



WILDERNESS RECORD

PROCEEDINGS OF THE CALIFORNIA WILDERNESS COALITION

Vol. 5

P.O. Box 429, Davis, CA 95616

July-October 1980

Nos. 4 & 5

Federal Protection Sought for North Coast Rivers

A Draft Environmental Impact Statement (DEIS) was released on September 20, 1980, on the "Proposed Designation of Five California Rivers in the National Wild and Scenic Rivers System." The DEIS was prepared by the U.S. Heritage Conservation and Recreation Service. Public hearings are being held at the end of October and written comments are being accepted until November 20 (see below).

The DEIS was prepared when Governor Brown requested Secretary of the Interior Cecil Andrus to add portions of the California Wild and Scenic Rivers System to the National Wild and Scenic Rivers System (see other articles in this issue on the rivers and alternatives). If included, federal water resources development would be precluded on portions of the Klamath, Trinity, Smith, Eel and Lower American Rivers. The State's proposal, which is strongly supported by conservation groups, is contained in

Alternative B and would preserve some 4,000 miles of river in free-flowing condition.

Hearings were held in Crescent City, Redding, Eureka, Sacramento and Los Angeles. Strong showing of support for Alternative B is vital if the Secretary is to act favorably on the Governor's request. The State's proposal has already come under heavy attack by the timber industry which says it would "lock up" the North Coast and allow no more timber harvesting. However, this is **not** the case (see other articles in this issue) and conservationists must show up in force at the public hearings to set the record straight.

Copies of the DEIS can be obtained from Brian O'Neill, Assistant Regional Director, Heritage Conservation and Recreation Service, 450 Golden Gate Ave., San Francisco, CA 94102. Written comments should also be directed to Mr. O'Neill with a deadline of **November 20**.



Scott River

Last Push for RARE II Bill

The U.S. Senate will determine the future of millions of acres of California wilderness this year. The "Burton bill" will die if it is not signed into law this year.

On August 18th, the House of Representatives passed H.R. 7702, the California Wilderness Act of 1980, by a voice vote. The bill would designate 53 areas totaling 2.1 million acres as wilderness in National Forests in California, designate 166,000 acres of "planning areas" to be protected while they undergo further wilderness study, and designate most of Yosemite and much of the Sequoia-Kings Canyon national parks as wilderness.

The bill is a major compromise from the 5+ million acre wilderness bill introduced earlier by Rep. Phillip Burton. Burton worked with every California representative who had potential wilderness in his district to find a compromise that took into consideration all the varied interests in each district—including the timber industry, downhill skiers, grazing permittees, hydroelectric developers, water interests, and off-road vehicle users, as well as conservationists.

Most of the commercial timber on roadless lands and many potential downhill ski sites have been compromised out of wilderness. Although it contains many disappointments for conservationists, they are supporting the overall package as a good faith effort to reach a compromise that has taken all views into account.

Senator Alan Cranston has stated, "I'm determined to see that we get action—and we will get action—on strong wilderness legislation for California before the post-election session of Congress is over"

Besides the compromises on individual areas, the bill would dissolve the federal court order injunction now stopping logging and other development in 46 roadless areas in California. The injunction was granted the State of California in its successful lawsuit challenging RARE II (California v. Bergland). Dissolving the injunction would free 120 million board feet of timber per year for timber harvest.

Of a total timber supply of 430 million board feet in still-wild lands in national forests in California, only 130 million board feet would be allocated to wilderness by H.R. 7702 —

cont. on pg. 12

The final opportunity for public comment on the California Desert Plan is scheduled to end on November 21, 1980. This short, 45-day comment period was initiated with the release of a "Proposed California Desert Plan and Final Environmental Impact Statement (EIS)" by the federal Bureau of Land Management (BLM). After analysis of public comments on the Proposed Plan and possible revisions, a Final Plan will be submitted to the Assistant Secretary of the Interior for Land and Water Resources for approval, then to the Executive Secretariat for Presidential consideration. No formal opportunities for public comment will be offered after November 21, however.

Conservationists are disappointed by the Proposed Plan, which fails to correct major deficiencies that existed in the Protection, Balanced and Use Alternatives of the previous Draft California Desert Plan. Although the BLM spent four years and 10 million dollars to produce the Plan, conservationists charge that it still fails to meet the legal requirement to maintain the environmental quality of public desert lands and provide for their protection and administration "within the framework of a program of multiple use and sustained yield." This requirement was legislated to the BLM in the Federal Land Policy and Management Act (FLPMA) of 1976. However, the Final EIS admits that many desert

resources will continue to decline in specific areas under the Proposed Plan, and thus will not be managed on a sustained yield basis.

The Proposed Plan recommends 43 areas for wilderness designation, but deletes many important areas and reduces others; designates 73 areas for special management, as Areas of Critical Environmental Concern (ACEC), but refuses to protect numerous significant areas; and sets guidelines for off-road vehicle (ORV) use of the desert, but retains the concept of "open" areas to random use and the concept of ORV use on "existing roads and ways" which also translates into random vehicle abuse.

Wilderness

Wilderness designation for suitable areas is one of the highest goals of conservationists because this action provides the best and most permanent protection for natural values of desert wildlands. After BLM submits its wilderness recommendations in the Final Desert Plan, Congress must act to actually designate wilderness areas. Congress is free to make any additions or deletions to BLM's set of wilderness proposals. However, inclusion of an area in the BLM wilderness proposal will greatly enhance its chances of actual designation as wilderness.

Of the 138 Wilderness Study Areas (WSAs) comprising 5.7 million acres under consideration in the

Plan, 43 areas comprising 2.07 million acres are recommended for wilderness designation in the Proposed Plan. This represents a small increase over the 1.8 million acres recommended for wilderness in the "Balanced Alternative" of the Draft Plan, which BLM used as a model for development of the Proposed Plan. This increase was directly due to support for wilderness expressed during the 90 day public comment period for the Draft Plan.

Conservationists are still attempting to convince BLM to recommend wilderness for many outstanding areas and boundary expansions are also sought for BLM's wilderness proposals for a variety of areas.

cont. on page 3

Proposed Desert Plan Released



Old Woman Mountains

Coalition Report

By Jim Eaton

This combined issue of the *Wilderness Record* is coming to you later than normal for several reasons. Most of our time the past few months has been spent on issues—the California Wilderness bill, the Desert Plan, and the Wild Rivers proposal. Never has so much wild land been at stake.

We hope the depth and volume of information in this special issue will make up for our delay in publication. Those of you who have returned our Wilderness Activists Questionnaire and therefore receive our wilderness alerts know we haven't been idle, just busy.

Our silence also has been due to the suspension of publication of *Wild California*. As explained elsewhere in this issue, the Coalition could not assume total financial responsibility for this newsletter after the Wilderness Society moved out of our Davis office.

The Society's move also is resulting in other difficulties as the Coalition has had to take on increased rent, telephone bills, mailing and other costs that formerly were shared. And, alas, the Society is taking its IBM typewriter.

So this summer was a time of your Coalition being entirely sustained by volunteer help while we worked on improving our fundraising, memberships, and organization. On most weekdays we have kept the office open a minimum of 10 AM to 2 PM. We hope to keep at least these hours

until we are able to rehire staff this fall.

There is good news. Our new members are coming in at a rate that will double our existing membership in less than a year. Donations, such as a \$200 check from Sue Smith of San Francisco, are helping immensely. And John and Molly Hooper opened their house to a Coalition affair that netted around \$1,500.

John and Molly not only offered their San Francisco home, but prepared food, arranged for donated wine, wrote invitations, and also donated money for this successful and enjoyable afternoon. Dave Brower came and said kind words about the Coalition and its efforts to save California wilderness. Many people new to the wilderness movement came by, learned about our programs and issues, and wrote checks to help us out. If other members would like to support the Coalition by hosting such an event, please let us know!

Of course, most of our time this summer was spent working on the California Wilderness Bill. The Coalition helped out other organizations like the Sierra Club in keeping the information flow going from the grassroots to Washington, D.C. The amount of misinformation from the timber industry and Forest Service was (and continues to be) incredible; on this issue the "emotional" environmentalists are the ones with the correct

facts and figures. So far the massive efforts of a few staff people and hundreds of volunteers from throughout California have offset the hundreds of thousands of dollars and professional lobbyists of the timber, skiing, and off road vehicle interests.

Even with the passage of this bill, there will remain millions of acres of wild land in California that need protection. The entire wilderness review of the Bureau of Land Management, including the California desert, is yet to be resolved. Forest Service roadless areas in "further planning" status, such as Sespe-Frazier, home of the California condor, will need our help, as will recommendations for additions to the State Wilderness System. Even areas in the current bill will require more work. The boundaries are not sufficient for such wild places as the Siskiyou, Mt. Shasta, Ishi, White Mountains, and South Sierra.

While the California Wilderness Bill will do much to protect endangered wild areas, we supporters of wilderness will have more to do in the 1980's. The California Wilderness Coalition will be here to help you be part of this wilderness preservation movement.

We would like to welcome the Mono Lake Committee as a Coalition member, and Zoo-Ink Screen Print of San Francisco as a business sponsor.

The California Air Resources Board has announced two public meetings to receive testimony on a proposal to redesignate portions of Lava Beds National Monument and the Salmon-Trinity Alps Primitive Area from Class II to Class I air quality. Class I is the most protective designation provided by the Clear Air Act.

The two areas being considered are the first of 30 proposed redesignations in California. Many potential wilderness areas are included in this review.

Public meetings will be held the evenings of October 1 in Yreka and October 2 in Redding. Written comment may be sent to the Board Secretary, Air Resources Board, P.O. Box 2815, Sacramento, CA 95812.

The Clear Air Act addresses the need to preserve, protect, and enhance the air

quality in areas which have air cleaner than the health-based national ambient air quality standards. The primary concept here is the "prevention of significant deterioration" of air quality (PSD).

A key component of the PSD program is the classification of areas which have air cleaner than the national ambient air standards into one of three categories: Classes I, II, and III. The Act establishes different increments of deterioration of air quality allowed for the different categories; Class I areas are allowed only minimal air quality deterioration while Class III areas are allowed the largest increases in air pollution but in no case to exceed national secondary standards. The Act also requires the Environmental Protection Agency to take steps to protect visibility in Class I areas.

The proposal to redesignate

the Salmon-Trinity Alps as Class I is only for the existing 286,000 acre Primitive Area. The House of Representatives last month approved a 500,000 acre Trinity Alps Wilderness as part of the California Wilderness Bill. It is hoped that the Air Resources Board will take the new wilderness area boundaries, when they become law as the Class I area.

At Lava Beds, the proposal is to redesignate portions of the National Monument not designated as wilderness to Class I. 60% of the Monument is part of the National Wilderness Preservation System and already is designated Class I. The proposal would result in the entire National Monument being classified Class I.

Public meetings for the other 28 California areas will be announced later this fall.

Dam Proposed for Emigrant Wilderness

Congressman Norman Shumway has written President Carter asking him to allow the construction of a reservoir inside the existing Emigrant Wilderness. The proposed Big Dam site is one mile inside the wilderness area.

The project was one of four prepared for the Tuolumne County Water District No. 2 by Tudor Engineering Co. of San Francisco.

The most profitable of the four is "Alternative 700." A dam and 11,000-kilowatt power plant would be constructed on the south fork of the Stanislaus River five miles northeast of Pinecrest, creating Big Dam reservoir, with the water flowing from there into Pinecrest. Two dams would be built in Bell and Billy Creeks, creating Bell Meadows reservoir and Coffin Hollow reservoir,

with a six-mile waterway and quarter mile tunnel through a mountain leading to a 13,000-kilowatt power plant near the Philadelphia ditch, about a mile north of Cold Springs.

Water would then flow to the current Spring Gap and Phoenix powerhouses, which would need to be enlarged by 18,000 kilowatts and 1,700 kilowatts respectively.

However, the proposed 260-acre Big Dam site is one mile inside the Emigrant Wilderness area. Development of roads, dams or reservoirs is prohibited in this area unless exempted by Presidential order. Congressman Norman Shumway wrote a June 6 letter to President Carter asking him to lift the wilderness status of the land surrounding the Big Dam site.

While a president may authorize the construction of a dam inside a wilderness, he cannot declassify a portion of a wilderness. It takes an act of Congress to change wilderness boundaries.

In case the wilderness status is not lifted, three other proposed projects include a 30-foot dam immediately downstream from the wilderness area, diverting the water through a 2.6 mile tunnel to Bell Meadows reservoir.

Wild California Ends

With the closing of the Wilderness Society's Davis office, the publication of *Wild California* has been suspended. As a joint publication, *Wild California* was funded by both the California Wilderness Coalition and the Wilderness Society.

Evans BLM Appointee

Secretary of Interior, Cecil Andrus, has appointed a director of the California Wilderness Coalition to the advisory council of the Bureau of Land Management's Redding District.

Steve Evans, Secretary of the Coalition's Board of Directors, was appointed by the Secretary upon the recommendation of District Manager, Stanley D. Butzer, and BLM State Director, James B. Ruch, with the concurrence of BLM National Director, Frank Gregg.

The Secretary called on members of the council to carry out their advisory responsibilities from the "highest public-interest perspective, and as a representative of that interest, rather than any narrower perspectives." Members will contribute their time as a public service.

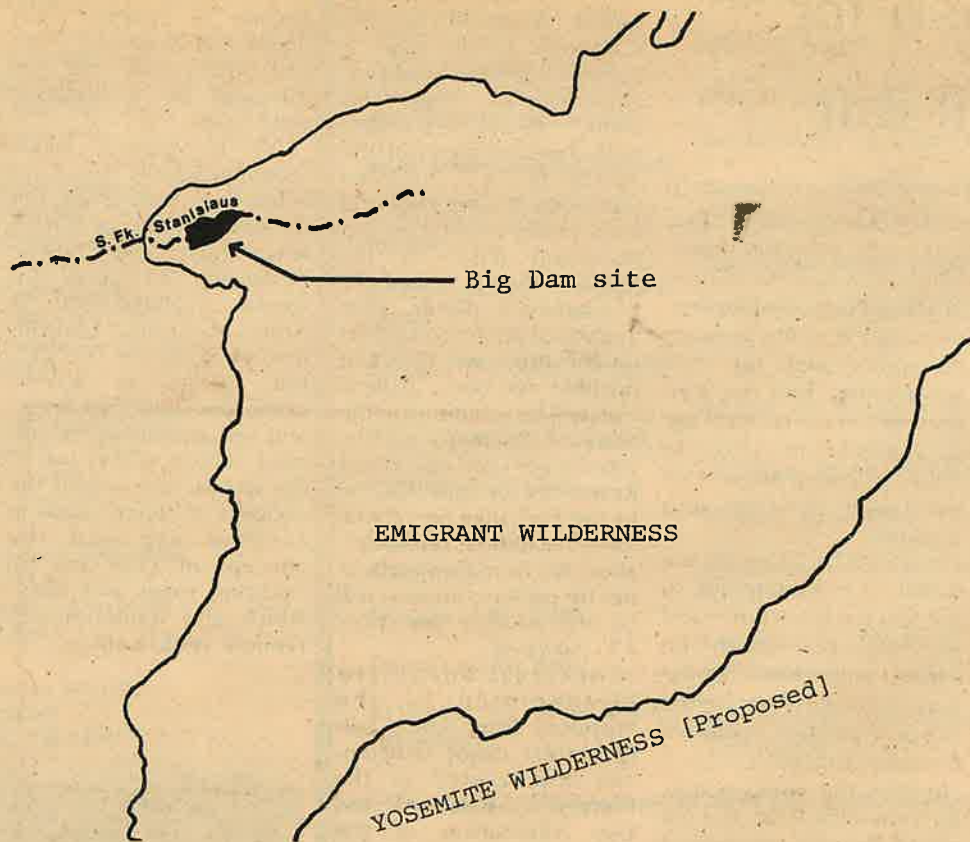
The Coalition's Board of Directors has determined that the Coalition cannot assume the entire financial responsibility of that publication at the present. Should funding become available, *Wild California* might be printed again, or the *Wilderness Record* could be printed more frequently.

As much as possible, articles and features of *Wild California* will be incorporated into the *Record*. The Board regrets any inconvenience this causes to Coalition members.

Moss Hired By TWS

Larry Moss has been appointed regional representative for California and Nevada by the Wilderness Society. Moss previously worked as Southern California representative and associate conservation director for the Sierra Club, deputy secretary for resources for the State of California, and executive director of the Planning and Conservation League.

Moss will concentrate on Big Sur, on wilderness designation for Yosemite and Sequoia-Kings Canyon National Parks, and on efforts to protect the California desert.



Commission Supports Condor Wilderness

A resolution supporting federal establishment of the proposed Sespe-Frazier Wilderness was approved by the State Fish and Game Commission on August 28.

Site of the proposed wilderness area is a region encompassing 335,900 acres in the rugged coastal mountains of Ventura and Los Angeles counties.

Included in the roadless area is the Sespe Condor Sanctuary and other lands used by the endangered California condor.

Testifying on behalf of the wilderness proposal were David Brower and Dave Phillips of Friends of the Earth, Mark Palmer and John Hooper of the Sierra Club, and Jim Eaton of the

California Wilderness Coalition.

The resolution of support for the wilderness was made by Commissioner Norman B. Livermore, Jr. He was supported by Raymond Dasmann. A spokesperson from the Forest Service opposed the measure, and two local landowners expressed concern for their

property rights within the proposed wilderness.

Livermore expressed good arguments in favor of his resolution and amended it slightly to be sure the measure applied only to federal lands. The resolution passed on a two-to-one vote with Commissioner Sherman Chickering opposed.

Desert Plan Criticized

cont. from pg. 1

Critical Areas (ACEC)
FLPMA requires the BLM to identify areas of Critical Environmental Concern (ACEC) and to develop special plans for their management. The Bureau has turned this into a special designation that overlays other land use classifications (the four "Multiple Use Classes" into which almost all public lands will be allocated in the California Desert Conservation Area). ACEC designation provides a potential for strong and specific management actions, but

BLM for ACEC protection. Thus, with only 73 included in the Proposed Plan, many important areas may remain unprotected. The most critical ACEC additions proposed by conservationists are Cima Dome (dense Joshua tree forest and wildlife populations), Cronese Basin (wildlife, vegetation and archeological values), Woods Mountains (bighorn sheep, deer, petroglyphs), and Ford Dry Lake (desert tortoise and archeological sites). Conservationists also continue their previously futile attempts to have campgrounds removed from the vicinity of the water sources at Afton Canyon and Corn Springs, where human disturbance is precluding wildlife use of scarce water resources.

Multiple Use Classes

In the Proposed Plan, as in the Draft, the desert is divided into four land-use classes: Class C ("Controlled") for areas recommended for wilderness, Class L ("Limited") for areas to be given a high level of resource protection, Class M ("Moderate") for more intensive human use, and Class I ("Intensive") for very intensive human use such as open pit mining and ORV open areas.

BLM has increased the amount of lands in Class L over the previous "Balanced" Alternative, but has changed the rules to allow more intensive uses in this "protective" class. Under the Proposed Plan, com-

mercial plant harvest, sand and gravel mining and even off-road vehicle competition routes would be allowed in Class L!

The amount of BLM-administered land placed into each Multiple Use Class under the Proposed Plan and the old Draft Plan alternatives is shown in the comparison table which accompanies this article.

Several Class M areas are contiguous with wilderness areas in Joshua Tree and Death Valley National Monuments, creating a high potential for trespass by off-road vehicle users. Conservationists are urging BLM to designate all such areas as Class L or C. These include Pinto Mountains and Saddlepeak Hills.

Desert Plan

Critical Wilderness Areas Neglected

TABLE I

The following have been identified as top priority Wilderness Study Areas in need of wilderness designation in addition to the 43 areas recommended by BLM in the Proposed Desert Plan:

Wilderness Study Area (WSA) #	Name
119	Little Sand Spring
120	Waucoba Wash
136, 137, 137A	West Panamint Canyons
163	Frog Creek
218	Morongo
227	Clark Mountain
251	Cady Mountains
264	Mid Hills
265	New York Mountains
271	Woods Mountains
299	Old Woman Mountains
350	Little Chuckwalla Mountains
352	Paló Verde Mountains
356	Little Picacho Peak
362	South Algodones Dunes

Below are several areas which were recommended only in part for wilderness designation by BLM. Conservationists urge that in each case the entire Wilderness Study Area be recommended for wilderness designation by Congress:

WSA #	Name
117, 117A, 123	Saline Valley
222	Kingston Range
307	Turtle Mountains
325	Palen/McCoy
348	Chuckwalla Mountains

concept of ORV "open" areas.

BURROS

Due to public comments received, BLM plans to reduce these destructive, introduced beasts to levels below that proposed in any of the Draft Plan alternatives. However, the Proposed Plan calls for the retention of 17 out of 22 existing herds, a number which conservationists consider too high.

National Parks

The Proposed Plan ignores conservationist proposals and public comment in favor of the establishment of the Mojave National Park and additions to Death Valley and Joshua Tree National Monuments. The low level of protection afforded many of these

areas in the Proposed Plan makes transfer of lands to the National Park Service even more desirable.

Action

1. Write letters to the BLM to express your views on the California Desert Plan. Address:

BLM-Desert Plan
P.O. Box 5555
Riverside, CA 92517

CWC

members who have expressed interest in desert issues on the membership questionnaire were sent a Desert Plan alert in October. Congressional action must still take place on wilderness proposals, so please contact CWC if you wish to be placed on the desert mailing list.



this will depend on the specific plans adopted for each area. The Proposed Plan includes 73 ACECs totalling 574,000 acres. This is a great improvement over the 50 areas included in the Draft Plan (all Draft Plan Alternatives were identical with respect to ACEC) and was the result of public comment in favor of critical area and resource protection.

At least 240 areas were originally considered by the



Table II

Comparison of Multiple-Use Class Designations of the Four Draft Plan Alternatives and the Proposed Plan

Acres (000)
(Percent of total BLM-administered Lands shown in parenthesis)

Multiple Use Class	No Action Alternative	Protection Alternative	Balanced Alternative	Use Alternative	Proposed Plan
C	-	5,221 (43.0)	1,828 (15.1)	602 (5.0)	2,074 (17.1)
L	4,406 (36.3)	5,943 (49.0)	5,262 (43.4)	2,067 (17.0)	5,944 (49.0)
M	6,505 (53.6)	552 (4.6)	4,326 (35.7)	7,470 (61.6)	3,312 (27.3)
I	943 (7.8)	141 (1.2)	419 (3.4)	1,688 (13.4)	498 (4.1)
No Specified Multiple Use Class	277 (2.3)	274 (2.2)	296 (2.4)	304 (2.5)	303 (2.5)
Total	12,131 (100)	12,131 (100)	12,131 (100)	12,131 (100)	12,131 (100)



Turtle Mtns.

Photo by Jim Eaton

BLM Roadless Areas

San Diego County Wilderness Areas Proposed

In a document released on June 30, 1980, the Bureau of Land Management (BLM) proposes that 40,086 acres in two roadless areas in eastern San Diego County be recommended to Congress as suitable for wilderness designation. The draft environmental impact statement (DEIS), called "Proposed Livestock Grazing and Wilderness Management for the Eastern San Diego County Planning Unit," also proposes that 13,983 acres be recommended as non-suitable for wilderness designation.

The draft EIS examines four wilderness alternatives—ranging from "maximize wilderness" to "no wilderness" and five alternatives for grazing management—ranging from "no grazing" to "intensive use."

In the "proposed action" (wilderness alternative 3) wilderness designation is recommended for 25,515 acres of the Sawtooth Mountains Wilderness Study Area (WSA) and the 14,571-acre Carrizo Gorge WSA, while proposed as non-suitable are 958 acres in the Table Mt. WSA, 5,629 acres in the Sawtooth Mountains WSA, 2,131 acres in the San Ysidro WSA and 5,265 acres in the San Felipe

ment difficulties would be eliminated by closing intruding roads and acquiring several private inholdings.

Both off-road vehicle use and cattle trespass grazing occurs in several of the proposed "non-suitable" WSAs and may have been a factor in the non-suitability recommendation.

The WSAs were identified during the California statewide wilderness inventory for areas outside of the California Desert Conservation Area. At this time many areas were reduced in size due to unnatural impacts or failure to meet other wilderness inventory criteria. Only areas known to have outstanding wilderness characteristics were identified as WSAs.

The Wilderness Study Areas within the Eastern San Diego County Planning Unit contain such outstanding features as the rare Peninsular bighorn sheep (now found only in the Carrizo Gorge WSA among those considered here), raptors, magic geckos (a rare lizard), numerous archeological sites and rugged, challenging topography. Vegetation is very complex and may include anything from oak groves to chaparral and desert scrub. Nine sensitive

3,788 AUMs. This forage must be utilized by native wildlife as well as domestic cattle.

A herd of 80 to 100 rare Peninsular bighorn sheep inhabit the mountains and slopes around Carrizo Gorge, including parts of the In-Ko-Pah and Mt. Tule grazing allotments. This remnant population once had a much larger distribution. One reason for its decline has been competition with domestic livestock for space, forage and water.

The DEIS states that the proposed grazing management action (grazing alternative 3) will result in a stabilization of the bighorn population whereas continuation of present management would lead to a 25 percent decline in bighorn numbers by the year 2001. However, implementation of the no grazing alternative (grazing alternative 1)

would increase the bighorn herd to 300 animals by 2001 due to improvements in habitat. The opportunity to reintroduce bighorn to areas of historic range where they are now absent, such as the Sawtooth Mountains WSA, would also be "greatly enhanced" by implementation of the no grazing alternative.

YOU CAN HELP:

Comments will be accepted on the DEIS until September 21, 1980 for to inclusion in the final EIS. Comments received after this date will also be considered in the decision process.

Conservationists urge that cattle grazing be prohibited in essential bighorn sheep habitat and potential reintroduction habitat. This area includes the In-Ko-Pah, Mt. Tule, Tierra Blanca, Canebrake, Vallecito and Ori flame grazing allotments. Trespass cattle also



must be removed.

The DEIS indicates that implementation of grazing alternative one and elimination of livestock grazing on the public lands would result in an increase in total vegetative ground cover from the present 48 percent to 63 percent. This demonstrates the severe impact that grazing has had on soils and native vegetation. Elimination of grazing would allow recovery of 12 miles of riparian habitat which has undergone damage, benefiting many wildlife species. Trampling of cultural resources also would be reduced. Finally, the DEIS

states that the effect of eliminating grazing of public lands on the local community would be "slight."

Support is also needed for wilderness alternative one (maximize wilderness). Particularly important is support for the Carrizo Gorge and Sawtooth Mountains proposed wilderness areas and acquisition of private inholdings and closure of intruding roads to consolidate the Sawtooth WSA. This would greatly increase opportunities for successful reintroduction of bighorn sheep.

Mecca Hills Downgraded

In August the Bureau of Land Management (BLM) released its "Final Mecca Hills Recreation Management Plan." The final plan provides much fewer restrictions on off-road vehicle use in this fragile area than did the revised draft plan which was published in February. As in the revised draft plan, the opportunity to preserve two existing Wilderness Study Areas (WSAs) within the Recreation Area as wilderness is rejected despite public comments requesting this action.

The Mecca Hills Recreation Area was designated by the Secretary of the Interior in May 1972 for management with emphasis on recreation. A first draft management plan for the area was released in September 1979, followed by the revised draft in February 1980. Manage-

ment of the Mecca Hills Recreation Area also must comply with the Final California Desert Plan.

The Mecca Hills, located southeast of Indio, are well known for their "badlands" topography, numerous narrow, steep-walled canyons, and great variety of geological features. Vegetation is rather sparse except in washes and near springs. Wildlife includes the prairie falcon, desert tortoise and rare spotted bat. Bighorn sheep depend on the water source at Hidden Spring during the summer months.

The final plan will implement a vehicle closure for the western half of the Recreation Area except for an access road and campground in Painted Canyon. Two 640-acre sections of non-BLM land are proposed for acquisition. The eastern half of the

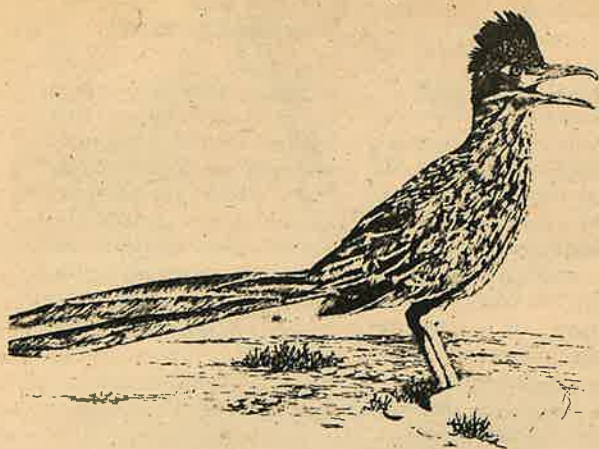
Mecca Hills will be open to off-road vehicle (ORV) use on existing roads and ways. Thus vehicles will effectively be free to legally drive wherever prior vehicle tracks can be seen. As originally proposed in the revised draft, ORVs would have been restricted to designated roads and trails in this area to minimize resource damage. The bighorn watering area at Hidden Spring will be subject to a seasonal closure to vehicle use.

The final plan admits that "Resource damage caused by ORV use is evident in nearly all portions of the Meccas with heaviest use in the area east of Box Canyon Road. Scarring from unregulated off-road vehicle play detracts from the scenic quality of the area and adversely affects geologic, wildlife and other recreational uses... Due to

the dryness and soil structure, erosion is rapid, further hastened by ORV use... Due to the multitude of existing trails on the ICMP map, ORVs are allowed almost unlimited access."

The failure of BLM to implement any changes in this mis-management of the eastern Meccas leads conservationists to question the validity of BLM management of this area. Conservationists have proposed that the Mecca Hills and adjacent Orocochia Mountains be transferred from BLM management to become a unit of Joshua Tree National Monument. This would require Congressional action.

Copies of the final plan are available from the BLM Indio Resource Area, 3623-H101 Canyon Crest Drive, Riverside, CA 92507.



Hills WSA. Several of these areas are adjacent to proposed state wilderness areas in Anza-Borrego State Park.

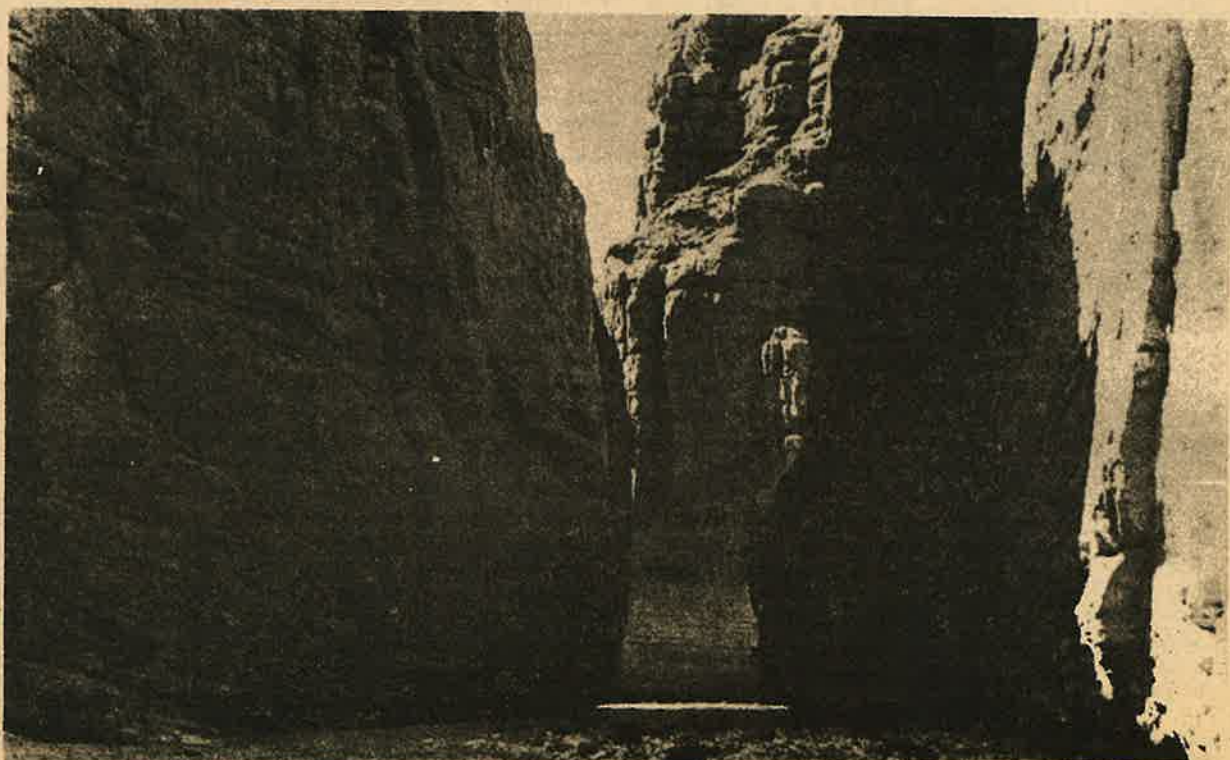
San Ysidro Mountain WSA (CA-060-022) and San Felipe Hills WSA (CA-060-023) are considered unsuitable under the proposed action due to their narrow configurations and because "both areas are distant from BLM offices and would be difficult to manage as wilderness." San Ysidro Mountain WSA is adjacent to proposed Sheep Mountain State Wilderness. Table Mountain WSA (CA-060-026) is also considered unsuitable due to management difficulties and lack of legal access. This small area is adjacent to the proposed Jacumba Mountain State Wilderness.

Portions of the Sawtooth Mountains WSA are also considered too difficult to manage as wilderness under the proposed action. However, under wilderness alternative one ("maximize wilderness") these manage-

plant species are listed in the Planning Unit. The area exhibits a transition from the Colorado Desert to a Mediterranean-type climate to the west.

The DEIS also describes a proposed change in livestock grazing management for the Planning Unit. Of the eleven current grazing allotments, 38 percent of the acreage is unsuitable for grazing (steep rockland over 50 percent slope), 34 percent is in poor condition, 24 percent fair, only 4 percent good and 0 percent in excellent condition.

In order to reduce overgrazing and improve rangeland condition, the BLM proposes to exclude 30,999 acres from livestock grazing and initially allocate 2,914 animal unit months (AUMs) of forage to livestock (AUM= the amount of forage eaten by an average cow or five sheep per month). Current livestock use is 4,925 AUMs although annual forage production is only about



Wilderness Management

WILDLIFE

Last issue, the question of fire management, especially the fire ecology of chaparral wild lands, was explored. The following article deals with another controversial subject, that of wildlife management in wilderness.

Questions of wildlife management in wilderness have been debated among many groups the past few years. Some conservation organizations and state agencies have been apprehensive about the effect wilderness designation might have on wildlife management, especially those areas serving as habitat to endangered species. It was only recently, for example, that the National Audubon Society endorsed wilderness classification for the Sespe-Frazier area, critical habitat to the California condor.

Management techniques, such as prescribed burning, have been considered as appropriate in wilderness by many environmental groups, the National Park Service, and the Bureau of Land Management. The Forest Service, however, has resisted allowing such measures in wilderness areas unless specifically instructed to do so by Congress. Indeed, this approach by the Forest Service has been successful in defusing wilderness support from state fish and game agencies that want to conduct minor projects to enhance wildlife populations like bighorn sheep or the golden trout.

Congress is the group that wrote the Wilderness Act, and members of Congress have some ideas on what they meant regarding wildlife management. The California Wilderness bill just passed by the House of Representatives is accompanied by a committee report with a detailed analysis of the management of wildlife in wilderness. The report follows:

Wildlife Management

Four hundred and fifty years ago, all of the United States was wilderness. With the exception of relatively minor and isolated modifications by Native Americans, the land was shaped by nature causes and was in various stages of continuous ecological succession ranging from mature or climax ecosystems to those recovering from disruption by natural forces such as wildfires, floods, volcanic eruptions, hurricanes, tornadoes and other natural phenomena. Certain wildlife species also played an important role in landscape maintenance, the most graphic illustration being grazing by millions of buffalo (bison) of grassland areas, particularly the great plains region, an essential ingredient in natural grassland ecological processes.

As human settlement progressed northward from what is now Mexico and westward from the east coast, the nature of the landscape was changed dramatically and vast areas

were permanently altered. By the 1880's, settlement of the coterminous 48 states was virtually complete and land use patterns were well established by the turn of the century. In the west, Federal land management systems, such as the National Forests, were established primarily from the public lands "left over" after settlement and, thus, do not always encompass all of the lands forming a complete ecological unit or natural system. Often, key wildlife habitat in ecological units is only partially federally owned and is surrounded or interspersed with non-Federal land holdings. As permanent settlement progressed, control of natural processes, such as fire, in areas not occupied or developed and still in public ownership, also modified plant successional stages in all or parts of many natural habitats on which numerous native wildlife species depended.

Established land patterns and uses are such today that few wilderness areas contain an entire ecosystem within their boundaries. Outside of Alaska, few wilderness areas or proposals are composed entirely of mature (climax) ecosystems, since all or various parts of them usually are in various stages of succession due to past disruption by man or by natural forces (the recent Mount St. Helens, Washington, volcanic eruption is a current example). No two wilderness areas are exactly alike because no two units contain identical components (soils, water, plants, geology or wildlife) and none is in the same stage of succession at the same point in time.

Today, the National Wilderness Preservation System consists of nearly 200 separate wilderness units, located in 41 States and is administered by four different Federal land management agencies, each with different land management missions as directed by various laws. These wilderness areas, individually and collectively, protect multiple resources values such as watersheds, recreation, and scenic beauty, and contain a wide variety of natural wildlife habitats important to the sustenance, in whole or in part of an equally wide variety of wildlife species. During its previous review of these existing wilderness units, prior to ultimate designation as wilderness, the Committee recognized that certain wildlife management activities were compatible, and sometimes essential, elements in the management of certain wildlife populations in many wilderness areas. Further, designation of a wilderness, the Nation's highest form of land dedication, in a part of a National Forest, National Wildlife Refuge, National Park or on public lands administered by the Bureau

of Land Management is "within and supplemental to the purposes" for which these land management systems are established and administered. Thus, when designated by Act of Congress, a wilderness is an overlay on a part of an existing Federal land management regimen which then is also administered pursuant to the management principles enunciated by the Wilderness Act. For example, management of wildlife populations through hunting is not changed by wilderness classification since, if an area was closed to hunting prior to wilderness designation, such as in a National Park, it remains closed to such use; if it was open to hunting, such as in a national Forest, it would remain open to hunting because wilderness classification has no bearing on such cooperative programs.

While a number of activities are permitted in a wilderness area (such as previously existing livestock grazing and use of certain mechanical equipment when the minimum necessary to properly manage an area), which could be interpreted as influencing the untrammeled nature of wilderness, designation of an area as wilderness primarily precludes permanent modification of an area through such activities as timber harvest, construction of permanent roads, dam building, erecting new permanent structures and facilities, and similar artificial modifications. The overriding principle guiding management of all wilderness areas, regardless of which agency administers them, is the Wilderness Act mandate to preserve their wilderness character.

Although the character of some wilderness areas (particularly those which may be located in the same geographic region) might appear to be identical, none contains the same ecological components which characterize an area in exact combination, and which, in turn, causes each wilderness to be different from all others. Most importantly, wilderness is much more than rocks, streams, vegetation and scenery. Native wildlife species are an integral and natural component of the character of wilderness on an interdependent basis with its physical features including soils, water, geology and plants. Indeed, the presence of native wildlife populations and wildlife habitat often constitutes one of the prime reasons for designating wilderness, and is one of the "conservation" purposes for which wilderness is to be managed pursuant to section 4(b) of the Wilderness Act and section 5(b)(3) of H.R. 7702. Thus, management of each wilderness should consider all of the various components which characterize an

area, including wildlife, and not limit management considerations to recreational uses, scenic qualities and physical features alone.

Wildlife conservation as a science is less than a half century old. Early in this century, wildlife population management consisted mainly of protecting desirable wildlife species from predators, transplanting preferred stock to depleted areas, regulating hunting pressure, and setting aside of sanctuaries. However, in the 1930's Aldo Leopold (now known as the father of wildlife management) found that there is a direct interrelationship



between animals and plants in any given ecosystem and that wildlife species composition and abundance are directly related to the successional stage of their individual habitats at a given point in time. In other words, different wildlife species are found in a mature, climax forest than in another previously forested area in an early stage of succession which is gradually recovering from disturbance and composed of grasses, herbs, brush, small trees and the like. Applying Leopold's theorem to field conditions, wildlife managers over the years have developed sophisticated techniques designed to hold a particular successional stage at a desired point in order to pyramid populations of favored wildlife species, primarily game animals. In addition, research programs have revealed that wildlife species utilizing a particular habitat niche is restricted only by the size and quality of that habitat or by the absence of one or more of the essential life-supporting elements of food, water or sanctuary.

While manipulation of plant successional stages

and providing missing habitat elements have become standard wildlife management principles throughout the country in the past 40 years, the primary goal of these management activities normally has been narrowly focused on the needs of so-called game species with ancillary, largely unplanned, benefits to some other wildlife species. In recent years, however, many wildlife managers have become increasingly aware of the need to assure, through statutory wilderness designation, the continuation of some wildlife species—both game and nongame—depending on a natural condition for survival. Here, too, Aldo Leopold, was a leading advocate. Leopold (and others) held that some wildlife species require a natural, wilderness condition for survival and that overzealous management emphasis on arresting plant succession in favor of pre-selected game animals could not only jeopardize

areas do protect habitat used seasonally which is critical to wildlife survival. For example, some ungulates, such as deer or elk, travel from summer ranges in the wilderness high country to winter ranges outside a wilderness; some migratory birds depend on parts of a wilderness for nesting purposes, or for resting during migration, or for wintering use. Year long habitat requirements of other wildlife species, such as bighorn sheep, mountain goat, some resident birds such as grouse, most native fish and other lesser known species are furnished by some wilderness areas.

Some wildlife species are very specific as to habitat requirements while others can adapt to change. Most wilderness wildlife has very specific habitat need. Since many wildlife species are dependent on wilderness habitats only seasonally, it is important that wilderness managers identify those factors which may be limiting wildlife utilization when absent or in short

wilderness dependent wildlife species, but could cause an imbalance in natural wildlife diversity.

The challenge to wilderness managers, then, is to meet the Wilderness Act mandate of maintaining the wilderness character of an area (including its native wildlife populations) through utilization of the minimum necessary tool when implementing management programs, while at the same time assuring a continued untrammeled condition. In addition, administrators are charged with the responsibility of protecting natural habitats required by all wildlife species whether year long residents, migratory species, or occasional visitors (with emphasis on habitat used by rare, endangered or threatened fish and wildlife), and not overly emphasizing management activities favoring some animals to the detriment of populations of other dependent wildlife species.

Established land patterns are such that few wilderness areas provide year long habitat needs of all wildlife species frequenting them; however, most wilderness

supply, and initiate activities to augment or restore them. For example, historically, desert bighorns ranged over a wide area in southern California, but as settlement occurred and a growing human populations occupied and used more and more space, the bighorn has been reduced to a fraction of the total area formerly utilized and populations have declined. (Key portions of the present range are encompassed by many of the areas designated as wilderness by H.R. 7702). As they were forced into less and less space, identification of limiting factors became an essential ingredient in bighorn survival. In most cases, the critical factor is assuring a permanent supply of water which also benefits many other wildlife species located in arid regions. Maintenance of existing water supplies is an accepted practice in most wilderness areas and development of additional water supplies is permitted, but only when essential to wildlife survival. The use of mechanical equipment by management agencies in this context is permissible,

cont. on pg. 10

Federal Protection Sought for State Wild and Scenic Rivers

By Wendy Cohen

Five Rivers Could Be Saved

Wendy Cohen was an intern this past summer with the State Department of Water Resources, as a participant in the California Tomorrow Environmental Intern Program.

Section 2(a) (ii) of the National Wild and Scenic Rivers Act allows state-designated wild and scenic rivers which meet the criteria of the National Act to be included by the Secretary of the Interior in the National System on the request of the Governor of the State involved. No Congressional action is needed under this section. On July 18, 1980, Governor Brown requested by letter that Secretary Andrus so designate Californias Wild and Scenic Rivers.

The rivers included in the request are portions of the Klamath, Trinity, Smith, Eel and American Rivers. The rivers are already protected from State water resources development and other detrimental activities. Designation under the National Act would additionally:

1. prohibit Federal construction, assistance or licensing of water resource projects that would adversely affect the values for which the rivers were designated;
2. prohibit new mining claims on Federal lands within ¼ mile of segments designated as wild;
3. require Federal agencies to reassess management policies, plans, regulations and contracts for conformance with the protection purpose of the National Act; and
4. require the State to continue administration of designated river segments to assure long-term protection of nonfederal land.

An Act of Congress would be required to remove any of the rivers from the system.

River segments would be classified as either wild, scenic or recreational according to accessibility and level of development. A wild segment must be

free of impoundments and generally inaccessible except by trail with watersheds and shorelines essentially primitive and waters unpolluted. A scenic segment must be free of impoundments and have watersheds and shorelines largely primitive and undeveloped, but may be accessible by roads in places. A recreational segment would be readily accessible by road or railroad, may have some development along shorelines, and may have undergone some impoundment in the past.

Eel River

The Eel River drains an area of about 3,600 square miles in portions of Mendocino, Humboldt, Trinity and Lake counties. The major tributaries include the Middle, North Fork and South Fork Eel and the Van Duzen Rivers.

The Eel drains areas of extreme erodibility and possibly transports more sediment than any other stream of its size in the world. This is due to the combination of high peak seasonal runoff, unstable soils and poor land use practices. In addition, timber harvesting, road building and extensive overgrazing have increased turbidity over natural levels.

The Eel supports a varied anadromous fishery and healthy trout fishery in the upper reaches. It ranks second in silver salmon and steelhead trout production and third in king salmon. Other gamefish include American shad, cut-throat trout, rainbow trout, green sturgeon, and several seawater species in the estuary. The most common resident species include Humboldt sucker, brown bullhead, green sunfish, threespined stickleback, roach and two species of sculpins.

Four reservoirs have been developed in the Eel Basin and some levees have been constructed for flood control. Significantly reduced flows due to PG&E



South Fork Trinity River

water exports have degraded fish habitat for a considerable distance below Van Arsdale Reservoir. However, the State Department of Fish and Game is working with PG&E to solve this problem.

The main focus for potential future water development on the Eel has been the Dos Rios site on the Middle Fork Eel which would inundate Round Valley.

The most likely project would be a multipurpose reservoir to provide flood control, water supply and hydroelectric power. The water would be pumped to the Sacramento River to become part of the State Water Project for delivery to water contractors in the San Joaquin Valley and Southern California. Construction of the reservoir would greatly aggravate already serious landslide and sedimentation problems in the water shed. This project would be foreclosed if the Eel was designated as a National Wild and Scenic River.

Klamath

The Klamath River, located in Siskiyou, Humboldt, and Del Norte counties in northern California as well as in southern Oregon, drains about 10,000 square miles in California. It is California's second largest river next to the Sacramento. Its largest tributary is the Trinity River which supplies about one-third of the total Klamath runoff. Other major tributaries include the Salmon, North and South Forks Salmon, Scott River and Wooley Creek. Some 283 river miles are proposed for national designation.

Water development on the Klamath has been minimal with four hydroelectric reservoirs upstream of the proposed segments. Water supply development on the lower Klamath was recognized to be infeasible even before passage of the State Wild and Scenic Rivers Act (WSRA), and no

projects are presently contemplated.

Some water quality degradation has occurred due to erosion and sedimentation from logging road construction and road maintenance. Placer mining has also resulted in damaged stream channels, high turbidity and sedimentation.

The fishery resources on the Klamath includes salmon, steelhead, resident trout, sturgeon and shad. Fishing continues throughout the year. The Klamath is the most important producer of silver salmon and steelhead trout in California and is second only to the Sacramento River in king salmon production. However, king salmon runs have decreased from 71,000 to 10,000 fish since 1966.

Seven miles of Wooley Creek and three miles of North Fork Salmon River are in areas proposed for wilderness designation in Rep. Phil Burton's Wilderness Bill (HR 7702). The bill passed the House of Representatives in August and is being considered by the Senate. If signed into law, no development or motorized activities would be allowed.

Trinity

The Trinity River, which is the largest tributary of the Klamath River, is located in Trinity and Humboldt counties. It drains an area of about 3,000 square miles. Its primary tributaries include the North Fork Trinity, South Fork Trinity and New River. The Trinity River Basin is heavily forested and dominated by steep, rugged mountain and narrow valleys. Elevations range from 170 to 9,025 feet. About 200 river miles are proposed for national designation.

The upper Trinity River was developed by the Federal government in the late 1950's. The Trinity River Project includes two reservoirs, Clair Engle (Trinity) and Lewiston, just

Gov. Brown Asks Andrus For Help

State Resources Secretary Huey D. Johnson has created a special task force to expedite state planning in support of Governor Edmund G. Brown Jr.'s request that all of California's wild and scenic rivers be added to the Federal wild and scenic rivers system.

Addition of the State rivers to the national system of wild and scenic rivers was requested in July by Governor Brown in a letter to Secretary of Interior Cecil D. Andrus.

In his letter the Governor noted, "Some of the nation's most striking rivers still flow freely through the rugged mountains of northern California to the sea. These productive rivers and their watersheds are the basis of northern California's economy. They are a stirring symbol of the force and beauty of the natural world as well."

The request for inclusion in the Federal wild and scenic rivers system is based on a provision of the Federal Wild and Scenic Rivers Act which provides for adding State-designated wild and scenic rivers to the national system.

California rivers designated by the Legislature as part of the State wild and scenic rivers system include all or parts of the Klamath, Scott, Salmon, North Fork Salmon, Wooley Creek, Trinity, North Fork Trinity, South Fork Trinity, New, Smith and all its tributaries, Eel and its south, middle, and north forks, Van Duzen and Lower American rivers.

Addition of the rivers to the national system of wild

and scenic rivers would preclude construction of federal dams or projects that would impact the rivers.

Johnson has charged several of the Resources Agency's departments, including Water Resources, Fish and Game, Forestry, Parks and Recreation, and Boating and Waterways with responsibility to assist in completing the required river management plans and environmental reports in time for Andrus to approve the transfer by the end of the year. Work of the State departments will be coordinated by Vera Marcus, Assistant to the Secretary for Resources for Environmental Programs.

The State departments will work in cooperation with the U. S. Heritage Conservation and Recreation Service which will be the lead Federal agency in preparation of the necessary Environmental Impact Statements and other studies.

"These wild and scenic rivers are more than an important part of California's heritage", Johnson said. "Adding them to the Federal wild and scenic rivers system provides necessary protection from Federal projects and recognizes that they also are part of our national heritage and should be preserved for the economic and recreational benefit of present and future citizens of our state and nation. If we act now, we can preserve this heritage. If the free-flowing nature of these rivers is lost, that heritage can never be regained."

upstream of the proposed segments. Approximately 90% of the runoff is diverted from Lewiston Reservoir through a tunnel to Whiskeytown Lake for power and use in the Central Valley Project service areas.

Operation of the Trinity River Project lead to severe declines in the fisheries. Prior to operation, spawning runs in the upper reaches of the river ranged from 50,000 to 60,000 fish. The population has since declined to 5,000 in 1978. During the past four years, more water has been released on an experimental basis to benefit fish, and a fish hatchery was constructed below Lewiston Dam in an attempt to mitigate loss of spawning grounds. Resident gamefish include rainbow trout, brown trout and small-mouth bass. Small runs of American shad occur in the lower reaches and white sturgeon enter the lower Trinity and South Fork Trinity Rivers.

Since passage of the State Wild and Scenic Rivers Act, the Federal government has discontinued studies of further water resources development in the Trinity

Basin, and there are currently no plans for construction of new Federal projects on the Trinity or any of its tributaries.

Some 11.5 miles of the North Fork Trinity and two miles of the New River are proposed for wilderness designation in HR 7702 which recently passed the House of Representatives. All development activities and motor vehicle use would be prohibited in those areas if the bill becomes law.

Smith

The Smith River, located in Del Norte and Siskiyou counties of California and in southwestern Oregon, drains an area of about 630 square miles in California. The major tributaries include the Middle Fork, North Fork and South Fork Smith Rivers.

The Smith River is renowned for exceptionally large salmon and steelhead and the best sea-run cutthroat trout fishing in California. During the summer the upper reaches offer excellent fishing for resident rainbow and



Van Duzen River

Impacts of Wild and Scenic Designation

The Draft Environmental Impact Statement (DEIS) prepared for the proposed Wild River designations for five California rivers has six alternatives. The following is an analysis of the impacts of the proposed action and a discussion of the other alternatives.

State's Proposal

The State's proposal is contained in Alternative B and is the most conservation-oriented alternative. The proposal would include in the National Wild and Scenic Rivers System 238 miles of the Klamath River system, 200 miles of the Trinity River system, 3,100 miles of the Smith River system, 394 miles of the Eel River system and 23 miles of the Lower American River. A total of 4,000 river miles would be designated. Segments of these rivers would be classified as wild, scenic or recreational (see article on Background).

All of the rivers are already included in the State Wild and Scenic Rivers System. As such, they are protected from State water resources development and have restrictions on other detrimental activities. The main impact of national designation would be to preclude any Federal water resources development on the rivers. Designation would also affect timber harvesting, mining, fisheries and recreation. These impacts are discussed below.

Water Resources Development

On the Smith, Trinity and Klamath Rivers, there are currently no plans for new water projects. The Dos Rios project on the Eel River (see article on Eel River) and

the Folsom-South Canal on the Lower American River (see article on Lower American River) would be foreclosed because of Wild and Scenic status.

Changes in flow regime from upstream reservoirs would still be allowed if there are no adverse effects on the rivers. Increased flows (for example, from Lewiston Dam on the Trinity River) would have a positive effect on downstream values. Designation of the rivers as Wild and Scenic could encourage such increased releases.

Timber

The Bureau of Land Management and Indian tribes along the Klamath, Trinity and Eel already manage their lands in conformance with California Wild and Scenic Rivers Act. U.S. Forest Service timber management would not change with national designation on the following: portions of the Scott, Wooley Creek, most of the Salmon and Klamath Rivers; the New, North Fork, South Fork and mainstem Trinity Rivers; the Middle Fork Eel River; and Middle Fork, North Fork and portions of South Fork Smith Rivers (exclusive of tributaries).

Timber harvesting would be adversely affected on the North Fork Eel (1/2 million boardfeet reduction annually) and many smaller tributaries (2,740 miles) of the Smith (22 million boardfeet reduction annually). These figures are a maximum and probably too high, however, because all Smith tributaries were assumed to be classified as wild. Many will probably be designated scenic or recreational, and some logging would be allowed. The North Coast timber yield is declining in any case due to previous rapid

logging and poor reforestation.

The Draft Environmental Impact Statement (DEIS) estimates an annual loss of \$58.3 million in timber value and a \$24.1 million loss in income per year nationwide. Also, some 530 jobs are expected to be lost nationwide (150 in the North Coast region). Again, These are maximum figures.

Mining

New mineral entry would be prohibited within 1/4 mile of a river segment classified as wild. Mineral exploration on scenic and recreational segments would be considered on a case-by-case basis to ensure no adverse effects on the rivers.

The main impact of the State's proposal would be on sand and gravel operations. These operations exist adjacent to all rivers segments but by necessity are next to roads. Therefore, wild classification, which depends on roadless condition, would not impact existing operations. Future sand and gravel extraction on scenic and recreational segments would probably have more restrictions which would raise production costs by about 5%.

Fisheries

The State's proposal would result in significant beneficial impacts on fisheries, especially on the Smith and Eel Rivers where timber harvesting and road building would be curtailed. Fisheries on the Trinity, Eel and Lower American could improve as well if releases are increased from upstream reservoirs. Fish populations, especially salmon and other anadromous fish, could return to historical levels.

The DEIS estimates that commercial fisheries could gain some \$40.3 million per year from national designation. In addition, 600 jobs would be created in the fishing industry nationwide (150 in the region).

Recreation

The State's proposal would preserve 4,000 miles of river in freeflowing condition. This in turn would cause increases in recreation such as whitewater boating, canoeing, rafting, camping, fishing, sightseeing, photography and organized camping. Stream fishing would see especially significant increases on the Smith River where changed timber harvest practices would improve water quality and the anadromous fishery. Construction of new recreational facilities would be limited to protect the rivers from overuse, but existing facilities would not be affected.

The DEIS estimates that recreational use would increase by 984,000 recreation-use days over the no action alternative, to a total of 4,727,000 visitor days per year. Some 63 jobs would be created (29 in the region) and there would be an increase of \$379.7 million per year in income nationwide.

Other Alternatives

Besides the State's proposal, Alternative B, the

cont. on pg. 19



TIM-M-M-M-M-M-M-M-BER-R-R-R!

Dennis Renault, The Sacramento Bee

Bosco Bill Dies

WILD RIVER BILL A bill aimed at dismantling protection of California's wild and scenic rivers apparently is dead for the 1980 legislative session.

The measure, Assembly Bill 1581 by assemblyman Douglas Bosco, was sponsored by the California Forest Protective Association.

It was to have been taken up for concurrence by the Assembly Resources, Energy, and Land Use Committee in amendments made by the Senate.

Bosco said its chances for passage were slim after Governor Brown asked U.S. Interior Secretary Cecil Andrus to place the state's

protected rivers in the federal wild rivers system. Brown's move toward federal protection of the rivers made it extremely doubtful Brown would sign the bill if it did pass.

Bosco said he might reintroduce his bill in the next legislative session.

cutthroat trout.

Water quality in the Smith River is generally good. Because it is a short system, the river tends to clear quickly after storms. However, on several tributaries mining activities have caused some mercury and copper contamination, and sand and gravel operations have caused turbidity problems. Sedimentation results from sheet and gully erosion, timber harvesting and road building. Road construction, maintenance procedures and land use practices have improved in the last few years, and with minor restrictions on activities along the river, the fishery could be restored to historical levels.

There is no major water development in the Smith Basin and there are currently no plans for development.

The State's proposal for the Smith River has met with heated opposition from the timber industry, which claims that the entire watershed would be closed to timber harvesting. According to the Draft Environmental Impact Statement, some 22 million boardfeet annually would be foregone. However, this is a maximum, worst-case estimate assuming all tributaries are classified as wild and no cutting would be allowed. In reality, some logging would probably occur. In addition, if some of the tributaries were classified scenic or recreational, the impact would be lessened consid-

erably. Finally, timber yields are declining on the North Coast in general due to previous rapid cutting and poor reforestation.

American

The Lower American River, located in Sacramento County, is 23 miles long from Nimbus Dam to its confluence with the Sacramento River. It meanders through a 4,800-acre flood plain which is bordered by low bluffs on the upper course and levees on the lower course. Most of the flood plain is owned by the City or County of Sacramento and is managed cooperatively as the American River Parkway.

Water quality on the Lower American is good to excellent with no temperature or turbidity problems. Existing wastewater discharges degrade water quality slightly but over the next few years, these treated wastewaters will be routed to a new treatment plant south of Sacramento and discharged to the Sacramento River.

The Lower American River is lined with lush riparian growth including walnut, oak, cottonwood and sycamore trees. An endangered species of grass, *Orcuttia californica* var. *viscida*, also is found along the river. The wildlife community supported by this hardwood riparian vegetation has been disturbed by high public use along the American River Parkway.

The anadromous fishery

on the Lower American includes salmon, steelhead, striped bass and American shad. A small warmwater population of largemouth black bass, various other sunfish and catfish along with a few trout occur as well. The excellent fishing depends on continued high releases from Nimbus Dam. The future of these releases is highly uncertain.

Upstream of the Lower American are Nimbus and Folsom Dams. The Folsom-South Canal, which diverts water from the river at Nimbus Dam, was originally planned to serve customers in Sacramento San Joaquin, and Alameda and Contra Costa counties. Only part of the canal has been built and water is diverted mainly for cooling at the Rancho Seco Nuclear Powerplant.

Auburn Dam is proposed to be built upstream of Folsom to store water for the Folsom South service area contractors. However, the State Water Resources Control Board (SWRCB) has established minimum flow requirements for the Lower American. There is not enough water in the American River to meet both the needs of the Folsom South customers and the increased flows in the Lower American. Although the minimum flows probably would apply only if Auburn Dam is built, the SWRCB's decision is currently in litigation and its status is uncertain.

If the Lower American is designated a National Wild and Scenic River, the Folsom-South Canal



South Fork Salmon River

extension would be foreclosed because the water would be needed for maintenance of recreational and fishery values. An alternative is a canal from Hood on the Sacramento River to the terminus of the existing Folsom-South Canal, called the Hood-Clay Canal. Water would be allowed to flow through the Lower American and then

be diverted from the Sacramento River to serve San Joaquin county. This alternative, however, would cost an additional \$100.9 million.

Congress is currently considering re-authorization of both Auburn Dam and Folsom-South Canal. Construction funds would also have to be appropriated.

Many New Wilderness Areas Would Be Established By Burton's Bill

North Coast

Castle Crags Wilderness—The 7,300 acre recommendation in the Shasta-Trinity National Forest is identical to that proposed by the President and lies adjacent to the proposed Castle Crags State Wilderness.

Chancelulla Wilderness—8,200 acres are proposed for wilderness following the boundaries recommended by Trinity County. 3,700 acres of the roadless area will become available for timber harvesting or other nonwilderness multiple uses.

Marble Mountain Additions - The 38,000 acres of additions to the existing Marble Mountain Wilderness consist of RARE II units Portuguese, Snoozer, and Kelsey which were recommended for wilderness by the President as well as portions of the Shackelford and Portuguese roadless areas.

North Fork Wilderness - Recommended for wilderness by Trinity County, the proposed wilderness centers around the canyon of the North Fork of the Eel River and is generally underlain by highly unstable, erosion-prone soils. Although the area contains some commercial timber, the Interior Committee felt the volumes present are not great enough to justify the risk of environmental damage that might accompany development.

Pattison Wilderness—The 28,000 acre proposed wilderness was proposed by Trinity County. It consists of rugged terrain ranging from 1,300 to 5,500 feet in elevation.

Red Buttes - Identical to the proposal of the President, this 25,300 acre area is located in the

Klamath and Rogue River national forests along the California-Oregon border. The roadless area continues into Oregon, but those lands are not addressed in the bill. However, 40,000 acres of the roadless area in California will continue to be classified "non-wilderness."

Russian Wilderness—The 12,000 acre proposed wilderness is located in the Klamath National Forest and is sometimes known as the Salmon-Scott divide. Included in the wilderness will be one of the richest and most diverse forests in the world; however, 22,000 additional acres will continue to be designated as "non-wilderness."

Siskiyou Wilderness—Of a total roadless area of some 280,000 acres, the proposed wilderness protects 101,000 acres. Another 90,000 acres of adjacent roadless lands are slated for further wilderness study. Except for a 1,000 acre addition around Kelley Lake, the wilderness recommendation coincides exactly with the boundaries recommended by the President.

Until Congress determines otherwise, the lands in the Eightmile and Blue Creek Planning Areas will be managed so as to maintain their presently existing wilderness character. Timber volumes, however, will remain in the base used to determine the potential yield for the national forests concerned. A corridor has been left for possible construction of the Gasquet-Orleans (GO) road.

The Committee also determined that the North Fork Smith roadless area should be downgraded to "non-wilderness" status

and that nothing should interfere with cobalt mining in this area.

Snow Mountain Wilderness—The proposed 37,000 acre wilderness in the Mendocino National Forest coincided almost exactly with the area which Congress designated for wilderness study in 1976.

Trinity Alps Wilderness—This 500,000 acre proposed wilderness is the largest single wilderness in the bill. The Trinity County recommendations were followed for much of the area. Outside the County, the Committee incorporated several of the President's wilderness boundary recommendations and also protected key lands in the existing Primitive Area. Heavily timbered lands in the Klamath National Forest were largely excluded from wilderness, including much

of the western portion of Orleans Mountain "further planning" area.

A 30,000 acre Orleans Mountain Planning Area is proposed in the Horse Linto Creek-Grogan Hole-Bret Hole area. The three-year study will consider the possible development of a downhill ski area.

Yolla Bolly-Middle Eel Additions - The proposed 46,000 acres of wilderness additions protect key portions of the watershed of the North and Middle Forks of the Eel River, and were recommended for wilderness as part of the comprehensive Trinity county RARE II package. The wilderness boundary of the proposed additions stops at the Trinity County-Mendocino County line, but the lands in Mendocino County will remain in "further planning" status.



Granite Chief

Photo by Phil Farrell

Northern Sierra

Caples Creek Wilderness This 14,000 acre area is in the Eldorado National Forest between highways 50 and 88.

Carson-Iceberg Wilderness—The proposed 190,000 acre wilderness lies in the Stanislaus and Toiyabe national forests between Ebbetts Pass and Sonora Pass. The Interior Committee augmented the President's wilderness proposal by dividing the southern portion of RARE II "further planning" area B5986 and adding some 6,000 acres thereof in the vicinity of Burgson Lake, Wheat Meadow, Clover Meadow, which may be flooded by the enlargement of Spicer

Meadows Reservoir. The lands around Gabbotts Meadow and Highland Creek will have their "further planning" status terminated and thus will be available for timber harvest and other nonwilderness uses, including possible future construction of the Spicers dam enlargement. The "further planning" status for the Pacific Creek-Grouse Creek area will not change.

The Interior Committee also insured motorized access for two livestock grazing permittees in the Wolf Creek drainage within the proposed wilderness. While allowing this special exception to normal

wilderness management, the Committee recommended a locked gate near the wilderness boundary to eliminate any motorized use other than that of the permittees.

Emigrant Wilderness Additions - This 6,100 acre, four unit addition to the existing Emigrant Wilderness comprises the Cherry Creek Wilderness study area. Coupled with the Hoover Wilderness additions in the bill, it will complete the "missing link" of wilderness designations which buffer the entire north end of Yosemite National Park.

Granite Chief Wilderness Located in the Tahoe National Forest some five miles west of Lake Tahoe, the proposed 25,000 acre wilderness protects only the upper two-thirds of the roadless area. The Interior Committee was unable to make a final decision on the southern 10,000 acres south of Bear Pen Creek which will remain in "further planning."

The Committee reviewed the North Fork American roadless area and decided to terminate the "further planning" status of the area with no wilderness designation. The entire area will be

available for timber harvesting and other nonwilderness multiple uses.

Hoover Wilderness Additions - This 49,200 acre addition to the existing Hoover Wilderness completes a wilderness buffer along the northern edge of Yosemite National Park.

Ishi Wilderness - The 41,840 acre proposed Ishi Wilderness east of Red Bluff contains the core of the roadless area. Additional lands north and south will remain in "further planning."

The committee also looked at the Mill Creek and Polk Springs roadless areas and terminated their "further planning" status.

Mokelumne Wilderness Addition—The 60,000 acres of proposed additions to the Mokelumne Wilderness contain 16 named lakes and numerous other smaller lakes and ponds. The additions will include lands around 10,011 foot Raymond Peak. All potential expansion sites for Kirkwood and Mt. Reba-Bear Valley ski areas have been excluded; lands not proposed as wilderness will have their "further planning" status terminated.

Modoc Plateau

Caribou Wilderness Additions—The 1,800 acres of proposed wilderness additions will extend the existing wilderness boundary to conform with more recognizable features on the ground. The southern addition also borders a portion of the existing wilderness in Lassen National Park.

Cinder Buttes Wilderness—The 15,500 acre wilderness proposal, identical to that proposed by the President, lies in the Lassen

National Forest and encompasses a single volcano which is largely devoid of vegetation.

Lassen Volcanic Wilderness—This 3,900 acre proposal would extend the Lassen Volcanic National Park Wilderness to National Forest lands in the north and south. However, these additions would continue to be administered by the Forest Service.

Mount Shasta Wilderness—The 37,000 acre wilderness proposal will protect the

upper reaches of spectacular, 14,162 foot Mt. Shasta. The new wilderness area will be larger than the inventoried roadless area and 10,000 acres larger than the President's recommendation.

At the request of Congressman Harold T. "Bizz" Johnson and local ski groups, the Interior Committee agreed to exclude about 1,000 acres of the roadless area, including 620 acres proposed for wilderness by the President,

in the Giddy Giddy Gulch and Sand Flat area. This critical area contains the largest remaining stand of Shasta red fir and is a popular area for primitive recreation. Conservationists will continue to press for preservation of this important area.

South Warner Wilderness Additions—This 1,940 acres of minor additions to the existing wilderness is in 5 parts and generally conforms the wilderness boundary to features which are more readily recognizable on the ground.

Thousand Lakes Wilderness Additions - Identical to the President's proposal, the 7,000 acres of wilderness additions extend the existing section line boundaries of the wilderness to natural features.

Timbered Crater Wilderness - The proposed wilderness consists of a "core" 18,000 acre tract of public lands administered by the Bureau of Land Management plus three units, totaling 4,400 acres, of surrounding lands in the Lassen National Forest. The State of California is considering State Wilderness classification of adjacent lands.



Mt. Shasta

Photo by Steve Johnson

Central Coast

Dick Smith Wilderness - This 67,000 acre wilderness proposal lies contiguous to the existing San Rafael wilderness in the Los Padres National Forest (they are separated only by a fire road) and contains a wide variety of wildlife species, including the endangered California condor. The Buckhorn Fire Road, where it passes between the Dick Smith and San Rafael wilderness areas, will be closed to all motorized vehicles except those used by the Forest Service for administrative purposes.

In a departure from its normal policy the commit-

tee honored requests from numerous local groups and civic organizations to name the area for the recently deceased journalist and naturalist, Dick Smith.

San Rafael Additions - This 2,500 acre addition extends the existing wilderness boundary to more definable features on the ground and contains some fine stands of the uncommon Sargent cypress.

Ventana Wilderness Additions - This small 2,750 acre addition to the existing wilderness completes the watershed protection for Tassajara Creek, and contains significant wildlife habitat.

Southern Sierra

Boundary Peak Wilderness - This extremely rugged area, in the Inyo National Forest lies along the California-Nevada border and comprises the backbone of the White Mountains, the Nation's highest desert mountains. The proposed wilderness is limited to the 49,900 acre portion in the State of California, and coincides exactly with the boundaries recommended by the President. Contiguous wilderness and further planning recommended lands in the State of Nevada will be addressed in future legislation. The area is entirely surrounded by roadless lands which were allocated to "further planning" in the RARE II process. This proposal is not intended to interfere with the further wilderness evaluation of these 250,000+ acres of wild land.

Deep Wells and Excelsior Wilderness - The 7,600 acre Deep Wells Wilderness is separated from the proposed 46,400 acre Excelsior Wilderness by a powerline corridor which is one of the few marks of

mankind in a very remote area along the California-Nevada border east of Mono Lake. An additional 124,000 acres of recommended wilderness in Nevada will be considered in subsequent legislation.

Dinkey Lakes Wilderness - This 30,000 acre wilderness located in the Sierra National Forest is separated from an expanded John Muir Wilderness by a 600 foot corridor for the Dusey jeep trail.

Dome Land Wilderness Additions - The 31,000 acres of additions to the Dome Land Wilderness consists of the 1,100 acre "Domeland II" RARE II roadless area and the eastern two-thirds of the "Woodpecker" roadless area. Lands in the Siretta Peak/Little Trout Creek area will be available for timber harvesting or other nonwilderness multiple uses.

John Muir Wilderness Additions - 9,000 acres of the Inyo National Forest and 82,000 acres of the Sierra National Forest will be added to the existing John Muir Wilderness. The

western additions consist of the 20,000 acre Woodchuck roadless area and portions of the Rancharia and Dinkey Lakes roadless areas. Part of these additions will be separated from the proposed Dinkey Lakes Wilderness by a 600 foot jeep trail. Portions of the Rancharia and Dinkey Lakes roadless areas will have their "further planning" status terminated and will be opened to timber harvesting and other nonwilderness multiple uses. Also, the Chain Lakes jeep trail from Spanish Lake to Little Rancharia Creek was excluded from wilderness, but it will be open only for two weeks each year.

Minarets Wilderness Additions - This addition to the existing wilderness is in two units, one of 2,500 acres in Inyo National Forest and the other of 6,500 acres in Sierra National Forest.

Monarch Wilderness - The bulk of this 45,000 acre proposed wilderness consists of the Forest Service's 1974 recomenda-

tion for a 30,689 acre Monarch Wilderness, including the High Sierra Primitive Area. The Interior committee augmented the 1974 proposal by adding the portion of the Kings River roadless area which was recommended for wilderness by the President and the northern half of the Agnew roadless area. The southern half of the Agnew roadless area was excluded from the wilderness proposal due to its commercial timber and ski development potential; "further planning" status for this area will be terminated.

San Joaquin Wilderness - As the name implies, the 110,000 acre proposed wilderness encompasses large segments of the watersheds of the North Fork, Middle Fork, and South Fork of the San Joaquin River. Sometimes called the "missing link," the wilderness will connect the existing John Muir and Minarets wilderness areas to form a continuous belt of legislatively protected and

undeveloped wilderness stretching from Tioga Pass in Yosemite National Park to Kennedy Meadows some 150 miles to the south.

The Interior Committee did provide that the wilderness designation will not impede future construction of the so-called Granite Creek-Jackass hydroelectric project which would require construction of a diversion dam and tunnel in the North fork drainage in the vicinity of Iron Creek. The committee also drew the boundary of the proposed wilderness to exclude the more accessible commercial timber stands on the fringes of the area, to leave the option open for possible future ski development in the Sherwin Bowl and east side of the San Joaquin Mountain ridge, and to permit continued motorized access to a trailhead near Four Forks Creek on the east side of the South Fork. A special provision was included to permit continued motorized access to a cabin and grazing facilities near Heitz

Meadow Guard Station in the "Pincushion" portion of the wilderness.

Scodies Wilderness - The Pacific Crest Trail runs for several miles through the heart of this scenic 48,000 acre area which contains part of the watershed of the South Fork Kern River and perhaps the finest Pinyon Pine forest in the State.

South Sierra Wilderness - The 77,000 acre proposal consists of prime native golden trout habitat in, and adjacent to, the South fork of the Kern River. The wilderness boundary selected by the Committee abuts the Monache Wilderness Study Area also designated by the bill. Although the lands in the study area form an integral component of the ecosystems protected by the South Sierra Wilderness, the Committee felt off road vehicle and timber related issues dictated a further wilderness review of the Monache area. The bill provides for a three-year study of the 42,000 acre study area.

HR 7702 Would Establish New Forest Wilderness Areas

NEW FOREST WILDERNESS AREAS TO BE ESTABLISHED BY H.R. 7702

		acres
Boundary Peak (White Mtns)	Inyo	49,900
Caliente	Cleveland	5,900
Caples Creek	Eldorado	14,000
Caribou Additions	Lassen	1,800
Carson-Iceberg	Stanislaus-Toiyabe	190,000
Castle Crags	Shasta-Trinity	7,300
Chancellula	Shasta-Trinity	8,200
Cinder Buttes	Lassen	15,500
Cucamonga Additions	Angeles	4,400
Deep Wells	Inyo	7,600
Dick Smith	Los Padres	67,000
Dinkey Lakes	Sierra	30,000
Domeland Additions	Sequoia	31,000
Emigrant Additions	Stanislaus	6,100
Excelsior	Inyo	46,400
Fish Canyon	Angeles	32,900
Granite Chief	Tahoe	25,000
Granite Peak	San Bernardino	10,600
Hauser	Cleveland	8,000
Hoover Additions	Toiyabe	49,200
Ishi	Lassen	41,840
John Muir Additions	Inyo	9,000
John Muir Additions	Sierra	82,000
Lassen Volcanic Additions	Lassen	3,900
Marble Mts. Additions	Klamath	38,000
Minarets Additions	Sierra and Inyo	9,000
Mokelumne Additions	Eldorado, Stanislaus and Toiyabe	60,000
Monarch	Sierra and Sequoia	45,000
Mt. Shasta	Shasta-Trinity	37,000
North Fork (Smith River)	Six Rivers	8,100
Pattison	Shasta-Trinity	28,000
Pine Creek	Cleveland	13,100
Pyramid Peak	San Bernardino	17,000
Red Buttes	Klamath and Rogue River	25,300
Russian	Klamath	12,000
San Geronio Additions	San Bernardino	21,500
San Jacinto Additions	San Bernardino	10,900
San Joaquin	Sierra, Inyo, and Devil's Postpile	110,000
San Mateo Canyon	Cleveland	39,540
San Rafael Additions	Los Padres	2,000
Santa Rosa	San Bernardino	20,160
Scodies	Sequoia	48,000
Sheep Mt.	Angeles and San Bernardino	44,600
Sill Hill	Cleveland	5,200
Siskiyou	Six Rivers, Klamath and Siskiyou	101,000

Snow Mt.	Mendocino	37,000
South Sierra	Sequoia	77,000
S. Warner Additions	Modoc	1,940
Thousand Lakes Additions	Lassen	7,000
Timbered Crater	Lassen	22,000
Trinity Alps	Shasta-Trinity and Six Rivers	500,000
Ventana Additions	Los Padres	2,750
Yolla Bolly-Middle Eel Additions	Six Rivers and Mendocino	46,000

* indicates that this acreage includes a substantial portion of BLM lands.

SPECIAL AREAS

Monache Wilderness Study Area (to be protected until Congress determines otherwise) Sequoia 42,000

North Mt. Planning Area (to be protected until Congress determines otherwise; timber volume included in the base used to determine potential yield for the forest) Stanislaus 4,000

Six Rivers Planning Areas
 —Eightmile and Blue Creek Six Rivers and Klamath 60,000
 —Orleans Mt. Six Rivers 30,000
 (Ski study for Orleans Mt., all areas protected until Congress determines otherwise; timber volumes included in the base used to determine potential yield for each forest)

Dillon Creek (Section 14 of the bill, entitled "Dillon Creek," was reported out of committee as a blank page, pending agreement between Mr. Burton and Mr. Johnson on the status of the 30,000 acre area)

NATIONAL PARK ADDITIONS (from Forest Service lands)
 North Mt. Yosemite 4,000
 Mt. Raymond Yosemite 7,000
 Jennie Lakes Sequoia-Kings 12,000

NATIONAL PARK WILDERNESS
 Yosemite 676,600
 Yosemite Potential Wilderness Additions 3,550
 Sequoia-Kings Canyon 736,980
 Sequoia-Kings Canyon Potential Wilderness Additions 100

The Yosemite boundary is close to the latest NPS proposal, including Little Yosemite Valley and coming far down the walls of Yosemite Valley.

Southern California

Caliente Wilderness - The proposed 5,900 acre wilderness is located in the Cleveland National Forest and lies on the western slope of San Diego County's highest mountains. It lies adjacent to proposed State wilderness in Anza-Borrego Desert State Park.

Cucamonga Wilderness Additions - The committee's proposal is identical to the President's, and would add 4,400 acres of very rugged terrain containing important Nelson bighorn sheep habitat, to the existing Cucamonga Wilderness in the Angeles National Forest.

Fish Canyon Wilderness - Identical to the President's recommendation, the proposed Fish Canyon

Wilderness is only some 35 miles from the heart of Los Angeles. The entire 32,900 acre area is comprised of extremely rugged terrain and is part of the flyway used by the California condor.

Granite Peak Wilderness - The proposed 10,600 acre wilderness lies near the edge of the Mojave Desert and includes the world's largest Joshua tree.

Hauser Wilderness - The 8,000 acre proposed wilderness is located in the Cleveland National Forest directly south and adjacent to the proposed Pine Creek Wilderness.

Pine Creek Wilderness - Recommended for wilderness by the President, the

13,100 acre proposal lies some 30 miles east of San Diego in the Cleveland National Forest.

Pyramid Peak Wilderness - The proposed wilderness is located in the San Bernardino National Forest about 12 miles south of Palm Springs. The boundaries are the same as the 17,000 acres proposed by the President and include checkerboard private inholdings which the Committee trusts will be consolidated into Federal ownership.

San Geronio Additions - This 21,500 acre addition to the existing wilderness was proposed by the President in three main parts. The 700 acre Forsee Creek addition

is a steep north-facing slope with an excellent view of the Santa Ana River Canyon and Sugarloaf Mountain. Another 700 acre addition consists of rugged and spectacular terrain to the north of the South Fork. The main addition of 19,000 acres is in the Raywood Flat area.

San Jacinto Additions - The 10,900 acres of additions are identical to those proposed by the President. The Interior Committee did preserve the option of constructing up to two 500 KV transmission lines in a 330 foot corridor through a portion of the northernmost addition if it becomes necessary in the near future.

Santa Rosa Wilderness - The 20,160 acre proposed

wilderness is separated from the existing 87,000 acre Santa Rosa Mountains State Wilderness by BLM roadless lands which are under study for wilderness as part of the California Desert Conservation Area. The area is included in wilderness with the understanding that ongoing activities to enhance the area's natural values through the protection and perpetuation of the bighorn sheep herd will not be impaired.

Sheep Mountain Wilderness - Lying within some 25 air miles and a one hour drive of downtown Los Angeles, the proposed 44,600 acre wilderness covers the bulk of the 52,000

acre Sheep Mountain Wilderness Study Area. In drawing the boundary for the proposed wilderness, the Committee generally followed the line proposed by Congressman Jim Lloyd. This line precludes future ski development on the northeast side of Mt. San Antonio in order to protect key bighorn sheep summer range and migration routes.

Sill Hill Wilderness - The proposed 5,200 acre wilderness comprises the west slope of Cuyamaca Peak, San Diego County's most prominent and second highest mountain. The area shares a four-mile boundary with Cuyamaca Rancho State Park.

State Wild Rivers

cont. from page 7

Draft Environmental Impact Statement contains seven other alternatives with varying impacts.

Alternative A is the no action alternative required by law. All current activities would continue and the rivers could be considered for Federal water resources development.

Alternative C is the same as the State's proposal except that the Middle Fork of the Eel River is excluded from Wild and Scenic designation. Under this alternative, the Dos Rios project (see article on Eel River) would not be foreclosed and the option of Federal water resources development on the Middle Fork would be retained. Although the Middle Fork would still be precluded from State water projects as a State Wild and Scenic River, a report is due to the Legislature by 1984 on the need for Eel River water. The Legislature will decide at that time whether to delete the Eel from the State system.

Alternative D is the same as the State's proposal except that the Lower American River is excluded from Wild and Scenic designation. This would retain the option of completing the Folsom-South Canal as authorized by Congress

(see article on Lower American River). Diversion of additional water from the river at Nimbus Dam would further reduce summer flows in the Lower American. Fish populations would decline and recreational opportunities would be reduced.

Alternatives E and F are the same as the State's proposal except that varying amounts of the Smith River system are included. Alternative E would designate, besides the mainstem and Middle, North and South Forks Smith, only those tributaries that have high anadromous fishery values or that have potential for rehabilitation of those fishery values. This alternative would maximize protection of anadromous fish habitat while allowing current Forest Service land management practices to continue over a larger area than Alternative B. This means timber harvesting would continue at current rates over much of the basin. The total river miles designated under this alternative is 1,260.

Alternative F would designate even less of the Smith River than Alternative E. Smith River designation would include only the mainstem, Middle

Fork, North Fork, South Fork, Siskiyou Fork and South Siskiyou Fork Smith. Timber harvesting and other land management practices would continue over most of the Smith River watershed. Total river miles designated would be 1,013.

Alternative G was included at the request of the Forest Service and excludes all river segments that pass through National Forests. The Forest Service would like to deal with wild and scenic river designation and classification as an integral part of their current planning efforts. Impacts of this alternative would depend on decisions made in the Forest Plans to be completed in 1981 and 1983. In any case, all river segments are protected until the Secretary of Interior renders a decision on the Governor's request.

Finally, Alternative H excludes all river segments that pass through Indian lands in recognition of the right of Indian tribes and groups to control and manage their own lands. However, these river segments are already managed in accordance with the California Wild and Scenic Rivers Act so no impacts different from Alternative B would occur.

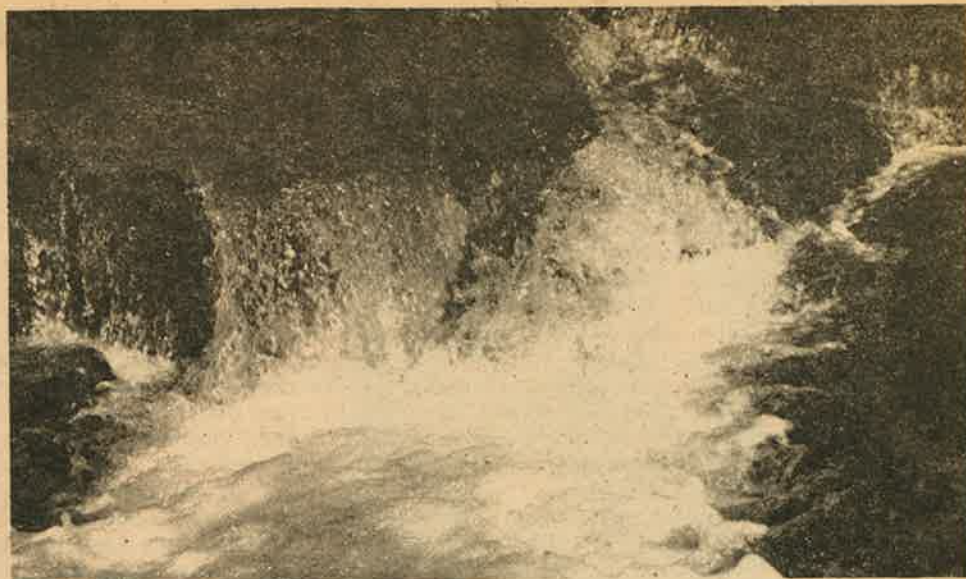


Photo by Jorma Kaukonen

Conversations on Conservation with Albert Sunset Musing

BY MARK PALMER

Sometimes Albert and I go up into the hills above Berkeley and Oakland to watch the sunset. We bring a bottle of whatever and talk quietly as the day ends.

The sunlight fades slowly, leaving the hillside where we stand brightly lit, but shadowing the cities and suburbs stretched out below us on the flat bayfill. The bay reflects the blues and golds of the sky, and turns dark quickly as the sun dips down into the ocean, out across the bay, out

across the Golden Gate, out beyond the Farallon Islands and the wilderness of the Pacific Ocean. San Francisco surroundings light up slowly and gradually, mechanically as darkness grows. Some blobs of land, notably the ridges around us and the parklands of Marin, remain dark, but the city streets and buildings glow with colors and vibrant lights.

Then all that remains that is natural in the San Francisco Bay Area—the dimly starred

sky, the undeveloped lands, and the bay itself—is obscured from human vision. What we see are the cities lit by dams, nukes and fossil fuels, and peopled by men and women like us. The cities dominate the night from our vantage point, and we mutter like wild creatures, like incarnate Indians and savages out beyond the ring of firelight.

Albert and I wish they would all go away.

CALIFORNIA'S WILD AND SCENIC RIVERS Proposed for National Designation



Wildlife Management

cont. from pg. 5

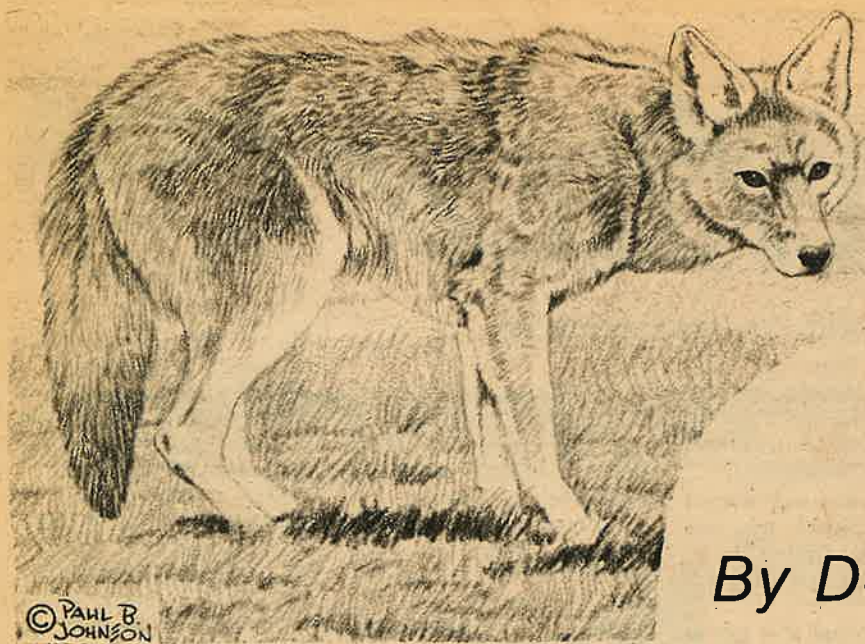
but should be the "minimum necessary" as required by section 4(c) of the Wilderness Act (subject to common sense, budgetary, time personnel or other practical considerations).

When restoring essential food plants to a wilderness after disturbance, such as a wildfire, only native plant species are permitted. Wilderness is not a garden. Preparation of seed beds, planting of crops, spraying, fertilizing, the creation of open spaces by removing timber or other vegetation, and other farming-type activities are unacceptable practices in wilderness, not only because of artificiality, but because such practices usually are geared toward optimizing habitat needs of a single wildlife species, usually a game animal, to the detriment of wildlife diversity in an untrammelled environment.

However, wildlands research has shown that prescribed or controlled burning, carefully designed to maintain plant communities at preplanned composition and growth levels favorable to wildlife utilization, is an acceptable and often a necessary management tool in some wilderness areas. Further, during its past review of a number of wilderness proposals now incorporated in the National Wilderness System where prescribed burning was a previously established activity (the latest being the River of No Return Wilderness, Idaho), the Committee has recognized the value of this program as a wildlife management tool. Prescribed burning should be guided by the following considerations: (1) the activity was designed to

replace or to stimulate vegetative response in those areas where wildfire had been an essential ingredient in the maintenance of the wilderness character of an area but where past strict wildfire control measures had interfered with natural, evolutionary processes; and (2) the program was designed to maintain natural wildlife diversity in an area, with priority emphasis on habitat requirements for rare or endangered wildlife species.

A final concern of the Committee relates to the use of aircraft, motorboats or motor vehicles in conjunction with wildlife studies or management activities. Section 4(c) of the Wilderness Act permits the use of motorized equipment if found to be "necessary to meet minimum requirements for the administration of the area for the purposes of the Act." The Committee views this language as permitting the occasional, temporary use by Federal and State officials of motor vehicles, helicopters, aircraft and the like, in furtherance of wildlife purposes of a specific wilderness area. However, the Committee believes that this language means that any such use should be temporary (example: transporting animals which have been trapped in a temporary enclosure to a release point outside the wilderness); that no roads should be built to accommodate vehicles; and that use of a vehicle must be determined to be the minimum necessary to accomplish the task, subject, of course, to common sense, budgetary, personnel, time or other practical constraints on administering agencies.



© PAUL B. JOHNSON

Wilderness Wildlife

The Controversial Coyote

By Dennis Coules

Despite decades of attempts at eradication and suppression, the coyote (*Canis latrans*) has survived well in California and can in fact be found in all counties except San Francisco. Coyotes have extended their range during the last century in many parts of North America and are now found in northeastern and southeastern states where they were absent at the time of European settlement of North America. This range expansion is thought to have been in response to habitat alterations, the reduction and extirpation of competitors such as the red and grey wolf from many areas, and human introduction of coyotes.

Coyotes are found in almost all habitats in California from the low Colorado Desert to high mountain crests. Coyotes found in different regions of California vary in size and coloration to such an extent that three subspecies were once described: the mountain, desert and valley coyotes. However, these populations are not pure and interbreeding occurs between the "subspecies" as well as between coyotes and domestic dogs. (In other states, various combinations of coyote and grey wolf/domestic dog crosses lead to a very confusing taxonomic picture.) Coyotes at high elevations are larger than valley and desert coyotes and have more luxuriant winter coats.

The coyote's home range may encompass 10 to 12 square miles in valleys and low foothills in California. In mountainous areas, both a summer and winter range may be utilized. Coyotes may be active both at day and night.

COYOTE BEHAVIOR

The social behavior of coyotes is transitional between that of the red fox, a solitary hunter, and that of the wolf, which hunts in highly organized packs. The

father coyote will bring food close to the den, where the pups (typically 3-9 in a single litter born in April or May) will live for about ten weeks. After learning to hunt, the young gradually disperse in the fall and may migrate extensively. However, coyote families under stable conditions may remain intact for longer periods.

A study of coyote population structure in Wyoming found that there were four organizational types: nomads, aggregations, resident pairs, and resident packs. Fifteen percent of the study population was nomadic and solitary, with no territory defended.

"Aggregations" were observed briefly only near carrion and had no social organization other than short aggressive encounters. Resident pairs comprised 24% of the resident population. These pairs spent an entire year or more together in the absence of other adults and defended territories. Sixty-one percent of the resident coyotes belonged to packs which were composed of 3-7 coyotes that defended the same territory, maintained social hierarchies, and often fed and denned together. The major advantage of the pack structure appeared to be defense of large carrion food sources (elk) from other predators.

Communication between coyotes allows the existence of a somewhat complex social organization. Many visual signals have been observed, including facial expressions, postures, and tail movements. The coyote has been called the most vocal of North American wild mammals; the scientific name *Canis latrans* means "barking dog." Eleven vocalizations have been described which are associated with greeting, alarm, aggression, and other behaviors. The "lone howl," "group howl" and "group yip howl," used for long distance contact and

territory maintenance, are the sounds most associated with coyotes.

The group yip howl has been proposed as a method of population regulation. First, it may serve to space coyotes throughout the habitat. Second, it may provide a means by which coyotes assess their density relative to the food supply and through some physiological feedback mechanism regulate their own density through changes in the reproductive rate. This hypothesis for population self-regulation by means other than mortality was first suggested by Wayne-Edwards in 1962 for a variety of animal species.

FEEDING HABITS

Coyote's feeding habits, which sometimes get them into trouble, are basically carnivorous but highly opportunistic. A long term study in Yellowstone found that when carrion from large ungulates such as elk is available it is heavily used. In the study of 8,969 food items found in 5,086 coyote droppings, 15% contained elk (mostly carrion), 1% deer, 34% field mouse, 21% pocket gopher, 9% insects, and a wide variety of other mammals, birds, fish, reptiles and vegetable items, in smaller proportions.

The major diet of coyotes is usually small mammals, especially rodents, and carrion. Occasionally young or debilitated deer, elk or antelope may be taken. Under some circumstances, coyotes also eat sheep, especially lambs, goats, poultry, and very occasional calf. However, smaller prey is the rule. In one study, a coyote population was shown to fluctuate greatly with the density of blacktailed jackrabbits, which made up 3/4 of the coyote diet in that study area.

It is likely that during crashes in rabbit or rodent populations or both, coyotes are more likely to increase predation on

domestic livestock or larger game.

PREDATOR CONTROL

Since 1891, when the first predator control programs against coyotes were initiated in California, over 500,000 have been killed at an estimated cost to taxpayers of \$30 million. Predator control is currently carried out by the U.S. Fish and Wildlife Service's Animal Damage Control (ADC) personnel on a request basis. Each year between 1970 and 1976 requests for ADC assistance were greater from California than any other state, averaging 8561 requests annually.

The U.S. Fish and Wildlife Service has estimated that coyotes killed an average of 4 to 8 percent of the lambs and 1 to 2.5 percent of the ewes of the annual sheep crops in the western states from 1972 to 1978. However, all predators combined accounted for less than one-fourth of total sheep losses. A survey of cattle losses in 1975 showed that coyotes killed only 0.6 percent of the beef calf crop in the western region. Actual predation by coyotes is sometimes difficult to document and complicated by the habit of coyotes of feeding on livestock actually killed by other means.

Methods used to control coyotes have included trapping, aerial and ground shooting, snaring, denning (killing pups at the den), cyanide traps (M-44s), and the use of toxicants such as Compound 1080. The levels of control can range from attempts at total eradication of a predator population or attempts to generally suppress a predator population ("preventative control") to destruction of only specific problem animals, to non-lethal control methods.

The traditional advocates of large-scale coyote killing are the cattle, the goat and particularly the sheep industries. At the other

extreme are those who believe that coyotes should be encouraged to eat sheep to keep down the populations of these "hooved locusts" that often destroy the rangelands (however, coyotes would probably not be an adequate control).

Controversies continue to rage over both the ecological and humane aspects of animal damage control programs aimed at coyotes and other predators.

The inherent futility of "preventative control" (indiscriminate destruction of coyotes in a given geographic area) may be realized as natural population control mechanisms are better understood. Connolly and Longhurst developed a model to simulate coyote population dynamics and found that the primary effect of killing coyotes would be to stimulate density-dependent feedback mechanisms. The result would be increases in the reproductive rate and decreases in the natural mortality rate.

Since even in regions heavily populated by livestock, coyote population densities are correlated with densities of other prey such as rabbits and rodents, populations suppressed by "preventative" programs will tend to rapidly recover to the carrying capacity of the food supply via increased reproduction, decreased starvation deaths and migration from other areas. Any reductions in the population below carrying capacity will be very short-lived. As long as "preventative control" is depended upon as a method of predator control, the program will have to be continued indefinitely (unless coyotes are totally exterminated!).

More research is needed to determine the impact of predator removal on rodent populations. If released from predation pressure, rodents could conceivably reduce livestock forage to such an extent that economic losses are greater than those caused by predation on livestock.

Many control methods, including steel-jaw traps, snares and toxicants such as 1080, frequently trap or destroy non-target species such as raptorial birds, deer and a variety of other creatures. Threatened and endangered species such as San Joaquin kit fox and bald eagle have been destroyed.

Many persons also oppose such techniques as the steel-jaw trap, denning and toxicants on humane grounds. They urge that more research be undertaken on non-lethal control methods such as taste-

aversion (applying a chemical to sheep which is noxious to coyotes, for example), predator-proof fencing including electric fences in some areas, and improved livestock husbandry such as the use of guard dogs.

In November 1979, Secretary of the Interior Cecil Andrus announced predator control reforms based on two years of consideration and environmental impact statement on the ADC program. Andrus halted all further research on the poisonous compound 1080 (which was banned from use on federal lands and by federal agencies by Executive Order 11643 in 1972), eliminated the practice of denning and endorsed the use of non-lethal controls.

However, the use of "preventative controls" was allowed to continue. Even these modest reforms were sharply criticized by the livestock industry, and pressure to retain traditional control philosophies can be expected to continue, particularly during decision making by Congress on funding for ADC programs.

Coyotes and other predators are important components of natural ecosystems. The legitimacy of predator destruction for the benefit of livestock interests has been especially questioned on publicly owned lands such as those administered by the U.S. Forest Service and Bureau of Land Management.

Particularly in these areas the value of predators as public wildlife resources must be considered relative to the economic impacts of predation losses to individual grazing lease holders. In 1972, 22 percent of the land area serviced by ADC operations in California was federal land. The percentage was much higher in some other states and averaged 31.6 percent. Operation by the ADC program in designated wilderness areas has been infrequent to date.

However livestock utilize some wilderness areas and many unprotected roadless areas in California, and the question of predator control in wilderness areas may arise.

The relentless war against the coyote has produced an animal that is extremely wary and alert. This, combined with the ability of the coyote to regulate reproductive rate and natural mortality in response to "predator control" efforts insures that this animal will survive as a valuable component of our wildlife fauna into the foreseeable future.

Staff

Contributors

Editor - Jim Eaton

Dennis Coules
Beth Newman
Jim Trumbly
Fred Gunsky
Mike Nolasco
Wendy Cohen
Archie Douglas
Roger Lamoni
Jim Jopson

The **Wilderness Record** is the bi-monthly publication of the California Wilderness Coalition. Address all correspondence to: P.O. Box 429 Davis, CA 95616 (916) 758-0380 Articles may be reprinted. Credit would be appreciated.

Board of Directors

President - Bob Barnes
Vice-President - Sari Sommarstrom
Secretary - Steve Evans
Treasurer - Wendy Cohen
Director - Jim Eaton
Director - Beth Newman
Director - Bob Schneider
Director - Richard Spotts

PURPOSES OF THE CALIFORNIA WILDERNESS COALITION

...to promote throughout the State of California the preservation of wild lands as legally designated wilderness areas by carrying on an educational program concerning the value of wilderness and how it may best be used and preserved in the public interest, by making and encouraging scientific studies concerning wilderness, and by enlisting public interest and cooperation in protecting existing or potential wilderness areas.

Conversations on Conservation with Albert

The Day Wilderness Died

By Mark J. Palmer

Today, the wilderness died. *Time* Magazine said so, so it must be true.

I rushed over to Albert's place to let him know. He was sprawled out on his makeshift bed—a mattress thrown down on the floor of his room, covered with his down sleeping bag. He was reading a ten-year-old study of Pronghorned Antelope he had recently been sent by the Department of Fish and Game. A stack of dogeared backpacking catalogs was in one corner.

His butane back pack stove was set up on a cluttered dresser surrounded by cans of Cambell's Chunky Soup. A few posters adorned the walls—I had bought them for him earlier that year, appalled by the blank room. Albert was grinning happily. "You know what I just found," he said gayly, cutting off my greeting. "The minimum acreage for transplanting Pronghorns is only 10,000 acres. It says so right here." He pointed to an obscure passage of the

report. "That means we can reintroduce Antelope throughout the Coast Range. Why, we can even put them out at Mt. Diablo!"

I demurred politely. "It isn't quite that easy and besides *Time* Magazine just said..."

"Say, how's the River of No Return Wilderness bill doing?" he asked, gazing glassy-eyed at a poster put out by Idaho conservationists.

"Well, mark-up sessions are beginning shortly and it looks good for final passage although there is opposition from some mining interests, but, look, Albert, *Time* Magazine says..."

"I think we should be working on a Tall Grass Prairie National Park—to preserve the Great Plains. We should push for reintroduction of the buffalo and the plains wolf! Maybe have the Sioux Indians manage the park as a natural ecosystem." Albert looked at me penetratingly. "We should really be working on that real hard." I said I thought there was some chance of legislation

being introduced to preserve four or five scattered parcels; "It's a start, anyway, and I'll look into it further. But, Albert, about *Time* Magazine..."

"I sure am looking forward to our backpack trip this June," Albert smiled.

"Where?" I asked confused.

"The Siskiyou! I've got to get to the Siskiyou. That's my land, up there, y'know. I've never been there, but I sure feel it. In my heart." He reached over into the closet, and pulled out a large 1/2 gallon jug of warm Almaden Mountain Rhine wine. He offered me a plastic camping cup full, taking his in an empty soup can. "Yes, the Siskiyou! I sure hope we can save them. I'd like to go to Blue Creek and Clear Creek and up to Preston Peak." He stared down at his wine moodily. Then brightening, he smiled up at me again (there was no place for me to sit, except the floor.)

"Yes, the Siskiyou! I've got to start saving money now," (it was February), "if I'm going to get up there. But I've got to get up there

sometime, man! I've just got to."

"Oh," I said, not at all sure how to reply. The Siskiyou? Well, why not? What the hell? "I suppose we could hitchhike," I ventured.

"I sure would like to get up there." Albert absently flipped through an old issue of *Outdoors*. "Some of this country in Eastern Oregon looks pretty good."

Carrying in several gallons of water in addition to more important necessities—like arms, legs, head, etc.—did not appeal to my sense of land ethic, personally.

"I suppose so, but Eastern Oregon is awful dry," I said. I gazed fixedly at the Sierra Club *Gentle Wilderness* poster, just above Albert's head. Glistening snow patches and cold, blue water amongst the peaks...

"Imagine! Pronghorn Antelope on Diablo!" Albert shook his head.

"Beg pardon? I asked, shaken from my reverie."

"We could really put them back there. I thought sure they needed more acreage. Christ, man! Antelope on Diablo. We should do something about that."

Albert's fiery conservation zeal was contagious.

"Well, I suppose we could talk to the Park rangers. Get in touch with the Diablo naturalists," I suggested.

"Man, that would be fantastic! You can't beat that; except with a stick!" He leafed through the Fish and Game study again. "Antelope on Diablo!" he muttered.

"Fruit without toil!" Adam muttered, pouring over a goat-skin map; wondering where in hell the Garden was. He wanted to return, these many years after the Fall. Eve shivered in the background, too timid to remove Adam's fig leaf.

"And don't forget the birds and the beasts and the Antelope," she cried plaintively.

I arrived home well after dark, slightly tipsy. Without pausing, I canceled my subscription to *Time*, mindful of what Albert would probably have replied to *Time's* revelation of the death of wilderness.

"Well, f--- them!" Albert would have said.

RARE II

cont. from pg. 1

only 6% of the total potential yield of all national forest lands in the state, and only 3% of the state's total annual timber production.

H.R. 7702 designated 3 million acres less wilderness than an earlier Burton bill, H.R. 5578, which was endorsed by conservationists.

An area-by-area description of the

proposed wilderness areas still being proposed are found inside this newsletter.

Senator Alan Cranston and the Carter administration have made it clear that they support a large California Wilderness bill and want it to pass in 1980. With their support and action, the bill can pass the Senate in November and be signed into law.

CWC Business Sponsors

Like any citizen organization, California Wilderness Coalition depends on sponsorship and support. The organization is grateful to the following businesses that have been able to see beyond just selling their products to the great need to preserve the wilderness in which their products are used.

The Smilie Company
575 Howard St.
San Francisco, CA 94105
415-421-2459

Echo, The Wilderness Company
6505 Telegraph Ave.
Oakland, CA 94609
(415) 658-5075

Wilderness Press
2440 Bancroft Way
Berkeley, CA 94704
(415) 843-8080

Mammoth Maintenance Service
P.O. Box 155
Mammoth Lakes, CA 93546
(714) 934-8616

The Naturalist
219 E Street
Davis, CA 95616
(916) 758-2323

Ski Hut
1615 University Ave.
Berkeley, CA 94704

Wildflower Farms Native Plant Nursery
1831 Terrace Place
Delano, CA 93215

The North Face
1234 Fifth Street
Berkeley, CA 94710

Antelope Camping Equipment Mfg. Co.
21740 Granada Ave.
Cupertino, CA 95014
(408) 253-1913

Solano Ski Sport
1215 Tabor Ave.
Fairfield, CA 94533
(707) 422-1705

New World Outfitters
1055 Market St.
San Francisco, CA 94103

Alpine Products, Inc.
P.O. Box 403
West Sacramento, CA 95691
(916) 372-2861

The Alpine Supply Co.
130 G. Street
Davis, CA 95616
(916) 756-2241

The Mountain Shop, Inc.
228 Grant Ave.
San Francisco, CA 94108
(415) 362-8477

Four Seasons Sports
410 Redwood
Oakland, CA 94619

San Francisco Travel Service
728 Montgomery St.
San Francisco, CA 94111
(415) 991-6640

Daybell Nursery & Florist
55 N.E. Street
Porterville, CA 93257

Ace Family Hardware
4018 Rice St.
Lihue, Hawaii 96766

Zoo-Ink Screen Print
2415 Third St., No. 270
San Francisco, CA 94107

CWC Member Groups

Our newest group member:
Mono Lake Committee
P.O. Box 29
Lee Vining, CA 93514

CWC Member Groups:

American Alpine Club

Bay Chapter, Sierra Club

Butte Environmental Council

California Native Plant Society

Citizens to Save Our Public Lands

Citizens for Mojave National Park

Desert Protective Council

Earth Ecology Club

Ecology Center of So. California

Friends of the Earth

Friends of the River

Friends of the River Foundation

Golden Gate Environmental Law Society

Granite Chief Task Force

Greenpeace

Ishi Task Force

Island Foundation

Kern Plateau Association

Knapsack Section, Bay Chapter, Sierra Club

Lake Tahoe Audubon Society

Loma Prieta Chapter, Sierra Club

Mono Lake Committee

Mt. Shasta Resources Council

NCRCC Sierra Club

Northcoast Environmental Center

Northeast Californians for Wilderness

Northstate Wilderness Committee

The Red Mountain Association

Salmon Trollers Marketing Association

San Joaquin Institute for Environmental Action

San Joaquin Wilderness Association

Sinkyone Council

Siskiyou Mountains Resource Council

Sonoma County Ecology Center

South Fork Fish and Game

South Fork Trinity Watershed Association

South Fork Watershed Association

Trinity Alps Group

The Wilderness Group of Mendocino County

The Wilderness Society

California Wilderness Coalition, P.O. Box 429, Davis, CA 95616

Yes I wish to become a member of the California Wilderness Coalition. Enclosed is \$ _____ for first-year membership dues.

Here is a special contribution of \$ _____ to help with the Coalition's work.

NAME _____

ADDRESS _____

ZIP _____

ANNUAL DUES:
Note: two dollars of annual dues supports the Wilderness Record

Individual	\$ 10
Low-income individual	5
Patron	500
Non-profit organization	30
Sponsor (business)	30

not tax deductible