TUOLUMNE

WILD & SCENIC RIVERS

FINAL ENVIRONMENTAL STATEMENT AND STUDY REPORT

Dear Study Participant:

The enclosed document represents the final work on the Tuolumne Wild and Scenic River Study. The study report, filed with the Environmental Protection Agency on November 9, 1979, recommends that all eligible segments of the river (83 miles) be designated as a component of the national wild and scenic river system. The President has concurred with this recommendation and has transmitted a legislative proposal to Congress calling for such designation. That action also assures that the natural values of the river will be protected for up to three years to permit Congressional consideration of the proposal.

The Federal agencies who participated in this study, the Forest Service (USDA), the National Park Service, the Bureau of Land Management and the Heritage Conservation and Recreation Service (USDI), appreciate the quality input received from public agencies, citizen groups, and concerned individuals throughout the entire study process.

1041D-25-A

NOV 9 1979

FINAL ENVIRONMENTAL IMPACT STATEMENT AND STUDY REPORT

TUOLUMNE WILD AND SCENIC RIVER STUDY
Tuolumne County, California
October 1979

Joint Lead Agencies:

USDA-Forest Service
630 Sansome Street
San Francisco, CA 94111

USDI-National Park Service
450 Golden Gate Avenue
San Francisco, CA 94102

Cooperating Agencies:

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2800 Cottage Way
Sacramento, CA 95825

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450 Golden Gate Avenue
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For Further Information Contact:

Blaine Cornell, Forest Supervisor
Stanislaus National Forest
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Sonora, CA 95370

Abstract:

This study was conducted pursuant to the Wild and Scenic Rivers Act (16 U.S.C. 1271, et seq.) and recommends legislative action to include 83 miles of the Tuolumne River in the National Wild and Scenic Rivers System. While there was voluminous public response, it was not considered necessary to extensively revise the Draft Environmental Impact Statement. Therefore, in accordance with 40 CFR 1503.4(c) - CEQ Regulations, this Final Environmental Impact Statement and Study Report includes: Section I, the Draft Environmental Impact Statement filed on 6/26/79; Section II, Comments and Responses; Section III, Changes to the Draft Environmental Impact Statement; and Section IV, Appendix, which includes those items required by the Wild and Scenic Rivers Act.

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SECTION I

DRAFT TUOLUMNE WILD AND SCENIC RIVER STUDY AND ENVIRONMENTAL IMPACT STATEMENT

This document was widely distributed on and after June 26, 1979. It has not been reprinted and is incorporated here by reference. A limited number of copies are available at the office of the Forest Supervisor, Stanislaus National Forest, 19777 Greenley Road, Sonora, California 95370.

SECTION II

COMMENTS AND RESPONSES

The following responses provided by the study team also cover points raised in other letters and in testimony given during the hearings. In addition, the Errata sheet, which appears in Section III of this document, also responds to specific points raised with respect to the draft report.

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GOVERNOR OF
CALIFORNIA

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REGIONAL FORESTER

Air Resources Board
California Coastal Commission
California Conservation Corps
Colorado River Board
Energy Resources Conservation and Development Commission
Regional Water Quality Control Boards
San Francisco Bay Conservation and Development Commission
Solid Waste Management Board
State Coastal Conservancy
State Lands Commission
State Reclamation Board
State Water Resources Control Board

THE RESOURCES AGENCY OF CALIFORNIA
SACRAMENTO, CALIFORNIA

1979 AUG 8

Mr. Zane Smith, Regional Forester
U.S. Forest Service
630 Sansome Street
San Francisco, CA 94111

Dear Mr. Smith:

The State of California has reviewed the "Draft Tuolumne Wild and Scenic River Study and Environmental Impact Statement", which was submitted to the Office of Planning and Research (State Clearinghouse) within the Governor's Office. The review is in accordance with Part II of the U.S. Office of Management and Budget Circular A-95 and the National Environmental Policy Act of 1969.

3 The review was coordinated with the Departments of Boating and Waterways, Conservation, Fish and Game, Food and Agriculture, Forestry, Health Services, Parks and Recreation, and Water Resources; the Air Resources, Solid Waste Management, and State Water Resources Control Boards, and the State Lands Commission. Following are the State's comments.

<u>General Comments</u>

The State actively supports Alternative A, which would place all remaining eligible segments of the Tuolumne River from its headwaters to Don Pedro Reservoir in the National Wild and Scenic Rivers System.

We commend the U.S. Forest Service for taking such a positive step toward first recognizing the wild and scenic river values of the Tuolumne and then recommending that such values be protected to the maximum extent possible. As noted in the State's "California Protected Waterways Plan (Initial Elements)" dated February 1971, the Tuolumne River is a Class 1 - Premium Scenic, Fishery, Wildlife and Recreational Waterway. Inclusion of the Tuolumne River in the National Wild and Scenic Rivers System would complement the State's Protected Waterways designation.

It should be noted that, in connection with possible hydroelectric power development on the Tuolumne River, the voters of Tuolumne County in November 1978 voted 2 to 1 against a proposed dam project on the Tuolumne River.

Any proposed hydroelectric projects would be single-purpose. There would be no water quality improvement, flood protection or fish and game enhancement. Only a relatively small amount of consumptive yield could be realized from any Wards Ferry Project.

The maximum annual power yield from the potential hydroelectric projects is probably less than the 880 million kilowatt hours projected. This is because larger flows would be required for fish and recreation mitigation. Although energy is important, other resource values can be just as important. While we can conserve certain amounts of energy, we cannot stretch further the limited, finite wild and scenic areas that remain. Certainly we should better manage our electrical load use before undertaking such environmentally damaging "peak power" projects which would be allowed under Alternatives B, C, D and E.

The Tuolumne River already provides a reliable source of both energy and high quality water to urban and agricultural users. This river has already been heavily tapped to maintain and expand our economy. What is left must be conserved to enrich other aspects of our lives.

Although the study discusses the impacts of hydroelectric power development on the fishery resources of the study area, the discussion of impacts on wildlife is not adequately presented. We also wish to point out that in 1977, when Turlock and Modesto Irrigation Districts and the City and County of San Francisco filed for a preliminary permit to construct the Clavey-Wards Ferry Project, the Department of Fish and Game protested and filed a Petition to Intervene. They took this position because the project would result in significant and wide-ranging impacts on wildlife, particularly on the Yosemite and Tuolumne deer herds. We believe there are no adequate means to mitigate these predicted impacts.

4
1 The study should also discuss the economic impacts of the various alternatives on the hunting public. For example, 22,971 deer tags were issued in 1978 for Zone D6 (the general project area) with 1,015 buck deer harvested. The area is also popular for bear hunting and supports a good population of quail. We believe the economic analysis should be modified to give more consideration to fish and wildlife-oriented recreational use.

Where any alternative involves construction activity, fire protection issues should be discussed with:

James D. Taylor
State Forest Ranger
Tuolumne-Calaveras Ranger Unit
785 El Dorado Street
San Andreas, CA 95249
Telephone: (209) 754-3831

Only alternative A fully protects the values of the entire eligible reach. Any of the other alternatives would drastically affect the character of the river. Alternative D would allow the Wards Ferry project to inundate 11 miles of river. Alternative C would allow the Clavey unit to divert enough water from 12½ miles of the river to impair its recreational, scenic, and perhaps fish and wildlife values. High peak discharges back into the Tuolumne at the Clavey River would further despoil another 9¼ river miles. Alternatives B and D would accumulate these unacceptable impacts by allowing both the Wards Ferry and Clavey projects.

1. Chapter V, "Evaluation of Alternatives Under Principles and Standards", has been updated and revised. The revisions include additional consideration being given to recreation, wildlife values, and, specifically, the deer herds.

Specific Comments

Page VI, last sentence. Hydropower, social, and economic benefits would not be substantial on a statewide or national basis. The amount of oil foregone is a small increment of that imported. The amount of profits is similarly small in perspective. However, from the same state and national perspectives, the wild and scenic qualities of these remaining stretches are immensely valuable due to their scarcity. Even locally, the economic benefits following construction would be minor.

2 Page 1. It should be noted that the area studied has not just some of the values making it eligible for designation, but, in fact, contains all the values.

Page 27. The table should be corrected to indicate that segment 7, Cherry Creek Confluence to study Terminus, does have outstanding wilderness characteristics.

3 Page 38. It is indicated that a one-time recreation facility construction cost of $500,000 would be required under Alternative A, but there is no indication as to what would be constructed. The study should include a discussion as to what type of facilities would be constructed.

4 Page 40 and 81. The power capacity figures are not consistent with the estimates found elsewhere. Also, the power capacity figures should be verified to ascertain that some of the benefits of the Raker project are not counted for these alternatives.

5 Page 57. The impact description for Alternative C should be rewritten to clearly state that under its limited designation the Jawbone and Clavey units could be built. This would require that the project include full mitigation for the adverse impacts on the values for which the other reaches were designated. We should also keep in mind that proposed mitigation sometimes is not as effective in reality as it is in a plan.

5 This section should also show how the remote and wild recreational experience would be diminished by increased use allowed by good access roads to dam facilities. What is now a relatively pristine environment would be opened up to as many more users as wanted to drive down a well maintained road.

The whitewater boating experience would suffer a similar fate. The project's water regulation features would make the rapids easier to run. It would improve the quantity of the experience at the expense of the quality. There is no substitute for the Tuolumne's advanced whitewater experience.

Alternative D Map. This map indicates that the portion of the Tuolumne River below the Clavey River is designated "wild" under Alternative D. We believe it should be shown as "Not designated".

6 Page 61. The proposed installed capacity of the Clavey and Wards Ferry units should be 300,000 and 100,000 kilowatts, respectively, instead of 300 and 100 million kilowatts.

Page 68. As discussed earlier, the impact on the national economy would be only minorly incremental, not substantial. After construction, the regional impact might also be only minor.

2. The discussion on page one is general background to the Wild and Scenic Rivers Act and does not apply specifically to the Tuolumne River. The wild and scenic river values associated with the 92 miles of the Tuolumne River studies are identified in revised Table III-1.

3. The nature and extent of recreation facility construction is more appropriately identified and discussed as a part of a wild and scenic river management plan which would be developed by the administering agencies should the river be designated. Preliminary estimate is based partially on experience at comparable areas.

4. Chapter V, "Evaluation of Alternatives Under Principles and Standards," has been updated and revised. The revisions include correct power capacity figures. The Raker Act facilities are not included in these figures.

5. The impacts associated with the development of the water resource projects are discussed primarily under Alternative E.

6. Chapter V, "Evaluation of Alternatives Under Principles and Standards," has been updated and revised. These revisions include the points raised here.

Page 72. The report should clearly state that Table IV-1 compares each alternative to the "present day" condition, not to the "future" no-project.

Page 73. The report should state that the potential net benefit of $17 million is the maximum available. It should further state that required mitigation for all the values would undoubtedly reduce the net benefit significantly. Preliminary reports done by the hydro-development proponents may have overstated the benefits and understated the costs. These same comments should be added to the tables showing the economic development account.

Pages 77, 78, and 82. The beneficial effects to society include the costs for alternative new supplies of energy. This is estimated as $17 million which is the equivalent of up to 1,500,000 barrels of oil. The report should also estimate the much lower cost to society of reducing its demand by a like amount. As we all know, conservation to reduce demand costs only a fraction of development of new supplies. The decision on how much of the river to designate affects all of the public. Therefore, they should be fully informed of the most economical method for bringing supply and demand levels together.

Page 77, Table VI-1. It is not clear why the losses in the value of whitewater boating are greater under Alternative D than with Alternatives B and E. This should be explained. The values attributed to whitewater boating do not appear to be high enough. The study uses a value of $15 per recreation day for whitewater recreation without citing the authority for this value. The Principles and Standards of the Water Resources Council limit these values to $3 to $9 but allow an expression of the users' "willingness to pay". Where fees are charged, it allows a fee of $70, plus travel cost (e.g., from San Francisco 150 miles x 2 x $0.15/mile ÷ 3 people per vehicle). If noncommercial, whitewater boaters (3,200 annually) are included using the minimum value of their travel costs, the following would be a more accurate estimate of the whitewater value under each alternative.

Alternative B	-$315,400
Alternative C	+$ 44,000
Alternative D	-$315,400
Alternative E	-$315,400

It should be emphasized that the whitewater boating values are a result of forest management practices which seek to preserve the environment and that lack of such control would result in a much higher use, consequently higher values.

Page 85. The second paragraph should be corrected. In reality, Alternative A fulfills the most objectives. It would preserve the scenic, recreational, geologic, fish and wildlife, historic, cultural, and other values. To lump this all together as one environmental objective is grosely misleading. It is all of the other alternatives which would sacrifice multiple objectives for the single purpose of power generation.

6

Thank you for the opportunity to review the study.

Sincerely,

Huey D. Johnson
Secretary for Resources

cc: Director of Management Systems
State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814 (SCH 79062606A)

Blaine L. Cornell
Forest Supervisor
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7

PUBLIC UTILITIES COMMISSION
CITY AND COUNTY OF SAN FRANCISCO

HETCH HETCHY WATER AND POWER

BUREAU OF LIGHT, HEAT AND POWER

[illegible] HARRISON STREET
SAN FRANCISCO, CALIFORNIA 94107
[illegible]

September 11, 1979

Subject: Draft Tuolumne Wild and Scenic River Study and Environmental Impact Statement

Blaine L. Cornell
Forest Supervisor
Stanislaus National Forest
19777 Greenley Road
Sonora, California 95370

Dear Sir:

This written statement will expand upon the oral comments I made at the public hearing held in San Francisco on August 9, 1979 and will also point out just some of the inaccuracies and half-truths that are contained in the "Draft Tuolumne Wild and Scenic River Study and Environmental Impact Statement."

8 As I stated at the hearing, the Public Utilities Commission of the City and County of San Francisco, by Resolution No. 79-0300, copy attached, opposes federal designation of the Tuolumne River as "wild and scenic" and opposes its inclusion into the Federal Wild and Scenic River System. The Commission further resolved that Congress take jurisdication over the Tuolumne River until such time as Congress has determined that the national interest would be best served by development of the River.

It should be pointed out that inclusion of the Tuolumne River into the Wild and Scenic River System may be an impairment of Congress' moral committment to the people of San Francisco and the Bay Area. Under the Raker Act (HR 7207), the City and County of San Francisco was granted certain lands and rights-of-way as necessary for conveying water for domestic purposes and uses to the San Francisco Bay Area and for the generation, sale and distribution of electrical energy. There may come a time that the best means of providing additional water to the Bay Area would be the enlargement of the existing Hetch Hetchy facilities along the Tuolumne River. Classification at this time would preclude that option.

It should be noted that the Tuolumne River does not possess the "outstandingly remarkable" values which warrant classification. The Tuolumne is not markedly different from any of the other dozen rivers which have their headwaters along the Sierra crest and which then flow through the foothills of the Mother Lode into California's Central Valley. Each of these rivers has its own group of boosters who attest to that stream's relative merits for fishing, history, scenery, rafting, etc. In the case of the Tuolumne River, there is a small

band of whitewater rafters who are its most vocal supporters. Relatively mute are the two million people in the San Francisco Bay Area who depend upon the Tuolumne River for its domestic water supply. The draft report often seems contradictory. For example the report recommends preserving the "free flowing condition" of the river, yet states that the segment between Hetch Hetchy and Early Intake should be classified "scenic" due to "controlled flows". Then, downstream of the Clavey River, the recommended classification is "wild"; Over 80% of the flow in this stretch of the river is regulated by water releases from Hetch Hetchy facilities. It is ironic that the draft report states on Page 28 that its recommendations for classification of this "free flowing" river are based on a normal water year (i.e., normal operation at Holm powerhouse)". The report states on Page 41, "Flows in the Tuolumne River below the Cherry Creek confluence are highly dependent on the Cherry Creek Releases." It is these controlled releases which are responsible for the whitewater rafting on the river. Hetch Hetchy storage facilities impound snow-melt flood flows of the spring runoff, and it is released from these Hetch Hetchy facilities in the summer and in the fall which augment the low natural flow of river and effectively create the whitewater recreational resource.

6

1 The draft report cites a number of conflicting figures on the amount of visitor usage along the river below Hetch Hetchy. The totals given for rafting, fishing, camping, etc. do not agree with the estimated 20,000 visitor-days quoted as the total recreational usage for all activities. Observations of angler usage along the river made by Hetch Hetchy personnal the past three years fall far short of the fishing usage cited on Page 16 of the report. The figures used in the report seem to be grossly inflated and should either be substantiated or greatly revised downward. With regards to the fishery on the Tuolumne, there is no substantiation provided in the study report to justify the statement that the river "is highly productive, yielding numerous fish, many of which are trophy-sized." Based upon preliminary investigations made by the City and the Modesto and Turlock Irrigation Districts, the above statement seems to be exaggerated and misleading. Likewise the report states that an interagency flow study by the US Fish and Wildlife Service demonstrated the present releases below O'Shaughnassy Dam are inadequate to maintain a fishery below the dam. The City objected to the findings of the USFWS study three years ago and the Fish and Wildlife Service has yet to substantiate any of their conclusions. The Clavey project would probably improve the Tuolumne and Clavey River fisheries by providing colder water through dam releases than the water which currently flows in either river and also by providing means of access to areas that are now inaccessible to all but the very hardy and most dedicated fishermen.

The report makes several questionable statements concerning fish spawning runs in the Tuolumne. It is dubious as to what extent the trout in Don Pedro spawn in the Tuolumne River since the state does supplemental stocking; if necessary, further stocking with hatchery fish is one possible mitigation measure. With regards to the silver salmon in Don Pedro, a spawning stream is not required for them, as they do not propagate after maturing in a fresh water reservoir; they are also currently stocked by the state.

2 As an example of another half-truth, Page 20 of the draft report implies an average of only 50 cubic feet per second (cfs) of water is released below O'Shaughnessy Dam since the completion of Mountain Tunnel in 1967; this is compared to the 999 cfs which was released prior to 1967. In reality, the average

1. The recreation statistics displayed throughout the study report represent best estimates developed from existing recreational sampling techniques. The study team obtained most of the data regarding the quality of the fishery resource from the California Department of Fish and Game.

2. Page 20 of the draft report referencing the present interim flow schedule of 35-75 cfs fishery release from O'Shaughnessy Dam is qualified by the opening phrase, "Except during times of heavy snowmelt when the reservoir's storage capacity of 360,360a.f. is exceeded." This remains a factual statement.

2 flow above Early Intake since 1967 has been 363 cfs. The numbers used are relatively meaningless; but if they are going to be used, they should be accurate.

3 Table III-I, "Delineated Segments for Identifying Values," on Page 27, is a complete mystery. No explanation is provided as to what criteria were used to judge each value for each segment nor was a meaningful commentary made justifying why a given value was judged the way it was for a given segment. It also seems that each segment of river was judged relative to other segments of the river and to the total river; the merits of the river should be judged relative to other Sierra streams. By and large the Tuolumne is not "outstandingly remarkable" compared to other like rivers; it is typical of a dozen rivers in California.

4 It is also interesting to note in Table III-I that the free-flowing nature of segments 5 and 7 of the river are not affected by impoundments and diversions but segments 4 and 6 are. Especially since "Note**" states that flow releases for segment 5 have "shown" to be inadequate. The table also says that segment 4 does not meet water quality criteria for drinking and domestic use. This is the water which is used for drinking and domestic use by two million people.

5 Another interesting peculiarity of Table III-I is that segment 7 does not possess outstandingly remarkable wilderness characteristics. Yet the Forest Service's RARE II Study included the same area in its "further study" grouping for possible wilderness designation. These comments point out that Table III-I should be redone with the reasons given for the various judgments reached. Consistency within the study report and with other studies is a necessity.

The discussion on "Alternatives and Impacts of Alternatives", "Evaluation of Alternatives under Principles and Standards", and "Preferred Alternatives" is a biased, incomplete and inconclusive once-over glance at the impacts of each alternative. Considering the ramifications that classification or non-classification will have, a much more comprehensive and objective impact statement should be written. There are several statements within these sections which must be commented upon.

6 Page 41 suggests that the Secretary of Interior has the authority and responsibility to set flow releases from O'Shaughnessy Dam and Cherry Valley Dam to accommodate whitewater recreation at the expense of hydroelectric generation. Such action "would not affect water yield or total available water." It is incomprehensible that such a statement would be made in a time of tightened energy supplies, rising fuel costs and a burgeoning national balance-of-trade deficit. It must also be pointed out that San Francisco's Water diversion rights are a matter of State law and not subject to Federal regulations. Modifying releases for the benefit of the whitewater recreation resource would adversely affect the quantity and quality of that water supply, upon which two million people depend.

7 Page 53 states that adequate water for Tuolumne County through the year 2020 has been assured by the New Melones Project. The New Melones project is still embroiled in controversy and to date no water has been allocated. The Clavey-Wards Ferry project would provide a firm yield of 11,900 acre-feet of water; that is enough water to provide 150 gallons a day, every day, to over 70,000 people - not the 25,000 people the draft report says can be provided for.

10

3. In accordance with the mandate of Congress and as noted on page 28, the study team evaluated the Tuolumne River in accordance with the criteria in the Wild and Scenic Rivers Act and the supplemental criteria developed by the Secretaries of the Interior and Agriculture. It is recognized that many of the criteria are subjective and subject to interpretation by the individual applying them.

4. Sections 4 and 6 are those areas largely impounded by O'Shaughnessy and Early Intake Dams and have been found not to qualify for inclusion in the Wild and Scenic River System. Sections 5 and 7 are downstream from impoundments with flows controlled to varying degree by releases from the reservoirs.

   The water in the river does not meet standards for domestic use. This is verified by the treatment the water receives before it is delivered to San Francisco homes.

5. Table III-1 has been revised. It now displays no wilderness characteristics in segment 4 or segment 7. A new segment 8 has been established which falls within the RARE II evaluation area and is indicated as having wilderness values.

6. In accordance with the Raker Act stipulations, the Secretary has the responsibility for reviewing the flow releases to determine whether the interim releases are adequate for fishery, recreation, and aesthetic values and to establish a new schedule if they are not. It is not stated that he has authority to establish release periods for any purposes. Since whitewater boating is one of the major forms of recreation on the river, it may be desirable to explore the possibility of enhancing that value if it can be done without major impact on the power project.

7. The 25,000 people should have been households. This change has been made in the errata sheets.

In proposing various alternatives, Alternative C is not a viable alternative. The report states "the FERC is prohibited from licensing...(a) project... affecting any river designated by the Wild and Scenic Rivers Act...if such project would have a direct or diverse effect...". The Clavey Project would have a direct effect on the river; therefore it is highly unlikely that the Clavey Project could ever be built. Alternative C is just a rehash of Alternative A.

8

Page 67 states that water quality would be impacted by warming trends induced by low-flow releases during the summer months because of the proposed Clavey Project. In fact, quite the opposite would be true. The water released would actually be colder due to comingling of instream water with tunnel/penstock water. There is evidence of this now in Cherry Creek below Holm Powerhouse and in the Tuolumne at Early Intake during times excess water is released from Kirkwood Powerhouse.

9

Tables II-I through VI-4 on pages 77-82 seem to be totally arbitrary with no factual proof of the figures and conclusions presented. The data also seems to be inconsistent.

An example is Table VI-I. Allowing Wards Ferry to be constructed under Alternative D seems to have a greater negative benefit on whitewater boating than allowing both the Clavey and Wards Ferry Projects to be built. (Alternative E and Alternatives B + C). Table VI-3 implies that all Indian Archeological Sites would be inundated under Alternatives B,C,D and E. It is more likely that varying numbers of sites would be inundated under each alternative, but in no case would all sites be lost. The table does not reflect this.

10

11

Lastly, when comparing Net Effects in Table VI-I, the effects for each alternative should be measured relative to the status quo alternative, which is in this case is Alternative E (No Designation). Accordingly, the total Net Effects should be as shown below:

11

Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
$ - 17,509,000	$ 0	$ - 501,000	$ - 17,414,000	$ 0

It is an indication of the bias of the report that an alternative, Alternative A, that in reality precludes a $17,439,000 benefit has only $-70,000 effect.

In conclusion, the "Draft Tuolumne Wild and Scenic River Study and Environmental Impact Statement" requires a major rewrite effort in order to be a truly objective and unbiased presentation as to whether it would be in this nation's best interests to have the Tuolumne River become a component of the National Wild and Scenic River System. Due to the far-reaching consequences classification of the river would have, a more comprehensive and factual Environmental Impact Statement is a necessity.

Very truly yours,

O. L. MOORE
Deputy General Manager
and Chief Engineer
Public Utilities Commission

Enc.

8. Alternative C leaves the option open for a potential hydroelectric project that would be compatible with wild and scenic river values. Project design would necessitate generation capacity, production, and operation schedules less impacting than those proposed under FPC Application #2774 (Clavey-Wards Ferry Project). A conceptual project of this nature has been assessed in revised Chapter V.

9. It is our understanding from fishery biologists that the low flow regimen would result in significant warming as the water moves downstream and reacts to radiated heat from the sun.

10. Chapter V has been revised to reflect data received from the project proponent and during the comment period.

11. As described in the report, Alternative E (no designation) is a two-part alternative. One, which is used as the basis for comparing the other alternatives, is those conditions likely to happen in the immediate future. The other, which is the evaluated Alternative E, is the most likely future without designation, i.e., development of the hydroelectric power project.

NORTHERN CALIFORNIA COUNCIL OF FLY FISHING CLUBS

Bob Baiocchi
Vice President
Conservation Chairman
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Blaine L. Cornell
Forest Supervisor
Stanislaus National Forest
19777 Greenly Road
Sonora, CA 95370

June 27, 1979

Dear Mr. Cornell;

This is in regards to our concerns for the draft Tuolumne Wild and Scenic River Study and Environmental Impact Statement prepared by the U.S. Forest Service and the National Park Service for public comment.

In reviewing the document we find the document too generalized and non-specific relative to information on the fishery resources and resulting impacts from different alternatives. Under the National Economic Development Account the potential beneficial effects from stream fishing is conditioned at $11,000, however the Account fails to value the wild trout populations. In the 1960's the California Department of Fish and Game re-developed a wild trout spawning channel in the Owens River at a cost of $50,000. For your agency to assess a loss of 11 miles of stream at $10,000 (Alternative "E") is unreasonable. Should the river be developed for power purposes the Federal Energy Regulatory Commission (FERC) would require minimum flow requirements and mitigation. We doubt very seriously if the elimination of 11 miles of stream could be mitigated for $11,000, not to mention the various amounts of money spend on pre-project and post-project studies. We urge your agency to re-examine the dollar values placed on the fishery resources in the project area.

Since the designation of the river under the Wild and Scenic Rivers Act would preserve the existing cold water stream habitat for the Tuolumne River trout fishery and would result in an overall long-range protection of the fishery in the areas of concern, we support and urge your agency to implement Alternative "A".

Thank you for the opportunity to comment on the potential designation of certain segments of the Tuolumne River in California.

Sincerely

Bob Baiocchi

A Regional Council of the Federation of Fly Fishermen

12

National Economic Development account. Based on information provided by the California Department of Fish and Game, the NED account has been revised to reflect increased benefits from the fishery resource.

COMMENTS*

RE

TUOLUMNE WILD AND SCENIC RIVER STUDY REPORT
AND ENVIRONMENTAL IMPACT STATEMENT
August 9, 1979, San Francisco, California

My name is William R. Gianelli, and I am a Consulting Civil Engineer currently located on the Monterey Peninsula of California. I have been employed as an engineering consultant for the Turlock and Modesto Irrigation Districts on water and power matters for almost 20 years except for approximately 6½ years while I served as California's Director of Water Resources during the period 1967-73. In my association with the Districts I have been intimately involved in the various water and power projects necessary to meet the needs of their people. I have also been involved in other related activities such as the Wild and Scenic River Study which is the topic of the public hearing today.

The Turlock and Modesto Irrigation Districts are two of the oldest irrigation districts in California. Together they possess some of the oldest water rights in the State with their usage of water going back to before the turn of this century. In addition to providing water for irrigation purposes to their inhabitants, they also distribute electrical energy to those residing within their area from their own power generating facilities. There is only one other irrigation district within the State that generates and distributes power as well as water to its people. In these days of critical energy supplies the Districts must have the option of construction of additional power generating facilities to meet the increased power needs of their area which comprises one of the fastest growing regions of the State.

*Presented by William R. Gianelli, Consulting Civil Engineer, for Turlock and Modesto Irrigation Districts

The comments presented herein are intended to augment and supplement those you have already heard, and those you will hear, on behalf of the Turlock and Modesto Irrigation Districts. At hte outset it should be clear that the Districts are opposed to any designation of any portion of the Tuolumne River stream system as a component of the National Wild and Scenic Rivers System. Under your Draft Statement only Alternate E (No designation-no action) is acceptable. While Alternate B (Designation of all eligible segments above Early Intake) would not appear to interfere with current plans of the City of San Francisco and the Irrigation Districts for the Clavey-Wards Ferry Power Project, we believe such a designation to be unnecessary. The majority of the lands under consideration for designation above Early Intake are included within the Yosemite National Park and are already being managed to protect important values.

The Turlock and Modesto Irrigation Districts have cooperated fully with the U. S. Forest Service and others who have been involved with the preparation of the draft report which is the subject of this hearing today. The Districts have participated in the workshops held and have supplied much data, particularly with respect to the hydro electric power project for which a Preliminary Permit is being sought from the Federal Energy Regulatory Commission(Project 2274). We are concerned, however, that the Draft Statement on the Tuolumne River Wild and Scenic River Study does not accurately portray the benefits or impacts of the proposed Clavey-Wards Ferry Power Project. For example, recent statements by the President of the United States and the Department of Energy have stressed the urgent need to expedite the development of alternate energy sources such as hydro electric power; yet the Draft Statement seems to ignore this critical need. It is interesting to note that the Department of Interior, one of the principal entities conducting the Tuolumne Wild and Scenic River Study, continues to put roadblocks in the way of the issuance of the Preliminary Power

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The analysis related to the proposed projects has been extensively revised to reflect additional information made available during the review period. The figures shown in the report are based on the study teams analysis of all of the information made available to it on the proposed projects. The study team's primary responsibility was to determine whether or not the Tuolumne River possesses those "outstandingly and remarkable values" that would make it eligible for inclusion in the National Wild and Scenic River System. In doing so, we must identify for the Congress those values which would be foregone if the river were to be designated. The probable impacts of the potential power development are discussed under Alternative E. The study team concluded that the Tuolumne River meets the criteria and would be eligible for designation.

Permit for the Clavey-Wards Ferry Power Project of San Francisco and the Irrigation Districts now pending before the FERC. It almost makes one wonder whether the Department of Interior is Part of the same Federal Government as the President of the United States or the Department of Energy. In addition, it would seem to us that the Department of Interior would be in the forefront in attempting to develop additional hydro electric power projects fueled by the renewable and smog-free water resources of the Tuolumne River.

With respect to the discussion of the impacts of the Clavey-Wards Perry Power Project beginning on Page 62 of your Draft Report your attention is directed to a number of Points.

First, and foremost, San Francisco and the Districts are only seeking a Preliminary Permit at this time. A Preliminary Permit will allow detailed evaluation of the Project including detailed analyses of the Project's feasibility, impacts, and benefits. When and if an application is made for a License, the Project sponsoms will be subjected to examination of mitigation measures which might be required as well as providing the necessary recreational facilities.

There are comments which should be made on the portions of your draft contained on Pages 62-65. Whitewater rafting on the Tuolumne River is a sport of relatively recent origin and has been made attractive by the regulated releases from the City of San Francisco upstream reservoirs. Were it not for these regulated flows the natural regimen of the Tuolumne River is such that it would be unusable for rafting through much of each year. In addition, data available to the City and the Districts indicate that the statistics contained in your Draft report may be grossly exaggerated. With respect to the discussion on the impact of the proposed Power Project on the fisheries, studies underway by fishery consultants of the City and the Districts indicate much lessor adverse effects than set forth in your Draft. Accordingly, it would have been inappropriate to have suggested hatchery or other mitigation measures at this time until further evaluations can be completed.

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There are two additional observations which should be made at this time. The first concerns benefits to accrue to local areas if the Wards Ferry-Clavey Project is constructed. It is believed the Project will generate an additional water supply which could be made available to adjacent areas. Also, preliminary appraisal of the recreational development possible, indicates that benefits could be provided locally from such development. The Districts and the City intend to develop the recreational plans in consultation with local interests. The second observation concerns the feasibility of the proposed Power Project. Following the issuance of the Preliminary Power Permit by FERC, additional feasibility studies will be conducted. You may rest assured the Clavey-Wards Ferry Project, or any other, will not be proposed for implementation unless its feasibility can be demonstrated.

In summary the Turlock and Modesto Irrigation Districts desire the adoption of Alternate E (No designation) in the final report on the Tuolumne Wild and Scenic River Study. This Alternate will allow further studies to be carried out on the proposed hydro electric power project and will expedite the issuance of the Preliminary Power Permit by FERC. It is also hoped that the Draft Report will be corrected to eliminate some of its apparent biases against the proposed Clavey-Wards Ferry Power Project and that the Department of Interior will assist the Project sponsors in expediting the necessary studies. Such assistance would be appreciated, not only by the President of the United States and the Department of Energy, but by the Irrigation Districts striving to meet the power needs of their community.

Sonoma State University

Division of Natural Sciences
707 664 2171

September 11, 1979

Forest Supervisor
Stanislaus National Forest
19777 Greenley Road
Sonora, CA 95370

Dear Sir:

I wish to submit the following comments regarding the Draft Tuolumne Wild and Scenic River Study and Environmental Impact Statement for your consideration. As a professional geologist I am greatly disturbed by the extremely generalized treatment of the geology of the Tuolumne River Canyon. The treatment is so brief that it is virtually meaningless. To discuss a unit as geologically complex and significant as the Calaveras Formation, which underlies the lower portion of the canyon, in one and a half sentences does not do justice to importance of this area toward our understanding of the geology of the Sierra Foothills. In addition, the statement ignores the presence of a nearly unique fossil locality in this section of the canyon (see attachment).

I would suggest that you make a more detailed statement regarding the Calaveras formation in your report. To do this I suggest that you contact Dr. Richard Schweickert, Professor of Geology, Lamont-Doherty Geological Observatory, Palisades, NY 10964, who, to my knowledge, knows as much about the geology of the lower Tuolumne River Canyon, especially below Clavey River as anyone for his input into your report. This is a very significant area and needs to be discussed accurately and completely in your presentations.

Sincerely,

Thomas B. Anderson, Professor
Department of Geology

TBA:jra

cc: Dr. Richard Schweickert

Enc.

More detailed discussions of the geology and minerals associated with the Tuolumne River Canyon are in the following reports, "Geology-Soils-Vegetation Types of the Tuolumne River Canyon, Stanislaus National Forest, "Forest Service, U.S. Department of Agriculture, May 1976; "Tuolumne Wild and Scenic River Study - Geological and Mineral Resources, "Bureau of Land Management, U.S. Department of the Interior, July 1976; and "Mineral Resources of Tuolumne River Study Area, Tuolumne County, California, "Bureau of Mines, U.S. Department of the Interior, July 1976. These reports and others are part of an extensive (980 page) Technical Data Base of resource information used to determine the presence of "outstandingly remarkable values", including geologic shown on Table III-1 (Page 27). The report was kept brief to comply with revised Council on Environmental Quality guidelines.

CLAVEY RIVER FOSSIL LOCALITY

Horn corals tentatively assigned to the genus Caninia sp. were discovered near the junction of Clavey River and the Tuolumne River during the summer of 1974. The fossils occur in an outcrop of limestone approximately 200 yards up from the mouth of the Clavey River. The locality is of particular significance because it is one of only two documentable fossil localities ever described from the Calaveras Formation, an extensive and geologically complex unit which underlies much of the western Sierras Foothills Belt. Because the fossils are highly recrystallized and deformed, the age assignment for the limestones which contain them is rather broad, Permo-Carboniferous. The limestones occur in an argillite unit of Calaveras Formation. This unit represents the most extensive lithology within the Calaveras Formation and consists of fine-grained rocks containing lenses and blocks of chert and limestone fragments scattered in the fine-grained matrix. The fossils are found within one of the larger limestone blocks. These blocks are interpreted to have been derived by submarine mass movement which caused the limestones which originally formed in much shallower water to move down the continental slope and become emplaced in the dominantly deep-water augillites. Thus the Permo-Carboniferous age as indicated by the fossils defines the age of the limestone blocks only and represents only a maximum depositional age for the rocks of the Calaveras Formation which contain them.

Reference:

Schweickert, R.A., Saleeby, J.B., Tobisch, O.T., and Wright, W.H., 1977, Paleotectonic and Paleogeographic Significance of the Calaveras Complex, Western Sierra Nevada, California: in Paleozoic Paleogeography of the Western United States, Stewart, J.H., Stevens,C.H., and Fritsche, A.E., (eds.), Society of Economic Paleontologists and Mineralogists, Pacific Section, p. 381-394.

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NORTHERN CALIFORNIA REGIONAL CONSERVATION COMMITTEE
Water Resources Committee
5100 Parker Road, Route 1
Modesto, CA 95355
September 25, 1979

Carl W. Rust
Co-manager
Tuolumne Wild and Scenic River Study
U. S. Forest Service
19777 Greenley Road
Sonora, CA 95370

Friends:

I want to thank you in writing for the time you have taken to explain the economic aspects of the Clavey-Wards Ferry project and the fossil fueled alternates as you view them under Principles and Standards.

Several problems remain and I want to point a few out in hope they can be answered in the final EIS and Report. The "new" principles and standards published in May 1979 are now being used. Why did you wait until as late as September 18 to announce that the final EIS and Report would be based on these new p and s? The problem this causes is that this late announcement allows no time for public analysis of the economics or input or discussion of them and your result. For example: Why
1 select a date ten years distant for completion? Would not the actual construction period be more logical for this theoretical analysis? Four years is shown for the dams, two for the simple cycle and six for the coal fired plant--why not use four years instead of ten? Fuel escalation alone can justify anything if projected far enough into the future. My point is that Congress has to weigh the present values of a wild canyon to society against the future values as a power source. That future should not be out of balance with present thinking about what is already there.

Another point is that there has been no public discussion of the heavy benefit from the simple cycle generator. Why should
2 you accept the proponents assumption of a 5% power factor and a size of 256.7 MW? Could the coal plant be built a little larger and used for this same peaking feature at less cost? Could the simple cycle generator be operated less than 5 % of the year? Or could the simple cycle generators be smaller and operate longer? What I'm asking is for a discussion of
3 what is most logical as an alternate to a hydro plant that is operated 12 to 16 hour a day and supplies no peak anywhere

1. The Principles and Standards themselves are not new, but have remained essentially unchanged since 1973. However, since the draft document was prepared, the Water Resources Council has provided more detailed guidance on procedures for evaluating national economic development benefits and costs. These procedures were published in the May 24, 1979 issue of the Federal Register. In accordance with these procedures, the period of analysis commences at the end of the installation period and extends over the life of the proposed projects. As we have discussed earlier, it is unlikely that the hydroelectric projects could go through the lengthy permit process and be constructed before the early 1990's. All values were treated equally by escalating real dollar values of both recreation and hydroelectric power to 1990.

2. Our analysis has been expanded to include a discussion of the effects of using a different coal and combustion turbine mix as an alternative to the hydroelectric projects.

3. It is not true that the two hydroelectric plants would never run at once. The Wards Ferry unit has sufficient storage to allow flexible operation during the day. However, the Clavey unit does have limited storage and less flexibility than the Wards Ferry unit.

near 300 MW from this stated 400 MW hydro plant (since all generators apparently never run at once during the year except in flood--and even less in summer when all water available comes from Helm release).

Again, thanks to the entire Study Team for the extensive discussions that you have held with all sides in this matter.

Sincerely,

Bob Hackamack

Bob Hackamack
Chair
Tuolumne River Conference

Encl.

DONALD BALLANTI
METEOROLOGICAL AND
ENVIRONMENTAL CONSULTANT

September 12, 1979

Tuolumne Wild and Scenic
River Study
Stanislaus National Forest
19777 Greenley Road
Sonora, CA 95370

Dear Sirs:

I am a native Californian with a tremendous interest in the fate of the Tuolumne River. I have made two delightful trips down the boatable section of the river, once on a commercial trip and once this summer with my own boat. I have reviewed in detail the Draft Wild and Scenic River Study and EIS and find it basically free of bias. I do have the following specific comments on the report.

21 1. Page 17 - the report states that the unique recreational feature of the lower Tuolumne is boating. What is truly unique is the length of the boatable stretch, which allows overnight camping. In fact, the Tuloumne River is the only river in the Sierra Nevada that offers three-day trips. Boaters can enjoy excellent shoreline camping, a wild trout fishery and wilderness scenery. In addition, the difficulty and lack of access to the Tuolumne acts as a natural barrier to overuse. It is this combination of characteristics that is truly unique--coupled with the fact that it is close to the population centers of California and has an extended boating season.

2 2. Page 39 - the estimated 12 percent increase in River use by 1985 seems to be an underestimate. While commercial use is restricted, private use will undoubtable increase at a high rate. The entire sport of white water boating has increased several-fold in the past few years, with no signs of slacking. Pressure on the Tuolumne will increase significantly if the Stanislaus River is lost under the Melones Reservoir.

2. While it is true that private use is unrestricted, total use is growing at such a rate that ultimately consideration will have to be given to restricting it. This was taken into account in arriving at the 12% increase factor.

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3. Page 40 - the statement that "increased visitor use could cause increased environmental damage...from overuse, vandalism, litter, undesirable noise, or deviant behavior," seems unjustified if the 12% increase is truly expected. On my last trip down the river this summer I saw no evidence of such problems. Nor, did I see evidence of such problems earlier in the year on the Rogue River, a Wild and Scenic river, with a much higher use than the Tuolumne.

4. Page 40, bottom - the capacity and production of the proposed Clavey and Wards Ferry units should be shown in a table listing the capacities and outputs of existing 5 other units on the Tuolumne. As written, the report does not point out that the new power generation is small compared to that of existing facilities. According to my calculations, existing generation is over 3800 million KWH per year, while the proposed development would provide 1020 million KWH per year.

5. Page 45, top. The report should point out that riparian habitat is important for wildlife and fish, and that this type of habitat has historically been destroyed by hydroelectric systems, river diversions, channelization, etc.

6. Page 53, bottom - that water and electrical costs could increase is highly speculative. The proposed development generates a minute amount of water and electricity when viewed within the total system in California. It is highly unlikely that water or electrical rates would be affected by the addition of such a small amount.

It could also be speculated that the response to the lack of Tuolumne River power would be conservation. This is feasible because the additional power would be for peak loads, and it is far easier to reduce peak loads (by shifting to off-peak hours) than to reduce total usage. Under this scenario, reduced power costs could occur.

7. Page 54, middle - the only certain economic impacts of hydroelectric development on the Tuolumne would be increased revenues for the City of San Francisco and the Modesto and Turlock Irrigation Districts.

8. Page 61 - the stated capacities of the two proposed power plants is apparently in error. The combined capacity is shown as 400 million kilowatts, equivalent to 400,000 megawatts. The total hydroelectric capacity in California is around 10,000 megawatts. It seems likely that 300 and 100 megawatts would be the correct capacities.

3. Based upon experience, increases in visitor use generally result in the types of activities identified, at least, on occasion. The manager must be alert to this potential and ready to cope with the problems as they arise.

4. The capacity and production of the proposed Clavey-Wards Ferry project is shown in the report. The purpose of the report is to assess whether the Tuolumne River has the values meriting inclusion in the National Wild and Scenic Rivers System. In the process, we must detail for the Congress the values which would be foregone by designation, i.e., the Clavey-Wards Ferry Project. It is not appropriate for us to attempt to justify the hydroelectric project or its role in the State or regional power situation.

5. The report does point out the importance of riparian habitat for fish and wildlife on pages 43, 65, and 66. It also notes that much of this habitat would be destroyed by construction of the hydroelectric project.

6. The most feasible alternatives to the hydroelectric project at the present appear to be coal or oil fired generation or energy conservation. Experience indicates that increases in the cost of oil generation are a distinct possibility. The cost of making coal acceptable from an air quality standpoint is likely to be quite high. Thus, precluding the development of the hydroelectric potential could result in increased power costs.

7. The discussion on page 54 relates to the impact which designation of the river would have on the local economy. Since many of the values associated with the potential hydroelectric development would accrue outside of the region, they are not addressed.

8. The error identified has been corrected in the errata sheets.

Also, the coment should point out that with this capacity and annual outputs, the plants would have a load factor of about 26%. For comparison, the load factors for the other 5 existing power plants, which are considerable higher, should also be given.

9. Page 62, bottom - the loss of the cold-water fishery, shoreline camping and other recreation should be included. It should be also pointed out that the Tuolumne River is the only boatable river in the Sierra Nevada being considered for protection. The boatable sections of the American, Merced, Kings, Stanislaus and Carson rivers are all threatened by development. The Tuolumne could well be the only boatable river in the Sierra Nevada in the future.

10. Page 63, bottom - the discussion of scenic impacts should include the loss of riparian vegetation and creation of steep mud banks.

11. Page 64, bottom - it should be mentioned that cold water wild trout fisheries like that in the Tuolumne are very rare in the Sierra Nevada--and that one reason that this is so is because of previous hydroelectric development.

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12. Page 68, second paragraph - cost savings are speculative, in that hydroelectric plants are used for peaking power while oil-fueled and nuclear plants are used for base loads. Thus, an increase in hydroelectric power does not necessarily result in less power generation by base-load plants.

Hydroelectric power is considered "cheap" because the raw materials for power generation are "free". In reality, hydroelectric power generation "consumes" as it fuels our rivers, canyons the wildlife and vegetation within the canyon, and the recreational opportunities inherent in rivers.

13. Page 69, last sentence - the beneficial impacts of hydroelectric development would not be "regional" or "national" in nature, but would accrue specifically to three agencies, the City of San Francisco and the Modesto and Turlock Irrigation Districts.

13-14

14. Page 77, Table VI-1 - a footnote should be added stating that the value of the Tuolumne River, its fisheries, canyon, wildlife and vegetation, etc. has been taken as zero in calculating the costs of alternatives B-E.

13-14. The analysis of the regional and national impacts of each of the alternatives is contained in the revised Chapter V of the report which is included in this Section. There is a national impact when one considers that development of the hydroelectric project would be the equivalent of 1.6 million barrels of oil annually which would reduce national requirements for import oil.

General Comments

There is no doubt that the Tuolumne River is qualified for inclusion as a Wild and Scenic River. The questions is preservation of instream values versus hydroelectric development. It is this very conflict which brought about the passage of the Wild and Scenic Rivers Act. Congress realized that if no action was taken to protect our rivers, they would eventually all be lost to development.

In California, the clash between preservation forces and development forces is particularly strong. California has more people than any other state, yet there are only 2 short sections of river currently protected from development by the NWSRA. These rivers are located in the extreme north of the state, distant from the population.

We are now in the position of having developed 90% of our rivers, and we are arguing over the last 10%. It is clear to me that this conflict was what brought about the Wild and Scenic Rivers Act, and that the intention of the Act was that the best of the final 10% be preserved.

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The arguments against inclusion in the Wild and Scenic Rivers Act are weak. The following is a summary of these arguments and my response to each.

Argument: Inclusion in the Wild and Scenic Act would "lock-up" the River.

Response: Under the Wild and Scenic Act the river would remain available to anyone willing to travel to it. If developed for hydroelectric power, the public would lose the recreational, and scenic benefits now provided at no cost, while three public agencies would receive all the monetary benefits.

Argument: Those who want to preserve the Tuolumne are an elite group of whitewater maniacs.

Response: The Tuolumne is used by fishermen, hunters, campers, birdwatchers and photographers in addition to white water boaters. The commercial outfitters on the Tuolumne take a wide variety of people on the River. White-water rafting is an affordable outdoor adventure that is enjoyed by all ages and available to families and individuals of normal physical capability.

Argument: We need the clean, inexpensive power that the Tuolumne River can supply.

Response: Any power source that would destroy a river canyon such as that of the Tuolumne cannot be considered "clean". Such power would only be cheap because the value of the river canyon is taken as zero. If the canyon's monetary value were ascertained, the generation of power would not be cheap.

Do we really need power from the Tuolumne? The City of San Francisco does not need the power, nor do the irrigation districts. Their interest is monetary. If the City of San Francisco were really interested in supply more power, they could institute a comprehensive energy conservation plan in San Francisco that would provide for more power than the Tuolumne powerhouses at less cost. That their interest is greater revenues is very clear.

In summary, I feel that the Tuolumne River is an "outstandingly remarkable" river that is qualified for inclusion in the Wild and Scenic Rivers Act. That power generation is proposed is irrelevant because the intention of the Act is to preserve our best rivers from such development. The Tuolumne is an outstanding river deserving of protection. I urge that the study team recommend Alternative A.

Sincerely,

Donald Ballanti

Donald Ballanti

LB:srs

Wild River Study Team
US Forest Service
19777 Greenley Road
Sonora, California 95370

September 13, 1979

Dear Mr. Blaine L. Connell,

As a potential for the National Wild and Scenic River System, the Tuolumne River is eminently suited and deserving of this protection for the 83 miles which are eligible for classification. This river canyon contains several plant species which have been recommended by the Smithsonian for "threatened status", such as the Whitney sedge, fawn lily, Mariposa parsnip, southern mule ear clarkia, and the Shaggy lupine. The Red Hills soap root has been proposed by US Fish and Wildlife Service as an endangered species.

Wildlife within the study area is diverse, abundant and relatively isolated from human interference. The protection of this environment will allow the two migratory deer herds which winter along the lower portion of the river to maintain a stable level. Even more important, protection could stabilize or increase the populations of threatened, endangered and rare animals such as the southern bald eagle, prairie falcon, osprey, spotted owl, wolverine, fisher, pine-martin, Sierra red fox, Stearns snail and Tuolumne snail.

The pressure of commercial timber harvest does not prevail here, precluded by the slope steepness and instability, land ownership and watershed values of the canyon. Mining and grazing interests are minimal and should not impact the much higher recreation resource by being allowed. The recreational resource is diverse from the National Park status of the upper canyon to the two roadless areas which lie adjacent to portions of the river. RA #5256, North Mountain containing 7,900 acres lies along the north side, east of Early Intake while RA #5258, Tuolumne River containing 18,000 acres of low elevation chapparal an oak woodland lies to the north of the river from Lumsden Campground and encompassing the Clavey River confluence. Protection of the recreational resources of wilderness, white water boating, trophy fishing, camping, wildlife study, photography and such can be best accomplished with Wild and Scenic River classification and Wilderness designation for #5256 and #5258 under R.A.R.E. As stated in the draft Environmental Impact Statement, "Recreation has been and

will continue to be the most popular use of the Tuolumne River, both within the Wild and Scenic River Study Area and downstream." This type of resource, recreation, is renewable and beneficial to local economy on a continual basis, if conducted within the ecosystem's carrying capacity. It is much more conducive than other uses which are, in reality, one time extractions and not renewable.

Relative to this is the current management of off-road vehicles (ORVs) which, according to the draft study "may need to be re-examined to see if it is compatible with Wild and Scenic River management." ORV's are commonly much more destructive than realized and immediate steps should be taken to alleviate the situation and preserve and provide for long range protection. Archaeological sites, a vital link to the Miwok Indian culture, are easily destroyed and damaged by the vehicles. The cultural sites and more recent historical sites aid the recreational value and definitely deserve recognition and protection.

The fisheries are an additional factor which would be benefited by the Wild and Scenic designation since, according to the draft study, "reservoir fisheries are in abundance in the Sierra foothills where river trout fisheries of the quality of the Tuolumne are a rarity in the entire state." This situation has been occuring for the past several years and is a deplorable misuse of our natural river systems. Fisheries have been sorely abused in natural waterways, creating need for stocking, rehabilitation and other remedial practices. Protection of these fish in this natural habitat is imperative.

Alternative A, designation of all eligilbe river segments of the Tuolumne River (83 miles) is the alternative which would most effectively protect the wild resources. Previous impoundment at Hetch Hetchy proves the incalculable loss which occurs when a natural heritage such as the Tuolumne River is dammed or altered. Alternative A would allow the establishment of flow release standards for Cherry Creek, a beneficial consequence.

In reference to the draft Environmental Impact Statement, a question arises in respect to the Table III-1, Delineated Segments for Identifying Values for River Segments, it seems that the Hetch Hetchy reservoir at maximum pool is considered to have wilderness characteristics while the 23 mile section from Cherry Creek confluence to the Study Terminus does not. Such misrepresentations of the wilderness characteristics creates an atmosphere of doubt in respect to the integrity of the study.

Having floated a portion of this river on a raft and explored parts of the canyon by hiking, I am personally aware of the uniqueness of the canyon and its intrinsic values, a heritage of all Americans. The remoteness of the canyon provides a wilderness experience which is vital to many of us. But beyond the

Agreed! The river segment at Hetch Hetchy Reservoir does not have wilderness characteristics owing to its flat surface profile created by a significant man-made structure, O'Shaughnessy Dam. The table has been revised to reflect this change. The river segment from Lumsden to the study terminus does have wilderness characteristics as displayed in revised Table III-1.

We agree and the errata contains a revised Table III-1 to reflect this change.

appreciation and values to humans is the need for the canyon to be protected so it can continue as a healthy ecosystem, an interrelated part of the global environment. The highest and best use of this river canyon and the surrounding de facto wilderness is to protect it now, completely, such as will be accomplished by Alternative A.

For a healthy planet,

Sami Izzo

Ms. Sami Izzo
Northstate Wilderness Committee
708 Cherry Street
Chico, California 95926

28

TUOLUMNE WILD AND SCENIC RIVER STUDY
Stanislaus National Forest
19777 Greenley Road
Sonora, California 95370

RE: Draft Environmental Impact Statement for the Tuolumne River.

Dear Sir:

Responding to the Draft Environmental Impact Statement for the Tuolumne River is both a challenge and a privilege. A challenge because in the face of ever growing demand for hydroelectric power and water for irrigation and the major California cities it will be an uphill fight to save the Tuolumne as a Wild and Scenic River. A privilege because it seems so often in today's world that the ordinary citizen cannot influence what the government does, in this case, that may be possible.

California has historically placed a great demand on its rivers, usually for irrigation, drinking water for its cities, hydroelectric power, mining, etc. To this end the majority of the High Sierra's rivers have been damed multiple times creating giant lakes of flat water, thereby tending to its needs but in the process destorying much of the natural beauty, the forests and the land.

No finer example of the tragic destruction of the land and a river is the New Melones Dam on the Tuolumne's sister river the Stanislaus. The filling of this lake will almost complete the destruction of one of the finest whitewater rivers in California, without Wild & Scenic River status for the Tuolumne, the same fate will await its sparkling rushing whitewater.

29

The most important section of the Tuolumne which should receive Wild and Scenic River status is from the Lumsden Bridge to Wards Ferry. This 18 mile section contains outstanding whitewater boating opportunities and remains one of the few whitewater rivers that is floatable which drains from the High Sierra.

The alternatives listed (A through E) contain varing miles of protected river with the exception of Alternative E,which would do nothing in the way of protection. Any alternative that protects the river section from the Lumsden Bridge to Wards Ferry should be considered, alternatives B and E should be rejected for they omit that section of the river most qualified for inclusion in the Wild and Scenic Rivers program.

Unprotected from continued daming, the Tuolumne has an additional 2 dams, a diversion tunnel, 2 power houses and the Clavey River will also be damed and become a part of this nightmare. If all the diversion tunnels and dams are built, the upper river from Kirkwood to the confluence with the Clavey will be dry as all the water will run through Jawbone Ridge in a tunnel and the lower river from confluence with the Clavey to Wards Ferry will then be the Wards Ferry Reservoir. Part of one of the best whitewater streams will then be dry and part will be under a lake, a fate no great river should suffer.

1 Concerning the "economic benefit" refered to in the statement, especially in relation to alternative A, I feel the benefits related to Hydroelectric Development have been overstated. As per most major dam, powerplant and diversion tunnel construction, the costs of that construction have not been stated as a figure close to what the total cost would be, but is what those constructing the project would like us to believe.

1. The construction cost estimates used in the report were developed in concert with and supported by persons knowledgeable in these kinds of projects.

Also, the statement does not reflect the potential of a major disaster created if one or more of the present dams burst during an earthquake or other disaster. A Domino effect here would only be heightened by the addition of the Wards Ferry Dam and the fact that, like the New Melones Dam, "it would be a long, narrow impoundment located between steep canyon walls". The Wards Ferry Dam, if built would be under the jurisdiction of the Bureau of Land Management, the agency responsible for the Teton Dam disaster in Idaho. 2

The alternative involving the least costs but likewise generating the least "economic benefit" is the alternative which best protects the Tuolumne River, alternative A.

The Executive Board of the Arnold Whitewater Association, a whitewater floating club based near St. Louis, Missouri, suggests that alternative A serves the best purpose of the river, as an entity in itself and requests that you consider this suggestion "for the sake of the river".

Sincerely,

David Smallwood

David Smallwood/Float Director
ARNOLD WHITEWATER ASSOCIATION
Box 1261
Jefferson City, Missouri 65102

30

cc John Schuh, AWA President
Rich Bryant, AWA VicePresident
Ken Tichacek, Secretary-Treasurer AWA

2. The team did not fully assess earthquake hazard for the Tuolumne River Study Area. Preliminary assesement did not identify any active fault line in the proposed project area. Detailed earthquake studies would need to be undertaken and addressed in an EIS prepared to specifically assess the impacts for the Clavey-Wards Ferry project if it were ever to be constructed. If the Clavey-Wards Ferry unit were constructed, it would not be under the jurisdiction of the Bureau of Land Management. The Bureau of Reclamation had jurisdiction over the Teton Dam in Idaho.

To the Tuolumne River Study Team,
Sonora Office, Stanislaus National Forest

September 10, 1979

Hello:

After a thorough combing of your Draft EIR study, I highly recommend Alternative A, full designation of the Tuolumne as "Wild and Scenic River." I am in my sixth year as a Tuolumne County resident, and I have hiked extensively along the upper 35 miles of the river corridor. It was absolutely exceptional. But the real question, of course, is the BLM and NFS lands from Poopenaut Valley downstream.

The little contact which I have had with this region impressed me because I discovered the rarity of the area---how few well-preserved examples of the Upper Sonoran (bull pine, Blue Oak, Chapparal, Chamise) and Transition (Ponderosa Pine and White Fir, etc.) Life Zones remain along a Sierran river corridor. I think and feel that we have no business tampering with this river canyon. Its majesty is breath-taking; it provides lion, bear, bobcat habitat. Its virgin sugar pine timber stands become more rare each year, especially if President Carter allows the R.A.R.E. II lands to be logged immediately as has been intimated.

The notion that these Clavey-Wards' Ferry power facilities would contribute to solving our energy problem is tantamount to that of a driver who speeds up as he approaches the brink of an abyss. Rather, the driver needs to take the foot off of the accelerator and apply the brakes. Clavey-Wards'Ferry would be a significant misstep. Notice how many years it took to fill Don Pedro Reservoir---8-9 years wasn't it? Apply that to the time it would take to build these projects, and tack 3-5 (?) years onto their filling. When does that pfoject to available usage---1995. What if costs delay construction; or the sun-spot theory concerning drought cycles proves valid. (The next drought, in that case, would be 1997-'99.)

2 (Jones, Tuolumne River, cont'd)

The essence here points to the likelihood that the projects would not be in full use for perhaps 2 decades. If that seems preposterous, just look into your own experience. Delays due to unforeseen obstacles, economic snags, changes in public or administrative whims, etc., tend to extend the actual time spans and cost of such facilities OVER official analyses, do they not? It is absurd to think, given our present economic-energy situation, that Californians will not have made bounding strides toward energy conservation 20 years hence. The whole approach to peak-load generation and usage will likely shave the crests and fill the troughs in the daily energy curve. How can we condone destruction of such a valuable resource as the Tuolumne River at a time when most consumers do not have to pay higher rates during the peak power usage which Clavey-WArds' Ferry would cater to?

32

On page 63 of the Draft EIR study you mention the "recreation plan is to provide for full public utilization of project lands and waters for recreation;" The cost of that would be tremendous, due to the precipitous nature of what you call "steep canyon Walls"(p. 61). The probability of accidents with campers, trucks, and boats going off the road would be high; adding to the costs of local traffic, policing and emergency services. Costs to local governments would be very high, at a time when we in Tuolumne County may be stuck with the local policing of New Melones recreation center, and the potential increase of boating facilities at Don Pedro. Recently Billy Marr, local Supervisor, said that the Board had not even been able to determine where it might get the Federal funds required to revamp highway 49 which leads to New Melones. The Federal gov't has not made it easy for this county to adjust to the impacts of these massive projects.. Hopefully, more hassles are not forthcoming with Clavey-Wards' Ferry,(eventhough it is not a Federal Project.) 1

Given the costs of these recreational-flatwater developments, and the oil crunch, I think the recreation

1. This statement in the Study Report was intended to point out that proponents of a major hydroelectric project, as part of their license application, must develop a plan to provide for full public recreational use of project lands and waters.

plan is the fabrication of an impossible dream.

Remember that 67% of the counties voters opposed Measure B in 1978. Ironically, the Board of Contractors, and Realtors, and the Chamber of Commerce all supported a Yes vote for short-sighted reasons. Yet these same organizations were touting at your August 4th, 1979 public hearing that they supported "Alternative E---but of course we favor no dams." Don't believe these two-faced organizations, please.

It seems amazing to me that these laudings in favor of the river are even necessary. I can't help getting the discomforting hunch that bureaucrats would rather hear about the debits of the dams than of the benefits of leaving the river as it is. Even if nobody sees it for fifty years, even if it registers a zero for computer evaluated human applications; even if it seems to contribute nothing to us--- left alone it is far better than the detriments we make for ourselves by leaving it open to damming, and eradicating yet another piece of our natural sustenance.

What doctor would tell an obese patient on the verge of heart troubles that maybe eating more calories would give him the intelligent will to heal himself? To build these dams, to classify that river as anything other that'A', would be tantamount to that obese fellow eating more. In the long run it would be a disservice to the communities which solicit them, as they devour their precious agricultural lands.

Let us stop stealing from our children so we can give them things some other western nations provide with only ½ the energy and resources. Let's end our complacent contemptuous contentment with our wasteful ways.

Conservation is the answer to preserving the Tuolumne and maintaining our long-term quality of life.

Jeffrey Phillips
P.O. Box 144 OAKDALE, CA. 95361
(209) 847-2203

5th September 1979

Mr Blaine L Cornell
Forest Supervisor
USA Dept. of Agriculture
Forest Service
Tuolumne Wild and Scenic River Study
Stanislaus National Forest
19777 Greenley Road
Sonora
CA. 95370

Dear Mr Cornell,

Not being a US citizen I feel very privileged to be asked to review the Tuolumne Wild ~~River~~ and Scenic draft, unfortunately, the documents must have travelled by surface mail as I only received it on the 2nd September and do hope that my reply reaches you before the cut-off date.

34

I would like to say immediately that I was very impressed with the presentation of the Draft and the enourmous amount of work which has obviously gone into its preparation.

My first reaction as a River Runner would be to go for alternative 'A' but it is difficult, in these days of soaring energy costs to overlook the potential of hydro-power which must be one of the cleanest and most acceptable forms of energy available.

If the figures in tables V1-1 through V1-4 really are accurate, then alternative 'C' would appear to offer the most balanced compromise, Although both are not clear as to whether the 80 miles designated would be completely unaffected by any development in the 3 miles undesignated.

Incidentally, I think you will find an error on the map covering alternative 'D' where the 10 mile stretch not designated is presumably the last 10 miles downstream but this is in fact shown as Wild (at least on my copy of the document).

Cont'd.....

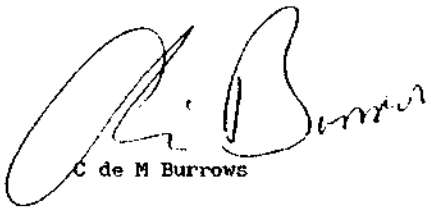
The 80 miles of designated river under Alternative C would be effected primarily through the additional regulation of stream flow by the Jawbone Diversion Dam and the Hunter Point Dam. The extent to which the designated 80 miles would be effected is not known at this time as it will depend upon the level of instream releases and the proposed operation regimen of the Clavey Powerhouse.

Continuation .....

In conclusion I would like to say that more and more people are finding it possible to take vacations in the USA from Europe and elsewhere and for the most part it is your magnificent scenery and natural heritage that attract us rather than reservoirs and sky scrapers and I am not sure that these 'invisible' earnings have been allowed for in your calculations. If there must be a compromise then I sincerely hope that you do not need to go further than alternative 'C' and no one would be happier than myself if the full alternative 'A' were adopted.

Looking forward to my next trip to the Western States,

Yours sincerely,



C de M Burrows

August 2, 1979

Tuolumne Wild and Scenic River Study
Stanislaus National Forest
19777 Greenley Road
Sonora, CA 95370

Gentlemen:

After a thorough review of the Tuolumne Wild and Scenic River Study, Alternative A is the only alternative I can except as rational. Although Alternative C may appear nearly the same except for hydroelectric potential, the one mile segment intrusion at Clavey River would be a severe degradation of the "Wild River" experience. Clavey Falls is one of the most impressive whitewater drops in the nation.

With the loss of the Stanislaus River, the maintenance of the Miwok archaeological sites on the Tuolumne River is every bit as important as preservation of the whitewater experience.

I do not agree with your NO evaluation for Wilderness Characteristics of the final 23 miles (Segment 7) of the study in Table III-1. At least ten miles of that segment is very much a wilderness experience as wilderness is legally defined in 1979.

Adequate flow levels should be maintained for whitewater recreation (Ref. pg. 41.) Maintenance of a free flowing river at adequate levels is important to the beaver and otter populations as stated on pg. 43. These species are very scarce in California.

96

The study team agrees that the lower 16 miles (approximately) of the river does possess wilderness characteristics. Appropriate changes have been made and a revised Table III-1 is included in the Errata.

The foregone potential large increase (temporary) in local business activity would probably be preferred over the long term local problems to be anticipated if Alternative A is rejected (ref. pg. 53.)

Reservoir fishing, flatwater recreation, hydroelectric power generation are all abundant in the Sierra foothills. Wild, whitewater stretchs of river remaining and this segment 7 of the study is the finest remaining. The mix of objectives referred to on pg. 85 has already been achieved on the Tuolumne, it is already heavily used as a source of electric power and water. Accepting any alternative other than A would not be proper mix of objectives.

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Thank you,

Jim Notestine

JIM NOTESTINE
1919 POOL RD.
FELTON, CA. 95018

cc. Senator Cranston
Senator Hayakawa
Congressman Panetta

Sept. 6, 1979
1909 Cover Dr.
Poland, Ohio
44514

Forest Supervisor
Stanislaus National Forest
19777 Greenley Rd.
Sonora, Calif. 95370

Sir:

In regards to your draft Enviromental Impact Statement to include the Tuolumne River in the National Wild and Scenic River System I feel that you are not giving enough consideration to its value as a wild and Scenic River. On page 17 of your draft environmental impact statement you state that the Tuolumne River is considered by experts to compare favorably with the Colorado River in Arizona and the Salmon in Idaho. You fail to mention, however, that both the Colorado River and the Salmon River are in such demand that their use is rationed. No new commercial outfitters are allowed on either river and a lottery is held to see who gets to use these rivers on a private basis. 1

When deciding whether the Tuolumne is best kept as it is or developed for flat water recreation and electric power, please consider that the use of quite a few rivers is rationed, but nowhere in this country is electric power or flatwater recreation in such demand and in such short supply that their use is rationed.

On pafe 64 you state that the Tuolumne is one of the finest cold water fisheries in California. Surely a river with plenty of trophy size fish and rapids similiar to the Colorado and Salmon Rivers is of outstandingly remarkable value and should be preserved.

38

1. You are correct. We did not mention the use of permits for controlling rafting on the Middle Fork of the Salmon or portions of the Colorado River. No new commercial outfitters have been allowed on the Tuolumne River since 1973, nor has their passenger allocation bee increased.

   Private boaters are not controlled at this time; however, they probably will be in the near future.

Another point that you failed to mention is the increase in demand for whitewater use that will come with the probable filling of the New Melones Resevoir on the Stanislaus River. The Stanislaus River is the most popular whitewater stream in California and is located only about an hours drive from the Tuolumne River. The Tuolumne River use is bound to be affected if the whitewater run on the Stanislaus River is eliminated.

2 On page 38 of the draft "Environmental Impact Statement" that under "Alternative A" use is expected to increase approximately 30% with a one-time facilities construction cost of $500,000, but you never mention exactly what it is that you plan to build.

Sincerely,

Fred Robinson III

Fred Robinson 111

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2. The $500,000 is an estimated cost for upgrading existing facilities to protect resource values and to provide for additional facilities. The new facilities will be specifically identified in the management plan which will be prepared should the river be designated.

California Wilderness Coalition
POST OFFICE BOX 429 • DAVIS, CALIFORNIA 95616 • (916) 758-0380

September 6, 1979

Tuolumne Wild and Scenic River Study
Stanislaus National Forest
19777 Greenley Road
Sonora, CA 95370

Dear Study Team:

We have reviewed the draft environmental impact statement for the Tuolumne Wild and Scenic River Study and strongly urge the adoption of Alternative A, providing maximum protection to the river environment among the alternatives presented. We feel it is unfortunate that the Study Team has allowed its analysis and conclusions to be swayed by lobbying tactics of development interests, resulting in Alternative A being presented as a preferred alternative "for purposes of comparison" only; while the results clearly indicate that Alternative A is superior in meeting the objectives of the Wild and Scenic Rivers Act.

The entire remaining free-flowing portions of the Tuolumne should be preserved in their natural condition. The river has already been dammed five times, including the tragic destruction of Hetch Hetchy Valley. In fact, removal of O'Shaughnessy Dam and rehabilitation of the Valley is a viable option that should be considered in the study as a means of making that portion of the river that is now inundated available for Wild and Scenic River status.

40

The reasons for protection of the free-flowing Tuolumne are many and compelling. Not the least is preservation of options for the future. Lack of protection would lead to further hydro developments, perhaps irreversibly destroying natural values present in the wild river. As wild rivers become more rare, their value in this artificial world increases tremendously. This value cannot be expressed in economic terms but is the very basis of our quality of life and the long-term survival of our civilization and environment.

Recreational values of the wild Tuolumne are extremely high. The river is heavily used by rafters and kayakers. If the Stanislaus is flooded as planned by the New Melones Dam the whitewater recreation significance of the Tuolumne will increase even more.

Fish and wildlife values of the Tuolumne River basin in its wild state are another significant resource. Large mammals include the beaver, gray fox, coyote, black bear, raccon, river otter, mountain lion, bobcat and mule deer. Birds include the wood duck, goshawk, golden eagle, southern bald eagle, prairie falcon, spotted owl and belted kingfisher. Reptiles and amphibians include the western whiptail lizard, common kingsnake, mountain kingsnake, California newt, foothill yellow-legged frog and many others.

The native fish community of the wild Tuolumne is particularly important. The river contains an excellent example of the squawfish-hardhead-sucker association. Large populations of the hardhead minnow (Mylopharodon conocephalus), a species dependent on relatively undisturbed habitat conditions, occur here.

-more-

We urge that the Clavey River, a tributary of the Tuolumne, also be studied and recommended for Wild River status. This river was designated by the California Department of Fish and Game in 1972 as one of 17 streams to be managed for a wild trout fishery. Wild and Scenic River status would assure permanent protection for this important resource.

Thank you for the opportunity to comment.

Sincerely,

Dennis Coules
Project Coordinator

41

Only the United States Congress has the authority to designate the Clavey River for study under the provisions of the Wild and Scenic Rivers Act.

27 July 1979

Tuolumne Wild and Scenic River Study
Stanislaus National Forest
19777 Greenley Road
Sonora, CA 95370

Gentlemen:

I have reviewed the Draft Wild and Scenic River Study and Environmental Impact Statement for the Tuolumne River, Tuolumne County, Calif. It is my opinion that implementing Alternative A of this Study's proposals represents the best course of action.

From my viewpoint, this alternative presents several advantages over all other proposed alternatives. Firstly, preservation of the river corridor in its natural, free-flowing state is of prime importance in my mind. On the 14th and 15th of July, 1979, I kayaked the river between Lumsden campground and Wards Ferry Bridge for the first time. I have boated several other rivers in California, as well as the Rogue River in Oregon, but no other river corridor I have visited has been as pristine as this one. The Tuolumne River corridor has an aesthetic beauty which is on a par with that of the Rouge, but has almost none of the garbage and debris scattered about its banks which a river corridor such as that of the Rogue (one with simplified access, high scenic and aesthetic qualities, and a high allotment of user-days) inevitably accumulates. Coupled with this, the Tuolumne River in this section probably represents the most difficult, challenging, and enjoyable stretch of continuous whitewater in California. These two considerations combine to form a recreational commodity which is rare and irreplaceable. In my opinion, this river corridor certainly deserves to be preserved in its natural state, even if based solely on these reasons, as whitewater boating is a sport which is still in its infancy, and many of the coming generations of whitewater boaters will desire to boat through a river corridor such as this one. Implementing this preservation by inclusion of the river in the Federal Wild and Scenic Rivers System is presently the most effective means, and the one which provides the greatest latitude of protection. As presented in the Wild and Scenic River Study, Alternative A is the only method which will allow total realization of these goals. It seems quite obvious to me that the sections of the Tuolumne River which lie within Yosemite National Park boundaries and which are eligible for inclusion in the Federal Wild and Scenic Rivers System should be so protected. Perhaps if the entire 92-mile stretch had been so protected before the Raker Act was signed by President Wilson in 1913, the National Park service might have much more leeway in dealing with the crushing crowds which now head for Yosemite Valley, if they could open up campsites in the now inundated Hetch Hetchy Valley which is reported to have been a near rival in beauty to Yosemite Valley. It is saddening to realize that the persistent lobbying of a few special interest groups can produce such an incredible violation of the intents and purposes of land contained within a National Park boundary, but this realization should make a case in point to preserve what remains of this resource with no provision for further hydroelectric development. All other alternatives presented in the study (B, C, D, & E) would allow for possible further hydroelectric development on the sector of river under study, and in my opinion, should be eliminated from consideration on this count.

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Secondly, it is questionable whether or not the implementation of a water resources development program on the Tuolumne River would prove to be a positive economic growth factor for the surrounding communities. Certainly, hydroelectric power plant construction projects create many jobs; however, many of the available positions will be filled by non-local personnel. This will create a temporary economic growth whose hiatus will coincide quite well with the completion of the project, causing a massive depletion of income to the local residents and a consequent recession. Combine this with the loss of revenues from the commercial rafting industry and an increase in property tax revenues to offset the loss of this revenue, and you have a package deal which probably will not satisfy many local residents who think to the future. Indeed,the voting on the Tuolumne County Ballot of November 1978 concerning the implementation of the proposed hydroelectric construction projects bears this conviction out quite well, with 66% of the voters rejecting the proposal. Alternative A provides a $70000 deficit due to increased short term expenditures for upgrading facilities, but very little of this deficit will be inflicted upon the local residents directly, as practically all of the land involved is maintained by various branches of the U.S. Government. Also, it would seem that the 30% predicted increase of user-days in the sector of river corridor under study would increase income to local residents because of increased patronage to local businesses.

Thirdly, while the long-term recreational value of the river corridor as protected under Alternative A seems quite straightforward and obvious, it is very possible that the impact of a total change in riverine landscape (which would result from the construction of the dams outlined in Alternative E) would have unpredictable effects on the number of recreation-days which would be accured on the newly formed reservoirs. Indeed, the promoting agencies for these man-made lakes seem to have the dubious quality of substantially overestimating the the number of recreation-days to be gained as a result of refined access roads, increased recreational value, etc. It would appear to me that in some instances these figures are provided only to lure the voting public into a false illusion of the widespread popularity of the intended project. Two particular cases can verify this, one being Hetch Hetchy Reservoir itself, the other being Pine Flat Reservoir on the Kings River. Both projects had promotors which projected outlandish figures for expected recreational use which were never borne out after completion of the projects. Alternative A could practically eliminate any ambiguity in the expected usage levels, because they are derived from existing usage levels and will be applied to a basically unmodified environment.

Another tactic which could be considered as unfair might be the promotion of reservoirs as needed recreational areas for the increasing throngs of people who are indulging in leisure sports. It is a fact that there are far more lakes and man-made reservoirs in California than there are free-flowing rivers, and the number of these rivers decreases every time another reservoir is created, which increases the usage level on the remaining rivers. With this type of situation, a 1% increase in the number of reservoirs might mean a 10% decrease in the number of free-flowing rivers. Today in California, lakes are plentiful, but rivers are not, and new dam construction cannot be justified in the name of recreation.

The text of this study seemed to me to be quite comprehensive and well thought out, but nevertheless there are a couple of areas which should have received more attention than they did. My main complaint is that there were many figures presented within the text, but only in a few instances were these figures put in a relative perspective which allowed a simple assessment of the magnitude of their importance. For instance, the amounts of benefit and deficit incurred by the various alternatives presented in the study could have been put into perspective to the annual income of the people in Tuolumne County who would be affected by their implementation. Also, there was one piece of data which I wished to extract from your study, but was not able to. It should have been contained in the paragraph which runs from the bottom of page 20 to the top of page 21. I would like to know what the capacity of the mountain tunnel from Kirkwood Powerhouse to Moccasin Powerhouse is in cubic feet per second.

I will circulate this study to as many people as I can interest with it. They will most probably be other kayakers, which is stacking the odds, but from talking to a few residents of the area I have an idea of what the desired outcome is anyway. Thank you very much for mailing this study to me for my review.

Sincerely,

Phil Martin

Phil Martin
1861 Olympic St.
Simi, CA 93063

P.S. Please let me know what the outcome of the study is. We don't get much of that type of news here in L.A.

Thanks.

444

Due to new and updated information received during the public review, Chapter V, "Evaluation of Alternatives Under Principles and Standards" has been revised and is part of this document. Based on the figures arrayed in the four accounts, cost benefit ratios for the Clavey unit and the Wards Ferry unit can be determined. The study team conducted its own analysis of all available information in developing its estimates. The consultant's report was one of many sources of information analyzed by the study team.

Officials of the Hetch Hetchy Water and Power indicate that the capacity of the mountain tunnel from Kirkwood Powerhouse to the Moccasin Powerhouse is approximately 770 cfs.

CALIFORNIA TROUT

KEEPER OF THE STREAMS

To: CARL RUST
TUOLUMNE WILD + SCENIC
RIVER STUDY,
19777 GREENLEY RD.
SONORA, CA. 95370

Dear Carl:

Just recieved your draft report re: Wild + Scenic Study + wish to congratulate you on a job well done. I did find, however, in revieiwng the report, what I believe to be a major ommission. You failed to include the Tuolumne Flow Study Report and its reccomendations in your draft.

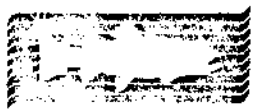
The Environmental assesment of the Flow study was scheduled for completion by June 15. It is my understanding that the assessment has been completed and the draft copy has been sent to Assistant Secretary Robert Herbst for his review. If, as we at Cal Trout anticipate, the Environmental assessment states that the Flow Study reccomendations ought to be implemented without further delay, the increased flows in the Tuolumne will vastly improve the conditions of an already exceptional fishery.

By failing to include the Flow Study Reccomendations, you have greatly underestimated the value of the Tuolumne as a fishery. Cal Trout heartily concurs with the ultimate conclusion

45

The draft flow study proposed by the Fish and Wildlife Service with input from the National Park Service, Forest Service, and California Department of Fish and Game has not been acted upon by the Secretary of the Interior. Accordingly, it has no official status.

CALIFORNIA TROUT



KEEPER OF THE STREAMS

of your study, to wit: The Tuolumne River represents an irreplaceable wild, scenic, and esthetic treasure which should be preserved for future generations of Americans.

On behalf of California Trout, I request that the Flow Study recommendations and environmental assessment thereof be included in the final draft of the Tuolumne Wild and Scenic River Study. California Trout further requests that alternative "A" (designation of all eligible segments) be specified as the only acceptable alternative.

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I request the opportunity to speak on the topic of the Wild and Trophy Trout Fishery potential of the Tuolumne at your hearing in Oakland on August 11.

Congratulations again on an excellent over-all report and rest assured that you have our complete support for your recommendation.

Sincerely Yours

Ron Moyer
Region 2 Manager
California Trout

C.C.; SENATOR CRANSTON
CONGRESSMAN SHUMWAY
HUEY JOHNSON

1116 Muirswood Way
Modesto, CA 95355
August 14, 1979

Tuolumne Wild and Scenic River Study
Stanislaus National Forest
19777 Greenley Road
Sonora, CA 95370

Dear Sirs:

My name is John Zoslocki; I am a General Contractor in the city of Modesto. I attended the University of Idaho and majored in Fisheries Biology. I am writing this letter to provide some detailed information on the unique fishery which exists on the Tuolumne River above Wards Ferry Bridge to Hetch Hetchy Reservoir.

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My knowledge of this river and its fisheries are through 12 years of experience fishing and hiking its banks and my education at University of Idaho. While at Idaho, I worked for Idaho Fish and Game as a Fish Hatchery Biological Aide. It was here that I attained valuable knowledge about river trout habitat, survival, and reproduction cycle.

The Tuolumne River supports a very fragile complex stream ecosystem. The stream ecosystem is a very unique and fragile ecosystem not subject to modification without severe damage. It consists of a large complex food web of diatoms, zooplankton, insects, and higher plants and animals; all of which are interrelated upon one another for their survival in its natural state. The Tuolumne River supports several trout species as well as one salmon species; Rainbow trout (Salmo gairdneri), Brown trout (Salmo trutta), Easter Brook trout (Salvelinus fontenalis) and Coho salmon (Oncorhynchus kisutch). The loss of the Tuolumne River would have a two-fold effect on two species, the Rainbow trout (Salmo gairdneri)

and Coho salmon (Oncorhynchus kisutch).

1) loss of natural spawning grounds.

2) may cause a loss of the salmon fishery entirely without man-made supplemental plants into Lake Don Pedro.

Every year in the fall the Rainbow and Coho migrate from Lake Don Pedro into the Tuolumne River to spawn. The Rainbow trout and Coho salmon require a free flowing, highly oxygenated gravel bedded stream to build their redds (nest) to deposit their eggs. The eggs will hatch in late winter and the fingerlings will emerge from the gravel in spring. They will continue their life cycle in the stream until they become 6-10 inches at which time they will migrate into Lake Don Pedro to complete their growth into adults. When three to five years have passed, they will return to the Tuolumne River and repeat this natural reproductive cycle.

48

If the new dams are built, Lake Don Pedro could lose it valuable salmon and trout fishery as we know it today. Lake Don Pedro supports two separate fisheries, warm water species sunfish, crappie, bass, etc., and the trout and salmon species. This makes it unique and very valuable resource economically. Of the recreational use, 60 percent of the fishermen fish for trout and salmon and 40 percent for warm water species. If the Tuolumne River is destroyed, the impact would be financially and environmentally damaging forever.

1 I believe there is an error in the impact report on page 27; the charts list #5 O'Shaughnessy Dam to Early Intake as poor fishery, I disagree. I have experience on this portion of the Tuolumne and have found it to be a fine fishery, supporting two species of trout, Salmo

1. The reasons the study team concluded that the Tuolumne River segment from O'Shaughnessy Dam to Early Intake is not an "Outstanding Remarkable" fishery are:

   a. Due to low summer releases (75 cfs) from O'Shaughnessy Dam, water temperatures frequently reach 80° +F which is too high to sustain a quality trout fishery.

   b. Spawning grounds have become somewhat silted as this segment of the river no longer receives the benefit of the flushing action from the spring runoff.

   c. The aquatic habitat has changed due to runoff being diverted through the Canyon Tunnel into the Kirkwood Powerhouse.

gairdneri and Salmo trutta. Salmo trutta, the Brown trout, is not native to this area but was planted back in the 1800's since that time only natural reproduction has allowed for its survival. The Department of Fish and Game does not plant this section of the Tuolumne with Brown trout.

The reason I believe this area is not considered a fine fishery is because of its inaccessibility. There are no roads or maintained trails to this section; for these reasons I feel this area is one of the most wild and scenic areas of the study.

Because of all these reasons I wish all 83 miles of the Tuolumne River be included into the Wild and Scenic River System.

Thank you

John Zoslocki

PREPARED STATEMENT BY ALBERT C. WELTI
FOR A HEARING ON THE DRAFT TUOLUMNE WILD AND SCENIC RIVER STUDY
AN ENVIRONMENTAL IMPACT STATEMENT, AUGUST 9, 1979

My name is Albert C. Welti. My residence is 2353 Larkin Street, San Francisco, California, 94109. I have a Bachelors of Arts degree in Mathematics from the University of California, Berkeley, and a Masters in Business Administration degree from Harvard University. I am presently a lease underwriter for Matrix Leasing International, Inc., a subsidiary of the First National Bank of Minneapolis, specializing in the financing of multi-million dollar capital assets. Previously, I was a consultant for Peat, Marwick, Mitchell, where I specialized in the economics of and the financing of urban mass transit. I was an economic and financial analyst for the Southern Pacific Transportation Company, where I participated in the preparation and presentation of testimony for governmental regulatory hearings. I have also been an instructor in the graduate business school of Golden Gate University, teaching among other courses "Current Concepts in Finance".

I have been a whitewater kayaker since April 1972. In the seven years that I have been a boater, I have spent over two hundred and fifty days on river trips covering close to one hundred different runs. Besides making numerous trips down the Tuolumne River, I have also run such rivers as the Rogue and the Middle Fork of the Feather, which are the two nearest rivers presently in the National Wild and Scenic River System.

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I have read the draft of the Tuolumne Wild and Scenic River Study and Environmental Impact Statement, and I am concerned about the economic and financial analysis presented in the draft. It appears that much of this analysis is either based on or taken from the R.W. Beck and Associates' 1976 Appraisal Report on the Clavey-Wards Ferry Project, about which I expressed my concerns at a hearing of the San Francisco Public Utilities Commission on July 27, 1976. Within the last month R.W. Beck and Associates released a Summary Report On Update of Costs And Benefits for this project. Because I suspect that this Summary Report will be used in any subsequent update of the Tuolumne River study, I would like to express my concerns about this report in my presentation today.

The first concern that I would like to examine is the aggregating of the costs and benefits of the Clavey Unit and the Wards Ferry Unit into one analysis. Although these two units probably share some of the proposed new transmission facilities, they otherwise appear to be independent units. As such, I would strongly suggest that the economics of each unit must be examined separately. This separation is the only way to determine whether each incremental investment is economically justified. Using the Beck Summary Report as a basis, I have attempted to separate the costs and benefits of these two units in Tables 1 and 2. Although a more accurate separation of the costs and benefits is certainly possible, the significant disparity in the benefit/cost ratios of these two units, 1.65 vs. 1.13, certainly demands an incremental investment analysis.

Due to new and updated information received during the public review, Chapter V, "Evaluation of Alternatives Under Principles and Standards" has been revised and is part of this document. Based on the figures arrayed in the four accounts, cost benefit ratios for the Clavey unit and the Wards Ferry unit can be determined. The study team conducted its own analysis of all available information in developing its estimates. The consultant's report was one of many sources of information analyzed by the study team.

I am concerned about the development of the costs associated with the alternative power source. The Beck Summary Report suggests using a combination of a simple cycle combustion turbine plant and a coal-fired plant to approximate the costs of an alternative source. While it is generally accepted that hydropower generation is most suitable for peak power demands, it is not necessarily accepted that additional peaking power capacity will be needed in 1990 - the estimated on-line date for this project - such that a turbine plant is a necessary component of an alternative power source. Using again the Beck Summary Report data, I have made a benefit/cost analysis in which a coal-fired plant is the sole alternative power source. Table 3 summarizes this analysis. The significant reduction in the benefit/cost ratio of the whole project, from 1.46 to 1.06, strongly suggests that a serious review of the estimated power needs of California in the 1990's may be needed. This review should determine the lowest cost alternative to hydropower generation,which is what must be used in any benefit/cost analysis.

I am concerned about the use of annualized benefits and costs leading to a benefit/cost analysis. Although a benefit/cost analysis is often used in an engineering oriented project,it has limitations. Most importantly, for our consideration here, it is difficult to put the non-financial considerations of a project into a reasonable perspective when using a benefit/cost analysis; specifically,it is difficult to answer the question "what percentage of a benefit/cost ratio is a river worth?". I believe that a net present value analysis of the economic data must be made to add perspective to the Beck Summary Report. Although a correctly made net present value analysis requires knowledge of both the amount and the timing of the cash flows to be made, I have made a net present value analysis using the data in Table 3 and assuming that the annualized benefits and costs are in fact actual yearly cash flows. Table 4 indicates that the present (1980) value of the entire project may be $22,453,000, if the annual discount rate is 7%, and only $12,491,000, if the annual discount rate is 10%. Certainly, when the economic value of this project can be expressed in such dollar terms, it is much easier to address the question "what is the Tuolumne River worth?".

Obviously, I am not satisfied with the analysis in the Beck Summary Report. A project affecting a natural resource as rare and beautiful as the Tuolumne River deserves highly objective scrutiny. To incorporate, wholesale, data from the Summary Report into the Tuolumne River study without such scrutiny is to do the river and all of us an injustice. If I may be of further assistance in developing new economic information for this study, please contact me.

TABLE 1

Cost Estimate Summary Separating Clavey Unit And Wards Ferry Unit
(Dollars in Thousands) 1/

Line No.	Item (a)	Clavey Unit (b)	Wards Ferry Unit (c)	Total (d)
1.	Unit Construction	$157,584	$ 96,297	$253,881
2.	Power Transmission:			
3.	230 KV line to Moccasin	2,950	1,180	4,130
4.	Joint costs 2/	8,309	2,770	11,079
5.	Subtotal	168,843	100,247	269,090
6.	Sales tax @ 2%	3,377	2,005	5,382
7.	Direct construction cost	172,220	102,252	274,472
8.	Contingencies @ 15%	25,833	15,338	41,171
9.	Subtotal	198,053	117,590	315,643
10.	Engineering and owner administration @ 12%	23,766	14,111	37,877
11.	Total construction cost	221,819	131,701	353,520
12.	Escalation, 7 years @ 7%	134,374	79,782	214,156
13.	Interest during construction 3/	58,499	34,732	93,231
14.	Total investment cost in 1990	414,692	246,215	660,907
15.	Percent of total	62.75	37.25	100.00

1/ Data per Beck Summary Report, July, 1979
2/ Prorated by unit capacity - 75% to Clavey Unit, 25% to Wards Ferry Unit
3/ Prorated by construction cost

TABLE 2

Benefit/Cost Analysis Separating Clavey Unit And Wards Ferry Unit
(Dollars in Thousands) 1/

Line No.	Item (a)	Clavey Unit (b)	Wards Ferry Unit (c)	Total (d)
1.	Capacity in KW	300,000	100,000	400,000
2.	Energy in KWh 2/	611,969,000	272,271,000	884,240,000
3.	Water in acre-feet		11,900	11,900
4.	Annualized benefits:			
5.	Power 3/	$ 31,304	$ 10,435	$ 41,739
6.	Energy 4/	26,636	11,850	38,486
7.	Water at $105.00/acre-foot		1,250	1,250
8.	Total annualized benefits	57,940	23,535	81,475
9.	Annualized costs: 5/			
10.	Total amortization costs	31,800	18,877	50,677
11.	Operating costs	3,330	1,977	5,307
12.	Total annualized costs	35,130	20,854	55,984
13.	Benefit/cost ratio	1.65	1.13	1.46

1/ Data per Beck Summary Report, July, 1979, except as noted
2/ Prorated by energy estimates used in Beck 1976 Appraisal Report
3/ Prorated by unit capacity, Line 1
4/ Prorated by energy output, Line 2
5/ Prorated at 62.75% to Clavey Unit and 37.25 to Wards Ferry Unit, from Table 1, Line 15

TABLE 3

Benefit/Cost Analysis Using Reduced Alternative Capacity Assumption
(Dollars in Thousands)

Line No.	Item (a)	Clavey Unit (b)	Wards Ferry Unit (c)	Total (d)
1.	Energy, in KWh 1/	611,969,000	272,271,000	884,240,000
2.	Minimum capacity needed in KW 2/	69,859	31,081	100,940
3.	Total capacity needed in KW 3/	110,800	49,296	160,096
4.	Water in acre-feet 4/		11,900	11,900
5.	Annualized benefits:			
6.	Power at $195.78/KW 5/	$ 21,692	$ 9,651	$ 31,343
7.	Energy at 30.20 mills/KWh 5/	18,481	8,223	26,704
8.	Water at $105.00/acre-foot 6/		1,250	1,250
9.	Total annualized benefits	40,173	19,124	59,297
10.	Total annualized costs 7/	35,130	20,854	55,984
11.	Benefit/cost ratio	1.14	.92	1.06

1/ From Table 2, Line 2
2/ Line 2 = Line 1 ÷ (24 x 365)
3/ Total capacity to reflect 3% transmission losses and 65% plant factor, per Beck Summary Report, July, 1979; Line 3 = Line 2 ÷ (.97 x .65)
4/ From Table 2, Line 3
5/ Power and energy costs per Beck Summary Report, July, 1979.
6/ From Table 2, Line 7
7/ From Table 2, Line 12

TABLE 4

Net Present Value Analysis Assuming Annualized Benefits And Costs
Are Actual Yearly Cash Flows
(Dollars in Thousands)

Line No.	Item (a)	Clavey Unit (b)	Wards Ferry Unit (c)	Total (d)
1.	Total annualized benefits 1/	$40,173	$19,124	$59,297
2.	Total annualized costs 2/	35,130	20,854	55,984
3.	Net annualized benefit (cost)	5,043	(1,730)	3,313
4.	Present value to 1990 at 7% 3/	67,232	(23,064)	44,168
5.	Present value to 1980 at 7%	34,177	(11,724)	22,453
6.	Present value to 1990 at 10% 3/	49,316	(16,918)	32,398
7.	Present value to 1980 at 10%	19,013	(6,522)	12,491

1/ From Table 3, Line 9
2/ From Table 3, Line 10
3/ Assuming 40 years of benefit (cost)

OUTDOORS UNLIMITED

2500 Fifth Avenue Sacramento CA 95818 Phone (916) 452-4081

September 24, 1979

Wild River Study Team
U. S. Forest Service
19777 Greenley Road
Sonora, CA 95370

Gentlemen:

Alternative A is the only acceptable choice for the future of the Tuolumne. It allows power producing uses of the river if Congress ultimately chooses such a path while protecting the river and it's canyon from those who would presently dam it for profit.

According to the introduction of your Wild & Scenic River Study draft, national policy mandates that those rivers which "possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other values shall be preserved in a free flowing condition". The Tuolumne River, in particular the section between Lumsden Campground and Wards Ferry, exceeds the most stringent selection criteria for most, if not all, of the values named. It is spectacularly beautiful, offers unparalleled whitewater recreation, has trout fishing you have to experience to believe, contains numerous historical Gold Rush sites, and is an irreplaceable conservator of the Miwok Indian heritage.

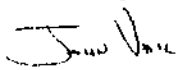
A statement like "unparalleled whitewater recreation" should be qualified. The Tuolumne offers the penultimate whitewater experience in the West. Adventure Travel Magazine calls the falls at the confluence with the Clavey River "one of the top runnable rapids in the world" and rates the Tuolumne among the "world's best rafting rivers". But the quality of experience is related to water flows. Reduced flows diminish this experience until, ultimately, there is not enough river left to run. If the Jawbone Diversion Dam were built, not only would the confluence of the Clavey area be irrevocably altered but the river upstream from the Clavey would be reduced to a maintenance level for the fishery, unsuitable for any form of whitewater recreation.

We possess a rare and unique recreational asset in the free flowing Tuolumne. Yet certain of our numbers are blandly proposing to consume this asset as they have already consumed much of the bountiful Sierra's free flowing rivers. To maintain the position the United States has held in the world since the advent of the Industrial Revolution, we are going to have to drastically change our consuming habits. We are beginning to lose our position in the world economy because of our dependence on subsidized, artificially priced energy. Conservation,

through high tech methodology as well as altered consumer habits, is our quickest and most economical way out of our dilemma. But bad practices, like pumping valley water up from a steadily declining water table, will continue to occur until there is nothing left to pump (consume), until there is no energy or until energy is too expensive to use for such practices. It is not the fault of the grower -- he has to compete with his peers who are doing the same thing. The basic fault lies with a system which has been reluctant to change. But, now, like it or not, change is irrevocable and it is time we modernized our thinking to align with the facts of life. And one of these facts is that power production from the proposed dams on the Tuolumne won't stall our impending dilemma more than a fortnight.

A serious error was once made in the Tuolumne watershed and a priceless national treasure was turned into a cistern for potable water at Hetch Hetchy. The hindsight that 60 years has afforded us clearly reveals the shortsidedness of that decision. If, today, the discussion over protection vs. inundation related to a still pristine Hetch Hetchy Valley rather than the lower Tuolumne canyon, public opinion would overwhelm the wishes of the dam builders. I submit that, 60 years from now, our decision would be judged equally shortsighted if we allow the lower Tuolumne canyon to be altered from it's natural state. Only Alternative A will preserve this unique place.

Sincerely,



John Vail
Outdoors Unlimited

Addendum

Page 51 shows an estimate of $210,000 as gross revenue for commercial rafting. The base year used, 1978, was a time of unusually high water which precluded the safe operation of commercial river trips. A more accurate figure would be approximately $400,000.

On Pages 28-32 the study team has divided the Tuolumne into a series of segments and designated them wild, scenic, recreational, and ineligible. I feel that the section between Lumsden Campground and the confluence of the Clavey River, presently grouped with the road bordered section starting at Cherry Creek and classified recreational, be reclassified wild and grouped with the segment from Clavey confluence to study end. The road leaves the river just below Lumsden Campground and the mileage below that point meets all criteria for "wild" status under existing guidelines.

Revised revenue statistics based on the latest recreation information available in 1979 has been incorporated in the alternative analysis in revised Chapter V.

Should Congress designate the Tuolumne River as a component of the National Wild and Scenic Rivers System, the study team will be given two years to describe a river corridor, review and verify the classification of all designated segments and prepare a detailed river management plan. This effort would be accomplished with public participation.

208 Willard North
San Francisco, Calif. 94118
September 14, 1979

Tuolumne Wild and Scenic River Study
Stanislaus National Forest
19777 Greenley Road
Sonora, California 95370

Attention: Mr. Blaine L. Cornell, Forest Supervisor

Gentlemen:

I am writing in support of Alternative E in the draft environmental impact statement concerning the subject study, and to extend the remarks that I made at the hearing on this subject held in San Francisco last Aug.9. I am very familiar with the general area in question, having worked for the Hetch Hetchy Project in electrical engineering positions and in electrical operations for a total of 13½ years, four of which were spent in the field at the jobsites during construction of the City's three new powerhouses. However, I wish to emphasize that I am writing (and have spoken) only as a private citizen, not as a representative of the Project.

I believe that this issue should be decided on the basis of which alternative provides the most good for the most people. Alternative A, the one advocated by the draft EIS, clearly seeks to maintain the status quo of the Tuolumne River - and the wording of the section on Alt. A indicates a definite intention not to improve access to the area; or at most, minimally. The area in general is steeply-walled and difficult of access, so that only a relatively few people, who are strong and hardy enough, can get in and participate in the types of recreation spoken of in the EIS. Is keeping this area in its present nearly-inaccessible and undeveloped state serving the needs of the people in general? Or is it rather serving the desires of those few white-water enthusiasts who would like to preserve their own quasi-private playground on public land, thus depriving the general public of the benefits that might be realized if those lands and the river were utilized for water and power development?

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Alternatively, if these lands and the river were developed to realize their water and power potential (as delineated in the 1976 and 1979 reports by R. W. Beck & Associates), the water and power thereby derived would serve the needs of all of the people, not just the hardy few who are able to penetrate the wilderness in order to enjoy white-water boating or fishing in that rugged country. Moreover, the power generated will cause no air pollution and will save considerable quantities of non-renewable fossil fuels (see below).

1

The Wards Ferry Reservoir would provide not only fishing opportunities (replacing the stream fishing lost with lake fishing) but would provide relatively-easy access by boat to all points along its length, and also enable many people to enjoy the views of the canyon that now are reserved only for the hardy souls mentioned above. Camping, nature study, swimming, boating, and water skiing are all recreational opportunities that would be made possible by this reservoir.

This letter will not go into "numbers" very much since the "numbers" are well-presented in the Beck reports, of which I'm sure you have copies. However, I wish to call your attention to the fact that the project, if constructed, will provide annual water and power benefits worth between $83 million and $91 million (depending on the rate of increase of the price of coal) in terms of 1990 dollars, with a net annual savings (after operating expenses and debt service) of between $28 million and $36 million. It will also save twelve million barrels of oil and 15 million tons of coal over the 40-year bond payoff

1. Page 63 of the draft report recognizes that construction of the hydroelectric project would substitute flat water recreation for the stream recreation. It also notes that because of the terrain and difficult access, better opportunities for flat water recreation exists at undeveloped sites at nearby existing reservoirs. It should also be noted that the project proponents' conceptual plan for recreation development would exclude private power boats, thus restricting the types of recreation opportunities and precluding use by certain individuals and groups.

period, during which time the total net savings would be between 1.123 and 1.456 billion dollars (1990 dollars).

2 The draft EIS said little about the economic value of the proposed water and power development to Tuolumne County. This project will provide considerable income to Tuolumne County during the several years that will be required for construction of the project, and will provide some additional employment opportunities after the project is completed. Tourism should be much improved to the Tuolumne River area after the project is completed since improved recreation is required by the FERC for areas being developed in this way. Also, this project will provide a basis for augmenting the taxes that San Francisco now pays to Tuolumne County , presently amounting to some $1/2 million annually, and thus will provide a tax benefit to Tuolumne County.

The EIS seeks to convey the impression that all white-water boating on the Tuolumne River will be eliminated if the project is built. While it would be greatly reduced, opportunities will still exist for white-water boating for 3 or 4 miles downstream of Clavey Powerhouse (when Warde Ferry reservoir is drawn down), and downstream of the South Fork of the Tuolumne River during the runoff season. Flows from the powerhouse should not be a problem to the white-water boaters since they seem to be happy with the present flows on the Tuolumne River (downstream of Cherry Creek), which come mainly from Holm Powerhouse.

I felt that the draft EIS was heavily biased in favor of Alternative A, and contained numerous errors and misleading statements. Attached is a tabulation of these items, which I suggest be investigated and appropriate corrections made in the final EIS. I would also suggest that some analysis be made of the figures tabulated in Table VI, since the $ values are difficult if not impossible to relate to the values presented by R. W. Beck & Associates (an engineering firm of considerable repute which has much expertise in this field).

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I will conclude by reiterating my support for Alternative E ("No action" - i.e. that the Tuolumne River not be designated as part of the Wild & Scenic Rivers System) on the ground that Alt. E provides the greatest benefit for the greatest number of people, and that the few present-day values which would be lost by such development will be more than compensated for by improved access to the area and substitute forms of recreation.

Enc.

Sincerely yours,

Winchell T. Hayward

CC: Mr. Zane Smith, Regional Forester
USDA - Forest Service
630 Sansome St., S.F. 94111

Mr. Howard Chapman, Regional Director
USDI - National Park Service
450 Golden Gate Ave., S.F. 94102

Mr. James Ruch, State Director
USDI - Bureau of Land Management
2800 Cottage Way
Sacramento, Calif. 95825

Mr. John Cherry, Regional Director
USDI - Heritage Conservation and Recreation Service
450 Golden Gate Ave., S.F. 94102

Mr. John R. McGuire, Chief
Forest Service, USDA
South Bldg, 12th & Independence Ave SW
Washington, D.C. 20013

Mr. William J. Whalen, Director
National Park Service, USDI
Washington, D.C. 20240

2. The Principles and Standards analysis in Chapter V and the accompanying tables have been revised based upon data received following release of the report and in comments.

9/14/79

Tuolumne Wild & Scenic River Study
(Specific comments on draft EIS)

Reference	Comments
p. V, last para.	Incorrect statement - Alt. D does preclude development of hydro power (since it includes the site of Jawbone Res.)
p. VI, l.5	"Alt. C" should be "Alt. D"
p. 15, l.15	Access to the Tuolumne is generally difficult, except at the few road crossings
p. 17, l. 17	"---greater demands for rafting use ---" should be put into perspective by reliable figures showing yearly record of use.
p. 20, l. 15	Impression is given that smoothing-out of river flows by reservoirs is bad, Controlled flows have maintained availability of the river for boating over a much-greater period of the year than if the reservoirs did not exist.
p. 22-24	"Economic and social" mentions nothing about increased income to the area due to project construction, or to value of increased tourism due to improved access, or to increased taxes payable to Tuolumne County by San Francisco
p. 31, l. 21	Incorrect statement - there are regularly-scheduled hours for powerhouse operation.
p. 32, l. 2	Language clearly indicates averse attitude toward improved access.
p. 33, l.4-7	EIS emphasizes environmental aspects of Alt. A, almost to the exclusion of benefits under Alt. E.
p. 38, l.21-23	This admits that Alt. A is not intended to maximize recreation or to open up the area for vehicular traffic, thus continuing to effectively deny its use to many people.
p. 40-41	Alt. A, if adopted, would not only prevent further water and power development on the Tuolumne River, but could diminish the output of both existing powerhouses in the area.
p. 42, l. 6-7	"continued remoteness -- would be assured" again indicates a negative attitude toward improved access.
p. 45, l. 14-16	How is 30% increase in recreation arrived at?
p. 46, l. 4-8	These remarks can also be made with reference to Alt. E.
p. 51, l. 6-8	How is the 30% figure arrived at? Seems to conflict with expressed intention not to improve access.
p. 51-52	Statement made that only marginal opportunities exist to expand commercial rafting - apnearsto conflict with p. 17 quotation above.
p. 58	Last sentence is wrong - Jawbone Reservoir is in the area proposed for designation by Alt. D.

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Page v, Last Paragraph

Alternative D would permit the construction of the Wards Ferry Dam which includes a powerhouse for hydro-power production. The study has been corrected by inserting "all" after "of" in the last sentence on page v.

Page vi, l.5

The text is correct. We are discussing Alternative C on page vi and indicating that insufficient data regarding the hydroelectric project is available to establish the validity of the alternative.

Page 15

It is true that physical access to much of the Tuolumne River is difficult. The statement in the study report was intended to point out that the Tuolumne River is accessible to a large population within a 4 to 5-hour drive. The difficulty of access is discussed on page 16.

Page 17

Greater demands for rafting use are reflected in the use data collected over the past 5 to 10 years by river managing agencies. Use on the Tuolumne increased by 2,000 user days in 1979 compared to 1978. Use on the Stanislaus River in 1975 was approximately 30,000 user days with use in 1978 being approximately 52,000 user days. Greater demand is also evidenced by an increase in requests for permits by commercial outfitters received each year by the river managing agencies.

Page 20

It was not the study team's intent to give the impression that controlled flows are either good or bad. The meaning here was to point out that the Hetch Hetchy impoundments and diversions have drastically altered the natural flows of the Tuolumne River.

Pages 22-24

The discussion on pages 22-24 reflects the present situation and is not an assessment of the impact of designation of the river or construction of the project. Those discussions appear on pages 51 and 68 and in revised Chapter V.

Page 31

The intent was to point out that Holm Powerhouse has no scheduled operation to provide water releases for the benefit of the fishery, recreation, or water quality. The Holm Powerhouse operation is scheduled regularly to meet power demands.

Tuolumne Wild & Scenic River Study
(Specific comments on EIS - cont.)

9/14/79

Reference	Comments
p. 60, "Impact"	First sentence is misleading because long-term effects of Alts. A. and E are quite different. Last sentence is surprising because there is great potential for significant increases in recreation use, if access is improved.
p. 63, 2nd. par.	Shows that recreation development will be required if the project goes ahead.
p. 68, l. 11-13	Loss of white-water rafting would be more then offset by other tourism and recreation activities, due to improved access.
p. 70, l. 1-4	Alts. B,C and D would permit some hydropower development ("irretrievable or irreversible commitment")
p. 73, l. 1	"net benefit of $17,000,000 to the national economy misleading because no time period is given, and the 1979 Beck report indicates a much higher annual value.
p. 83, last line	Incorrect statement - economic benefits would be foregone under Alts. A, C and D until (and if) Congress acts again upon this matter.

W. T. Hayward

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Page 32

The study team did not intend to exhibit an adverse attitude towards access but to indicate the impacts of the Lumsden Road on the wild and scenic character of the river. This chapter deals with the evaluation criteria for river eligibility.

Page 33

It was the study team's responsibility to determine if the Tuolumne River possesses those values making it eligible for designation under the Wild and Scenic Rivers Act. The study team did find the Tuolumne River to be eligible for designation and the EIS therefore primarily addresses Alternative A. Alternative E is discussed in detail beginning on page 59 with the values of the hydroelectric project shown as known. They are also displayed in the revised Chapter 5.

Page 38

The intent and purpose of the Wild and Scenic Act is not to maximize or minimize recreation use of a designated wild and scenic river. The objective is to preserve or enhance existing values, making them available for use at a level compatible with their classification.

Pages 40-41

Designation as a wild and scenic river, per se, would not affect existing hydroelectric production. The Secretary's possible actions with respect to requiring flow releases for various purposes can occur with or without designation.

Page 42

Under Alternative A, it is very unlikely that additional vehicular access would be developed. Trail access may be increased or improved, depending on what decisions are made in a management plan. See answer to comment on page 38 above.

Page 45

The 30% increase is our best estimate based on increased recreation use trends over the past several years.

Page 46

Essentially, the same information is discussed under possible development of the hydroelectric project on page 66.

Page 51

The 30% figure is our best estimate. See answer to comment on page 45. Existing access will accommodate a 30% increase in user days.

Pages 51-52

Commercial whitewater recreation user days on the Tuolumne have reached the carrying capacity set by the Forest Service. It is possible the capacity is on the conservative side. The fact that commercial whitewater opportunity is limited (by Forest Service restriction) does not in any way affect the increased demands for rafting use.

Page 58

The statement in the text that this alternative would not preclude development of water resource projects in undesignated eligible sections of the river is correct. Jawbone Reservoir is in the area proposed for designation under Alternative D. Alternative D would permit construction of the Wards-Ferry Dam. The map in the report was incorrect and has been corrected.

Page 60

The first paragraph indicates what the immediate impacts of both alternatives would be. The remainder of the discussion relates to the likely conditions that would exist in the future. Present management plans do not include increased access to the area.

Page 68

It is possible that other water-related recreation could offset the economic loss of whitewater rafting under Alternative E. This is reflected in revised Chapter V. The costs of providing that increased recreation use must be recognized so that the net values may not necessarily reflect an increase. The statement was correct, but misleading. It has been revised.

Page 73

This $17 million should have been shown as an annual net benefit. This $17 million has been revised. Please refer to the "Principles and Standards" table in this document for the new figures.

Page 83

The misleading statement has been corrected.

P. O. Box 1670
Sonora, CA 95370

September 10, 1979

Blaine L. Cornell, Supervisor
Stanislaus National Forest
19777 Greenley Road
Sonora, CA 95370

Dear Mr. Cornell:

Please include these remarks in the formal hearing record for the Tuolumne River Wild and Scenic Study.

The Federal Government Study Report released in June 1979 is not objective. It is weak with respect to in-depth analysis and supporting statements for all alternatives. The values of more water and clean hydro energy among other resource use activities is given less attention than the values associated with a proposed wild and scenic river. The "objective study" promised us by Senator Cranston and Congressman McFall was not produced.

Why did the February 1979 report to Washington from the four California federal agencies contain a recommendation when local people were promised a 90-day review and public meetings before a conclusion and recommendation would be made.

The entire study process - over time - has prompted a feeling that Federal Government minds are made up to classify the river as wild and scenic irrespective of all the facts. This is frustrating and discouraging - so unlike the Forest Service U.S.D.A. that I knew at one time.

A "Wild and Scenic River" with national park-like single purpose administration would create a "federal government bureaucratic wall" which would split Tuolumne County. New roads and other similar service type projects into the "Wild River" portions would be prohibited. The present U. S. Forest Service administration would become more complicated, frustrating and costly because of the role that would be carried out by the U. S. Department of Interior.

A "locked-up" river dedicated to only serving white water users, fishermen and a few others penalizes the opportunities for major future benefits to more people in California and Tuolumne County. A 1977 U. S. Forest Service estimate indicated that the maximum white water use ever to be permitted would include some 200 kyackers, 1800 private raft passengers and 1700 commercial raft passengers. This capacity has nearly been reached. Tuolumne River Expeditions, Inc., report that they carried 1428 passengers in 1978. It appears that present use will increase by only 20%. At a rate of $100/person/day the Tuolumne River Expeditions, Inc. collects about $250 from each passenger for the average 2½ day trip. Only the well-to-do can afford this luxury. Private rafting and kyak use requires skills not possessed by the average person who enjoys the outdoors. The river really only serves a select clientele.

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1. As stated in the Wild and Scenic Rivers Act, it is the national policy to preserve certain selected rivers or sections thereof in their free-flowing condition for the use and enjoyment of present and future generations. Thus, the Secretaries of the Interior and Agriculture were directed to study the Tuolumne River from its headwaters to Don Pedro Reservoir to determine whether it met the criteria for inclusion in the National Wild and Scenic Rivers System. Designation is not a consumptive use of the water so the supply from Don Pedro and Hetch Hetchy Reservoirs would be unaffected.

   While the Act is preservation oriented, it does provide the Secretaries leeway to permit certain types of activities so long as they meet environmental standards established by the Secretaries.

   As part of the study we must identify for the Congress, the values which would be foregone if the river were designated as a component of the national system.

To lock up a river to serve so few at the expense of so many who - in the future - can be far better served should be seriously questioned. I can't become reconciled to the economic justification used. Being reasonably familiar with what goes on and should go on locally - I question it's validity.

The Tuolumne County 1978 election "ADVISORY VOTE ONLY" ballot read: "Shall the proposed Modesto Irrigation District, Turlock Irrigation District, and City and County of San Francisco dam projects be constructed on the Tuolumne River". The vote was 2 to 1 to stop these three outside agencies from building dams. Tuolumne County citizens don't want any more water taken away from the local area. There is an uncompromising position that Tuolumne County must receive benefits from any future water and hydro projects. The 1978 ballot did not simply state: "--Shall any future dams be constructed on the Tuolumne River". The ballot did not read "--the Tuolumne River shall be classified wild and scenic--". Proponents for locking up the river assume that the November voting results reflect a popular mandate to create a wild and scenic river. This is not a fact.

Federal Government Wild, Scenic and Recreational classification would forever close the Tuolumne River on the Stanislaus National Forest outside the Yosemite National Park to any future development over that which now exists from Hetch Hetchy to Don Pedro. Precluded would be the additional water conservation and hydro energy projects, roads, mining and possibly some adjacent lumbering on North Mtn., among other activities.

Water is in short supply. The population is growing faster than the State average. New sources of stored water must be found at a price which is not out of reason. Present storage and distribution systems are inadequate. Everything must be updated. The cost is enormous. This is supported by events this past month. You are familiar with the horrendous increase (by our standards) in water charges by Water District #2 - monthly bills of from $50 to $200 or more. This is an indicator of things to come throughout the County. The U. S. Forest Service is the only agency among the four with the history and tradition for giving the kind of balanced judgement which best serves the local and national public interest. Tuolumne County is in deep trouble when it comes to future water supplies at reasonable costs. The U. S. Forest Service has an enormous responsibility to be as helpful as possible to see that the local public interest is best served in this instance.

The Study Report - on page 84 - 1st paragraph reads: "These (hydro and water) benefits would be deferred to a future when if necessary, through action by Congress water resource development for hydropower could be allowed."

This is misleading! Once the Tuolumne River is locked up through Wild and Scenic classification it will be locked up forever - short of a national disaster or war. People in Federal Government know this.

Retaining the present status and management of Government lands by the U. S. Forest Service and the Bureau of Land Management would keep all options open for energy, water, mining, recreation and adjacent lumbering benefits among others. The Tuolumne is not a free flowing stream. It is a manipulated

and controlled river. The U. S. Forest Service has carried out it's mission satisfactorily in the past. There is no reason to expect that all other values except the white water use - will continue to be given their just optimum protection.

To date the only agencies proposing a water and energy development plan are the Turlock and Modesto Irrigation Districts and the City and County of San Francisco. Their proposals would add to the water and energy projects already built on the River from Hetch Hetchy to Don Pedro.

Using TID-MID-SF proposals as a point of reference some specific opportunities appear to open up which could bring benefits to increasing the supply of clean energy, developing new stored water, bringing monetary and other benefits to Tuolumne County and to offset the need to derail oil and coal from our future gasoline and other energy supply situations.

Proposed Wards Ferry Project

1. 11,900 ac. ft. firm annual storage.

2. R. W. Beck and Associates assign a domestic use value of $105/ac. ft. or a total of $1,250,000 annually.

3. This 11,900 ac. ft. of stored water is "new water". It is up for claim by: TID-MID-SF under "old water rights"; or by: Tuolumne County under "new water rights".

4. Since Tuolumne County is a "water deficient area" the County is entitled to these "new rights". In effect this new water belongs to the County. It can't be taken away from the County unless it accedes.

5. Under these circumstances Tuolumne County appears to have an excellent case with the Federal Energy Regulatory Commission and the State Water Resources Control Board.

6. Tuolumne County is starting to explore how to become involved in order to be in the best position to go after this proposed water supply.

7. A first step has already been taken. The County requested the "right to intervene" as did Water District No. 2.

   F.E.R.C. granted these requests.

8. A subsequent step is for the County to make a strong appeal to F.E.R.C. to "receive ownership of this water among other benefits".

9. For sake of discussion let's say:

   a. The County would put up $12,000,000 of the total $660,000,000 needed to build all facilities.

   b. As one alternative - the County could sell this water to TID-MID-SF to pass through the Wards Ferry Dam generators for $105/ac. ft. or $1,250,000 per year.

c. The County can use this revenue to help pay off future bond issues to finance development of more water storage and efficient distribution systems at elevations which will better serve more Tuolumne County users.

d. At the first glance this may or may not seem to be a good investment. However, over a 40-year bonding period it could be significant and of real benefit to the County.

e. The final results depends on the County carrying on imaginative and persistent bargaining during the negotiation period.

f. Who is to say - at this time - how much less would the County have to put up, i.e., $10 million, $7 million, or what?

g. Who is to say - at this time - how much more than $105/ac. ft. is this water worth to TID-MID-SF in view of escalating electricity values - i.e., $125 - $150 - or what?

h. Who is to say - at this time - that this is the only option available "to receive other benefits".

10. The much smaller Clavey and Jawbone projects haven't been mentioned. The question is - what are the opportunities "to receive benefits" if any.

Other local and national benefits include:

1. Construction of facilities means a payroll of some $100,000,000 plus for about 700 people over a 4-year period.

2. Operating and maintaining the proposed facilities will require about 25 people with an annual payroll of $500,000.

3. The 900,000,000 KWH of new clean energy will take care of the equivalent of 80,000 homes (average electric use) now served by the western grid utilities.

4. This 900,000,000 KWH of clean hydro energy is equivalent to that produced by 1.6 million barrels of oil. Beck and Associates Report calls for a mix of oil and coal on a 1 to 4 ratio.

5. At the cost of $20 - $24/barrel of imported oil the savings would be of some significance. The oil saved would be available for gasoline production. The coal saved would serve other pressing energy needs.

In conclusion - if the Tuolumne River area is ever expected to bring more benefits to more Californians, and especially Tuolumne County - than to a limited number of "white water" and other users - it SHOULD NOT BE CLASSIFIED WILD AND SCENIC.

GEORGE S. JAMES

SUMMARY OF THE INPUT FROM THE 90-DAY PUBLIC REVIEW ON THE TUOLUMNE WILD AND SCENIC RIVER STUDY AND DRAFT ENVIRONMENTAL STATEMENT

PREFACE

Per conformance with the Wild and Scenic Rivers Act (Public Law 90-542, Section 4b), a Formal 90-Day Review Period was commenced on the draft Tuolumne Wild and Scenic River Study Report and Environmental Statement on June 15, 1979. This review period extended thr through September 27, 1979, wherein all input was accepted by the agencies conducting the study. Within the review period, a series of Formal Public Hearings were held to afford additional opportunities for public response to the draft report. These hearings were held in Columbia, Modesto, San Francisco, and Oakland, California from August 4 through August 11, 1979.

The two parts which follow are the summaries of the input received during the 90-day review and input received as testimony during the hearings.

PART 1 - is the summation of public comments received during the 90-day review period - June 15 though September 27, 1979.

PART 2 - is the summation of testimony received during the formal public hearing period of August 4 through August 11, 1979.

Some duplication of information received from these two sources occurred, inasmuch as several groups and organizations gave testimony and later provided comments.

ABSTRACT

PART 1

Public input on the Tuolumne Wild and Scenic River Study and Draft Environmental Statement were received between June 15 and September 27, 1979. Some 4,500 copies of the draft document were mailed out. Approximately 1,600 responses were received by the study team.

Several alternatives were proposed. Each alternative provided for designation or non-designation of specific river segments. The alternatives:

Alternative A - Designation of all eligible river segments of the Tuolumne River - 83 miles.

Alternative B - Designation of those eligible segments above Early Intake - 60 miles.

Alternative C - Designation of all eligible river segments except a 2-mile segment below Early Intake and a 1-mile segment at the confluence with the Clavey River - 80 miles.

Alternative D - Designation of those eligible segments above the confluence with the Clavey River - 73 miles.

Alternative E - No designation (No action).

General Breakdown of Input

Total Public Input - 1,536 letters containing 1,557 signatures*

Favor Alternative A -

Government	29
Groups & Organizations	35
Private Citizens	1,410

Petitions (2 petitions with a total of 18,889 signatures)

Favor Alternative B -

Private Citizen	1

Favor Alternative C -

No input was received with regard to Alternative C.

Favor Alternative D -

No input was received with regard to Alternative D.

* The signature count was used as the count on how respondents addressed the alternatives.

Favor Alternative E -

Government	13
Groups & Organizations	62
General Public	108
Petitions (2 petitions with 582 signatures)	

General Comments -

Some were of such a general nature that it could not be discerned what position, or alternative, the speaker was addressing.

Government	4
General Testimony	37

Neutral Position -

The City and County of San Francisco passed a resolution affirming their neutrality on the Tuolumne Wild and Scenic River Study and Draft Environmental Statement

Neutral -

Government	1

PART 1

SUMMARY OF PUBLIC INPUT ON THE TUOLUMNE WILD AND SCENIC RIVER STUDY AND DRAFT ENVIRONMENTAL STATEMENT

Public input on the Tuolumne Wild and Scenic River Study and Draft Environmental Statement were received between June 15 and September 27, 1979. Initially some 4,500 copies of the draft document were mailed out. Approximately 1,600 responses were received by the study team.

The Study considers the potential designation of certain segments of the Tuolumne River in California as units of the National Wild and Scenic Rivers Act (Public Law 90-542). A 92-mile portion of the river, located entirely within Tuolumne County, California, was identified for study as a possible candidate for wild and scenic designation by an amendment (Public Law 93-621) to that act. A necessary segment in the study process was public review. The public review period was punctuated by four public hearings held in Columbia, Modesto, San Francisco, and Oakland, California. Additionally, the study team received and reviewed letters from the general public, government agencies, and organizations and groups.

Five alternatives were created which would designate or not designate various segments of the Tuolumne River to Wild and Scenic status. The alternatives were:

Alternative A - Designation of all eligible river segments of the Tuolumne River - 83 miles.

Alternative B - Designation of those eligible segments above Early Intake - 60 miles.

Alternative C - Designation of all eligible river segments except a 2-mile segment below Early Intake and a 1-mile segment at the confluence with the Clavey River - 80 miles.

Alternative D - Designation of those elibible segments above the Confluence with the Clavey River - 73 miles.

Alternative E - No designation (No Action).

The study report identified Alternative A as the preferred alternative.

Letters Received

In addition to the counting of letters, the number of signatures on a letter were counted. The signature number was the number recorded as favoring a particular alternative.

TABLE 1

Letters and Signatures

# of Letters - General Public	1415
# of Letters - Government	23
# of Letters - Groups & Organizations	97
Total # of Letters	1535

Total # of signatures for public letters 1557

Alternative A

Alternative A would designate all eligible river segments of the Tuolumne River - 83 miles.

TABLE 2

Favor Alternative A

Government (signatures)	29
Groups & Organizations	35
General Public (signatures)	1,410
Petitions (# of signatures)	18,899

Government - The following government officials or agencies supported Alternative A.

U.S. Congressman Don Edwards
State Senator James R. Mills
State Senator Omer Rains
State Senator David A. Roberti
State Senator Alan Sieroty
State Senator Diane Watson
Assemblyperson Tom Bates
Assemblyperson Howard Berman
Assemblyperson Victor Calvo
Assemblyperson Leona Egeland
Assemblyperson Mike Gage
Assemblyperson Terry Goggin
Assemblyperson Tom Hannigan
Assemblyperson Gary Hart
Assemblyperson Richard Hayden
Assemblyperson Lawrence Kapiloff
Assemblyperson Mel Levine
Assemblyperson Bill Lockyer
Assemblyperson Dennis Mangers
Assemblyperson Herschel Rosenthal
Assemblyperson Sally Tanner

Assemblyperson Curtis Tucker
Assemblyperson John Vasconcellos
Assemblyperson Frank Vicencia
Assemblyperson Maxine Waters
Assemblyperson Chester Wray
Energy Conservation Office - State of Wyoming
Resources Agency of California
Town of Fairfax, California

Groups and Organizations - Some 35 groups and organizations gave their support to Alternative A. The groups supporting A were:

American Camping Tours, Inc.
American Wilderness Alliance
Arnold Whitewater Association
Audubon Canyon Ranch
California Academy of Sciences
California Native Plant Society
California Trout
California Wilderness Coalition
Ecology Center of Southern California
Ecology Club - Pleasant Hill High School
Hercules Environmental Resources Committee
Ken Sleight Expeditions
League of Women Voters of California
Ledyard Canoe Club of Dartmouth
Moki Mac River Expeditions
Northern California Council of Fly Fishing Clubs, Inc.
Northwoods Audubon Center
Orion River Expeditions
Outdoors Unlimited
Placer County Conservation Task Force
Public Lands Institute
Redwood Region Audubon Society
River Touring Section - Sierra Club (Bay Chapter)
Sandpiper Whitewater Guides
Save the River
Sierra Club
Sierra Club (Bay Chapter)
Sierra Club (San Diego Chapter)
Sierra Club (Santa Lucia Chapter)
Sierra Mac River Trips
The Trust for Public Land
Tri-City Ecology Organization
Tuolumne River Conference
Tuolumne River Expeditions, Inc.
Tuolumne Wild River Association

Private Citizens - Some 1,410 individuals wrote the study team in support of Alternative A.

Petitions - Two major petitions were received in support of Alternative A. The largest petition came from the Friends of the River. It listed 18,703 signatures. The other petitions arrived from a private individual and had 196 signatures. Total input from petitions came to 18,899 signatures.

Alternative B

Alternative B called for designation of those eligible segments above Early Intake - 60 miles. Only one item of response was received favoring Alternative B.

TABLE 3

Favor Alternative B

Private Citizen	1
Total of Response	1

Alternative C

The C Alternative provides for designation of all eligible river segments except a 2-mile segment below Early Intake and a 1-mile segment at the confluence with the Clavey River - 80 miles. No comments were received with regard to Alternative C.

Alternative D

Alternative D calls for designation of those eligible segments above the confluence with the Calvey River - 73 miles. No comments were received with regard to Alternative D.

Alternative E

Alternative E provides for no designation or no action. It would leave the Tuolumne River in a status quo position.

TABLE 4

Favor Alternative E

Government	13
Groups & Organizations	62
General Public (# of signatures)	108
Petitions 2 (# of signatures	582

Government - The following government personnel and agencies were supportive of the E Alternative:

Board of Supervisors - Stanislaus County
City of Albany, CA
City of Holtville, CA
City of Kingsburg, CA
City of Lodi, CA
City of Newman, CA
City of Porterville, CA
City of Portola, CA
City of Redondo Beach, CA
City of Selma, CA
City of Signal Hill, CA
City of Tulare, CA
State Senator Ken Maddy

Groups and Organizations - The following groups and organizations support Alternative E:

Anderson Chamber of Commerce
Antelope Valley - East Kern Water Agency
Banquet Foods Corporation
Building Industry Association of Central California
Butte County Farm Bureau
Calaveras County Chamber of Commerce
Calaveras County Water District
California Association of Four Wheel Drive Clubs
California Frozen Foods, Inc.
California Mining Association
California Water Resources Association
California Women for Agriculture
Calleguas Municipal Water District
Camrosa County Water District
Central Basin Municipal Water District
Chino Basin Municipal Water District
Citrus Heights Irrigation District
Consolidated Water District
Construction Laborers, Local 1130
Denair Unified School District
East San Bernardino County Water District
Gardena Valley Chamber of Commerce
Helix Water District
Hetch Hetchy Water and Power
Jackson Valley Irrigation District
Kings County Water District
Laguna Beach County Water District
Lawndale Chamber of Commerce
Lomita Chamber of Commerce
Merced Irrigation District
Modesto Board of Realtors

Monterey Bay District Council - United Brotherhood
North Coast County Water District
Oakdale Irrigation District
Paradise Irrigation District
Patterson Water District
Placer County Water Agency
Porterville Chamber of Commerce
Public Utilities Commission of San Francisco
Rincon Del Diablo Municipal Water District
Salida Chamber of Commerce
San Bernardino County Farm Bureau
San Juan Suburban Water District
San Luis Canal Company
San Luis Obispo County Farm Bureau
Santa Cruz County Farm Bureau
Solano County Farm Bureau
South Montbello Irrigation District
South San Francisco Chamber of Commerce
Stanislaus-Tuolumne Pomona Grange, #21
Stevinson Water District
Stockton East Water District
Stockton Chamber of Commerce
Tulare Irrigation District
Tulare Lake Basin Water Storage District
Turlock Board of Realtors
Vallejo Chamber of Commerce
Ventura Farm Bureau
Waterford Chamber of Commerce
West Basin Municipal Water District
Western Dairymans Association
Western Growers Association

Private Citizens - Some 108 individuals wrote to voice support for Alternative E.

Petitions - Two petitions were received supporting Alternative E. They had 582 signatures and were circulated by the Turlock Irrigation District and the Modesto Board of Realtors.

Neutral Position - The City and County of San Francisco adopted a neutral position on the Tuolumne Wild and Scenic River Study.

General Comments - The comments appeared to be of such a general nature that their support for a particular course of action, or alternative, could not be discerned.

TABLE 5

General Comments

Government	4
Private Citizens	37

Government - The following agencies submitted general comments with regard to the study.

California Regional Water Quality Control Board -
Central Valley Region
U.S. Environmental Protection Agency
Federal Energy Regulatory Commission
Department of the Army

Private Citizens - There were 37 generalized responses submitted by private individuals

Summary

TABLE 6

Summary of Letters

# of Letters General Public	1415
# of Letters Government	24
# of Letters Groups & Organizations	97
TOTAL	1535

TABLE 7

Summary of Signatures

Support Alternative A	1410
Support Alternative B	1
Support Alternative E	108
General Opinion	37
Neutral	1
TOTAL	1557

TABLE 8

Summary of Petitions

Favor Alternative A (# signatures)	18,899
Favor Alternative E (# signatures)	582
TOTAL	19,481

Table 9 summarizes total numbers of signatures inclusive of letters and petitions. It does not represent input of opinions from groups and government agencies.

TABLE 9

Totals - Letters & Petitions

Favor Alternative A	20,309
Favor Alternative B	1
Favor Alternative E	690
General Opinion	37

GEOGRAPHICAL DISTRIBUTION

OF PUBLIC INPUT

In order to gather an idea about the geographical distribution of letters, zip codes were categorized from 1,136 letters having zip codes. The codes were roughly grouped into six categories:

Bay Area
Tuolumne County
Valley
Southern California
Out-of-State
Other

Bay Area

Response from this area made up 46% of all the responses. The Bay Area was categorized as those zip codes beginning with 94.

Tuolumne County

Response from Tuolumne County made up 6 % of all responses. Names of county towns were counted.

Valley

Response from this area made up 26% of all the responses. The valley was categorized as those zip codes beginning with 95.

Southern California

Response from this area made up 12% of the total responses. Southern California was categorized as those zip codes beginning with 90, 91, 92, or 93.

Out-of-State

The out-of-state responses accounted for 7 % of all responses.

Other

The other category was a catch all for the responses from within California that did not fit into one of the other categories. Other responses accounted for 3.% of the total responses.

Geographical Distribution

Total Letters	1136
Bay Area	46% of Total
Tuolumne County	6% of Total
Valley	26% of Total
Southern California	12% of Total
Out-of-State	7% of Total
Other	3% of Total

ABSTRACT

PART 2
SUMMARY OF PUBLIC HEARING RECORD

During August 1979 four public hearings were held on the Tuolumne Wild and Scenic River Study and Draft Environmental Statement. Hearings were held at Columbia, Modesto, San Francisco, and Oakland, California. The study considered the potential designation of certain segments of the Tuolumne River as units of the National Wild and Scenic Rivers System.

Several alternatives were proposed. Each alternative provided for designation or non designation of specific river segments.

The Alternatives:

Alternative A - Designation of all eligible river segments of the Tuolumne River - 83 miles.

Alternative B - Designation of all eligible segments above Early Intake - 60 miles.

Alternative C - Designation of all eligible river segments except a 2 mile segment below Early Intake and a 1 mile segment at the confluence with the Clavey River - 80 miles.

Alternative D - Designation of those eligible segments above the confluence with the Clavey River - 73 miles.

Alternative E - No designation (No Action).

In addition to the four formal public hearings the hearings officer also provided that written testimony, so identified, would be accepted for inclusion in the hearing record between the period August 4 through September 11, 1979. The summation of both the four formal public hearings and the additional written testimony follows.

General Breakdown

Total # of Input	324

Favor Alternative A

Government	7
Groups & Organizations	28
Private Citizens	104

Petitions - 3 petitions with 2,359 signatures

Favor Alternative B

Groups & Organizations	1
Private Citizens	1

Favor Alternative C

Groups & Organizations	1

Favor Alternative D

No input was received with regards to Alternative D.

Favor Alternative E

Government	20
Groups & Organizations	107
Private Citizens	34

General Testimony

Some testimony was of such a general nature that it could not be discerned what position, or alternative, the speaker was addressing.

General Testimony	18

PART 2

SUMMARY OF THE COLUMBIA, CALIFORNIA, HEARING ON THE TUOLUMNE WILD AND SCENIC RIVER STUDY AND DRAFT ENVIRONMENTAL STATEMENT

On August 4, 1979, a public hearing on the Tuolumne Wild and Scenic River Study and Draft Environmental Statement was held in Columbia, California. Testimony was received from 46 individuals representing government, business, organized groups and private interests. Two petitions were presented to the hearing officer for inclusion in the public record.

TABLE 1

Total Input for the Record

Individual Speakers	46
Petitions	2
Total	48

Most testimony appeared to address the issues of designation or non-designation to wild and scenic rivers status. The alternatives of A, C, and E were discussed at the Columbia hearing.

Alternative A

Alternative A would designate all eligible sections of the Tuolumne River to wild and scenic status. That would be a total of 83 miles.

TABLE 2

Alternative A

Groups and Organizations	3
Private Citizens	16
Petitions	2

Breakdown by affiliational associations revealed the following as favoring Alternative A.

TABLE 3

Breakdown by Affiliation

Groups and Organizations

Sierra Club
Sierra Mac River Trips
Citizens to Preserve the Tuolumne River

Private Citizens

16 people spoke out in favor of Alternative A

Petitions

Origin of Petition	# of Signatures
Citizens to Preserve the Tuolumne	1986
Private Petition	219
Total of Signatures	2205

Alternative B

Alternative B - Designation of those eligible segments above Early Intake - 60 miles. No input was received on Alternative B at the Columbia hearing.

Alternative C

Alternative C would designate only three miles less of the Tuolumne than would Alternative A. One organization favored Alternative C.

TABLE 4

Favor Alternative C	
Central Sierra Audubon Society	1

Alternative D

Alternative D - Designation of all those eligible segments above the confluence with the Clavey River - 73 miles. No input was received on Alternative D at the Columbia hearing.

Alternative E

Alternative E - No designation (No Action)

TABLE 5

Favor Alternative E	
Government	2
Groups & Organizations	15
Private Citizens	4
Total	21

Breakdown by affiliation revealed the following:

TABLE 6

Breakdown by Affiliation

Government Agencies

Assemblyman Norman Waters
Board of Supervisors-Tuolumne County

Groups & Organizations

Tuolumne County Water District
Tuolumne County Chamber of Commerce
Tuolumne County Taxpayers Association, Inc.
California Cattlemen's Association
Louisiana-Pacific Corporation (Sonora Division)
Western Mining Council
Tuolumne County Contractors Association
Operating Engineers, Local 3
Women in Timber
Tuolumne County Board of Realtors
Highway 120 Association
Sonora Business Association
Sonora Pass Vacationland
Turlock Irrigation District
Tuolumne County Farm Bureau

Private Citizens

4 individuals gave testimony supporting Alternative E.

General Testimony

Some testimony seemed to be of such a general nature that their support for a particular course of action, or alternative, could not be discerned.

TABLE 7

Testimony of a General Nature

Private Citizens		5
	Total	5

Summary

TABLE 8

Summary of Tables

Favor Alternative A	19
Petitions Favor Alternative A	2
Favor Alternative C	1
Favor Alternative E	21
General Testimony	5
Total	48

SUMMARY OF THE MODESTO, CALIFORNIA, HEARING ON THE TUOLUMNE WILD AND SCENIC RIVER STUDY AND DRAFT ENVIRONMENTAL STATEMENT

On August 7, 1979, a public hearing on the Tuolumne Wild and Scenic River Study and Draft Environmental Statement was held in Modesto, California. A total of 109 pieces of input were received for the public record.

TABLE 1

Input for the Record

Total Input for the Record	109

Alternative A

Alternative A would designate all eligible sections of the Tuolumne River to wild and scenic status.

TABLE 2

Favor Alternative A

Government Agencies	1
Groups and Organizations	10
Private Citizens	13
Total	24

Breakdown by associational affiliation revealed the following groups and agencies as favoring Alternative A.

TABLE 3

Breakdown by Affiliation

Government Agencies

California Department of Fish and Game

Groups and Organizations

Sierra Club
California Native Plant Society
California Trout & Delta Fly Fishermen
Sierra Club (Sacramento)
Tuolumne River Expeditions
American River Recreation Association
Maidu Group of Sierra Club
Ecology Action Educational Institute
Sierra Club (Manteca)
Friends of the Earth (Tuolumne County)

Private Citizens

13 individuals spoke out for Alternative A

Alternative B

Alternative B - Designation of those eligible segments above Early Intake - 60 miles. This alternative was not addressed at the Modesto hearing.

Alternative C

Alternative C - Designation of all eligible river segments except a 2-mile segment below Early Intake and a 1-mile segment at the confluence with the Clavey River - 80 miles. This alternative was not addressed at the Modesto hearing.

Alternative D

Alternative D - Designation of those eligible segments above the confluence with the Clavey River - 73 miles. This alternative was not addressed at the Modesto hearing.

Alternative E

Alternative E - No designation (No Action)

TABLE 4

Favor Alternative E

Government	11
Groups and Organizations	58
Individuals	12
Total	81

Breakdown by affiliation revealed the following support for Alternative E.

Government Support

Congressman Tony Coehlo
State Senator John Garamendi
State Senator Ken Maddy
Assemblyperson Carmen Perino
Assemblyperson John Thurman
Board of Supervisors (Stanislaus County)
Board of Supervisors (Merced County)
City of Waterford
City of Huston
City of Ceres
City of Modesto

Groups and Organizations

Stanislaus Safe Energy Commission
Turlock Irrigation District
Building Industry Association of Central California
Stanislaus Trail Bike Association
Modesto Irrigation District
Turlock Chamber of Commerce
Stanislaus County Farm Bureau
California Milk Producers
San Joaquin County Farm Bureau
Cortez Growers Association, Inc.
Building & Construction Trades Council of San Mateo County
Laborers' International Union of North America, Local 652
Plasterers Local Union 295
Construction and Building Materials Teamsters Local 291
California State Council of Carpenters
International Brotherhood of Electrical Workers Local 302
District Council of Carpenters (Ventura County)
Laborer's International Union of North America Local 73
Plumbers and Steamfitters Local 492
Building & Construction Trades Council of Monterey Council
Building & Construction Trades Council of Orange County
United Association Local 230
International Brotherhood of Painters and Allied Trades Local 1906
Sheet Metal Workers Local 273
Building & Construction Trades Council of Fresno, Madera, Kings and Tulare Counties
Glazers and Glass Workers Local 718
Mid Valley Building & Construction Trades Council
Construction and General Laborers Local 389
Central California District Council of Lumber, Production and Industrial Workers
United Association Local 437
United Brotherhood of Carpenters and Joiners of America Local 36
Building and Construction Trades Council of Alameda County
Building and Construction Trades Council of Napa - Solano Counties
Painters and Allied Trades Local 1595
United Brotherhood of Carpenters Local 1358
United Brotherhood of Carpenters and Joiners of America Local 1497
Sheet Metal Workers International Association Local 272
Northern California District Council of Laborers
International Brotherhood of Electrical Workers Local 591
Labor Local 1464
International Brotherhood of Electrical Workers Local 100
Painters Local 9254
Building and Construction Trades Council of Santa Clara and San Benitos Counties
United Brotherhood of Carpenters and Joiners of America Local 2463
Painters and Allied Trades Local 1817
International Brotherhood of Electrical Workers Local 6
District Council of Carpenters - Sacramento
Sheet Metal Workers Local 273

United Association Local 250
United Association Local 345
United Brotherhood of Carpenters and Joiners of America Local 848
Building and Construction Trades Council of San Diego County
International Brotherhood of Painters and Allied Trades Local 1906
United Association Local 230
Building and Construction Trades Council of Stanislaus, Merced, Tuolumne and Mariposa Counties
Building and Construction Trades Council of Ventura County

Individuals

12 individuals offered testimony supporting Alternative E

General Testimony

Some testimony was of such a general nature that its support for a particular course of action, or alternative, could not be discerned.

TABLE 5

Testimony of a General Nature

Private Citizens	4

Summary

TABLE 6

Summary of Tables

Favor Alternative A	24
Favor Alternative E	81
General Testimony	4
Total	109

SUMMARY OF THE SAN FRANCISCO, CALIFORNIA, HEARING ON THE TUOLUMNE WILD AND SCENIC RIVER STUDY AND DRAFT ENVIRONMENTAL STATEMENT

On August 9, 1979, a public hearing on the Tuolumne Wild and Scenic River Study and Draft Environmental Statement was held in San Francisco, California. Testimony was received from 59 speakers representing governmental, organizational, and individual interests.

TABLE 1

Input for the Record

Individual Speakers	59
Total	59

Alternative A

Alternative A provides for designation of all eligible segments of the Tuolumne River. Under it 83 miles of river would be designated to wild and scenic status.

TABLE 2

Favor Alternative A

Government Agencies	2
Groups and Organizations	9
Private Citizens	23
Total	34

Breakdown by associational affiliation revealed the following groups and agencies as favoring Alternative A.

TABLE 3

Breakdown by Affiliation

Government Agencies

California Dept. of Boating & Waterways
California Dept. of Water Resources

Groups & Organizations

Friends of the Earth
Sierra Club
National Resources Defense Council
Tuolumne River Expeditions
Sierra Club (Bay Chapter)
San Francisco Tomorrow

American Rivers Conservation Council
Western Fly Fishermans Association
Golden Gate Audubon Society

Private Citizens

23 individuals favored Alternative A

Alternative B

Alternative B would designate the eligible segments of the river above Early Intake. Some 60 miles of the river would receive wild and scenic status. Two parts of testimony were heard supporting Alternative B.

TABLE 4

Favor Alternative B

R.W. Beck & Associates	1
Private Citizens	1
Total	2

Alternative C

Alternative C - Designation of all eligible river segments except a 2-mile segment below Early Intake and a 1-mile segment at the confluence with the Clavey River - 80 miles. This alternative was not addressed at the San Francisco hearing.

Alternative D

Alternative D - Designation of those eligible segments above the confluence with the Clavey River - 73 miles. This alternative was not addressed at the San Francisco hearing.

Alternative E

Alternative E - No designation (No Action)

TABLE 5

Favor Alternative E

Groups and Organizations	12
Private Citizens	7
Total	19

Breakdown on the basis of affiliational association tended to show the following groups and agencies as favoring Alternative E.

TABLE 6

Breakdown by Affiliation

Groups and Organizations	
San Francisco Public Utilities Commission	
California Labor Federation, AFL-CIO	
Hetch Hetchy Water & Power	
Association of California Water Agencies	
California Farm Bureau Federation	
California Municipal Utilities Association	
San Francisco Building Trades Council	
California Council for Environmental & Economic Balance	
San Francisco Labor Council	
Modesto & Turlock Irrigation Districts	
International Longshoremans & Warehousemans Union	
Operating Engineers, Local #3	
Private Citizens	
7 individuals gave testimony supportive of Alternative E	

General Testimony

General Testimony was received from 4 individuals. Their testimony appeared to be of such a general nature that their support for a particular course of action, or alternative, could not be discerned.

Summary of Tables

TABLE 7

Summary of Tables

Favor Alternative A	34
Favor Alternative B	2
Favor Alternative E	19
General Testimony	4
Total	59

SUMMARY OF THE OAKLAND, CALIFORNIA, HEARING ON THE TUOLUMNE WILD AND SCENIC RIVER STUDY AND DRAFT ENVIRONMENTAL STATEMENT

On August 11, 1979, a public hearing on the Tuolumne Wild and Scenic River Study and Draft Environmental Statement was held in Oakland, California. Testimony was received from 51 speakers representing individuals, organizations, and governmental interests.

TABLE 1

Total Input for the Record

Total Input	51

Alternative A

Alternative A would designate all eligible segments of the Tuolumne River to wild and scenic river status. A total of 83 miles would be designated under A.

TABLE 2

Favor Alternative A

Government	1
Groups and Organizations	8
Private Citizens	25
Total	34

Breakdown by associational affiliation revealed the following groups as favoring Alternative A.

TABLE 3

Breakdown by Affiliation

Government

U.S. Congressman Don Edwards

Groups and Organizations

Federation of Fly Fishermen
California Trout
Friends of the River
Sierra Club (Bay Chapter)
Federation of Western Outdoor Clubs
Tuolumne River Expeditions
California White Water Advisory Board
Sierra Club

Private Citizens

25 individuals spoke out in favor of Alternative A.

Alternative B

Alternative B - Designation of those eligible segments above Early Intake - 60 miles. This alternative was not addressed at the Oakland hearing.

Alternative C

Alternative C - Designation of all eligible river segments except a 2-mile segment below Early Intake and a 1-mile segment at the confluence with the Clavey River - 80 miles. This alternative was not addressed at the Oakland hearing.

Alternative D

Alternative D - Designation of those eligible segments above the confluence with the Clavey River - 73 miles. This alternative was not addressed at the Oakland hearing.

Alternative E

Alternative E - No designation (No Action)

TABLE 4

Favor Alternative E

Government	1
Groups and Organizations	5
Private Citizens	6
Total	12

Breakdown by associational affiliation revealed the following groups as favoring Alternative E.

TABLE 5

Breakdown by Affiliation

Government

State Senator Alfred E. Alquist

Groups and Organizations

California Grange
California State Council of Carpenters
Alameda Building and Construction Trades Council
Coalition of Labor and Business
Turlock Irrigation District

Private Citizens

6 individuals supported Alternative E

General Testimony

Some testimony was of such a general nature that it could not be discerned what position the speaker was addressing. At the Oakland hearing, 5 individuals gave general testimony.

Summary of Tables

TABLE 6

Summary of Tables

Favor Alternative A	34
Favor Alternative E	12
General Testimony	5
Total	51

SUMMARY OF WRITTEN INPUT SUBMITTED FOR INCLUSION IN THE HEARING RECORD DURING THE 30-DAY PUBLIC HEARING PERIOD

In addition to the oral and written testimony received at the formal public hearings an additional 57 statements of written input were received for inclusion in the hearing record. The hearings officer specified that items could be submitted for inclusion in the hearing record during the formal hearing period of August 4 through September 11, 1979.

Alternative A

Alternative A - Designation of all eligible river segments of the Tuolumne River - 83 miles.

Support for Alternative A	
Organizations -	
Tuolumne Wild River Association	1
Petitions -	
1 petition with 154 names on it	1
Private Individuals -	
Support came from 27 people	27

Alternative B

Alternative B - Designation of those eligible segments above Early Intake - 60 miles. This alternative was not addressed by any input received outside the formal hearings.

Alternative C

Alternative C - Designation of all eligible river segments except a 2 mile segment below Early Intake and a 1 mile segment at the confluence with the Clavey River - 80 miles. This alternative was not addressed outside the formal hearings.

Alternative D

Alternative D - Designation of those eligible segments above the confluence with the Clavey River - 73 miles. This alternative was not addressed outside the formal hearings.

Alternative E

Alternative E - No designation (No Action).

Support Alternative E	
Government Agencies	6
Groups and Organizations	17
Private Individuals	5

Breakdown by affiliational categories revealed the following support for Alternative E.

Breakdown by Affiliation

Government Agencies

City of Turlock
City of Livingston
City of La Mesa
City of Cloverdale
City of Durante
California Commission on Agriculture

Groups and Organizations

Cortez Growers Association
Tuolumne County Democratic Committee
Gratton Grange
South San Joaquin Irrigation District
Turlock Pleasure Seekers
Western Growers Association
Salida Chamber of Commerce
Glenn-Colusa Irrigation District
Tulare Lake Basin Water Storage District
Tuolumne County Republican Central Committee
Upper San Gabriel Valley Municipal Water District
Plumbers and Steam Fitters, Local 393
Painters and Allied Trades, Local 256
Sheet Metal Workers, Local 108
Sheet Metal Workers, Local 216
United Brotherhood, Local 1506
United Brotherhood, Local 2477

Private

Private Individuals	5 persons

Summary

SUMMARY

Total Input Received	57
Support Alternative A	29
Support Alternative E	28

SECTION III

CHANGES TO THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

ERRATA

Page

v. Second paragraph, add:

> Alternative A has been confirmed as the preferred alternative.

v. The last sentence on the page should read: "...by provisions of the Wild and Scenic Rivers Act the development of all hydroelectric resources."

vi. The last sentence of this paragraph has been deleted.

vi. Add as second paragraph.

> The President, by letter of October 2, 1979 to the Congress of the United States, has recommended the designation of 83 miles of the Tuolumne River (Alternative A) as a component of the National Wild and Scenic Rivers System.

vii. Chapter IV, "Alternatives and Impacts of Alternatives", expanded to include the following subheadings:

	Page
Alternative A	34
Alternative B	54
Alternative C	56
Alternative D	58
Alternative E	59

vii. Chapter VI should read: "The Preferred Alternative."

vii. A listing of maps is added to the Table of Contents.

Maps	Between pages
Location	4 and 5
Minerals and Geology	6 and 7
Proposed Wilderness and Identified Roadless Areas	14 and 15
Tuolumne River	16 and 17
Classification	28 and 29
Alternative A	34 and 35

Page

Maps	Between pages
Alternative B	54 and 56
Alternative C	56 and 57
Alternative D	58 and 59
Alternative E	60 and 61

Following page 4. The following changes have been made on study report map:

TURI/80,000, LOCATION MAP

The highlighted Tuolumne River area has been shortened so as to extend down only to the end of the study river rather than down to the Tuolumne's confluence with the San Joaquin River.

5. The following is added to the first sentence at the top of the page (the period at the end is deleted):

"...and about two hours away from the Sacramento Metropolitan Area with a population of about 750,000."

Following page 6. The following additions have been made on existing study report map:

TURI/80,001, MINERALS AND GEOLOGY

"Wards Ferry", Big Creek", and the route of the Pacific Crest Trail have been added to the above map.

The above changes also appear on the following maps:

Following page 14. TURI/80,002, PROPOSED WILDERNESS AND IDENTIFIED ROADLESS AREAS

Following page 16. TURI/80,003, TUOLUMNE RIVER

Following page 28. TURI/80,004, CLASSIFICATION

Following pages 34, 54, 56, 58, and 60. TURI/80,005, ALTERNATIVE A, B, C, D, AND E. (sheets 1 of 5, 2 of 5, 3 of 5, 4 of 5, and 5 of 5).

Page

9. The plant species listed should be spelled as follows: Lomatium congdonii, Clarkia australis, Lupinus spectabilis, Chlorogalum grandiflorum.

11. The following is added to the beginning of the second paragraph under Wildlife:

> An invertebrate species, Banksula tuolumne, the Tuolumne cave harvestman or daddy longlegs, inhabits limestone caves along the study river.

The following sentence is inserted between the first and second sentences of the middle paragraph:

> Salmon planted in Don Pedro Reservoir spawn upstream to just below Early Intake.

The bottom paragraph has been changed to read:

> Wildlife officially classified endangered, threatened, or rare by both the Federal government and the State of California may inhabit the study area. The southern bald eagle, officially classified as endangered by the Federal and State governments, is frequently observed along the river canyon, especially during winter months; although no aeries have been discovered, good nesting sites are available. The prairie falcon, classified as a threatened species by the Federal government, is occasionally seen along the river; an unconfirmed sighting of a nesting osprey has been reported. The spotted owl, a species whose welfare the Forest Service has expressed concern over, has been noted along tributaries of the Tuolumne. Wolverine, fisher, pine marten, and Sierra red fox, which are found in or near the Tuolumne in Yosemite National Park, are listed by the U.S. Department of the Interior in Threatened Species of the United States, 1973, as status undetermined, which means that they may possibly be threatened with extinction. The State has identified two rare or endangered terrestrial snail species in the study area: the stearus snail, possibly a relic species, and the Tuolumne snail.

Page

13. The following is added to the end of the first full paragraph:

> More than 3,000 acres of lands administered by the Forest Service and the Bureau of Land Management along the Tuolumne River, from Early Intake to Wards Ferry, have been withdrawn for water power or reservoir site purposes.

17. Line 12 - The sentence is changed to read as follows:

> The Tuolumne River has been identified and proposed by the State as a California Boating Trail...

27. Table III-1, "Delineated Segments for Identifying Values." A new page has been prepared to correct errors in the Table and appears in Section III of this document. The river segments identified on page 27 were used to determine the presence of "outstanding remarkable values". The segments described beginning on page 29 are unrelated and show the differing river classifications and those portions of the study river ineligible for classification.

31. The following is inserted between the first and second sentences of the top paragraph:

> However, these releases, as mentioned, are based on an interim flow schedule which could be modified by the Secretary.

34. The following is added to the last line of the first full paragraph:

> The National Park Service would administer the upstream 54 miles of the river eligible for designation. Downstream, the Forest Service would administer 28 miles of eligible river and the final one mile of eligible river would be administered by the Bureau of Land Management. The management plan will be coordinated by the agencies.

38. Line 13 - Change to read "55,700 visitor days annually."

Line 15 - Change to read "about $70,000 for annual operation and maintenance."

Page

40. The second sentence of the last paragraph now reads:

> The two proposed units are the Clavey unit, capable of producing an average of 708 thousand kilowatt hours annually and the Wards Ferry unit, capable of producing an average of 315 thousand kilowatt hours annually.

44. The thirdssentence of the top paragraph is deleted, as is the last sentence. The second to the last sentence is changed to read:

> An increase in future use could warrant restrictions being placed on road use, including closure during wet months and the prohibition of large commercial vehicles.

47. The line, "In summary, the impact of designation is minor", has been deleted. This statement now reads:

> In summary, a quantitatively unknown but potentially significant gold resource would not be available to the Nation if this area of the river is included in the designation.

51. Line 19. Change to read "$80 per creation day."

Line 21. Change "$210,000" to "$240,000."

54. Line 2. Change "people" to "households."

The following is inserted between the second and third sentences of the bottom paragraph.

> The National Park Service would administer the 54 miles of the river eligible for designation within Yosemite National Park. The Forest Service would administer the six-mile segment downstream to Early Intake.

Following page 54. TURI/80,005, ALTERNATIVE B (sheet 2 of 5). The mileage figure for the portion of the river not designated has been changed from 25 to 23.

56. The first full sentence at the top of the page should read as follows:

> Thus, the following discussion of impacts will center on the 25 miles of river administered by the Forest Service and the one mile of river administered by the Bureau of Land Management.

Page

57. The first sentence at the top of the page is changed to read as follows:

> Thus, the following discussion of impacts will center on the lower 29 miles of the river below Yosemite National Park.

58. The third sentence of the large paragraph is changed to read:

> Implementation of this alternative, however, might allow development of water resources of the undesignated eligible segments of the river; on the other hand, implementation also might preclude any water resource development on or affecting the undesignated eligible segments.

The following sentence is added to the end of the first full paragraph:

> As in all previously discussed alternatives, the National Park Service would administer the 54 miles of the river within Yosemite eligible for designation.

Following page 58. TURI/80,005, ALTERNATIVE D (sheet 4 of 5). The "wild" classification shown for the last 10 miles of the river has been removed.

61. Line 8 - Change to read "300 megawatts."

Line 9 - Change to read "612 million kilowatt hours."

Line 20 - Change to read "100 megawatts."

Line 21 - Change to read "272 million kilowatt hours."

63. Delete the first two paragraphs, lines 1-18.

68. The first two sentences after Impacts on the Economy are changed to read as follows:

> The study team estimates the impact on the national economy would be minor. Production of an equal amount of electricity by a composite of coal and oil would cost an estimated $20 million more annually (measured in 1980 dollars) than would the Clavey-Wards Ferry Project.

Page

69. The last two sentences are changed to read as follows:

> The long-term impact of the proposed developments would be the permanent loss of the Tuolumne River commercial rafting industry offset by an overall increase in the recreation service industry as a whole. The long-term beneficial effect on the Turlock Irrigation District and Modesto Irrigation District service areas would be significant.

70. Substitute the following for the first sentence on the page:

> With the exception of Alternative E (No Action) and the likely construction of the Clavey-Wards Ferry Project, there would be no irretrievable or irreversible commitment of resources as a direct result of implementation of the alternative plans. Some alternatives would leave undesignated segments of the river subject to adverse development.

71.-82. Chapter V, "Evaluation of Alternatives Under Principles and Standards". This entire chapter has been rewritten and appears in Section III of this document.

83. Line 3 - Change the word "three" to read "two."

Delete the letter "C" from the parentheses.

Line 5 - Delete the phrase "B and E and possible C" and replace with "B, E, C, and D".

Line 14 - Delete the word "substantial."

Last line, revise the last sentence to read:

> Economic benefits potentially realizable from development of the water resource project under Alternatives A, B, C, and D would not be permanently foregone.

84. Line 1. Delete "and C."

Second paragraph. Delete the second sentence.

Line 9 of second paragraph. Replace "B and D" with "B, C, and D."

Page

Line 12 of second paragraph. Add "C and" before "D".

85. Line 2. Replace the first six words with the phrase "C, D, and E."

Line 19. The opening sentence of the paragraph is changed to read as follows:

> Alternative A has been selected as the preferred alternative which best meets the environmental quality objective at a net annual deficit of less than $80,000.

88. The following is added to page 88.

> Principal Preparers of the Report
>
> Carl Rust, Forester, Forest Service, U.S. Department of Agriculture.
>
> Gary Barbano, Geographer, National Park Service, U.S. Department of the Interior.
>
> Michael Skinner, Economist, Forest Service, U.S. Department of Agriculture.
>
> Hugh Riecken, Forester, Bureau of Land Management, U.S. Department of the Interior.
>
> James Mills, Geographer, Heritage Conservation and Recreation Service, U.S. Department of the Interior.

Table III-1
Delineated Segments for Identifying Values

RIVER SEGMENTS

1. Dana Fork Source to Tuolumne Meadows
2. Lyell Fork Source to Tuolumne Meadows
3. Tuolumne Meadows to Hetch Hetchy (maximum pool)
4. Hetch Hetchy (maximum pool) to O'Shaughnessy Dam
5. O'Shaughnessy Dam to Early Intake
6. Early Intake to Cherry Creek Confluence
7. Cherry Creek Confluence to Lumsden
8. Lumsden to Study Terminus

RIVER SEGMENTS

	1	2	3	4	5	6	7	8
OUTSTANDINGLY REMARKABLE VALUES:								
	8 mi.	13 mi.	27 mi.	8 mi.	12 mi.	1 mi.	6 mi.	17 mi.
Scenic	YES	YES	YES	YES	YES	NO	YES	YES
Recreation	YES	YES	YES	YES	YES	YES	YES	YES
Geologic	YES	YES	YES	YES	YES	NO	YES	YES
Fishery	NO	NO	YES	YES	NO	NO	YES	YES
Wildlife	YES	YES	YES	YES	YES	YES	YES	YES
Historic/Cultural	YES	YES	YES	YES	YES	YES	YES	YES
Whitewater Boating	NO	NO	NO	NO	NO	NO	YES	YES
Scientific/Educational	YES	YES	YES	YES	YES	YES	YES	YES
Wilderness Characteristics	NO	YES	YES	NO	NO	NO	NO	YES
WATER QUALITY MEETS CRITERIA FOR:								
Contact Recreation	YES	YES	YES	YES*	YES	YES	YES	YES
Water Esthetics	YES	YES	YES	YES	YES	YES	YES	YES
Fishery Propagation	YES	YES	YES	YES	YES**	YES	YES	YES
Drinking & Domestic Use	NO	NO	NO	NO	NO	NO	NO	NO
FREE FLOWING NATURE AFFECTED BY:								
Impoundments	NO	NO	NO	YES	NO	YES	NO	NO
Diversions	NO	NO	NO	YES	NO	YES	NO	NO

* Body contact prohibited under terms of Raker Act. Reservoir serves as municipal water supply for the City and County of San Francisco.

** While water quality is suitable for fishery propogation, flow releases from O'Shaughnessy have been shown to be inadequate.

V. EVALUATION OF ALTERNATIVES UNDER PRINCIPLES AND STANDARDS

The evaluation of alternatives under Principles and Standards contained in the draft Wild and Scenic River Study and Environmental Impact Statement was the subject of much comment during the review period. Extensive comments were obtained from the State of California, Modesto Irrigation District, Turlock Irrigation District, the City and County of San Francisco, the Sierra Club, Federal agencies, and others. Of particular concern was the economic analysis of the proposed Clavey-Wards Ferry Project that might be constructed in whole or in part under Alternatives B, D, C, or E. Enough new information was made available to the study team since preparation of the draft to warrant a complete revision of the Principles and Standards analysis. A revised analysis follows.

The United States Water Resources Council published "Principles and Standards for Planning Water and Related Land Resources" pursuant to Section 103 of the Water Resources Planning Act (PL 89-80). They were approved by the President and became effective in October 1973. The Council provided detailed guidance for evaluating effects on national economic development in the May 24, 1979 issue of the Federal Register. Use of the Council's Principles and Standards is required for evaluations of wild and scenic rivers and other Federal and Federally-assisted water-oriented programs and projects.

The Principles and Standards call for the evaluation of effects in terms of two objectives -- national economic development and environmental quality -- as measured by four accounts: (1) national economic development, (2) regional development, (3) environmental quality, and (4) social well-being. The purpose of the accounts is to show, in a clear and concise way, the expected results of the alterntives, so they may be easily compared with one another. It is recognized that all effects of the alternatives cannot be quantified or converted into monetary terms. Those effects that can be readily converted into monetary terms are displayed in the national economic development account and in the income portion of the regional development account. Those effects that are best described in non-monetary terms are displayed in the environmental quality and the social well-being accounts and in the employment portion of the regional development account.

The Principles and Standards accounts show the net changes which can be expected to occur with the implementation of each alternative over those conditions expected to occur if current management direction for the River were to continue. Under current management direction, recreation use in the lower Tuolumne is increasing and

will soon reach capacity. Additional hydroelectric development is not consistent with current management direction.

Alternative A, the recommended alternative, is very similar to current management direction but would provide for legislative protection of the River, some upgrading of road and trail access, and some improvement of campground facilities. Access and campground improvements would be for the objectives of maximizing the wild and scenic river experience, reducing environmental degradation, and retaining natural values rather than for maximizing recreational use. Because Alternative A is so similar to existing management direction, the Principles and Standards accounts show minimal changes in national economic development, regional development, environmental quality, and social well-being for this alternative. The recommended alternative will provide maximum protection to the existing wild and scenic river values that are fully described in earlier chapters of this document.

National Economic Development (Table V-1) - The national economic development account is designed to measure the net effect of each alternative on national income. Beneficial effects shown in Table V-1 represent the change in the value of output of goods and service resulting from each alternative. Adverse effects represent the value of the resources required by each alternative. Net effects are computed by subtracting the value of resources required by each alternative (the costs) from the value of output of goods and services resulting from each alternative. All changes in value are measured against future conditions expected if current management direction were to continue. The basic assumptions and methods used to estimate the values shown in Table V-I are listed below.

1. All values are expressed in 1980 dollars.

2. All amortization and discounting calculations used the Water Resources Council's 7-1/8 percent interest rate for fiscal year 1980.

3. Due to the lengthy and highly controversial process required for obtaining permits and licenses for potential hydroelectric projects under Alternatives B, C, D, and E, 1990 through 2040 was selected as the period of analysis. This assumes that development of hydroelectric projects with a 50-year life could not occur before the late 1980's or early 1990's.

4. Real price increases (increases over and above the rate of general inflation) for oil, coal, quality stream fishing,

and whitewater boating were assumed for the period 1980 to 1990. Annual price increases of 2.7 percent for oil, 2.3 percent for coal, 2.0 percent for quality stream fishing, and 2.0 percent for whitewater boating were assumed. Real prices for all other outputs and resources affected by the alternatives were assumed to remain constant. These price assumptions are consistent with those approved for use by the Department of Agriculture for the 1980 Resource Planning Act (RPA) Assessment and Program.

5. Recreation values represent the willingness of recreationists to pay for recreation activities as estimated by the study team, including specific user and entry fees.

   The conceptual recreation plan developed by the study team provided the basis for recreation values under Alternative A. The study team's review of the conceptual recreation plan (EDAW, 9/7/79) submitted as a part of the proposed hydroelectric projects and its own estimates formed the basis for recreation values under Alternatives B, C, D, and E. The study team's estimate of use likely for the floating cabins proposed as a component of the EDAW conceptual recreation plan is lower than that estimated by project proponents.

6. Hydroelectric values are based on the cost of developing an equivalent amount of power from the most likely alternative source. The most likely alternative to development of the proposed Clavey-Wards Ferry project is currently considered to be a coal-fired plant supplemented with an oil-fired combustion turbine. This assumption reflects the fact that even with full implementation of all the energy conservation measures outlined by the California State Energy Commission in its biennial report, the projected increase in demand for electric power will still be many times greater than the output of the proposed Clavey-Wards Ferry project.

   The study team's reviews of the July 1979 report on the Clavey-Wards Ferry project submitted by San Francisco and the Modesto and Turlock Irrigation Districts and its own estimates provided the basis for hydroelectric values under Alternatives B, C, D, and E. The study team's estimates differ from those submitted by the project proponents primarily for the following reasons:

   a. Use of 1980 rather than 1990 dollars.

b. Use of more recent fuel oil prices and different estimates of real price increases for coal and oil fuels.

c. Inclusion of costs for additional fish hatchery capacity and stocking operations:

d. Use of reduced capacity and energy for the Clavey unit that might be constructed under Alternative C. The intent of Alternative C is to maintain a quality whitewater boating experience on the lower portion of the Tuolumne. To be consistent with Alternative C, the Clavey unit proposed as part of the combined Clavey-Wards Ferry project would be required to have less capacity, operate for more hours per day, and have a relocated discharge point. Such a modified Clavey unit could provide higher flows for whitewater boating than presently available, yet would not require an afterbay in order to provide a safe boating experience.

e. Use of the Water Resources Council's interest rate for fiscal year 1980.

f. Use of the hydroelectric project life of 50 years rather than the bond repayment period for all discounting and amortization calculations.

The hydroelectric values shown in Table V-I are sensitive to changes in the underlying assumptions. Many of those commenting during the public review indicated that the sensitivity of the economic values associated with the Clavey-Wards Ferry project under Alternatives B and E should be discussed. A discussion of the more important issues raised follows.

(1) Effect of increased streamflows for fishery enhancement. Increased streamflows for fishery enhancement between O'Shaughnessy Dam and Early Intake are being considered in the Tuolumne River Flow Study. Should flows up to 50 percent higher than those in the Flow Study be required for the entire length of the Tuolumne River, the value of power that could be produced under Alternatives B and E would be reduced by about $2 million annually.

(2) Effect of alternative interest rates. Use of 10 percent interest instead of the Water Resources Council's 7-1/8 percent rate would increase the cost of both the Clavey-Wards Ferry project and the fossil fuel alternatives. However, the cost of the Clavey-Wards Ferry project would increase more because it is more capital intensive. At 10 percent, the net income under Alternatives B and E would be reduced by about $8 million annually.

A 10 percent interest rate is roughly comparable to the before tax cost to privately-owned utilities of raising capital through the sale of long-term bonds. However, the after tax cost to private utilities is closer to the Water Resources Council's rate than to 10 percent -- when allowance is made for tax credits and deductions. The actual interest rate likely to be paid by San Francisco and the Modesto and Turlock Irrigation Districts on long-term, tax exempt bonds will most likely be somewhat lower than the Water Resources Council's interest rate.

(3) Effect of pollution control trade-offs. The cost of the fossil fuel alternatives used in the analysis of the Clavey-Wards Ferry project included only the cost of pollution control equipment located in the plants. The cost of pollution control trade-offs which may be necessary to meet California's air quality standards is highly uncertain and was not included.

(4) Relative capacities of fossil fuel plant alternatives. A change in the size of the combustion turbine relative to the coal plant for the fossil fuel alternative can have a significant effect on the value of power from the Clavey-Wards Ferry project. If the coal plant were 5 percent larger, power values under Alternatives B and E would be reduced by about $3 million annually. Likewise, a 5 percent smaller coal plant would require increased output

from the combustion turbine and would increase power values under Alternatives B and E by about $2 million annually. Of course, whether or not the relative capacities of the fossil fuel plants can be significantly changed and still provide needed operating flexibility is dependent upon the actual shape of the load curve during the planning period.

(5) Mineral values. Potentially valuable gold deposits are known to exist in the lower Tuolumne. Due to present inaccessibility, the economic value of this resource could not be estimated. All of the alternatives would hamper commercial exploitation of this resource. Under Alternatives B, E, and D, the known resource would be at least partially inundated by Wards Ferry Reservoir. Under Alternatives A and C, exploitation would be hampered by wild and scenic river designation.

Regional Development (Table V-2) - The regional development account measures the effect of each alternative on regional income and employment. For this analysis, the region was defined as Tuolumne County, the City and County of San Francisco, and the service areas of the Modesto and Turlock Irrigation Districts.

The income portion of Table V-2 shows how the income effects for the nation as a whole are distributed between the region and the rest of the nation. The basic assumptions used in making these estimates are as follows.

1. About 20 percent of the recreationists come from within the region. Thus, the region bears 20 percent of the recreation costs incurred by recreation users but an insignificant portion of the recreation development and management costs borne by the Federal government under Alternative A. The region bears all of the recreation development and management costs associated with hydroelectric developments under Alternatives B, C, D, and E.

2. All of the hydroelectric benefits and development costs accrue to the region.

The employment portion of Table V-2 shows how the employment effects of the alternatives are distributed between the region and the rest

TABLE V-1

National Economic Development Account
Potential Average Annual Effects on National Income, 1990-2040
(All figures given in 1980 dollars)

	ALTERNATIVE A (83 Miles Designated)	ALTERNATIVE B (60 Miles Designated)	ALTERNATIVE C (80 Miles Designated)	ALTERNATIVE D (73 Miles Designated)	ALTERNATIVE E (No Designation)
HYDROELECTRIC DEVELOPMENT					
Beneficial Effects					
(value of water and power)					
Electric power	0	49,300,000	27,300,000	13,900,000	49,300,000
Water supply	0	900,000	0	900,000	900,000
Subtotal	0	50,200,000	27,300,000	14,800,000	50,200,000
Adverse Effects					
(costs of hydroelectric projects)	0	29,300,000	19,400,000	11,700,000	29,300,000
Net Effects	0	20,900,000	7,900,000	3,100,000	20,900,000
RECREATION					
Beneficial Effects					
(value of recreation activities)					
Whitewater boating	0	-638,600	267,800	-824,000	-638,600
Flatwater boating	0	28,800	0	28,800	28,800
Stream fishing	39,900	-41,800	-20,900	-5,700	-41,800
Reservoir fishing	0	36,000	0	36,000	36,000
Camping	105,600	110,400	65,600	118,400	110,400
Other	22,800	37,200	34,200	26,400	37,200
Floating cabin use	0	840,000	0	840,000	840,000
Subtotal	168,300	372,000	331,100	219,900	372,000
Adverse Effects					
(cost of recreation activities)	247,100	571,000	706,300	429,800	571,000
Net Effects	-78,800	-199,000	-375,200	-209,900	-199,000
TOTAL EFFECTS					
(hydroelectric and recreation)					
Beneficial Effects	168,300	50,572,000	27,631,100	15,019,900	50,572,000
Adverse Effects	247,100	29,871,000	20,106,300	12,129,800	29,871,000
Net Effects	-78,800	20,701,000	7,524,800	2,890,100	20,701,000
Benefit/cost ratio	0.7	1.7	1.4	1.2	1.7
Present net worth - total effects over the period 1990-2040 discounted to 1980	-500,000	141,300,000	51,400,000	19,700,000	141,300,000

TABLE V-2

Regional Development Account
Potential Effects on Regional Income and Employment

	ALTERNATIVE A (83 Miles Designated)	ALTERNATIVE B (60 Miles Designated)	ALTERNATIVE C (80 Miles Designated)	ALTERNATIVE D (73 Miles Designated)	ALTERNATIVE E (No Designation)
INCOME EFFECTS (average annual effects measured in 1980 dollars)					
Beneficial Effects					
Region	33,700	50,274,400	27,366,200	14,844,000	50,274,400
Rest of Nation	134,600	297,600	264,900	175,900	297,600
Total Nation	168,300	50,572,000	27,631,100	15,019,900	50,572,000
Adverse Effects					
Region	26,500	29,723,700	19,863,700	12,095,500	29,723,700
Rest of Nation	220,600	147,300	242,600	34,300	147,300
Total Nation	247,100	29,871,000	20,106,300	12,129,800	29,871,000
Net Effects					
Region	7,200	20,550,700	7,502,500	2,748,500	20,550,700
Rest of Nation	-86,000	150,300	22,300	141,600	150,300
Total Nation	-78,800	20,701,000	7,524,800	2,890,100	20,701,000
EFFECTS ON EMPLOYMENT					
Temporary construction employment (total person-years during construction period)					
Region	10	2,300	1,600	1,000	2,300
Rest of Nation	0	-1,100	-500	-300	-1,100
Total Nation	10	1,200	1,100	700	1,200
Permanent employment in the utility and recreational service industries (average annual employment, person-years)					
Region	5	23	19	16	23
Rest of Nation	0	-24	-16	-7	-24
Total Nation	5	-1	3	9	-1

of the nation. Construction employment reflects road and trail access and campground construction in the region under Alternative A. Construction employment under Alternatives B, C, D, and E reflects both recreation and hydroelectric construction activities. The total impact of hydroelectric construction activities is offset somewhat by the displacement of coal plant construction activity outside the region and combustion turbine construction activity within the region.

Permanent employment estimates reflect increased recreation service and management activities under Alternative A. Permanent employment under Alternatives B, C, D, and E reflect increases in recreation management, recreation service, and utility industry activities in the region. Decreases in utility industry employment outside the region reflect the displacement of coal plant operations. Because operation of fossil-fueled plants is more labor intensive than for hydroelectric plants, Alternatives B and E result in overall decreases in utility employment that is not offset by increases in recreation service industry employment. However, when respending of energy cost savings is considered, total employment in the economy would increase.

Environmental Quality (Table V-3) - The environmental quality account measures the potential effects of each alternative on the physical and biological environment. Effects on wild trout spawning grounds and the Tuolumne and Yosemite deer herds were not shown in the draft and have been added to this account. Effects on energy resources and water supply have been revised and are now shown in this account instead of the social well-being account. All other entries in this account are the same as in the draft document.

The reduced coal usage shown would most likely result in reduced mining activity in Utah. The reduced fuel oil usage would probably result in an increase in fuel oil available for other uses in California or for export to other states. California's fuel oil supplies are currently refined primarily from crude imported from Alaska and Indonesia.

Social Well-Being (Table V-4) - The social well-being account measures potential effects on educational, cultural, and recreational opportunities and income distribution. Recreation opportunity estimates have been updated to reflect new data. Additional explanation of the income distribution effects is shown. Hydropower benefits are expected to be shared equally between San Francisco and the Irrigation Districts under Alternatives B, C, D, and E. The Districts intend to use the lower energy costs to provide lower rates for their customers. San Francisco intends to sell its share of the power at market rates and use the net revenues

TABLE V-3

Environmental Quality Account
Potential Effects on the Physical and Biological Environment

	ALTERNATIVE A (83 Miles Designated)	ALTERNATIVE B (60 Miles Designated)	ALTERNATIVE C (80 Miles Designated)	ALTERNATIVE D (73 Miles Designated)	ALTERNATIVE E (No Designation)
HYDROELECTRIC DEVELOPMENT (Clavey-Wards Ferry Project)	No impact - preserves existing physical and biological environment in the river corridor.				
Number of dams		3	2	1	3
Number of powerhouses		2	1	1	2
Miles of tunnel		8.2	8.2		8.2
Miles of access road		7.4	6.4	1	7.4
Miles of aerial transmission line		48.6	42.6	34.6	48.6
Number of river bridges		1	1		1
RECREATIONAL RESOURCES					
Acres of usable flatwater		1,204	0	1,204	1,204
Miles of fishable stream					
-with reduced quality of the fishery		14	14	0	14
-eliminated		11	0	11	11
Miles of usable whitewater					
-with reduced quality of the recreational experience		7	7	0	7
-eliminated		11	0	11	11
CULTURAL RESOURCES					
Archeological sites		Inundates fewer than E	Inundates the fewest sites	Inundates fewer than E	Inundates th most sites
VISUAL RESOURCE					
Natural river environment		Less impairment than E	Least impairment	Less impairment than E	Greatest impairment

TABLE V-3 (Continued)

Environmental Quality Account
Potential Effects on the Physical and Biological Environment

	ALTERNATIVE A (83 Miles Designated)	ALTERNATIVE B (60 Miles Designated)	ALTERNATIVE C (80 Miles Designated)	ALTERNATIVE D (73 Miles Designated)	ALTERNATIVE E (No Designation)
BIOLOGICAL RESOURCE					
Habitat for threatened or endangered species	No impact. Preserves existing environment.	Diminished	Diminished	Diminished	Diminished
Wild trout spawning grounds for Lake Don Pedro		Eliminated	Reduced in quality	Eliminated	Eliminated
Number of deer in Tuolumne and Yosemite deer herds		Reduced by approximately 300 head	Reduced by approximately 100 head	Reduced by approximately 200 head	Reduced by approximately 300 head
ENERGY RESOURCES					
Reduced coal usage (tons per year)		375,000	244,000	115,000	375,000
Reduced fuel oil usage (barrels per year)		300,000	195,000	92,000	300,000
Hydroelectric power					
Capacity - megawatts		400	170	100	400
Energy - million kilowatt hours per year		884	575	272	884
WATER SUPPLY					
Acre feet per year - Wards Ferry		11,900	0	11,900	11,900
MILES PRESERVED AND PROTECTED BY DESIGNATION					
Wild River Classification	47	37	46.5	37	0
Scenic River Classification	23	23	23	23	0
Recreational River Classification	13	0	10.5	13	0
Total Miles Classified and Designated	83	60	80	73	0

to augment its budget. The distribution of potential water supply benefits is uncertain and is not shown in the Table.

TABLE V-4

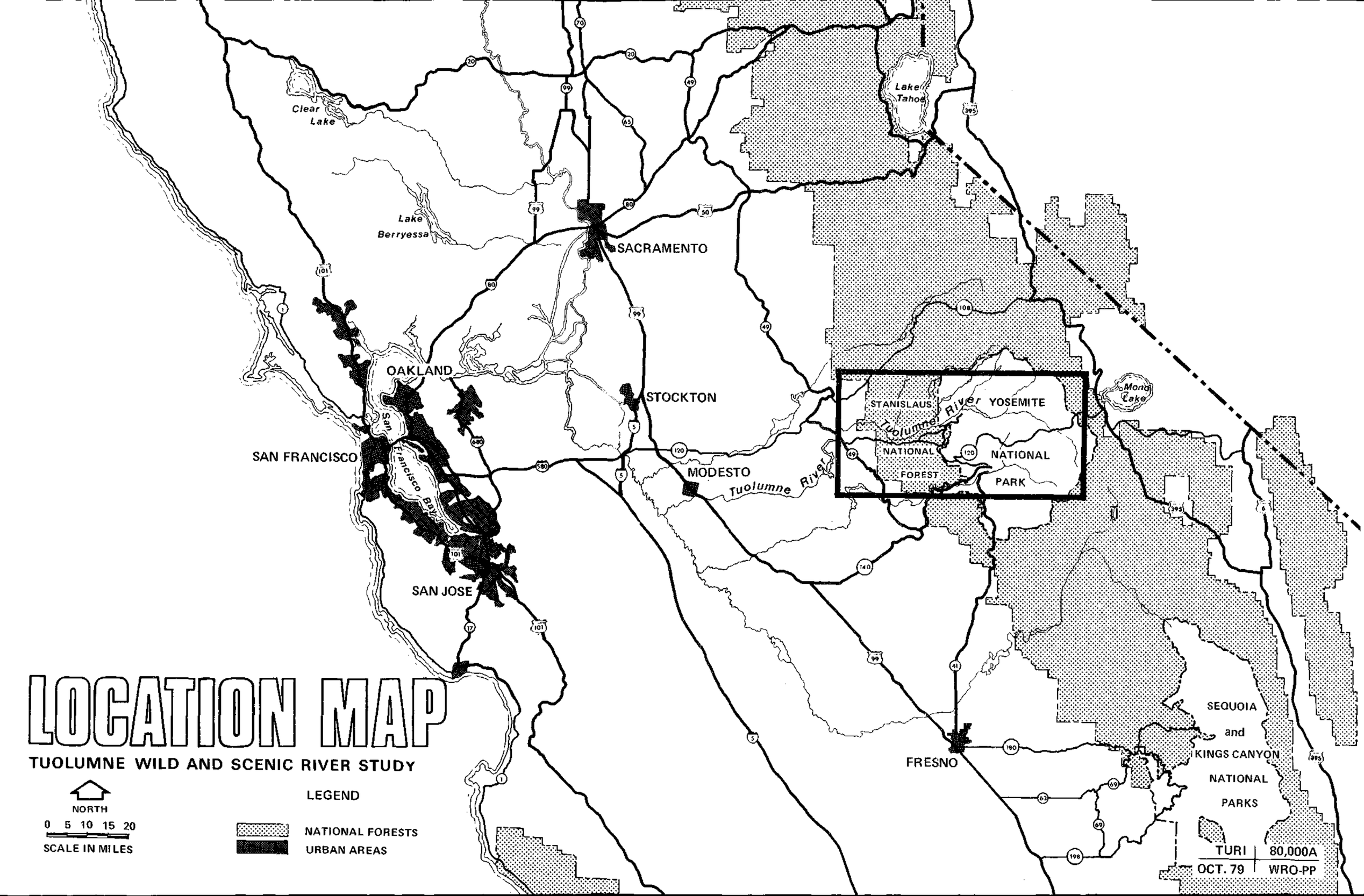
Social Well-Being Account

Potential Effects on
Educational, Cultural, and Recreational Opportunities and Income Distribution

	ALTERNATIVE A (83 Miles Designated)	ALTERNATIVE B (60 Miles Designated)	ALTERNATIVE C (80 Miles Designated)	ALTERNATIVE D (73 Miles Designated)	ALTERNATIVE E (No Designation)
EDUCATIONAL AND CULTURAL OPPORTUNITIES					
Opportunities at archeological sites	No effect	Inundates fewer than E	inundates the fewest sites	Inundates fewer than E	Inundates the most sites
RECREATIONAL OPPORTUNITIES (visitor days per year)					
Whitewater boating	0	-6,200	2,600	-8,000	-6,200
Flatwater boating	0	1,600	0	1,600	1,600
Stream fishing	2,100	-2,200	-1,100	-300	-2,200
Reservoir fishing	0	4,000	0	4,000	4,000
Camping	6,600	6,900	4,100	7,400	6,900
Other (hiking, swimming, etc.)	3,800	6,200	5,700	4,400	6,200
Floating cabin use	0	30,000	0	30,000	30,000
Total	12,500	40,300	11,300	39,100	40,300
DISTRIBUTION OF INCOME (dollars per year)					
Energy cost savings in the Modesto and Turlock Irrigation Districts	0	9,800,000	3,700,000	900,000	9,800,000
Income available for funding municipal services in San Francisco	0	9,800,000	3,700,000	900,000	9,800,000
Recreationist expenditures in Tuolumne County	133,000	184,000	303,000	43,000	184,000

LOCATION MAP

TUOLUMNE WILD AND SCENIC RIVER STUDY



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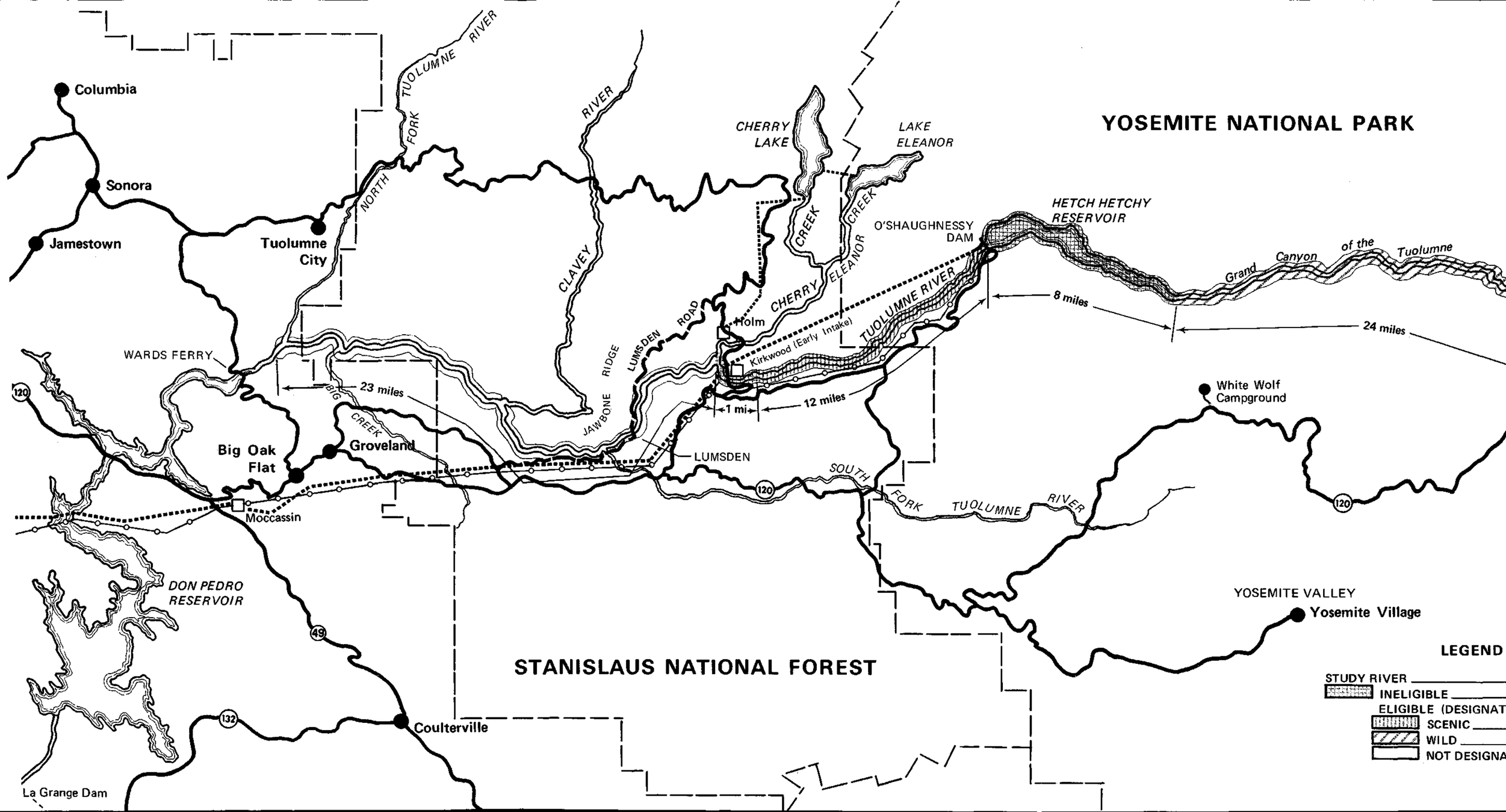
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Jamestown
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LUMSDEN ROAD
JAWBONE RIDGE
WARDS FERRY
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BIG CREEK
Groveland
Big Oak Flat
Moccasin
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Yosemite Village
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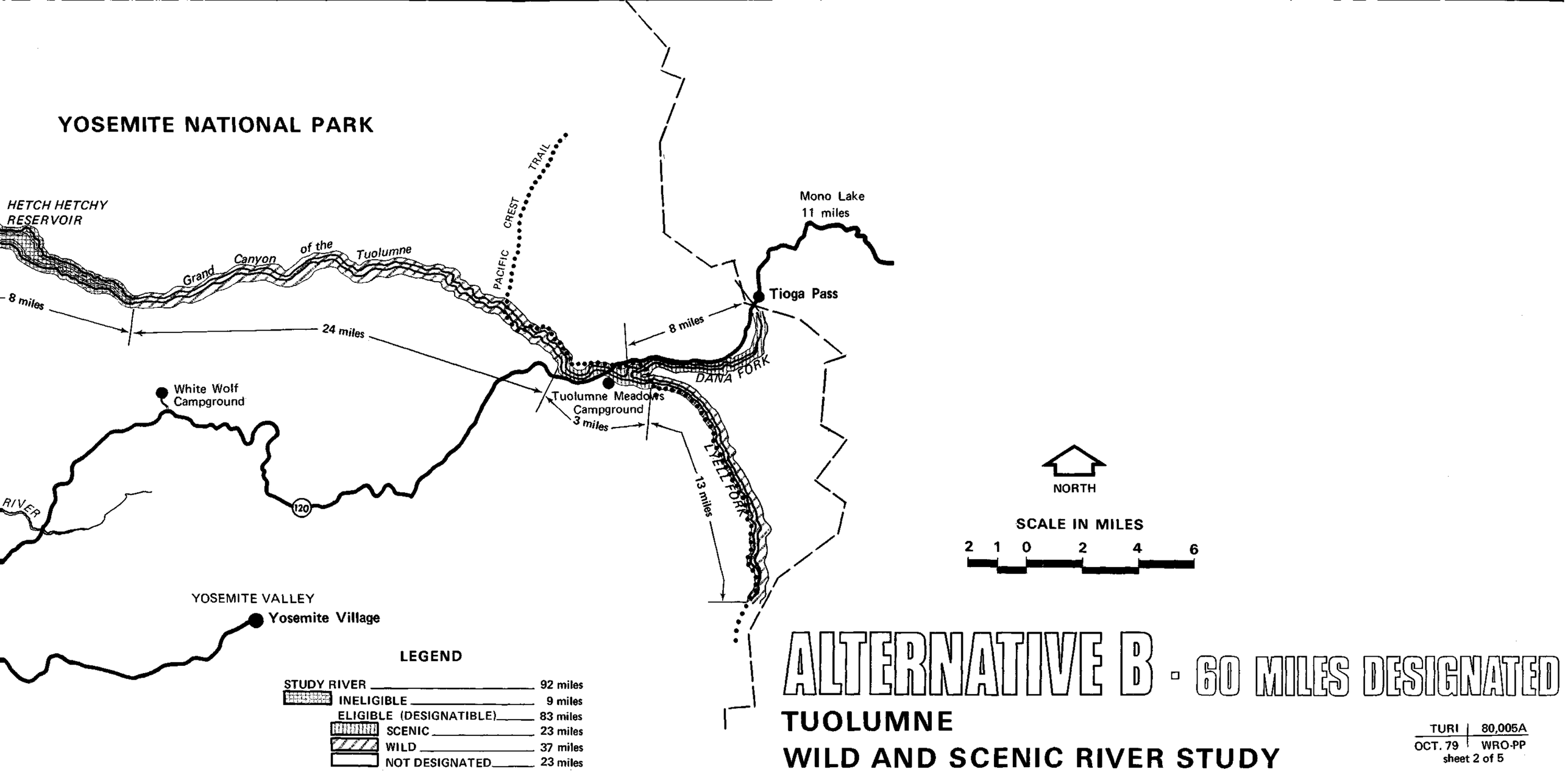

ALTERNATIVE B - 60 MILES DESIGNATED

TUOLUMNE
WILD AND SCENIC RIVER STUDY

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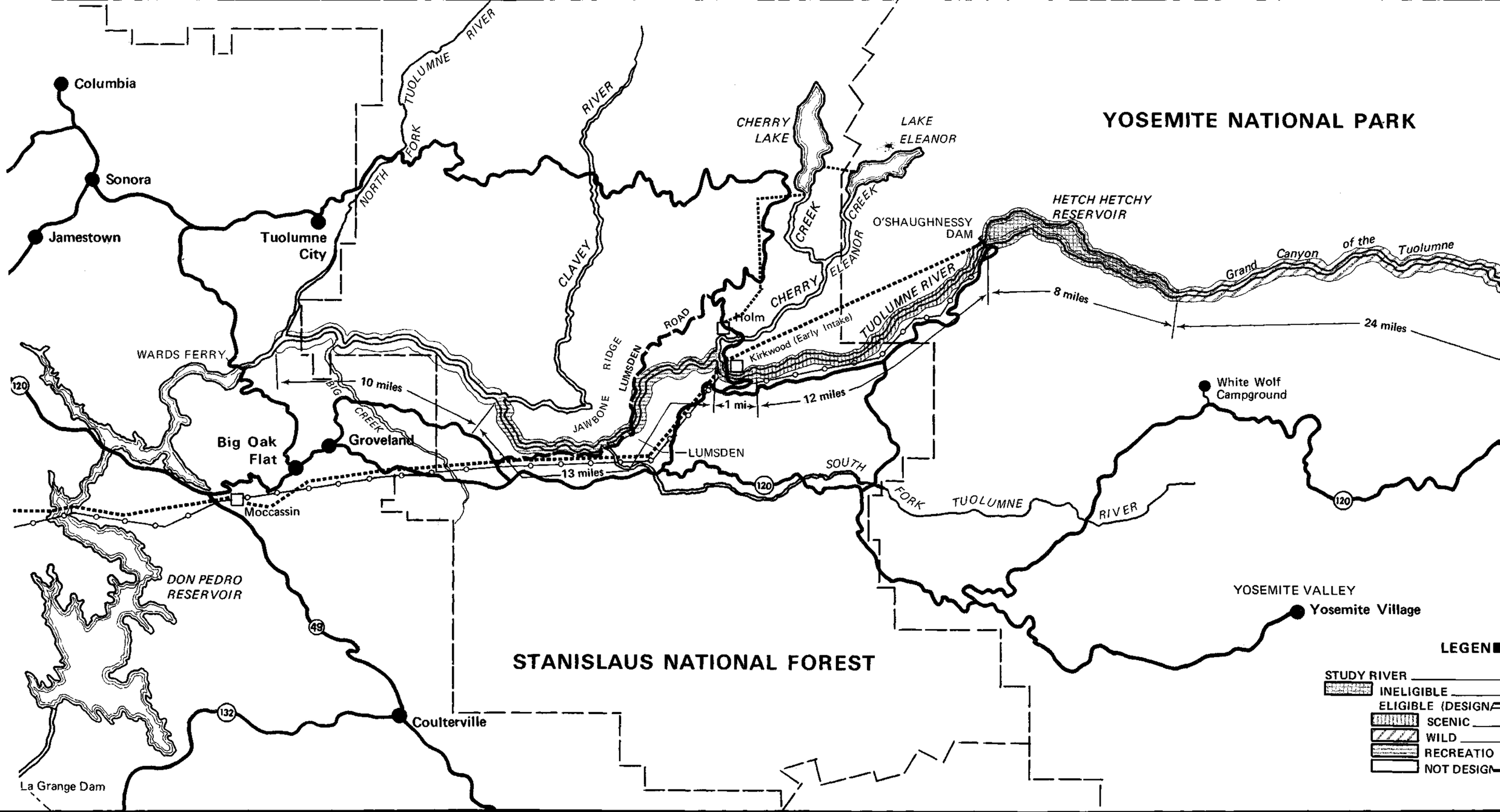
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WARDS FERRY
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LUMSDEN
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ELEANOR
CREEK
CHERRY LAKE
LAKE ELEANOR
CLAVEY
NORTH FORK TUOLUMNE RIVER
TUOLUMNE RIVER
O'SHAUGHNESSY DAM
HETCH HETCHY RESERVOIR
8 miles
24 miles
Grand Canyon of the Tuolumne
YOSEMITE NATIONAL PARK
White Wolf Campground
SOUTH FORK TUOLUMNE RIVER
YOSEMITE VALLEY
Yosemite Village
DON PEDRO RESERVOIR
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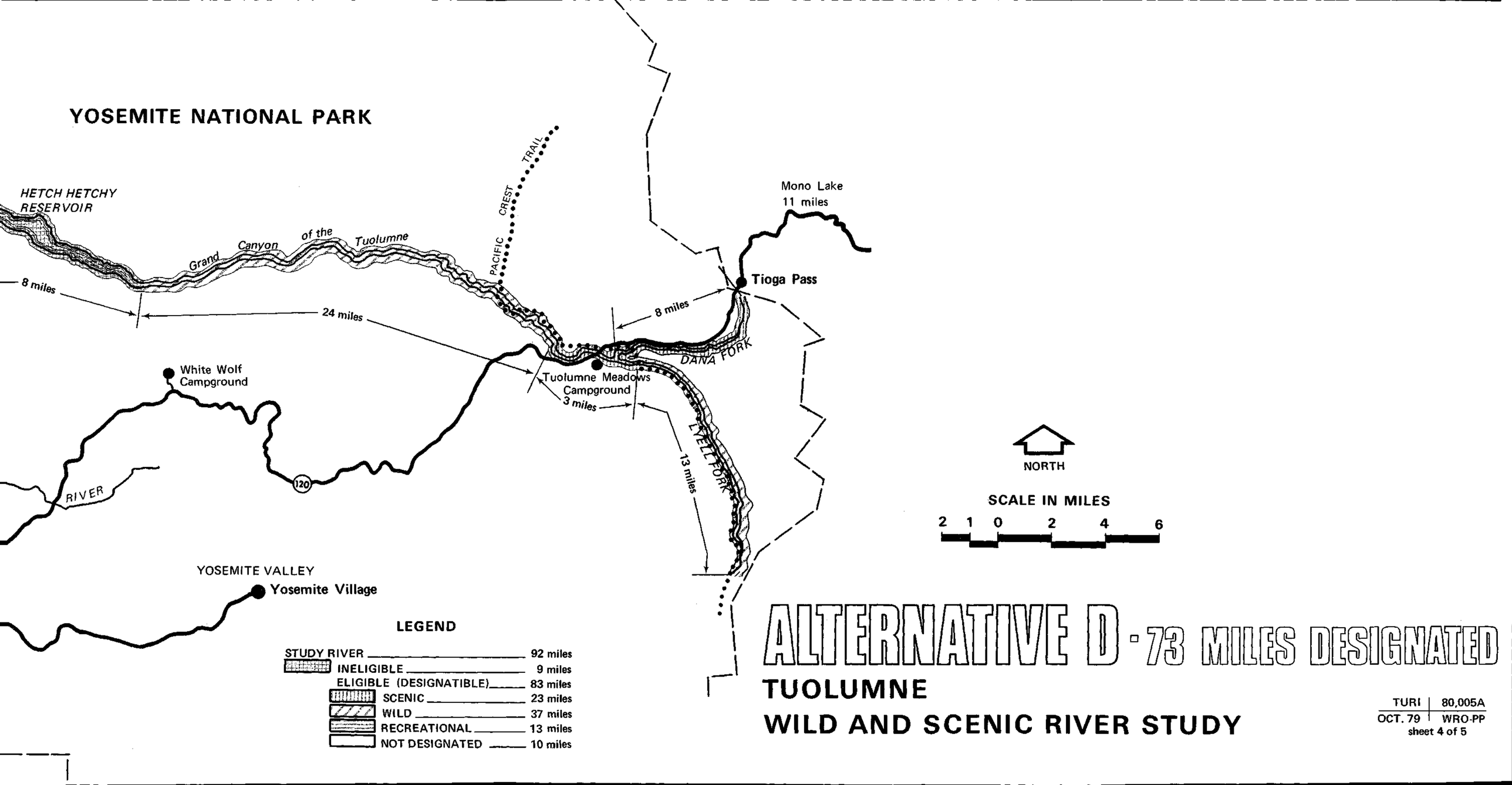

ALTERNATIVE D - 73 MILES DESIGNATED

TUOLUMNE
WILD AND SCENIC RIVER STUDY

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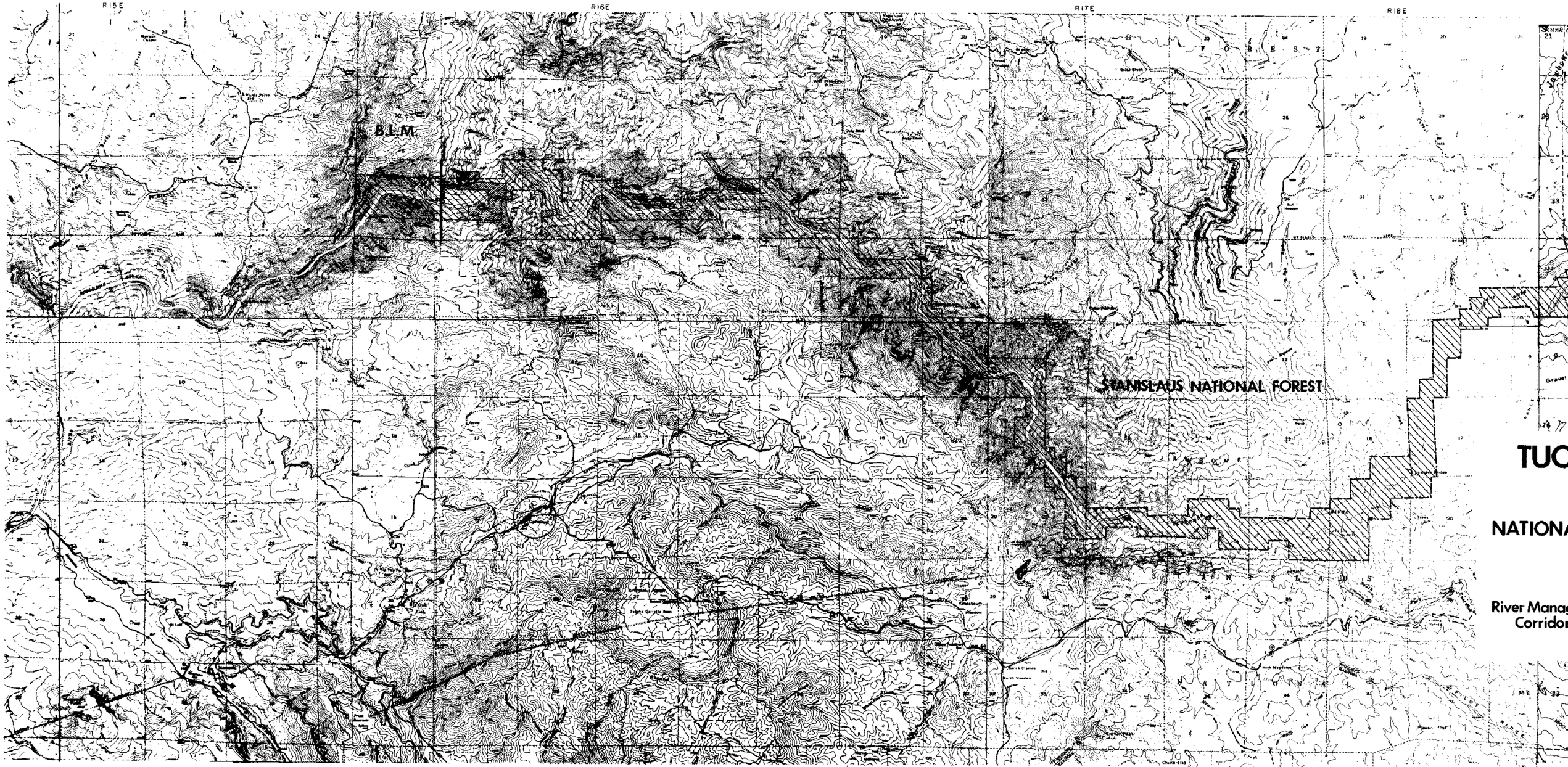
PROPOSED RIVER MANAGEMENT BOUNDARY MAP

No management corridor has been delineated for the map for that portion of the Tuolumne River within Yosemite National Park. Current management of the river within the park is consistent with the Wild and Scenic Rivers Act. Should the river be designated by Congress, a management corridor averaging 320 acres/mile would be established within the park.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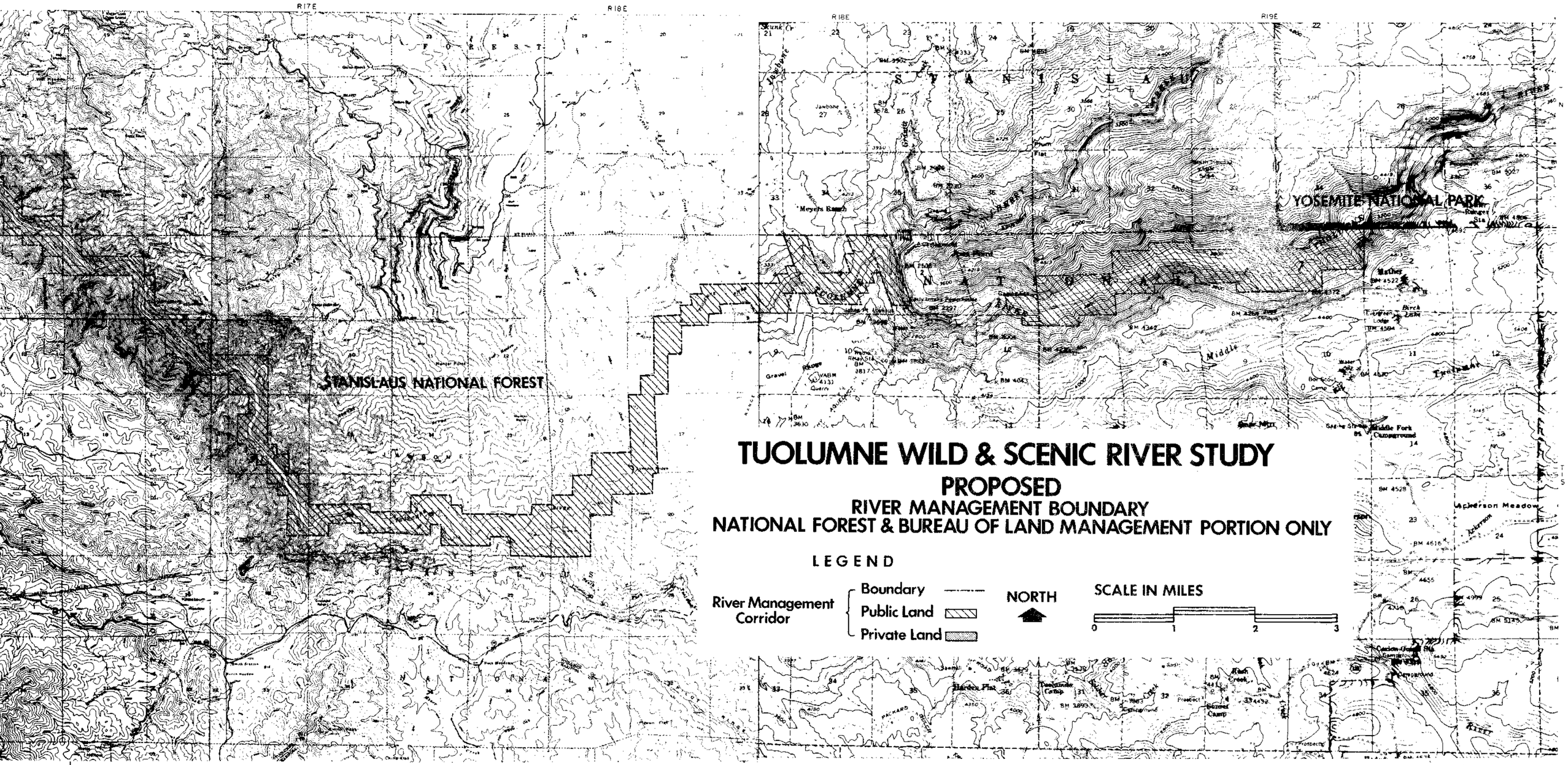

TUOLUMNE RIVER AREA

Contour Interval 50'

LAKE ELEANOR QUAD 5'
CONTOUR INTERVAL 80'

SECTION IV

APPENDIX

DON EDWARDS
10TH DISTRICT, CALIFORNIA

COMMITTEE ON
JUDICIARY

CHAIRMAN
SUBCOMMITTEE ON
CIVIL AND
CONSTITUTIONAL RIGHTS

COMMITTEE ON
VETERANS' AFFAIRS

Congress of the United States
House of Representatives
Washington, D.C. 20515

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August 10, 1979

Blaine L. Cornell
Forest Supervisor
Wild River Study Team
U.S. Forest Service
Department of Agriculture
19777 Greenley Road
Sonora, California 95370

Dear Supervisor Cornell:

I appreciate this opportunity to share with you my concerns and views on the Wild and Scenic River Study and Environmental Impact Statement of the Tuolumne River.

In 1968, the U.S. Congress, responding to the concerns of its citizens that many streams throughout the country should be preserved in their free-flowing condition approved the Wild and Scenic Rivers Act, now Public Law 90-542. I want to reaffirm our commitment today in seeing that selected rivers that possess outstanding scenic, geologic, fish and wildlife, historic and cultural value are included under the protection of this law. In my opinion, I believe the Tuolumne River meets these requirements. Consequently, I urge that Alternative A of the Environmental Impact Study which would place 83 miles of the Tuolumne River under this Act be recommended by the Study Team to the U.S. Congress.

The preservation of many of our wonderful white water rivers is essential for a healthy community and a healty environment. I believe Alternative A is preferred, due to a variety of considerations. The estimated 250 archeological sites associated with the Miwok Indians on the river, the possible destruction of silver salmon and rainbow trout stocks, and the uneconomical aspects of the proposed dams support this alternative.

The three dams which are proposed on the Tuolumne River have a generating capacity of 400 million kilowatts and would indeed generate an estimated 884 million kilo-watt hours of electricity per year. I'm a strong supporterof energy conservation, and this includes hydroelectric energy. I think that it is illadvised to proceed with these projects. The California State Energy Commission has argued that, "an aggressive and comprehensive energy program for.. California

has, at a minimum, the potential to reduce our 1985 forecasted electrical.. demand by 27.3 to 34.7 billion kilowatt hours and 8 to 10.8 billion kilowatt hours of summer peak electricity." The State predicts that based on 1985 average cost of energy supply it is roughly 5 times cheaper to invest in energy conservation to acheive desired efficiency in our energy use, than to invest in conventional sources of energy. We have the potential to save over 40 times the amount of energy which could be produced by these dams, at one-fifth the cost. In sum, it would be uneconomical, shortsighted, and a waste of a precious resource, to proceed with any other course but Alternative A.

The beauty and pristine values of this river canyon are unsurpassed in the state of California. Beginning at the Yosemite National Park , this area offers habitat for 200 species of birds, 210 terrestial vertebrate, about 200 to 300 Yosemite deer which cross the Tuolumne River near the proposed Wards Ferry Reservoir, and is one of 17 streams to be managed for a wild trout fishery. Quite frankly, this proposed project would have a tragic and irreversible effect on these and many significant archeological remains of our native California Indians.

I strongly urge the Study Team to recommend to my fellow Members of the House of Representatives and to Members of the Senate, Alternative A, which would place this wonderful river under the protection of the Wild and Scenic Rivers Act.

With kindest regards.

Sincerely,

Don Edwards

Member of Congress

DE:raw

TONY COELHO
15TH DISTRICT, CALIFORNIA

COMMITTEE ON AGRICULTURE
SUBCOMMITTEES:
COTTON
DAIRY AND POULTRY
FORESTS

COMMITTEE ON VETERANS' AFFAIRS
SUBCOMMITTEES:
COMPENSATION, PENSION, INSURANCE AND MEMORIAL AFFAIRS
MEDICAL FACILITIES AND BENEFITS

Congress of the United States
House of Representatives
Washington, D.C. 20515

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FEDERAL BUILDING
1125 I STREET
MODESTO, CALIFORNIA 95354
(209) 527-1914

September 12, 1979

The Honorable Bob Bergland
Secretary
U.S. Department of Agriculture
Washington, D.C. 20250

Dear Mr. Secretary:

As you know, soon to come before the President (October 2, 1979, is his statutory deadline) is consideration of whether he should recommend to the Congress that a number of American rivers be designated as "wild and scenic" under the Federal Act of the same name. Among these, and by far the most controversial, is the Tuolumne in Northern California, for which there is pending a proposed hydro-electric power project that would be precluded by "wild and scenic" designation.

Unquestionably, your comments to the President on the fate of the Tuolumne will be a great factor in his decision. As you approach that task, I hope and trust you will not rely too heavily on the Draft Environmental Impact Statement for the Tuolumne prepared jointly by the Forest Service and the National Park Service, which in my view widely misses the mark. The draft statement does nothing so much as downplay the manifest benefits of developing pollution-free, inexpensive, renewable energy resources while, by implication only, greatly exaggerating the adverse impacts of such a project.

What is more important to both of us -- you as Secretary of Agriculture, and I as a member of the House Committee on Agriculture -- is that at least the option to develop that power and water resource be kept open, for it is an option that is absolutely vital to one of the most productive agricultural areas in the country, the northern San Joaquin Valley. That doubtless is why the proposed Clavey-Wards Ferry Project enjoys unanimous support from the agricultural community in that area.

This is not to say that failure to designate the river would be tantamount to building the project, which as you know would have to meet myriad elaborate and rigorous environmental requirements in the Federal licensing process.

Moreover, any proposed plan, if it is to succeed, would have to include a sound recreational component. It is on this point that the controversy centers, for if the project as presently conceived is developed

white water rafting on the Tuolumne will give way to the flat water variety, which by the way would open the river to vastly more recreational users. While this factor makes the President's choice and your own not altogether easy, the undeniable power, water and employment benefits from the proposed stand to my mind as highly attractive in ordinary times and compelling in these.

In short, this issue is vital to me and my constituents. I will be happy to further discuss with you at your convenience, and in the meantime thank you for considering my view as you prepare your comments for the President.

Best regards.

Sincerely,

TONY COELHO
MEMBER OF CONGRESS

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

In Reply Refer To:

OEPR-DRB
Cooperative Studies
Wild and Scenic Rivers Study
Draft Environmental Statement
Tuolumne River

SEP 11 1979

Mr. John R. McGuire
U.S. Department of Agriculture
Forest Service
P.O. Box 2417
Washington, D.C. 20013

Dear Mr. McGuire:

This is in response to your letter dated June 26, 1979, requesting our review and comments on the draft Tuolumne Wild and Scenic Rivers Study and Environmental Impact Statement pursuant to the provisions of the Wild and Scenic Rivers Act and the National Environmental Policy Act. The document was prepared in compliance with the Wild and Scenic Rivers Act (Public Law 90-542) and an amendment (Public Law 93-621) to the Act which specifically identifies for study a 92-mile portion of the Tuolumne River in California.

We have reviewed the draft report to determine the effects of the proposed designation on the Commission's responsibilities. Such responsibilities relate to the development of hydroelectric power under the Federal Power Act and the construction and operation of natural gas pipelines under the Natural Gas Act.

The Tuolumne River is a major tributary to the San Joaquin River. According to material furnished, the basic study corridor includes 92 miles of the Tuolumne River and upstream tributaries, extending from the headwaters of Don Pedro Reservoir upstream to include the lower reaches of Dana and Lyell Forks in Yosemite National Park. Existing within the study corridor are the Hetch Hetchy Reservoir, Kirkwood Powerhouse, and Early Intake diversion structure which would preclude 9 of the 92 river miles from wild and scenic river classification.

The study presents a number of alternatives with respect to the extent of wild and scenic river classification and, while the draft status of the report prevents the recommendation of any one alternative, it is clear that the "preferred" alternative would preserve all 83 eligible miles of river. Such designation would essentially eliminate opportunities for further water resources development within the designated area.

As you are aware, the existing O'Shaugnessy Dam--Kirkwood Powerhouse complex is a large multipurpose water project. Water is diverted from the Hetch Hetchy Reservoir through the Canyon Power Tunnel and thence to the Kirkwood Powerhouse, where two turbine-generator units produce 67,500 kilowatts of capacity and 623 million kilowatt-hours of energy per year. This project is part of a series of facilities owned by the City and County of San Francisco. The subject draft report recognizes this project and apparently would not propose to designate as wild/scenic any lands associated with it. However, as the draft report indicates, water diversion schedules are currently a function of water release rates established on an interim basis by the Secretary of the Interior, who has the legal authority to change such rates. While designation of the river as wild/scenic would not be requisite to reduce diversion rates, such designation could serve as the impetus to do so. Any such reduction in diversion rates would have a direct proportionate impact in reducing energy generation at both the Kirkwood and Moccassin Powerhouses; consequently, any proposed change in release rates should be analysed carefully from all perspectives.

Additionally, the Tuolumne River has considerable undeveloped hydropower potential. As mentioned in your report, the Modesto and Turlock Irrigation Districts and the City and County of San Francisco have applied to this Commission for a Preliminary Permit to secure priority for a license under the Federal Power Act and to obtain data and develop plans to make application for such license. The proposed project is known as the Clavey-Wards Ferry Project, and a decision on granting a Preliminary Permit is currently pending before the Commission. The project would represent a major conflict with the "preferred" plan and to a lesser extent with some of the other plans of designation. The project would generally be comprised of the Jawbone Diversion Dam, Clavey Powerhouse, and the Wards Ferry Dam, Conduit, and Powerhouse -- all in the "preferred" designated corridor. In addition, outside the corridor, the project would require a dam on the tributary Clavey River and several miles of tunnel.

We appreciate the unique wild, scenic, and recreational characteristics of the Tuolumne River. However, it is believed that the importance of potential power benefits foregone from this large, indigenous, and renewable resource should be considered from the standpoint of National energy objectives before a decision is made to include the entire 83 eligible miles in the National Wild and Scenic Rivers System.

Powerhouses at Clavey and Wards Ferry would have installed capacities of 300,000 and 100,000 kilowatts, respectively. Average annual energy generation would total about 900 million kilowatt-hours per year -- the equivalent of about 1.6 million barrels of oil per year. It is noted that capacity figures on page 61 of the subject report are overstated by a factor of 1,000 for both projects and that energy figures are understated for Wards Ferry by a factor of 1 million.

1979 cost level power values are currently being developed and will be available shortly. The values will result in considerable increases in the benefits for power over those listed in the report. The FERC will provide these updated power values at your request. New power values will necessitate changes to pages 68, 73, and 77 through 81 of the DEIS.

Tables VI-1 and VI-2 apparently assume that the Wards Ferry or Clavey Project could be individually constructed and still develop the same net benefit as with joint construction. This would be an erroneous assumption. Development of the Clavey Project at the envisioned capacity of 300 MW would require reregulation. If this were not possible, as with alternate C, benefits of the Clavey Project would be significantly diminished. However, based on the statement on page vi of the DEIS that development of the Jawbone Dam and Reservoir would likely be precluded if Alternative C were implemented, no hydropower benefits should be listed for Alternative C in these tables.

Table VI-1 lists the value of electric power produced under Alternative E as $37,700,000. Based on January 1978 power values, benefits for this alternative would have been $45,000,000. The value of electric power with the Wards Ferry project alone (Alternative D) would have been $13,000,000 based on January 1978 FERC power values. On Table VI-4, a net power generation loss should be shown for Alternative A to make it consistent with other alternatives which included potential reductions in Hetch Hetchy System outputs.

The last line of page v of the DEIS states "Alternatives B and D, in proposing designation of less mileage than Alternative A, do not preclude, by provisions of the Wild and Scenic Rivers Act the development of hydroelectric resources." This statement is not accurate in the case of Alternative D, since Jawbone Dam and Reservoir would be precluded under this alternative.

On sheet four of five, the 10-mile reach above Don Pedro Reservoir is shown as designated rather than not designated as is stated in the text.

The 92-mile long study corridor lies predominantly in the Sierra-Nevada Granitic Batholith, which has little potential for hydrocarbon reserves. The 1976 Yearbook of the International Oil Scouts Association indicates no gas or oil exploration, development, or production in Tuolumne County, California, where the river study area is located. Further, according to available information, there are no natural gas pipelines within the study area.

Based on consideration of the draft report and draft environmental statement prepared by your Department, and our studies, we conclude that the proposed wild and scenic river designations of a 92-mile portion of the Tuolumne River would conflict with the existing and possible future development of hydroelectric capacity. The power benefits foregone should be carefully considered in deciding whether or not to include this reach of the river in the National Wild and Scenic Rivers System.

Sincerely,

William W. Lindsay, Director
Office of Electric Power Regulation

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

JUL 13 1979

Project #D-AFS-K61033-CA

Jack D. Crane
Acting Forest Supervisor
Tuolumne Wild & Scenic River Study
Stanislaus National Forest
19777 Greenley Road
Sonora CA 95370

Dear Mr. Crane:

The Environmental Protection Agency (EPA) has received and reviewed the draft environmental impact statement (DEIS) titled TUOLUMNE WILD AND SCENIC RIVER STUDY.

The EPA's comments on the DEIS have been classified as Category LO-1. Definitions of the categories are provided on the enclosure. The classification and the date of the EPA's comments will be published in the Federal Register in accordance with our responsibility to inform the public of our views on proposed Federal actions under Section 309 of the Clean Air Act. Our procedure is to categorize our comments on both the environmental consequences of the proposed action and the adequacy of the environmental statement.

The EPA appreciates the opportunity to comment on this draft environmental impact statement and requests three copies of the final environmental impact statement when available.

If you have any questions regarding our comments, please contact Betty Jankus, EIS Coordinator, at (415)556-6695.

Sincerely yours,

Deanna M. Wieman

Deanna M. Wieman
Acting Director, Office of External Relations

Enclosure

Environmental Impact of the Action

LO--Lack of Objections

EPA has no objection to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER--Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these aspects.

EU--Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

Adequacy of the Impact Statement

Category 1--Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2--Insufficient Information

EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3--Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement.

If a draft impact statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make such a determination.

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, D.C. 20310

79 SEP 4 P5:34

28 AUG 1979

Honorable Bob Bergland
Secretary of Agriculture
Washington, D.C. 20250

Dear Mr. Secretary:

I am responding to your recent request for Department of the Army comments on your proposed report and draft EIS on Tuolumne Wild and Scenic River Study.

The study presents five alternatives for designating segments of the Tuolumne River in Tuolumne County, California, as units of the National Wild and Scenic Rivers System.

There are no projects or anticipated water resource developments of the Department of the Army in the area which would be affected by wild and scenic river designation. We do have responsibility to regulate the discharge of dredged or fill material into waters of the United States or wetland areas pursuant to Section 404 of the Clean Water Act (33 USC 1344). Designation of segments of the Tuolumne River under the Wild and Scenic Rivers Act should not impact upon our regulatory mission.

I appreciate this opportunity to comment on the Tuolumne Wild and Scenic River Study.

Sincerely,

John R. Poletti

for Michael Blumenfeld
Assistant Secretary of the Army
(Civil Works)

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
650 CAPITOL MALL
SACRAMENTO, CALIFORNIA 95814

REPLY TO
ATTENTION OF:

SPKED-W

16 August 1979

Tuolumne Wild and Scenic River Study
Stanislaus National Forest
19777 Greenley Road
Sonora, CA 95370

Gentlemen:

Thank you for allowing us to review the draft Wild and Scenic River Study and Environmental Impact Statement for the Tuolumne River, Tuolumne County, California. Our review comments will be provided directly to the Secretary of Agriculture through the Assistant Secretary of the Army.

Sincerely,

GEORGE C. WEDDELL
Chief, Engineering Division

STATE CAPITOL
SACRAMENTO 95814
(916) 445-8102

920 COLLEGE AVENUE
SANTA ROSA 95404
(707) 542-4433

300 TUOLUMNE STREET
SUITE B
VALLEJO 94590
(707) 642-4423

Assembly
California Legislature

MICHAEL GAGE
ASSEMBLYMAN, EIGHTH DISTRICT
REPRESENTING NAPA, SOLANO, AND SONOMA COUNTIES

COMMITTEES
RULES
REVENUE AND TAXATION
GOVERNMENTAL ORGANIZATIC

September 7, 1979

Wild River Study Team
U. S. Forest Service
19777 Greenley Road
Sonora, California 95370

Dear Members:

California's Tuolumne River is truly a magnificent wilderness waterway--one of the few remaining in the Western slope of the Sierra Nevada Mountains. While the 158-mile length of the river presently contains five major dams and power houses, significant sections of this river remain true wilderness. In fact, the 26-mile section downstream from Hetch Hetchy is considered one of the most formidable white water river runs in the American West.

The draft Tuolumne Wild and Scenic River Study and Environmental Impact Statement designates several alternatives for the Tuolumne River. We respectfully urge the Forest Service and the Tuolumne Wild River Study Team to recommend Alternative A to the President. Alternative A calls for designation of an 83-mile segment for inclusion in the National Wild and Scenic River System. This would preserve all the present values and uses of the river.

Wild and Scenic River Status for this section will leave open a greater range of options for future generations to benefit from this precious natural resource. We believe that inclusion in the Wild and Scenic River System will provide the compromise which recognizes that protecting wilderness values, recreational opportunities, and natural beauty does not always necessarily involve saving large expanses of virgin land.

In light of the apparent imminent innundation of the Stanislaus River Canyon, the Tuolumne River Canyon, with its unique natural and native American heritage, deserves such special status.

Sincerely,

MIKE GAGE

TOM BATES

MEL LEVINE

HOWARD BERMAN

BILL LOCKYER

VICTOR CALVO

DENNIS MANGERS

LEONA EGELAND

HERSCHEL ROSENTHAL

TERRY GOGGIN

SALLY TANNER

TOM HANNIGAN

CUSTIS TUCKER

GARY HART

JOHN VASCONCELLOS

RICHARD HAYDEN

FRANK VICENCIA

LAWRENCE KAPILOFF

CHESTER WRAY

JAMES R. MILLS

OMER RAINS

ALAN SIEROTY

DIANE WATSON

DAVID A. ROBERTI

MAXINE WATERS

1979 AUG 8

Mr. Zane Smith, Regional Forester
U.S. Forest Service
630 Sansome Street
San Francisco, CA 94111

Dear Mr. Smith:

The State of California has reviewed the "Draft Tuolumne Wild and Scenic River Study and Environmental Impact Statement", which was submitted to the Office of Planning and Research (State Clearinghouse) within the Governor's Office. The review is in accordance with Part II of the U.S. Office of Management and Budget Circular A-95 and the National Environmental Policy Act of 1969.

The review was coordinated with the Departments of Boating and Waterways, Conservation, Fish and Game, Food and Agriculture, Forestry, Health Services, Parks and Recreation, and Water Resources; the Air Resources, Solid Waste Management, and State Water Resources Control Boards, and the State Lands Commission. Following are the State's comments.

General Comments

The State actively supports Alternative A, which would place all remaining eligible segments of the Tuolumne River from its headwaters to Don Pedro Reservoir in the National Wild and Scenic Rivers System.

We commend the U.S. Forest Service for taking such a positive step toward first recognizing the wild and scenic river values of the Tuolumne and then recommending that such values be protected to the maximum extent possible. As noted in the State's "California Protected Waterways Plan (Initial Elements)" dated February 1971, the Tuolumne River is a Class 1 - Premium Scenic, Fishery, Wildlife and Recreational Waterway. Inclusion of the Tuolumne River in the National Wild and Scenic Rivers System would complement the State's Protected Waterways designation.

It should be noted that, in connection with possible hydroelectric power development on the Tuolumne River, the voters of Tuolumne County in November 1978 voted 2 to 1 against a proposed dam project on the Tuolumne River.

Any proposed hydroelectric projects would be single-purpose. There would be no water quality improvement, flood protection or fish and game enhancement. Only a relatively small amount of consumptive yield could be realized from any Wards Ferry Project.

The maximum annual power yield from the potential hydroelectric projects is probably less than the 880 million kilowatt hours projected. This is because larger flows would be required for fish and recreation mitigation. Although energy is important, other resource values can be just as important. While we can conserve certain amounts of energy, we cannot stretch further the limited, finite wild and scenic areas that remain. Certainly we should better manage our electrical load use before undertaking such environmentally damaging "peak power" projects which would be allowed under Alternatives B, C, D and E.

The Tuolumne River already provides a reliable source of both energy and high quality water to urban and agricultural users. This river has already been heavily tapped to maintain and expand our economy. What is left must be conserved to enrich other aspects of our lives.

Although the study discusses the impacts of hydroelectric power development on the fishery resources of the study area, the discussion of impacts on wildlife is not adequately presented. We also wish to point out that in 1977, when Turlock and Modesto Irrigation Districts and the City and County of San Francisco filed for a preliminary permit to construct the Clavey-Wards Ferry Project, the Department of Fish and Game protested and filed a Petition to Intervene. They took this position because the project would result in significant and wide-ranging impacts on wildlife, particularly on the Yosemite and Tuolumne deer herds. We believe there are no adequate means to mitigate these predicted impacts.

The study should also discuss the economic impacts of the various alternatives on the hunting public. For example, 22,971 deer tags were issued in 1978 for Zone D6 (the general project area) with 1,015 buck deer harvested. The area is also popular for bear hunting and supports a good population of quail. We believe the economic analysis should be modified to give more consideration to fish and wildlife-oriented recreational use.

Where any alternative involves construction activity, fire protection issues should be discussed with:

James D. Taylor
State Forest Ranger
Tuolumne-Calaveras Ranger Unit
785 El Dorado Street
San Andreas, CA 95249
Telephone: (209) 754-3831

Only alternative A fully protects the values of the entire eligible reach. Any of the other alternatives would drastically affect the character of the river. Alternative D would allow the Wards Ferry project to inundate 11 miles of river. Alternative C would allow the Clavey unit to divert enough water from 12½ miles of the river to impair its recreational, scenic, and perhaps fish and wildlife values. High peak discharges back into the Tuolumne at the Clavey River would further despoil another 9½ river miles. Alternatives B and D would accumulate these unacceptable impacts by allowing both the Wards Ferry and Clavey projects.

Specific Comments

Page VI, last sentence. Hydropower, social, and economic benefits would not be substantial on a statewide or national basis. The amount of oil foregone is a small increment of that imported. The amount of profits is similarly small in perspective. However, from the same state and national perspectives, the wild and scenic qualities of these remaining stretches are immensely valuable due to their scarcity. Even locally, the economic benefits following construction would be minor.

Page 1. It should be noted that the area studied has not just some of the values making it eligible for designation, but, in fact, contains all the values.

Page 27. The table should be corrected to indicate that segment 7, Cherry Creek Confluence to study Terminus, does have outstanding wilderness characteristics.

Page 38. It is indicated that a one-time recreation facility construction cost of $500,000 would be required under Alternative A, but there is no indication as to what would be constructed. The study should include a discussion as to what type of facilities would be constructed.

Page 40 and 81. The power capacity figures are not consistent with the estimates found elsewhere. Also, the power capacity figures should be verified to ascertain that some of the benefits of the Raker project are not counted for these alternatives.

Page 57. The impact description for Alternative C should be rewritten to clearly state that under its limited designation the Jawbone and Clavey units could be built. This would require that the project include full mitigation for the adverse impacts on the values for which the other reaches were designated. We should also keep in mind that proposed mitigation sometimes is not as effective in reality as it is in a plan.

This section should also show how the remote and wild recreational experience would be diminished by increased use allowed by good access roads to dam facilities. What is now a relatively pristine environment would be opened up to as many more users as wanted to drive down a well maintained road.

The whitewater boating experience would suffer a similar fate. The project's water regulation features would make the rapids easier to run. It would improve the quantity of the experience at the expense of the quality. There is no substitute for the Tuolumne's advanced whitewater experience.

Alternative D Map. This map indicates that the portion of the Tuolumne River below the Clavey River is designated "wild" under Alternative D. We believe it should be shown as "Not designated".

Page 61. The proposed installed capacity of the Clavey and Wards Ferry units should be 300,000 and 100,000 kilowatts, respectively, instead of 300 and 100 million kilowatts.

Page 68. As discussed earlier, the impact on the national economy would be only minorly incremental, not substantial. After construction, the regional impact might also be only minor.

Page 72. The report should clearly state that Table IV-1 compares each alternative to the "present day" condition, not to the "future" no-project.

Page 73. The report should state that the potential net benefit of $17 million is the maximum available. It should further state that required mitigation for all the values would undoubtedly reduce the net benefit significantly. Preliminary reports done by the hydro-development proponents may have overstated the benefits and understated the costs. These same comments should be added to the tables showing the economic development account.

Pages 77, 78, and 82. The beneficial effects to society include the costs for alternative new supplies of energy. This is estimated as $17 million which is the equivalent of up to 1,500,000 barrels of oil. The report should also estimate the much lower cost to society of reducing its demand by a like amount. As we all know, conservation to reduce demand costs only a fraction of development of new supplies. The decision on how much of the river to designate affects all of the public. Therefore, they should be fully informed of the most economical method for bringing supply and demand levels together.

Page 77, Table VI-1. It is not clear why the losses in the value of whitewater boating are greater under Alternative D than with Alternatives B and E. This should be explained. The values attributed to whitewater boating do not appear to be high enough. The study uses a value of $15 per recreation day for whitewater recreation without citing the authority for this value. The Principles and Standards of the Water Resources Council limit these values to $3 to $9 but allow an expression of the users' "willingness to pay". Where fees are charged, it allows a fee of $70, plus travel cost (e.g., from San Francisco 150 miles x 2 x $0.15/mile ÷ 3 people per vehicle). If noncommercial, whitewater boaters (3,200 annually) are included using the minimum value of their travel costs, the following would be a more accurate estimate of the whitewater value under each alternative.

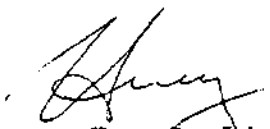
Alternative B	-$315,400
Alternative C	+$ 44,000
Alternative D	-$315,400
Alternative E	-$315,400

It should be emphasized that the whitewater boating values are a result of forest management practices which seek to preserve the environment and that lack of such control would result in a much higher use, consequently higher values.

Page 85. The second paragraph should be corrected. In reality, Alternative A fulfills the most objectives. It would preserve the scenic, recreational, geologic, fish and wildlife, historic, cultural, and other values. To lump this all together as one environmental objective is grossly misleading. It is all of the other alternatives which would sacrifice multiple objectives for the single purpose of power generation.

Thank you for the opportunity to review the study.

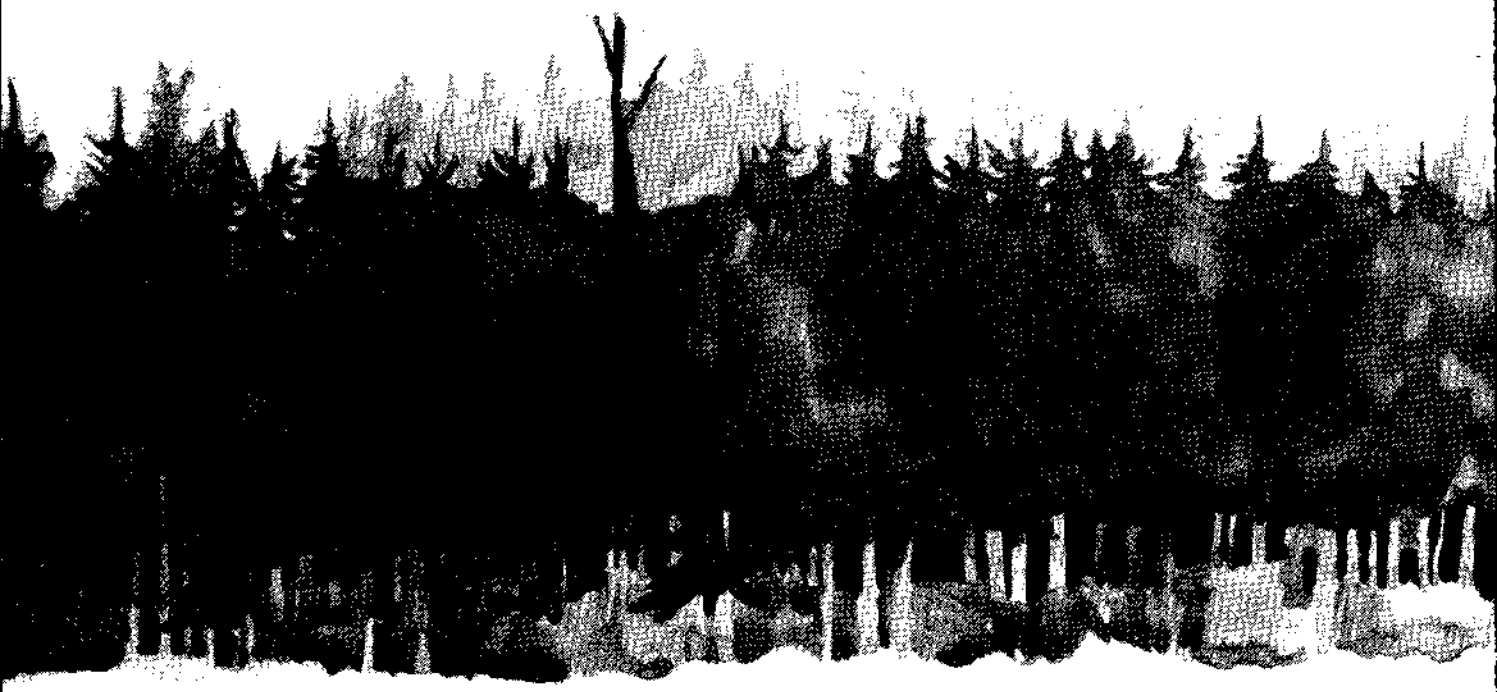
Sincerely,



Huey B. Johnson
Secretary for Resources

cc: Director of Management Systems
State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814 (SCH 79062606A)

Blaine L. Cornell
Forest Supervisor
Stanislaus National Forest
19777 Greenley Road
Sonora, CA 95370



FOREST SERVICE/U.S.DEPARTMENT OF AGRICULTURE/CALIFORNIA REGION
NATIONAL PARK SERVICE/U.S.DEPARTMENT OF THE INTERIOR/WESTERN REGION