table 65 in the DEIS, recreation spending creates 555 induced jobs. Table 66 in the same document shows that the total earnings for the 555 jobs are \$10,600,000.²⁵ If we divide total earning by the number of jobs, we get an average income of \$19,099. As the table below indicates, that is close to the poverty level for some households. Average

²³ All of this material comes from R-19, Fiscal Impacts, March 2004, pages RS-3 & Tables 5.1-1 and 5.1-2.

²⁴ Press Release July 8, 1999 PPIC, <http://www.ppic.org/main/pressrelease.asp?i=347>

²⁵ Draft Environmental Impact Statement, September 29, 2006, Tables 65 & 66, p. 316.

household size in Butte County is 2.48.²⁶ If we round to 3 persons, then average income per job created is about \$2,500 above the poverty level.

Table 2

2006 Health & Human Services Poverty Guidelines	
Persons in Family or Household	48 Contiguous States and D.C.
1	\$9,800
2	13,200
3	16,600
4	20,000
5	23,400
6	26,800
7	30,200
8	33,600

Source: <http://aspe.hhs.gov/poverty/06poverty.shtml>

People earning an \$19,000 income pay few or no taxes to the County, but they require the County to supply them with governmental and social services. Hence, they are likely to impose a net cost on the County. Finally, there is often a conflict between cities and counties in California over the flow of funds from the various taxes within a county.²⁷ One of the experts in the field, Mr. Jeff Chapman, indicates that “fiscal stress in local California jurisdictions originates from four different sources: natural disasters, exogenous influences, voter initiatives, and ... redevelopment [in regard to] the changing state and local tax structure”²⁸

Mr. Chapman continues: “The final cause of local fiscal stress is the state/local revenue flow structure in the state. In the years after Proposition 13, the

²⁶ http://www.city-data.com/county/Butte_County-CA.html

²⁷ Harriet M. Wieder, Chairman of the Orange County Board of Supervisors commented that the manifestation of these conflicts is in the form of city annexations, redevelopment often in the form of subsidizing development. See her comments in California Legislature, Senate Committee on Local Government, “Restructuring the State-Local Relationship, November 23, 1993. page 56.

²⁸ Craig L. Johnson and Joyce Y. Man, (eds) Tax Increment Financing and Economic Development, (Albany, New York: State University of New York Press, 2001) p. 115, “Jeff Chapman, “Tax Increment Financing and Fiscal Stress: The California Genesis”.

state/local tax relationship became extraordinarily convoluted and understandable only to those who make a career of analyzing it".²⁹

The fact that DWR and the DEIS have completely mischaracterized the fundamental nature of government finance in California is only the tip of the iceberg when considering the deficiencies in the analysis. As set forth below, there are five (5) major problems with the tax estimates in Table 3 below, which is derived from DEIS Table A-1, p. A-3.

First, the **\$767,700** in estimated total tax revenue for Butte County in Table 3 is based on the IMPLAN analysis and using the faulty recreational users' survey data discussed above. Consequently, the total amount of tax revenue generated is not based on reliable estimates and is thus unknown.

Table 3
DEIS Estimates of Revenue Tax Yields for Butte County

Staff's and Applicant's Revised Estimates of County Revenue From R-18	
Sales Tax- visitor driven	\$217,100
Sales Tax- O&M related	\$32,900
Lodging tax-visitor driven	\$3,300
Lodging tax- O&M related	\$200
Other-indirect (growth-related)	\$318,400
Other-O&M related	\$195,800
TOTAL	\$767,700

Source: FERC, DEIS, Proj. 2100, Appendix A, Table A-1

Second, the DEIS analysis incorrectly assumes that all O & M expenditures are subject to sales tax. This is not correct. All O & M expenditures are divided between (1) labor, which is nontaxable; (2) services, which are nontaxable and (3) products, which are taxable. Further, in R-19 DWR states that, "Only 5 percent of O&M expenditures in the state government sector generate sales tax revenues." Therefore, the assumption that all O&M expenditures resulted in tax revenues is clearly incorrect and invalidates the analysis.

Third, the DEIS does not show calculations and the revenue categories which are shown in the DEIS at Table A-1, p. A-3, are not explained. For example, what is the basis for \$97,400 in "property tax indirect (growth related)"? How is this amount calculated? Which revenue is referenced by \$104,200 of "property tax-indirect O&M related?" How is this amount calculated? Has there been double counting of property tax yield? If not, were these numbers calculated by

²⁹ Ibid, p. 117.

commingling city and County tax revenues, as discussed below? Which revenue is referenced by \$318,400 of “other-indirect (growth related)”? There is also a lack of specificity in the “other-O&M related” category. Which expenditures do the taxes result from? Are specific spending requirements involved? If so, what are they? The failure to provide this information means that the accuracy of the data and calculations cannot be assessed.

Fourth, the DEIS fails to consider the California Public Contracting Code (Public Contracting Code section 10301), which generally requires that all governmental entities, including State agencies, purchase services and products from the lowest responsible bidder. The Public Contracting Code effectively prohibits state agencies such as DWR from granting preferences to businesses in any locality. This means that it cannot be assumed that just because work is done for the Project that the local work force will be hired to perform that work. It cannot be predicted with any degree of certainty that O & M expenditures during the next license period will be made in Butte County.

Fifth, DWR’s analysis makes incorrect assumptions about the relationship between the cities within Butte County, and the County itself. The IMPLAN analysis divides Butte County into four geographic (modeling) areas which all contain both incorporated areas and unincorporated areas: (1) Chico, (2) Biggs-Gridley, (3) Oroville, and (4) Paradise.³⁰ The tax revenue estimates generated by IMPLAN are estimates that commingle sales tax revenue available to the cities with those available to the County. Since these jurisdictions do not share their tax revenue allocations with each other, however, the estimates are not accurate or relevant.

If the cities within Butte County shared their budgets for police, fire or other services with Butte County, then DWR’s “lump sum” analysis would be relevant. Since this is not the case, however, an analysis which calculates the amount of tax revenue available to the cities in Butte County is not relevant or accurate. Because Butte County is the service provider to the Project, the only relevant inquiry is: What is the annual amount of O & M sales tax revenue allocated to Butte County?

Hence, even if accurate estimates of recreational users’ expenditures had been entered into IMPLAN, the IMPLAN result, which commingles tax revenues allocated to incorporated and unincorporated jurisdictions in Butte County, estimates an amount of revenue which is not relevant or correct, because the estimates do not reflect the tax revenue actually available to *Butte County*.

Sixth, as shown in Table 2 below, the DEIS analysis incorrectly assumes that Butte County receives 100% of all tax revenues generated by sales in both the incorporated areas of the County (i.e. cities) and the unincorporated areas of the County. Neither assumption is correct.

³⁰ See Figure 1.1-1 on p. 1-2 of R-18

According to DWR's R-18 Report, total O&M Expenditures are \$15,427,200.³¹ Of course, this number is completely unsubstantiated. Assuming, for the moment that the number is correct, however, it is necessary to calculate the tax revenue allocated to Butte County by calculating the amount of annual taxable sales, and then calculating the percentage of the tax revenue generated by those sales that is allocated to Butte County.

As noted above, labor and services are not subject to the retail sales tax. Moreover, as the author of R-18 noted "Fieldwork also confirmed that State agencies in Oroville do not spend a large proportion of their budget in the local area."³² Further, as the quote from DWR which was cited above states, only 5 percent of O&M expenditures in the state government sector generate sales tax revenues. Thus, 5 percent of **\$15,427,200 is \$771,360.**

Because Butte County receives 1% (.01) of sales tax revenues generated by taxable sales in the unincorporated areas of the County, sales tax revenues of \$32,900 for the jurisdiction of Butte County (the unincorporated part of the County) would require O&M expenditures *for products only* equal to **\$3,290,000**, as set forth in Table 2 below. Of course, expenditures must be subject to the retail sales tax and also must be spent in the unincorporated area of the County, in order for the sales tax distribution formula illustrated by Table 2 below to apply. Even if these circumstances are all present, however, Butte County would receive 1% (.01) of \$3,290,000 which is \$32,900.

However, the DEIS estimate of County tax revenues is completely inaccurate, because even by DWR's estimate, 5 percent of \$15,427,200 in expenditures yields only \$771,360, not \$3,290,000.

In 2003, 87% of taxable sales in Butte County occurred in the incorporated areas of Butte County.³³ Only 13% of taxable sales in Butte County in 2003 occurred in the unincorporated areas. Hence, it is very likely that the vast majority of the O & M expenditures related to the Project occur in incorporated cities. Thus, as set forth in Table 4 below, in order to generate \$32,900 in sales tax revenue for the jurisdiction of Butte County, O&M expenditures *for products only* made in the incorporated areas would have to be \$13,160,000, not \$771,360.

The corrected analysis is shown in Table 4 below and is based on the following: If one multiplies DWR's estimate for O&M (\$15,427,200) by the DWR estimate of the average percent of state agency expenditures subject to the sales tax, the total estimated taxable sales are equal to \$771,360 as shown in Table 4. If the

³¹ DWR, R-18, Table 4.4-2, p. 4-14.

³² DWR, R-18 p. 4-10.

³³ California State Board of Equalization, Taxable Sales by County, 2003, Table 2; http://www.boe.ca.gov.news/pdf/t2_a03.pdf

entire \$771,360 was spent in the unincorporated area, Butte County would receive \$7,714 sales tax revenue.

Table 4

Taxable Sales Required to Generate DWR's Estimates of Sales Tax Revenue

Row	Variable	Source	Value
1	DWR's Estimate of Sales Tax Revenue Due to O&M	FERC, DEIS, Proj. 2100, Appendix A, Table A-1	\$32,900
2	Butte Co's Tax Rate for Taxable Sales in Unincorporated Areas	http://www.boe.ca.gov/news/pdf/t2_a03.pdf	0.01
3	Taxable Sales Required at .01 Tax Rate	Row 3 / Row 4	\$3,290,000
4	Reported O&M Spending	FERC, DEIS, Proj. 2100, Table 63, p. 315	\$15,427,200
5	Average Percent State Agency Spending Subject to Sales Tax	R-19, p. 6-2	0.05
6	Amount of O&M Subject to Sales Tax	Row 7 x Row 8	\$771,360
7	Total Tax Revenue for All Sales in Both Inc. and Uninc. Areas	\$771,360 x .01	\$7,714
8	Butte County's Tax Revenue for All Sales in Unincorporated Areas	\$7,714 x .13	\$1,003

In accord with the above referenced 87% to 13% ratio of taxable sales in Butte County, the correct analysis for calculating sales tax revenue available to Butte County assumes that the County receives 13% of sales tax revenue generated by taxable sales in the unincorporated areas of the County. Under this scenario, the county receives \$1,003 (13%) of the \$7,714 total sales tax revenue from taxable O & M expenditures.

Conclusions—Alleged O & M Benefits

The DEIS estimate of annual tax revenue allocations to Butte County from O & M expenditures is based upon the IMPLAN analysis, using the faulty recreational users' survey data. The grossly oversimplified analysis in the DEIS, which incorrectly commingles sales tax revenues allocated under California law to cities and counties, fails to take into consideration California law precluding state agencies from granting local businesses preferential treatment, fails to distinguish between taxable and non taxable expenditures, and fails to distinguish between expenditures in incorporated areas and unincorporated areas.

The analysis grossly overestimates benefits to Butte County from O & M expenditures by the Project. The above chain of errors has precluded an accurate/reliable tax revenue benefits estimate. When one correctly estimates the annual amount of tax revenue allocated to Butte County from taxable sales in the incorporated areas and the estimated amount of tax revenue from taxable sales in the unincorporated areas, the total is \$1,003. The DEIS estimate of \$32,900 is off by a factor of almost 33.

REGIONAL AND ECONOMIC SCIENCES
Applied Policy Studies for the Public and Private Sectors

BIOGRAPHY OF JON EBELING, Ph.D.

Jon Ebeling earned a PH.D. in Economic and Social Development from the Graduate School of Public and International Affairs (GSPIA), University of Pittsburgh, Pennsylvania in 1974.

He graduated from San Jose State college in 1962 in Modern American History, and then entered the first Peace Corps Project for Ethiopia in 1962. He taught school and worked in community development and rewriting texts for the Ministry of Education in Ethiopia. In 1964 he entered graduate school in African History at U.C.L.A. and completed his Master's degree there. He was then asked to return to Ethiopia by the Director in 1967. He was Associate Director in Ethiopia for two years and returned for a fully funded assistantship at the University of Pittsburgh. He studied applied project management, administration, socio economic development, and economic accounting for development issues. Dr. Ebeling was hired in 1971 to teach at California State University, Chico and was awarded Emeritus status in 1989. Dr. Ebeling taught Statistics and Research Methods, Public Sector Budgeting, Methods of Benefit/Cost Analysis and Systems Analysis in the Public Sector, and Evaluation Research Methods.

While at the California State University, Dr. Ebeling helped start the Institute for Local Government, the Planning and Economic Development Program, and the Survey Research Center.

Dr. Ebeling has worked on more than seventy survey projects while at the University and in his consulting business. He has consulted on or been the principal investigator for 15 studies for local governments using input/output methods.

Dr. Ebeling has written twenty three publications on the topics of social science research methods, results or policy formation and has made 27 presentations at social science research conferences.

Dr. Ebeling has been a visiting scholar twelve times at various Universities in the U.S., including the University of Michigan, University of California Berkeley, and the University of Minnesota. These were related to applied statistics, IMPLAN workshops or survey research workshops. Dr. Ebeling introduced input/output analysis in this region of California in the late 1970s and along with his wife, Dr. Frederica Shockley, ran the first input/output analysis for the City of Shasta Lake in 1989. He has also conducted several studies and evaluations of public health projects for cities and counties in the northern California region.

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Professional organizations for Dr. Ebeling:

1993-1998 Member Policy Studies Organization

1992-present American Statistics Association

1990-1994 Western Governmental Research Association, Member, Editorial Board

1990-1998 Member International Input-Output Association, Klosterneuburg, Austria.

1976-2003 Organizational Representative, Inter-university Consortium for Political and Social Research. Institute for Social Research, University of Michigan

1976-2003 Member of Social Science Research and Instructional Council, California State Universities and Colleges

1981-1982 Chair, Social Science Research and Instructional Council, California State Universities and Colleges

1986-88 Chair, Instructional Computing Advisory Group California State University, Chico

1970-2004 the Society for Public Administration.

1984 Member Executive Committee for Sacramento Chapter, ASPA.

1985-Present Pacific Coast Chapter, American Association for Public Opinion Research.

1986-Present American Association for Public Opinion Research

National Returned Peace Corps Association, Ethiopia RPCV's.

2000-2006 member California State Rural Health Association

REGIONAL AND ECONOMIC SCIENCES
Applied Policy Studies for the Public and Private Sectors

BIOGRAPHY OF FEDERICA SHOCKLEY, PH.D.

Frederica Shockley received her Ph.D. in economics from Georgia State University in 1978. Her fields of specialization are public finance and urban economics. She worked in the Governor's Office in Georgia where she analyzed the impact of proposed legislation before taking a position as Professor of Economics at California State University, Chico. She has taught courses in public finance, urban and regional economics, and introductory microeconomics at CSU Chico. Dr. Shockley served as chair of the Department of Economics for 10 years and as Associate Dean in the School of Behavioral Sciences for 2 years.

In addition to her work at the University, since 1988, Dr. Shockley has been a principal in the firm Regional and Economic Sciences, providing consulting services to many local governments in northern California. Consulting topics have included, economic impact studies, revenue forecasts, nexus studies for development impact fees, opinion surveys, cost and benefits of annexation, and economic development studies.

Dr. Shockley has conducted many studies and surveys and has consulted on 32 projects involving economic forecasting, input/output analysis or surveys for input/output analysis. Dr. Shockley has six referred publications in international and domestic economics journals.

Committee Memberships for Dr. Shockley:

University Foundation Board of Governors, 1984-1991

University Foundation Board of Governors Investment Committee, 1986-1991

Chair, AS Task Force, 1986

Chair, Academic Program and Budget Committee, 1984-1986

Member, Instructional Improvement Committee, 1987-1993

Member, Chairs' Advisory Group, 1994-1997

Member, BSS Dean's Search Committee, 1995

Member, Financial Sub-Committee of WASC, 1995-1996

Member, Network Advisory Group, 1995-1996

Member, Center for Economic Development Advisory Group

Member, Economic Impact Committee, 1996

Vice-President's Advisory Group, 1996-Present

Member, BSS Computing Committee, 1996-Present

Member, T2000, 1995-Present

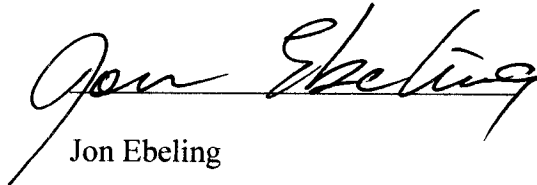
Member, Quality Indicators Committee, 1998

4. Under my direction and control, and in consultation with Dr. Frederica Shockley, Regional and Economic Sciences prepared a response to the Draft Environmental Impact Statement issued by the Federal Energy Regulatory Commission on September 29, 2006. This report is entitled "Response To Draft Environmental Impact Statement For The Oroville Facilities."

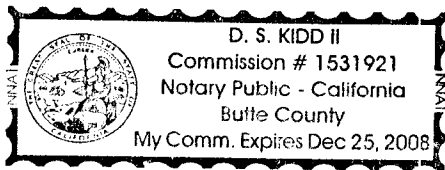
5. I attest that the information contained in this Report is true and accurate to the best of my information and belief.


6. A true and correct copy of the "Response To Draft Environmental Impact Statement For The Oroville Facilities" is attached to this filing.

DATED this 14th day of December, 2006.


Jon Ebeling

SUBSCRIBED and SWORN to before me this 14 day of December, 2006 by Jon Ebeling.




Print Name: D. S. Kidd II
Notary Public in and for the State of
California, residing in Colico
My commission expires: 10/25/2008

This report is entitled "Response To Draft Environmental Impact Statement For The Oroville Facilities."

5. I attest that the information contained in this Report is true and accurate to the best of my information and belief.

6. A true and correct copy of the "Response To Draft Environmental Impact Statement For The Oroville Facilities" is attached to this filing.


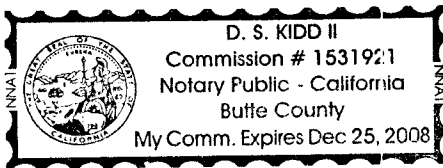
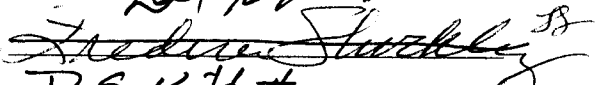
DATED this day of December, 2006.



Frederica Shockley

SUBSCRIBED and SWORN to before me this 14 day of December, 2006 by

Frederica Shockley.



D.S. 12,76 #
Print Name: Frederica Shockley

Notary Public in and for the State of

California, residing in CA/CA

My commission expires: 12/25/2008