

Sierra Club

BULLETIN / JANUARY 1972



EDITORIAL

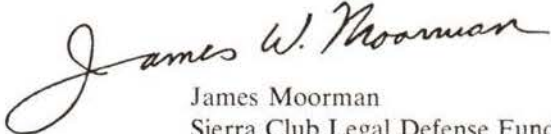
Over seventy lawsuits to protect the environment have been brought by the Sierra Club in the past two years. Enough victories have been won to demonstrate that the law suit is a useful device to achieve conservation goals. As a result, the Club is now receiving a large number of requests to bring new suits. It is appropriate, therefore, for us all to consider how much the Club should rely on the law suit as opposed to other types of action in any given conservation fight.

In my opinion no law suit will, *ultimately*, win any conservation issue. Ultimate victory requires political victory. To win conservation fights it is necessary to use political action in one form or another. The law suit can win temporary victories, but in the long run the politicians will act on the basis of "political realities" and the courts will not thwart their will.

Law suits, of course, are very useful and often are decisive. The law suit can buy the time necessary to rally support. Secondly, the courtroom can provide a forum in which the facts can be obtained and aired in public. Third, a favorable decision often creates a major obstacle for our opponents by giving them the burden of having to obtain passage of a bill by Congress if they still want to prevail.

A review of the Club's litigation, however, reveals that little that is conclusive has been won by law suits alone. The Club has won *preliminary* injunctions, orders requiring environmental *studies*, and decisions that are only holding actions until Congress acts. We must never forget that Congress or the state legislatures can always overrule hard-won court victories. On the other hand, cases have been lost in court, only to be won in political forums.

Ultimately, the environment can be protected and saved only if we persuade our fellow human beings that protection is necessary. In the long run the attitude of the courts toward environmental problems will simply reflect the consensus of society as a whole. Thus, our hope depends on educating and persuading enough people. Our success depends upon popular interest in and sympathy for our goals.


James Moorman
Sierra Club Legal Defense Fund



Sierra Club

BULLETIN / JANUARY 1972
VOLUME 57 • NUMBER 1

"...TO EXPLORE, ENJOY AND PRESERVE THE NATION'S
FORESTS, WATERS, WILDLIFE AND WILDERNESS..."

COVER: Arctic Divide south of Chandler Lake. Photograph by Wilbur Mills.
For story, see page 4.

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THE SIERRA CLUB,* founded in 1892, has devoted itself to the study and protection of national scenic resources, particularly those of mountain regions. Participation is invited in the program to enjoy and preserve wilderness, wildlife, forests, and streams.

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*Reg. U.S. Pat. Off.

News Notes

ALASKA NATIVE CLAIMS

The House and Senate have approved the conference committee's report on the Alaska Native Claims bill, including provisions that would allow 80 million acres of land to be set aside for park and wildlife protection. The bill also gives Alaska's 55,000 Eskimos, Aleuts and Indians nearly a billion dollars and 40 million acres for settlement of aboriginal claims.

In recognition of the national interest in Alaska's unique scenic and wilderness resources, the conferees authorized the Secretary of Interior to withdraw up to 80 million acres from disposal for possible inclusion in the National Park, Forest, Wildlife Refuge and Wild and Scenic Rivers systems. For ninety days after enactment, the 80 million acres are statutorily withdrawn from selection by the State of Alaska under the Statehood Act and from selection by natives outside of village entitlements, as well as from most types of private entry. The Secretary is expected to make withdrawals under this new authority by the end of the ninety days, though he can continue the process for nine months. Once withdrawn, he has two years to make precise recommendations to Congress. The areas will remain withdrawn for an additional five years while Congress acts on the recommendations.

Conservationists are urging Interior Secretary Rogers C. B. Morton to act quickly in designating study areas.

TRANS-ALASKA PIPELINE

Alaska governor William Egan has reported that the state is pursuing plans to buy the proposed trans-Alaska oil pipeline from private interests. Until now, the pipeline has been the private business enterprise of Alyeska, a consortium of eight major oil companies, who seem to have been taken by surprise by the proposal. A spokesman for Humble Oil & Refining Company, one of the largest owners of the project, expressed shock and asserted that "the governor's proposal will undoubtedly delay completion of the line, as it is unreasonable to expect private industry to continue its heavy commitments to the project with the eventual ownership in doubt."

Additional News Notes will be found on page 17.

Secretary of the Interior Rogers C. B. Morton has been quoted in the press as stating that the environmental impact statement on the Alyeska Pipeline Service Company's proposal to build a Trans-Alaska Pipeline will be made public about January 15. Further, he was quoted as saying that approval of the project should come by the end of January or shortly thereafter.

The Sierra Club has joined other citizen and conservation organizations in urging the Administration not to commit itself to a favorable decision on the pipeline permit before the public is given adequate time to examine and evaluate the statement.

To give approval in less than thirty days after the publication of the statement, as suggested by the Secretary's reported time schedule, would be to disregard the guidelines of the Council on Environmental Quality. Moreover, in light of the expected complexity of the report

which will deal with numerous scientific, engineering and ecological questions, even thirty days is utterly inadequate for a proper study and evaluation and public discussion.

In fairness to the public and in compliance with the National Environmental Policy Act the Sierra Club believes that the Department should be required to conduct public hearings on the impact statement. The implications of the pipeline project are too important to proceed to a decision on the permit without public hearings.

Club members are urged to write President Nixon (The White House, Washington, D.C. 20500) and Secretary of the Interior Morton (Interior Department, Washington, D.C. 20240) requesting them to put a high priority on protecting the fragile Alaskan environment and to defer a decision on the pipeline permit until after public hearings are held on the new environmental statement.

THE TRANS-ALASKA THE

Editor's Note. With the publication of the environmental impact statement the Trans-Alaska Pipeline controversy will move into a new phase.

In line with the Club's vital interest in the pipeline, members of the staff have prepared this special report on the project's potential impact on the Alaskan environment. As this report is based on material prepared in October of last year, it can be assumed that some of the objections raised here will be answered or countered in the impact statement. However, unless hitherto undisclosed material is released or major technological breakthroughs have been made in the past three months, the arguments put forth in this report remain valid and the sections of the impact statement dealing with these areas of concern may obfuscate the issue and should be examined with the greatest of care.

In 1969, following the discovery of oil in the preceding year on Alaska's north shore, the Alyeska Pipeline Service Company first sought the approval of the Department of Interior for a Trans-Alaska Pipeline. The 800-mile pipeline would run from Prudhoe Bay on the Arctic Ocean, across the Brooks and Alaska Ranges, to the ice-free port of Valdez.

Three years later, despite thousands of hours of study and millions of words in reports and the press, many of the basic questions on the impact of the pipeline on the environment have not been answered.

In early 1970, following the Alyeska request for a permit to build a supply road to facilitate construction of the pipeline, the Department of Interior issued what it claimed was an environmental impact statement for the road. This study bore little resemblance to a proper E.I.S. and led to a civil suit against the Department by the Wilderness Society, the Environmental Defense Fund and the Friends of the Earth. In April the court ordered the Department to treat the road and the pipeline as a single project and an injunction was issued to block work on the road until an adequate impact statement was filed.

Accordingly a preliminary environmental impact statement for the entire project was issued by the Department in February, 1971. Though of greater scope than the earlier effort, the study failed to resolve many of the basic questions about the effect of the pipeline.

In compliance with a request of the Department, Alyeska filed, in July and August of last year, a twenty-nine volume *Project Description. A Technical Review* of the *Project Description* was prepared by a sixty-man task force for the Department. This review, which was

put on "open file" on October 20, did not come to general public notice until December 15 when the Sierra Club brought it to the attention of the press.

The *Technical Review* reveals both the magnitude of the potential harm and the extent of our ignorance of the possible damage that the pipeline may cause. The problems arising from the construction, maintenance and monitoring of the pipeline still require intensive study before a proper evaluation of the effect of the system on the environment can be made.

As a result of deficiencies disclosed in the *Technical Review*, doubt has increased, rather than decreased, about Alyeska's present ability to construct and maintain an oil pipeline system across Alaska in a manner that would not cause major and irreparable damage to the Alaskan landscape.

The purpose of this report is to point out the deficiencies and to underscore the need for further, more comprehensive studies. All quotations, in italics, are from the

PIPELINE UNANSWERED QUESTIONS

Technical Review of the Alyeska Pipeline Service Company's Project Description of the Proposed Trans-Alaska Pipeline by the Ad Hoc Review Group of the Technical Advisory Board and the Menlo Park Working Group.

Earthquakes

Earthquakes which may occur along several major faults constitute a potential hazard. Only one fault zone, the Denali, has been studied in detail. However, its northern branch was not studied.

Identify the locations of the fault zones (other than the Denali fault zone) for which specific designs are necessary and provide seismic and fault displacement design provisions, including those for burial in bedrock, for crossing them. (p. 9)

The report calls for a revision of pipeline and pump safety standards.

In view of the recent strong motion records from Parkfield, Koyna, San Fernando and Lima the magnitude-acceleration relationships specified for the contingency earthquakes are too low . . . Revised values that accommodate the range of ground motion intensities recorded for these events, normalized to be consistent with the design magnitudes for each seismic zone, must be specified. (p. 12)

This reevaluation may require the revision of the con-

struction standards for the entire system. Further the . . . *potential effects of earthquakes on the shear strength and liquefaction potential of the soil have not been considered . . . This may be a vital consideration in the stability of the thaw plug. (p. 19)*

Pipeline Leaks and Spills

The minimum detectable leak of 750 barrels per day is too large and is

. . . inconsistent with the environmental concerns outlined in the Department of Interior Stipulations.

In view of the potential undetected leak volume, more sensitive and frequent monitoring techniques should be developed. (p. 39)

Location of leaks or breaks after they have been isolated between remotely controlled block valves depends upon visual observation . . . An unacceptable volume of oil could be lost between detection and remedial action . . . Research aimed at developing better leak detection methods should be initiated immediately. (p. 47)

This large leak potential necessitates more intensive pipeline monitoring which is difficult in the Alaskan climate. The more monitoring that takes place, the greater the disruption to wildlife.

A 99% availability of UHF/VHF radio for control of remote block valves from nearest pump station is stated, but its reliability, failsafe features, effects of atmospheric disturbances, and redundancy are not discussed. Provide an analysis to assure reliability of the system. (p. 35)

The question of the number of block valves necessary in the system is still unresolved. The maximum drainage potential of 50,000 barrels, i.e., the capacity of pipe between valves, is still huge. Extensive studies of river basin drainages will be necessary to show what would happen to oil spilled in such a massive leak.

Methods of recovering spilled oil have not yet been tested nor has the ability of Alaskan soils and plants to recover from the effects of spilled oil been adequately assessed. We believe that Alyeska has been overly optimistic about both of these problem areas.

Pipeline Siting and Permafrost

It is still uncertain what portions of the proposed pipeline would be placed underground and which would be above ground. This "indeterminacy" has made rational analysis of the environmental impact of the line difficult,

particularly with regard to its thermal effects. Heating of the surrounding soil by the pipeline might cause extensive erosion and influence the complex drainages over a wide area.

The effect of the pipeline on permafrost and of permafrost on the pipeline has been inadequately studied.

The thermal design of the pipeline system has not been specified. It depends upon the geographic distribution of buried and elevated modes which is also largely unspecified. (p. 32)

Disregard of potential sliding at freeze-thaw interfaces and in horizontal layers of atypically weak soil is not justified . . . (p. 19)

The feasibility of successful operation of the line in certain locations, where unusual and extreme natural processes are known to operate, has not been demonstrated. An example of this situation is burial of the pipeline in areas along river floodplains where icing conditions exist. (p. 3)

The feasibility of burial under Alyeska Pipeline Service Company's construction mode Categories 4 and 5 is dependent upon the development of new, unproven technological systems. Until the feasibility of such systems is demonstrated, burial under construction mode Categories 4 and 5 must be considered to be precluded by the Department of Interior Stipulations. (p. 3)

We believe that the effects of the pipeline can only be determined by extensive field testing of substantial lengths of pipeline containing hot oil.

River Crossings and Runoff

A major question remains about the ability of Alyeska to build adequate river crossings.

The Project Description has too many options in the alignment construction modes and stream crossings for us to complete an adequate Environmental Impact Statement at this time. (covering letter)

. . . The project description does not indicate that any pertinent river crossing data have been collected, except for the Klutina and Yukon Rivers. No evidence is presented that adequate field investigations have been completed either for river crossings or for areas where the pipeline is aligned in the flood plain or the active channel. (p. 17)

An acceptable method for the design of ditches and drains in erodible material is not presented. The sketches presented are not definitive and do not present enough information to enable determination of the adequacy of the design. In permafrost areas the design must accommodate the effects of ponded and flowing water in ditches and drains. (p. 41)

Information on the erosion force of the Alaskan rivers and scour resulting from the formation of ice flows is inadequate.

Many of the river channels are unstable. Although Al-

yeska claims that the crossing localities chosen are stable ones, it does not have evidence to prove this.

The section states, "Literature research of old maps and photography has confirmed the stability of stream channels in their present location." On the contrary, comparison of old and recent photographs indicates that movement of stream channels is quite common and that in some cases the active portion of the stream has moved a few hundred feet. (p. 42)

The instability of river banks, especially in heavily iced areas, may be much greater than anticipated, and lead to pipe slippage when the combination of forces becomes too great.

As plans now stand,

Large sections are indicated for burial beneath the flood plains or channels of rivers, especially on the north and south slopes of the Brooks Range. The advisability of this design requires additional study, as the applicant acknowledges. (p. 6)

There is insufficient allowance for the runoff that occurs in the area after heavy rains.

Methods to control erosion from surface drainage proposed by Alyeska Pipeline Service Company are not in compliance with the Department of Interior Stipulation regarding erosion. For example, at the Valdez terminal a 24-hour rainfall of 5.1 inches was used for design purposes while Weather Bureau records show a maximum 24-hour rainfall of 7.3 inches at Valdez and 9.2 inches at Thompson Pass. Effects of higher intensity rainfall associated with short duration storms and high snowmelt rates also are not considered. (p. 34)

Glacial Flooding

The project description states that: (1) all glacier-dammed lakes affecting the pipeline were located, (2) the process of lake formation and dumping was understood sufficiently to predict the future behavior of glacier-dammed lakes, and (3) surveillance of potentially hazardous new glacier-dammed lakes was considered.

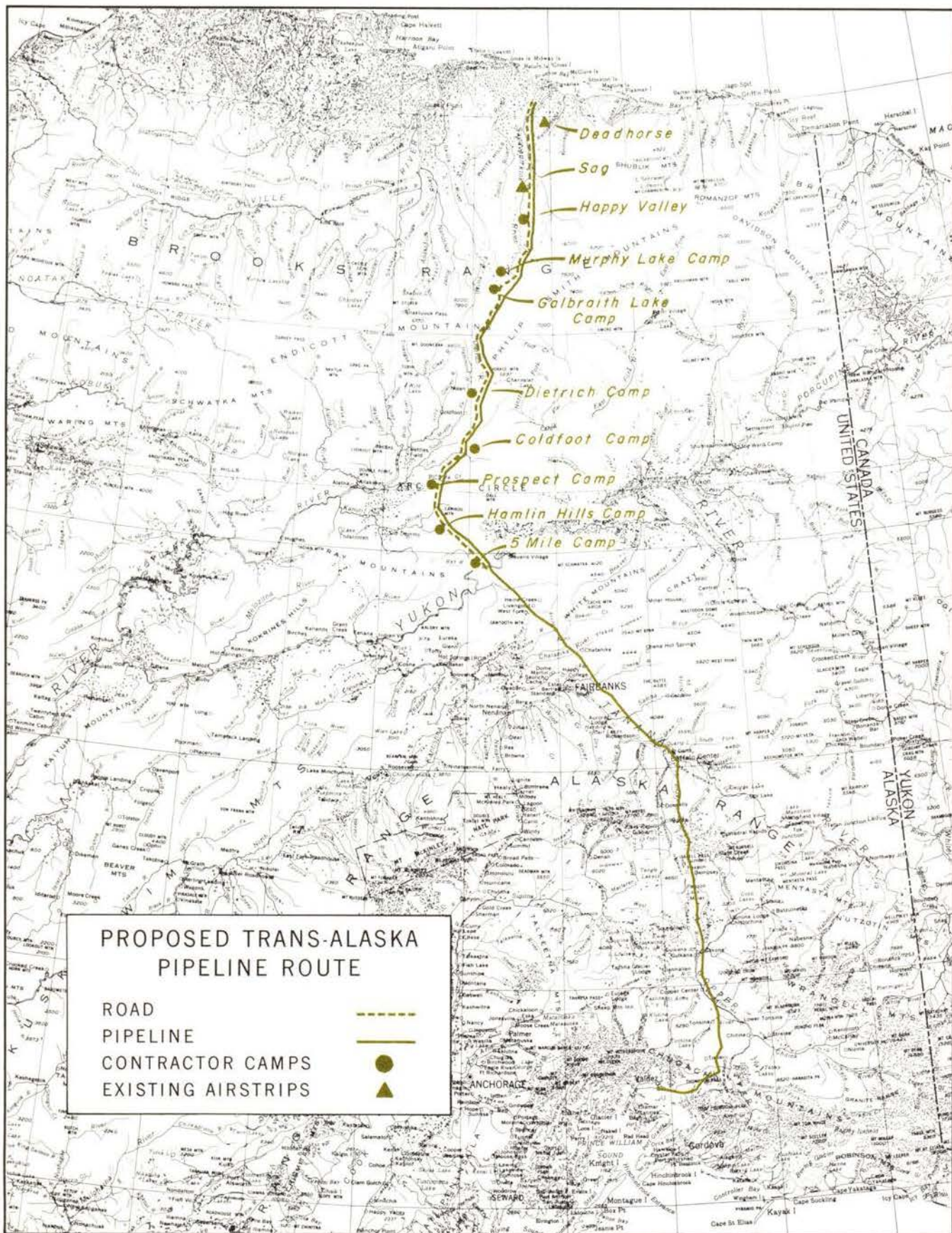
These statements are not adequately supported by the data presented. Supply justification of the factors used in computing floods from this cause. (p. 7)

An adequate evaluation of the potential flood danger from these lakes cannot be made on the information available. Further,

. . . serious outburst floods can occur from glaciers even though no significant lakes are found adjacent to the glacier. Repeated outbursts from Castner Glacier have occurred and the source is unknown; this is a particularly dangerous location because it is also in the Denali fault zone. (p. 23)

Pipeline Mechanics

Stress and strain criteria for all the combined forces at any point in the pipe, whether buried or elevated, have not been adequately presented and justified. At full





Barren ground caribou browsing on a typical glacial river bar in central Alaska. Arctic lichens, the diet staple of the caribou, appear to be highly susceptible to sulphur dioxide poisoning. The gas will be a combustion by-product of the pipeline pumping stations.

throughout the combine forces appear to introduce severe plastic strains in the pipe, perhaps to the point of rupture. Limits and their derivation must be presented as requested in the specific comments. (p. 3)

Examples of such stresses are that of the heat from the oil, the bending stresses of both live and dead loads, the stresses from soil subsidence, lateral movement, seismic stresses, and frost heave. Additionally, the "creep" properties of stressed pipeline have not been evaluated fully.

Corrosion Protection

The project description implies that an effective cathodic protection system can be designed for a hot pipeline in frozen ground. Test data must be provided to demonstrate that a hot pipeline in frozen ground can be protected against corrosion. The proposed test of 30 miles of cold pipeline in frozen ground would not be indicative of operating conditions. No line pipe should be buried until this problem is resolved. (p. 21)

As brine will corrode the pipeline, the oil was slated to be brine-free. However, it may be necessary to increase the fluidity of the oil to facilitate passage through the pipeline during cold weather and the addition of seawater is being contemplated. More testing will be re-

quired to resolve these conflicting problems.

Avalanches

The danger from avalanches has not yet been properly evaluated.

The aboveground parts of the pipe are claimed to be free of dangers from avalanches. This cannot be verified because (1) not all above-ground parts are identified on the route map, (2) no report is presented to show that avalanches have been studied, and (3) the only avalanche hazards discussed are based on meager data. (p. 40)

A preliminary field survey lists a large number of areas as having "high" avalanche potential. More studies are required.

Monitoring

Events such as floods, fault displacements, earthquakes, avalanches and landslides, catastrophic seawaves and glacial surges may pose significant hazards to the pipe. A monitoring strategy that will provide advance warning, and enable preventive action, or control of potentially adverse effects, should be formulated and continuously up-dated as shown necessary by operational experience. Environmental effects such as thermal pollution, erosion, and siltation must also be continuously monitored. (p. 5)

Wildlife

There is a general lack of information about the effect of the pipeline on wildlife. For example, the effect of noise from construction, monitoring, and from the pump stations has been insufficiently evaluated. Alyeska has proposed minimum noise levels, but the effects of noise on wildlife have yet to be studied.

An adequate evaluation of potential harm to wildlife populations must include studies of the effect of a large influx of construction and pipeline personnel, heavy equipment, recreational motor vehicles, pollution and other byproducts of human population.

Toxicity

Provide information on the toxicity of Prudhoe Bay crude oil on indigenous vegetation, specifying the toxic fractions and their persistence in solution and emulsified states.

Provide information on the toxicity of Prudhoe Bay crude oil on indigenous fish species, specifying the toxic fractions and their persistence in solution and emulsified states. (p. 8)

Very little is known about the effect of oil on arctic and subarctic plants and animals. Recent studies on the marine environment suggest that some compounds in oil may constitute a long term hazard because of their slow rate of degradation, their bio-accumulation, and their possible carcinogenicity. Additional studies are necessary on terrestrial and freshwater ecosystems, particularly with regard to their vulnerability to the intrusion of foreign substances. Such studies would have to be conducted over a period of time.

Air Pollution

The effect of sulphur dioxide generated by the pump stations has not been sufficiently studied. Preliminary work indicates that it is extremely poisonous to arctic lichens upon which much wildlife depends. The effect of other pump station-generated pollutants is unknown.

Gravel Requirements

Estimates of the amount of gravel required to construct the pipeline continue to grow, particularly with the need to elevate much of the line. The impact of such massive gravel removals could be significant. The source of the over 67 million cubic yards of gravel required is unclear.

Marine Transport

Marine transport of the oil, though a most important problem, was beyond the scope of the Department of Interior's *Technical Review*. It is not acceptable to say that every effort will be made to minimize the likelihood of marine oil spills. In spite of fines, careful procedures, and modern equipment, spills still take place as demonstrated by the recent ship collision in San Francisco Bay.

The rugged, island-studded coast of Alaska, British Columbia, and Washington is a dangerous place to conduct a substantial tanker traffic, as was recently noted in a report of a Special Committee of the Canadian House of Commons. ". . . The waters in this region are more confined and hazardous than those where the *Torrey Canyon* or the *Arrow* met disaster . . . For this reason the threat of damage to the environment and also to the tourist and fishing industries is grave . . .

". . . The area most likely to be the scene of an oil spill is an important feeding area for many of the commercial and sport fish of the West Coast . . .

"Consequently, your Committee concludes that the proposed tanker route is detrimental to the Canadian national interest, and unanimously recommends that it be vigorously opposed by the Canadian government." (From *Proceedings of the Special Committee on Environmental Pollution*.)

Policy Alternatives

Before any permit for the proposed Trans-Alaska Pipeline is issued, the Sierra Club believes that the Department of the Interior must thoroughly analyze at least two alternatives:

- (1) a pipeline through Canada and
- (2) a five-year moratorium on North Slope oil development.

Analysis of alternatives is required by the National Environmental Policy Act, which requires consideration of the alternatives in sufficient depth to compare their environmental and other costs and benefits with the primary proposal in a rigorous fashion. In this case, the two alternatives mentioned above promise to be far superior to the proposed Trans-Alaska Pipeline.

The Canadian route eliminates some environmental hazards. It avoids the earthquake belt of southern Alaska and the Valdez to Puget Sound tanker traffic. It would use a route, the MacKenzie Valley, which will probably be used as a general transportation corridor for other purposes, including any gas pipeline from the North Slope and oil pipelines from Canadian-Arctic petroleum deposits. Studies have conclusively shown that it is economically more advantageous to the United States if the oil comes through Canada.

A five-year moratorium makes more sense than either pipeline route. The technical problems of North Slope oil development are severe. Our nation's last great wilderness is at stake, and it can never be replaced. There is no national security need for the oil during the next five years.

In summary, the most logical and sensible action would be to use this five-year moratorium to review alternative energy sources, re-examine our oil export-import laws, improve our technology, and only then make a decision.



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POGO RECONSIDERED

— by Bruce Kennedy

The following article is reprinted from *Bonanza*, newsletter of the Mother Lode Chapter of the Sierra Club.

Bruce Kennedy is an economist with the California Department of Parks and Recreation and is vice-chairman of the Sierra Club's Mother Lode Chapter.

Environmentalists who stress the value of individual action frequently cite the statement taken from the comic strip *Pogo*, "we have met the enemy and he is us." As the statement implies, the major cause of pollution is people, their carelessness and wastefulness. This being the case, individuals are urged to modify their habits of living and consumption, to reduce their impact on the environment and its limited resources. Numerous books and pamphlets have appeared recently, full of useful suggestions toward this end — don't buy beverages in throw-away containers, use only biodegradable cleaning agents, and so on. The implication is that if each of us, as individuals, will reduce the stress he puts on the environment, we will together make great strides in reducing pollution, and make this a better world to live in.

I believe that this conclusion is largely false, and that more harm than good will come from an uncritical belief in the concept of environmental salvation through individual self-improvement. The error in this belief lies in the fact that, while pollution is surely attributable to people, it is mainly the result of their collective agents rather than their own individual activities. By collective agents, I mean the large private organizations and public agen-

cies that pollute massively, albeit on our behalf — the factories which produce the goods we need (and those which we don't need), and the governments which supposedly represent and serve us. The average individual, his propensity to carelessness and self-indulgence notwithstanding, pollutes little; nor does a mass of individuals, as individuals.

The gap between the relatively minor individual pollution and the major pollution of collective agents can be seen in a thumbnail sketch of four major pollution problems.

Water. As individuals, you and I use little water directly, and waste less. Some 85 percent of California's water is used by agribusiness, often wastefully, and is then discarded laden with pesticide and fertilizer residues. The other 15 percent is consumed by industry and municipalities, organizations which are often too lax in their treatment of waste water, and which seldom conserve water through available recycling methods.

Soil. Few individuals cause much soil erosion. The three major causes in California are road construction, urbanization, and mismanagement of timber and grazing lands. The reduction of soil erosion will not come from



greater self-control by you or me, but from strict government controls over road construction and subdivision development, and from better land management by a relatively small number of large public and private land-owners.

Air. With adequate government control of stationary sources, most air pollution is the result of auto emissions. While an individual may do his tiny bit by walking, bike riding, or converting his auto to use natural gas, such action is so diffuse that no real results could be produced. Widespread change is essential, possible only through government-enforced standards for the manufacture of autos and their fuels, and through government development of costly systems of public transportation.

Solid Waste. Individual recycling effort, at best, can hardly make a dent in this important problem, since enthusiasm and good will cannot compensate for the small scale and sporadic nature of such volunteer activities. The only way to effectively recycle a city's solid waste is through changing the entire system of collecting and disposing of household trash, and making these changes on a city-wide or county-wide basis by modifying existing government collection systems. Even this is just a start, for industry must also be required to recycle its wastes, a task most effectively undertaken on an industry-wide basis.

Such examples make it clear that it is the collective agents rather than the private individuals that are mainly responsible for today's massive environmental pollution. If we are to effectively reduce the stress which burdens the environment, and produce the changes which are necessary, we must look outward to those collective agents rather than inward to our individual selves. It is not enough to use lady bugs in our garden rather than DDT

— instead, we must work to regulate the massive agricultural use of hard pesticides, since one large farm may use as much in one application as all that California's backyard gardeners use in a year. For if we, as individuals, need to change some of our own personal habits, the collective agents which serve us need reformation ten thousand times more, for their contribution to the problem is ten thousand times greater.

This is not to entirely dismiss individual action, however. It is simply to say that in doing our individual bit — using white toilet paper instead of colored, composting our leaves instead of burning them — we must be aware that, as an individual, we are doing precious little to directly achieve any significant reduction in environmental pollution. What we *are* doing is getting a measure of personal involvement and satisfaction and, most important of all, developing in ourselves and our friends a badly needed ecological consciousness. This consciousness, an awareness or perspective of the problem's magnitude and complexity, will better equip us and our society to evaluate and attack the real problems and issues which confront us. This is the main benefit of do-it-yourself ecology, and one which should not be underrated. Indeed, individual action should be encouraged, but only so long as its limitations are fully understood.

But unless the very real limitations of individual anti-pollution activity are understood, and the need for reforming the organizational and agency polluters appreciated, we run the risk of mistaking the individual trees for the collective forest. To believe that individual self-improvement can solve the pollution problem is, at best, a delusion and, at worst, a cop-out. Widespread adoption of this approach would divert our energies from substantive activities to a preoccupation with minutiae, and reduce the growing environmental movement to a toothless utopianism. What is essential is that individuals understand the collective nature of pollution and direct themselves to attack it at its very roots.

Some of this effort may be undertaken by individuals, as individuals, by those few who are in positions of unusual power or influence. But the necessary channel for most of us must be through our membership in and participation in well directed and well financed organizations—organizations which see the real targets clearly and which have the will and the means to confront them and change them. For until we as individuals unite to prepare, organize, and mobilize ourselves, to identify the relatively small number of major collective polluters, to use every legal, political, and moral power at our command to control these polluters, and to pay the price and accept the inconvenience that this control will surely cost, massive environmental deterioration will continue to increase on a state, national and world scale. Individual self-improvement to the contrary, notwithstanding.

THE INTERNATIONAL ROLE OF THE SIERRA CLUB: A PROPOSAL

by Eugene Coan
Assistant to the Executive Director

At its September 1971 meeting, the Board of Directors of the Sierra Club adopted a resolution clearly stating the Club's interest in the global environment. This expression of concern underscores the need for continuing reevaluation of Club programs in light of worldwide considerations.

No matter how successful we are in preserving parks, open space, and wilderness in the United States, we will not have approached the basic survival goals having to do with the critical global balances among population, resources, and environmental quality.

Not only is the internationalization of the environmental movement essential for man's survival, but that very movement provides the various countries of the world with their best chance yet for cooperation towards a common goal. If successful, this movement will be a key factor in increasing the effectiveness of world governmental mechanisms.

There are very substantial questions about how effective a United States-based conservation organization can be in directly convincing the various peoples and governments of the world about environmental realities, but the importance of making our concerns become global is so great that every possible effort must be made.

Still mindful of the vision of its past leaders, the Club is now searching for the avenues open to us in this new and challenging field which are within our resources. We search for directions in which our efforts will make a significant contribution, in which we will not duplicate the programs of other organizations, and which will be dynamic, in keeping with Club tradition.

In this effort, the Club will strive to avoid the many pitfalls which are present in the international field. As an example, we do not want to widen the communications gap between legitimate environmental concerns and the equally legitimate desires of the leaders of the developing nations to use their natural resources to construct industries in order to uplift their economies and peoples. Other sensitive areas are the overall use of the planet's resources, the control of nuclear power, and population stabilization. It will require time and experience before we can commit ourselves to firm policies.

Our global concerns will lead us to register concern about the international policies of our own government and those of United States-based multi-national corporations which have a significant environmental impact. Indeed, there is a growing number who believe that the United States needs an entirely new, ecologically-oriented foreign policy which places its greatest emphasis on environmental relationships rather than on the ideological and historic relationships among nations. They believe we need new environmental concepts of national security, national interest, and national preparedness.

The Department of State and its Agency for International Development are being urged to comply meaningfully with the requirements of the National Environmental Policy Act that they "identify and develop methods and procedures . . . which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision making . . ." We hope for significant progress on this soon. There are other U.S. agencies and departments whose programs have an environmental impact beyond our borders to which this law might apply.

The Club has already commented upon several draft conventions — Ocean Dumping, Oil Pollution Damage, Endangered Species, Wetlands, Islands for Science, and the World Heritage Trust — to the Department of State and its Advisory Committee. We have also commented on three conventions on oil pollution up for ratification by the Senate.

A very major gap in Washington-based programs of all conservation organizations has been the lack of concern about the activities of multi-national corporations which affect the health of workers and bring about resource depletion and pollution. We are concerned that American corporations do not develop double standards, one for their U.S. operations, another for their activities in other countries.

The United Nations

For some time now, Club volunteers have been working to get the Club more involved in activities at the United Nations. The main thrust of the Board's September resolution was to authorize the Club to upgrade this

operation when circumstances permit. (Special fund raising is being carried out for this effort.)

While it is true that the United Nations has been comparatively ineffective in halting major global conflicts, it has a steadily increasing number of environmentally important involvements. The Club believes that the United Nations affords environmental organizations with one of their best opportunities to make our perspective spread to the international community.

The U.N. is not an easy medium in which to work, but a skilled and experienced U.N. representative can learn how to wend through its complex structure and have a significant influence on (1) the activities of the U.N., particularly of its specialized agencies; (2) foreign delegates to the U.N.; (3) the interests and activities of the various non-governmental organizations represented at U.N. headquarters in New York, this serving to "draw out" interests parallel to ours in other countries; and (4) preparations for the 1972 Stockholm Conference on the Human Environment.

While most foreign delegates come to the U.N. instructed on the positions they should take on major issues before that body, several delegations do contain individuals capable of influencing the concerns and policies of their home governments.

The Club now has "non-governmental organization" status (N.G.O.) at the U.N., providing liaison through the U.N.'s Office of Public Information. This status will allow the Club's representatives to meet relatively easily with staff members of the Secretariat, the all-important Economic and Social Council, and the various specialized agencies. It will also allow us to receive notification and participate in pertinent meetings and to obtain U.N. releases and documents for our study and comment. It gives us increased access to delegates, to the U.S. Mission, and to other U.N. facilities.

While not every U.N. agency of interest is located in New York, the most important one is, the U.N. Development Programme. There has been a slowly increasing awareness within this agency of the need to take environmental considerations into account in development programs. Also important in this regard are the World Bank and the International Monetary Fund, both headquartered in Washington, D. C. Environmentalists will be trying to relay the concerns of ecologists to the personnel of these and other U.N. agencies in an attempt to have environmental considerations play a more important part in development planning.

The Club's overall goal will be to help increase the consideration of the environmental impacts of proposed development projects and other programs and to stress the necessity for long-range planning around an environmental theme.

Club volunteers are also considering a program of

environmental seminars at U.N. Headquarters for fellow non-governmental organizational representatives and interested U.N. staff and delegates.

The Stockholm Conference

The United Nations Conference on the Human Environment, to be held in Stockholm from June 5th to 16th, 1972, was created by the U.N. General Assembly in 1968 on the initiative of the Swedish government. It will be a conference of high-level delegations from various countries, and, as a result, the impact of U.S.-based environmental organizations may be limited at the conference itself, although there will be a few seats for N.G.O. observers. However, there will be a "Forum" for the N.G.O.s present to carry on their own programs and have displays.

The Club's most significant role is proving to be commenting directly to the Department of State on the draft conventions to be brought up at Stockholm. As the time for the conference approaches, it may be possible for environmentalists to have an influence on the opinions of other delegations, through their countries' representatives to the U.N., using the positions they have developed on the conventions.

There is a substantial task to be accomplished at the United Nations on the Declaration on the Human Environment. The Declaration is intended to be a simple statement of man's environmental concerns, but it will be of great long-range significance for many countries — if a firm enough Declaration is allowed to emerge. The legal systems of many other countries differ from that of the United States, thus in many nations there is a tendency for generalizations to precede specifics, for deductive logic to prevail over inductive. As a consequence, the general principles stated in the Declaration will have a legal importance which will be taken into account in law making. In working toward a good Declaration, the participation of young people in the United States and elsewhere will be quite important.

In this last regard, the Club has supported the efforts of the International Youth Conference on the Human Environment to publicize the key issues of the Stockholm Conference among the American and Canadian public.

The 1972 Conference will be but one of a series of international conferences of interest to the Club. The Club should have substantial inputs into the Conference on Law of the Sea in late 1973 or early 1974 and the 1974 Conference on Population.

Foreign Conservation Issues

There will be instances in which it will be appropriate for the Club to become concerned about conservation issues in other countries, for when concern becomes international it multiplies the pressures on governments or business to make the correct choices.

To be properly cautious, the Club will lend its support and name (1) when requested by our local members or by a similar organization, and then usually in the case of another "over-developed" country, or when a U.S. corporation is involved; (2) when the position would be in keeping with our policies; and (3) when our support would do some good!

The World's Conservation Organizations

The Club should make every effort to increase cooperation with international and foreign conservation organizations. At present we are engaged in making a survey of these organizations in order to set up mutual exchange programs. For example, we plan to increase our participation in the work of the International Union for the Conservation of Nature and Natural Resources (I.U.C.N.).

Club Structure

The build-up of our membership and organization in other countries and in the U.S. territories is already taking place, with the Club represented by groups in Canada, the Canal Zone, American Samoa, and Puerto Rico. And there have been inquiries from members in many other areas. This interest forces the Club to face the legal and

financial complications presented by territorial and foreign members who, because of their distance from centers of Club activity, do not receive the full benefits of our conservation programs.

This global spread will also necessitate the development of a policy encouraging — or discouraging — foreign affiliations. No doubt different policies will be required for the U.S. territories, for Canada, and for other foreign countries. Present consensus favors the accumulation of more experience before policy rigidity sets in.

The Outings Program

There is an increasing number of Club outings in foreign countries. These could include more emphasis on conservation themes, such as the study of the complex problems of the developing nations or the establishing of contacts with conservation organizations in other countries.

In summary, in spite of the difficulties and complexities inherent in internationalizing the environmental movement, there is a growing number of specific roles the Club can play immediately that are within our means and abilities.



Sierra Club Board of Directors Meeting, December 4-5

The Sierra Club's Board of Directors' quarterly meeting was held on December 4-5 at the Sir Francis Drake Hotel in San Francisco.

The Board authorized the establishment of the 36th Sierra Club Chapter, the Ozarks Chapter, encompassing Missouri and Arkansas. The establishment of the Ozarks Chapter became effective January 1, 1972. There are 900 Sierra Club members in this region.

Pete Wyman, Council Representative from the Northern Rockies Chapter, presented a certificate of appreciation in the name of the Board of Directors to Dale Burk, State Editor of the *Missoulian* in Missoula, Montana. Burk was cited for his outstanding newspaper articles exposing Forest Service mismanagement of the national forests.

Ansel Adams, David Brower and George Marshall were elected as Honorary Vice-Presidents of the Sierra Club.

The following resolutions were adopted by the Board:
Environmentally Hazardous Substances. The release of

any environmentally hazardous substance into the environment should be prohibited, unless the environmental benefits clearly outweigh the long-term environmental damages. Safety and environmental quality are the primary factors in deciding on whether or not to use such a substance. In each case, strict limits to the use of the substance should be established and followed. New or continued application of any material which is suspected to be environmentally hazardous should be stopped immediately pending further investigation.

U. S. Bicentennial. The Sierra Club urges that the program of the Bicentennial Commission be expanded to focus on the nation's natural history, as well as its political history. In developing an expanded program of that sort, the Sierra Club urges the Commission to join in developing a set of national, regional and local inventories of remaining natural landscapes and ecological habitats in cooperation with the Sierra Club and other environmental and civic groups. The Club's staff

is authorized to pursue discussions with the Bicentennial Commission staff and other interested groups to develop a working relationship and plan of action.

Developments in Wild Areas. The Sierra Club opposes the placement of recreational developments, housing developments and new towns on wild or relatively uninhabited lands, particularly lands that have wild, scenic, natural and agricultural values, and lands that possess ecologically limiting factors such as water scarcity, steep slopes and unconsolidated soil conditions. Before any development is initiated in areas not subject to these limitations, an extensive and sound ecological and economic planning process should be completed. The process should be open to the public scrutiny and participation throughout.

Great Smoky Mountains National Park. The Sierra Club does not oppose the concept of a circumferential system of parkways encircling the Great Smoky Mountains National Park described as "Proposal B" in the National Park Service Report "Transportation Concepts/Great Smoky Mountains National Park/1971," so long as the exact location of every segment of the parkway system is the subject of thorough and open study. The Club has reservations about certain parts of the proposed route location for the circular parkway and makes the following recommendations: (1) that no portion of the proposed parkway system be built on the top of the high Cataloochee Divide but that the feasibility of locating the road on the southern slope of the Divide or at the bottom of the valley along Jonathan Creek be given a higher priority for consideration; (2) that no part of the Forest Service lands south of the Little Tennessee River and within the Slickrock Creek drainage system be crossed by the proposed relocation of U.S. Highway 129; (3) that the North Shore road which has been constructed to Tunnel Ridge be turned to the south side of Fontana Lake at that point rather than being extended to Monteith before crossing. The Sierra Club endorses the feature of the Park Service Proposal B which provides for the gradual phasing out and elimination of U.S. Route 441.

Ocean and Great Lake Dumping. The Sierra Club opposes all unregulated dumping into the sea and the Great Lakes. In addition, the following provisions should be instituted: (1) a strict permit system at the federal level for all forms of ocean dumping, including discharge through pipelines, and including sewage. The permit procedures should allow for citizen participation and include adequate enforcement and penalty provisions. (2) Dumping should not be permitted in certain sensitive areas. (3) All dumping of environmentally hazardous substances should be prohibited. (4) International agreements to regulate ocean dumping should be actively sought.

Jet Airline Fuel Dumping in Atmosphere. The Sierra Club strongly recommends that legislation be enacted to curtail the practice of dumping fuel into the atmosphere by jet aircraft, except in emergency situations.

Alaskan North Slope Cleanup. The Sierra Club demands that authorities responsible for littering the Alaskan landscape with trash and no-longer-used equipment clean up such blights on the natural scene. Furthermore, when oil drilling, military and other blighting operations end or are curtailed, all necessary measures to restore the environment to its natural character must be taken.

Sheep Mountain Wilderness. The Sierra Club supports the establishment of a Sheep Mountain Wilderness of approximately 60,000 acres in the Mount Baldy region of the San Gabriel Mountains of the Angeles National Forest in California.

Santa Margarita Project. The Sierra Club opposes the construction of the Santa Margarita Water Project proposed by the Bureau of Reclamation to supply water to Camp Pendleton and Fallbrook, California. Furthermore, the Sierra Club supports the water rights of the Pechanga Indians whose claims would be violated if the project is built and operated.

Trotters Shoals Water Project. The Sierra Club opposes the construction of the Trotters Shoals Project which would dam the only remaining upland portion of the Savannah River resulting in the irretrievable loss of great ecological, aesthetic and historical values.

Boundary Waters Canoe Area. The Sierra Club calls on the U.S. Forest Service to suspend all cutting of timber within the Boundary Waters Canoe Area, in the Superior National Forest in Minnesota, pending the preparation and issuance of an environmental impact statement on all such cutting. The Club specifically calls for impact statements to be issued prior to any continued logging activity in the Sunnydale Sale, and prior to an extension of the expiring contract with the Consolidated Paper Company.

Hearings on Roadless Areas. The Forest Service has in process a survey of roadless areas which may qualify for wilderness status. Public involvement in selecting areas to be studied and protected during the study poses a major problem because of the large number of meetings to be called within the next few months. Therefore, the Sierra Club requests that the Forest Service Regional Offices hold meetings in the cities where the Regional Offices are established and also in other major cities, in addition to two presently planned meetings near the areas to be considered for addition to the National Wilderness Preservation System.

Membership. The Board of Directors recommends through the chapters and the Council that each current member recruit one or more new members.



Voices and visions of the past

— by Dorothy A. Stroup

Do you have photos like these tucked away in your attic? Or slides or movies of Club outings? Maybe you have working files you used as a Club chairman or committee member, or letters of famous conservation battles. If you do, *don't throw them away!* Send them to "Sierra Club Papers," in care of Bancroft Library, University of California, Berkeley 94720. But don't send old copies of the *Bulletin*, chapter newsletters, or other printed material. If you are enjoying the photographs or using the files, consider making a provision in your will to have the material deposited in Bancroft.

In September 1970, the Sierra Club Board of Directors designated the Bancroft Library as the official repository for the Club papers. Since then Bancroft, which specializes in the history of the West and already had a number of Sierra Club papers including John Muir's letters to his daughter Helen, has accumulated a rich array of material. Club records dating back to 1906 (the earlier records were destroyed in the San Francisco fire), the working files of a number of Club leaders, including Ansel Adams, Dick Leonard, and Arthur Balke, the first conservation committee chairman, Wilderness Conference

tapes, films and slides, and a painting of Muir by his brother David, are some of the items which are now a part of the collection. Here, too, is the "outings" file, a seventy year record, which was deposited by Stewart Kimball.

Bancroft's staff is still sorting and classifying. However, the papers are available to qualified scholars and such persons as the Board may designate. Although the papers are not allowed to circulate, photographs may be reproduced for a nominal fee.

The History Committee, which is responsible for the Sierra Club-Bancroft arrangement, is also working with the library's Regional Oral History Office (ROHO) to collect written and tape-recorded memoirs of members who joined before 1930 and of Club leaders who have been active since then. A questionnaire, which will serve as the basis for interviews, has been sent to a pilot group and will eventually be sent to all 300 pre-1931 members.

If you have material to contribute, contact the Bancroft Library or the History Committee at the Club's headquarters. And whether or not you have records to give, consider volunteering for work on the Committee.

News Notes

CANNIKIN RESULTS

News reports now estimate the number of sea otters killed by the AEC's Cannikin test at somewhere between 900 and 1100 animals, according to the preliminary surveys made by the Alaska Department of Fish and Game and a biologist under contract to the AEC to do sea otter studies. The number will not be known precisely until June, when the Department makes its annual sea otter census. Now, however, scientists state that the Bering Sea side of Amchitka Island is "80 to 90 percent" devoid of sea otters.

Only 20 carcasses have been found, leading biologists to speculate the others were either blown out to sea by the 100 MPH winds of the severe storm during and after the test, or are trapped below the surface of the ocean by the phenomenon of "underpressure," which destroyed the animals' natural buoyancy. The underpressure was caused by ground acceleration or "cavitation," as the Bering Sea floor and beach were abruptly and permanently uplifted about ten feet, much more than AEC scientists had predicted. One otter body was dredged from 35 fathoms of water by a University of Washington research ship.

The original Cannikin environmental impact statement had asserted that fewer than 20 sea otters would suffer measurable physiological effects from the blast. The June redraft stated that as many as 100 sea otters might be killed, and the AEC's final prediction, released in October, was that up to 240 otters might suffer ruptured ear drums and eventually die as a result of the bomb test.

GEOHERMAL STEAM ACT

The Sierra Club has demanded that the Department of the Interior completely rewrite its Draft Environmental Impact statement and proposed regulations for implementing the Geothermal Steam Act of 1970, and that it defer implementation of the Act. In comments submitted to Interior, the Club emphasized that the matter is significant, for it has broad implications regarding both the National Environmental Policy Act and a national energy policy.

"The Department's action in this case," wrote attorneys Robert M. Hallman and Charles R. Halpern, "is likely to influence significantly the manner and extent of the overall evaluation of the environmental im-

act of federal programs, particularly programs to develop other energy sources such as oil shale and offshore oil and gas, and have important precedential value for the establishment of criteria and procedures for siting electric power facilities on public lands. Consequently, it could have a significant impact on the manner in which the rapidly developing conflict between needs for energy and environmental protection is resolved."

The Sierra Club asserted that the draft statement is grossly insufficient since it fails to disclose the kind of detailed information demanded by NEPA (such as a discussion of implementation plans or the use of nuclear fracturing to augment geothermal resources), or to conduct a thorough analysis of the proposed program to develop geothermal resources.

Further, the statement fails to consider the alternative of deferring full-scale development in favor of a carefully planned and monitored pilot project designed to provide presently unavailable information concerning the environmental impact of geothermal resources development and methods for controlling environmental hazards.

The Club also found the proposed regulations for implementing the Act inadequate in several respects, including failure to exempt a wide variety of ecologically, aesthetically, scientifically and recreationally valuable land from leasing, or to set forth minimum performance standards to prevent environmental harm.

They also fail to provide for public hearings regarding the selection of land for leasing, the grant of leases, or the authorization of surface uses, including construction of electric power facilities. "In sum," the Club concluded, "the regulations amount to little more than wishful thoughts, which in reality, represent a sobering confession of possible harm."

MINING IN NATIONAL FORESTS

The Sierra Club has urged the Department of Agriculture to establish a moratorium on all new strip mining within the National Forests until proposed regulations, currently under study, or pending congressional legislation, are adopted. Michael McCloskey, the Club's executive director, wrote in a letter to outgoing Secretary Clifford M. Hardin, "We strongly urge you to act immediately on effective

regulations that provide for complete environmental safeguards. And until these regulations are finally promulgated and strip mining legislation is enacted, we strongly urge you to call a moratorium on all new prospecting, exploration, and development of coal resources within the National Forests where a Federal permit, license, lease, or other authorization is required by law, regulation, deed, or agreement from the Federal Government." The Sierra Club is currently supporting lawsuits against strip mining in the Monongahela and Bankhead National Forests, on the grounds that it is in total contradiction to the Multiple-Use Act.

NEW HERBICIDE MISHAP

Last July, the Bureau of Reclamation sprayed the Rio Grande Valley in New Mexico with an herbicide, thought to be 2,4,5-T, ostensibly for the purpose of killing salt cedar trees because they use too much water. Some of the sprayed property is leased by Lewis Trotter, a rancher who owns approximately 200 cows and bulls. Never warned that his land was to be sprayed, Trotter had no opportunity to remove his herd from the pasture, and was in the pasture himself with his daughter at the time of the spraying.

Since July, many of his previously healthy animals have died, and those still alive are emaciated and do not gain weight, although they are fed in excess of the normal food ration. A veterinarian who has examined the animals feels that the entire herd will die this winter, and an autopsy performed on one cow showed every major organ in the body degenerated. Although his tests are not completed, they have already revealed the presence of abnormally high levels of herbicides in the animals' systems.

In addition to these ill effects to the cattle, Trotter's children have become sick; his daughter who was sprayed the same day as her father has been in poor health since, and two other children have become ill, possibly as a result of drinking contaminated milk from cows eating off the sprayed pasture.

Representatives of the Bureau of Reclamation have asserted that the sprayed land belongs to the Campbell Farming Corporation, that Trotter was trespassing, and that since the Bureau allegedly had Campbell's permission to spray, Trotter has no complaint.

News Notes

PESTICIDES

The House of Representatives has passed H.R. 10729, the Federal Environmental Pesticide Control Act of 1971, by a vote of 288 to 91, after adopting only one amendment, which gives the states authority to regulate all pesticides more strictly. An important amendment introduced by Rep. John Dow of New York, and supported by conservationists, would have insured that citizen groups would have access to judicial review. It was defeated by a teller vote of 167 to 209.

Still remaining in the bill are all of the important deficiencies which conservationists and other groups have strongly objected to: (1) definitions of "imminent hazard" and "substantial adverse effects on the environment" which are thoroughly inadequate and have a built-in cost-benefit ratio which puts a price tag on human health and environmental quality; (2) doubt about whether citizen groups have standing to obtain judicial review and challenge orders of the Administrator; (3) an indemnities provision which is so sweeping that it will virtually make it impossible to take hazardous products off the market once they become registered; (4) many loopholes which will allow the restrictions imposed by the bill to be easily evaded, and permit penalties which would only be "wrist slaps" to corporations; and (5) no controls over products intended for export.

The bill is now being considered by the Senate Subcommittee on Research and General Legislation.

CALIFORNIA HIGHWAY VICTORY

The Sierra Club and La Raza Unida won a preliminary injunction enjoining the federal government from acquiring any additional land for construction of the proposed Foothill Freeway in California's Alameda County. The Federal District Court in San Francisco also halted any displacement of residents and any action whatsoever that would affect the environment. In addition, the decision enjoined the Secretary of Transportation from acceding further approval of the highway project.

Anthony Kline, an attorney for Public Advocates, Inc., a San Francisco non-profit public interest law firm, had filed suit on behalf of the Sierra Club, La Raza Unida and others against Secretary of

Transportation John Volpe and federal and state highway officials. It was based on two theories: (1) that the over 5,000 low-income Chicanos who live on the proposed right-of-way were being illegally displaced under federal relocation statutes and the Constitution; and (2) that federal and state highway officials had failed to comply with the National Environmental Policy Act of 1969 and Section 4(f) of the Department of Transportation Act of 1956.

Kline stated, "The impact of this decision will be extremely far-reaching. It casts doubt on federal planning procedures currently being used across the country on similar road-building projects. Literally hundreds of federal projects, in which the government is using the same procedures the court has found illegal, fall under this decision. It will undoubtedly have the effect of encouraging other lawsuits."

In handing down his decision, Judge Robert F. Peckham wrote, "Common sense dictates that federal protective devices apply before federal funds are sought. It does little good to shut the barn door after all the horses have run away. If the federal statutes and regulations are to supply any protection at all, it must be prior to the time the residents have left and the deleterious effects to the environment have taken place." Judge Peckham also held that, pending a decision by the Supreme Court in the Mineral King case, the Sierra Club should be accorded "conditional standing" to sue.

MOUNTAIN LION PROTECTION

California Governor Ronald Reagan has signed into law a Mountain Lion Protection Act, imposing a four-year moratorium on the sport-hunting of cougars in the state. The law also prohibits the capture, possession or pursuit of any wild mountain lions. Further, it allows the taking of depredating cougars under certain conditions, and mandates the Department of Fish and Game to "study and prepare a plan which will insure the survival of mountain lions."

MINING LAW REVISIONS

Secretary of Interior Rogers C. B. Morton has sent to Congress two administration bills recommending modification of the 1872 Mining Law and the 1920 Mineral Leasing Act. The bills would leave surface rights in mined areas in federal ownership and require competitive leasing of mineral

deposits. The proposal would repeal the Mining Act of 1872, but valid existing claims would be preserved provided they are recorded within one year and a patent applied for within three years.

HUDSON RIVER EXPRESSWAY

In a surprise announcement, New York Governor Nelson Rockefeller called the Hudson River Expressway a "dead issue," thus marking the end to more than five years of controversy over the state highway plan. Conservationists first halted the project in U.S. District Court by appealing to the then-obscure and seldom enforced Rivers and Harbors Law of 1899. Since then, the expressway had been delayed indefinitely by the refusal of the Supreme Court last year to hear a state-federal appeal after the courts had twice decided in conservationists' favor.

The suit contended that the highway would result in water pollution, elimination of spawning grounds for fish resulting from 10 million cubic yards of land fill, and the dislocation of local residents. The state had still hoped to finance the project through a transportation bond issue which was defeated in the November elections this year.

"This is a significant final chapter to a long battle," David Sive, attorney for the Sierra Club and the Citizens Committee for the Hudson Valley, said, "We are pleased that the governor has come to the realization that the priorities have changed for people."

MINERAL KING

The U.S. Supreme Court heard arguments on litigation brought by the Sierra Club to establish standing of expert conservation groups to initiate court action against government agencies for alleged failure to observe provisions of resource statutes. The case grew out of a Club lawsuit to block Forest Service approval of permits to the Disney Corporation for development of a ski resort and recreation complex in the Sequoia Wildlife Refuge at Mineral King. Club counsel Leland R. Selna, Jr. argued that conservation organizations need access to the courts to protect the general public interest in environmental matters. A preliminary injunction against the Disney development remains in effect until the court hands down its decision, expected early in 1972.

Representatives' Reports

The Southwest

On June 29, 1971 Secretary of Interior Rogers C. B. Morton announced plans for a "prototype oil shale leasing program" on federal lands in the states of Colorado, Utah, and Wyoming. The proposed program anticipates the leasing of two oil shale tracts in each of the three states, to be offered by competitive bid sometime late in 1972.

Although the program is clearly designed to launch full-scale commercial oil shale development, Secretary Morton stressed that "no federal leasing of oil shale lands beyond the proposed program, if implemented, will be carried out until the environmental effects of the prototype program indicating feasibility of developing a mature program are fully evaluated."

This statement seems to imply that if the program turns out to be economically or environmentally unacceptable, then we will stop. Unfortunately, the proposed program will produce strong forces working for a continuation beyond the prototype period.

The Department of the Interior estimates that by 1982 as many as 20,000 persons could be holding temporary construction jobs in the oil shale development program. It further notes that these jobs are temporary in the sense that they would be at a single project and assumes that as long as the industry continues to develop, there would be new temporary jobs at additional plant sites. The prospect of 20,000 unemployed in a region where only 44,000 are presently employed would certainly be a formidable obstacle in seeking the termination of an unsound program, as recent experience with the SST has indicated. State and local taxes paid by the prototype industry could total over \$150 million annually by 1983, a sum that few regions as sparsely populated as the oil shale area would be willing to give up without a fight. It is not clear that the program presently proposed will be any more successful than a similar program proposed by the then Secretary of Interior Stewart Udall in 1968. That proposal failed for lack of interest by the oil companies. Certainly the oil companies have expressed more interest in the present program but their enthusiasm has been limited. They may be hoping to get further concessions from the federal government that would make oil shale development economically more attractive. These might include increased tax incentives such as an increased depletion allowance for the production of oil from oil shale, commitments for federally subsidized water projects to sup-

ply the large quantities of water needed to process oil shale, and more favorable leasing arrangements. Action by the energy companies seems limited to what they feel is needed to keep a foot in the door and to restrain others from gaining a competitive advantage. Few seem to regard oil shale as having the potential for supplying much of our oil supply for at least another decade or more. However, the federal government is pressing very hard to get oil shale into production.

The potential environmental problems associated with oil shale development are legion. Most are related to the strip mining of large areas to remove the shale, the indirect effects of projects to supply the water needed, the problems associated with waste disposal, and the impact of a major population increase in the region. The present proposal merits our serious concern for its direct environmental impact in addition to the prospect of beginning a program that could be difficult if not impossible to stop or control at a future date.

—John McComb

The Northwest

Forests are and have been the primary environmental battleground in the Northwest. Many of the documented abuses of poor logging practices exposed recently have been in the Northwest, both on private and public lands. The Pacific Northwest's national forests still have substantial sections of splendid *de facto* wilderness which are now the focus of major efforts by conservationists who wish to protect them while there is still time.

There is not much time left, however. Under consistent and heavy industry pressure, the Forest Service has doubled the amount of timber cut annually from these national forests in the past twenty years, and the pressure is still on. The result is there for all to see: an incredible maze of logging roads and clearcuts which look like the result of an attack by an army of giant moths. Nearly twenty million acres of formerly wild country has been roaded and logged in the Northwest's national forests in the past twenty years.

Conservationist resistance to this wholesale assault on our wilderness resources has stiffened, and major battles are in progress or are shaping up over the fate of the remaining forests. Here are some examples which illustrate the present situation in the Northwest:

—The Secretary of Agriculture recently rejected the Sierra Club's appeal that logging not proceed in the valley

of French Pete Creek in the Willamette National Forest in Oregon, one of the three remaining major valleys in the western Oregon Cascades not yet logged. As we prepare to go to court, students at the University of Oregon scheduled a full day of rallies in mid-November, culminating with a march past the Forest Service's offices. The keynote speech against logging this beautiful valley was given by a logger who has spent all his life in the woods. —Medford, Oregon has always been a timber town with over 90 percent of its employment dependent on its mills and nearby logging. At the end of October, when the Forest Service held a hearing to discuss the fate of a proposed 130,000 acre Sky Lakes Wilderness, the local people in the audience resoundingly rejected the timber industry's proposal to leave most of the area open for logging, and supported the concept of a large wilderness.

—Astoria, Oregon is a coast town whose income derives almost entirely from logging and fishing. One evening, after I had given a speech there, several loggers came up and asked not only about joining the Sierra Club, but also for some Sierra Club patches to sew on their sleeves as they worked in the woods! There is a great affinity between the goals of the Club and of many loggers (as distinguished from the mill owners and managers). They love and use the land and the wilderness. And although they log, most have a deep respect for the forest and are deeply upset by many of the cutting practices they are asked to employ. Further, with the forests being stripped, some feel they are "working themselves out of a job."

Industry resistance to these new pressures for sound management of the Northwest forests has increased. The best example of this comes from the remarks of Mr. William H. Hunt, President of the Georgia-Pacific Corporation. In a recent address to the Pacific Logging Congress, he inveighed against the "woodsly witch-doctors of a revived ancient nature cult," who are seeking to "restore our nation's environment to its disease-ridden, often hungry wilderness stage." He attacked the "sweaty backpackers" and characterized the wilderness experience as a "huge roadless extension of elitism, barred to the old, the feeble, the lame, the average family . . . and the man or woman who works too hard on the job to enjoy the physical demands of a return to the coonskin cap." He called upon his fellow industrialists, as members of the "silent majority," to "awaken" and "not let the propagandists lock up the forests."

When I addressed the same conference the following day, I expressed regret that the timber industry has chosen to call names instead of attempting to correct the poor timber practices which have been exposed recently. I also offered to exchange income and working hours with any who felt that "only the rich" could enjoy wilderness, but received no takers.

Finally, I suggested that if they think that only a few

people want to save the Northwest wilderness, or any wilderness, let's take a vote. Let's take a vote in Medford, Portland, Seattle, New York, or nationwide, since these forests are all of ours. I predict the wilderness will win with a crushing majority. The people here in the Northwest love the land and its deep forests. They want their wilderness, those bits of it which still live, to be safe. We are going to fight on until all is safe, some how, some way.

—Brock Evans

Southern California

Most Americans think of National Parks, National Wildlife Refuges, and National Forests when the subject of statutory wilderness is mentioned. During the past few years, however, the focus of conservationist concern has shifted to also include some of the wilderness opportunities present on BLM administered public lands. Unfortunately, the Wilderness Act of 1964 did not mandate that the BLM review its lands for wilderness possibilities, and questions on the eligibility of these lands have remained unanswered. Harris Loesch, Assistant Secretary of the Interior, addressed himself to this problem in a recent letter to Congressman Bob Mathias of California and presented some very unambiguous answers. The following three paragraphs are excerpted from that letter.

"While it is true that BLM administered lands were not included in the review and recommendation procedures of the Wilderness Act of 1964, the Wilderness Act does not prohibit wilderness recommendations for areas on BLM administered lands. It is possible for the Secretary to review BLM areas and make recommendations for designation, using the same method and approach as are now used for National Forests and Parks. In either case, any addition to the National Wilderness Preservation System must be by Act of Congress.

"The Department's general withdrawal authority can be used to close public land areas having wilderness values to mining claim location and to implement other controls needed to preserve wilderness values. Regulations in 43CFR 1725.3-3 and 43CFR6221 deal with wilderness preservation. The Bureau of Land Management has issued a manual section which implements these regulations by providing guidelines for the evaluation, establishment, and management of primitive areas. Lands designated by BLM as primitive areas are comparable to National Forest and Park wilderness areas, and management is similar to that on wilderness areas.

"Before making a decision for wilderness or primitive designation on BLM administered land, we think it essential to consider all resource values and needs involved,

and to be certain, through a multiple-use analysis and planning process, that a designation represents sound land use decisions. BLM now goes through this type of planning process, giving major emphasis to public participation.”

These very positive words indicate that much can be accomplished for wilderness on BLM lands but, to add a note of realism, there are *no* BLM administered lands given statutory wilderness protection today. Obviously, the concerned public has much to do if the wilderness program is to fulfill the promise implicit in Assistant Secretary Loesch's words. The first task is to identify and document which BLM lands qualify for inclusion in the Wilderness Preservation System. The Sierra Club is presently working on these wilderness studies through the investigations of the Southern California Regional Conservation Committee. But the real contest will begin when BLM wilderness proposals go to the public and Congress.

Meanwhile, we should not neglect the BLM primitive classification. Wilderness conservation leaders should become familiar with the BLM guidelines for the evaluation, establishment, and management of primitive areas and actively work for the establishment of this designation on significant portions of the public domain. This is a management tool which has been neglected and which is begging for positive implementation by conservationists and the agency.

—Larry E. Moss

Alaska

Seventeen units in Alaska of the National Wildlife Refuge System, totaling approximately 19.5 million acres, and three units of the National Park System, totaling 7 million acres, are subject to review under the Wilderness Act of 1964. As of December 1, 1971, six of these wildlife refuges have been included in the wilderness system by Congress, field hearings have been completed on four more, and hearings are forthcoming on the remaining seven. Park Service field hearings have been held on Katmai and Glacier Bay National Monuments, with a hearing on Mt. McKinley National Park remaining.

Until mid-1971, no field hearings had been held on any of the major units of either the refuge or park systems though six small refuges had been added to the wilderness system. Then, in late June, hearings were held on the wilderness proposal for Kenai National Moose Range, followed in November by the Katmai and Glacier Bay hearings. In December, Unimak Island, part of the Aleutian Islands National Wildlife Refuge, was the subject of field hearings.

A familiar pattern of support and opposition has been established that will probably carry through the remaining agency reviews and hearings: business organizations,

resource users, and the state administration against the proposals; state and national conservation organizations for the wilderness proposals. (A notable exception to date was Mayor Joe McLean and the City of Juneau's endorsement of the Glacier Bay proposal, including national park status; the mayor is a Sierra Club member.)

In November, the Park Service chose to hold hearings on wilderness proposals and master plans for Katmai and Glacier Bay National Monuments at the same time. Hearings were held in Anchorage and Juneau. Individuals and organizations in support of both proposals outnumbered individuals and organizations opposed.

In Juneau, Governor William Egan attacked the two proposals in a lengthy speech. The Governor focused on what he and the heads of his departments felt was the lack of natural resource "data" in both proposals. He strongly criticized the two-page environmental impact statements included by the Park Service. He asked the Park Service for at least a two-year delay in order that the State and the Park Service could "plan" the uses to be made of the two monuments. He also revealed that he had asked Secretary Morton for a five- to ten-year moratorium on wilderness proposals in Alaska.

The Governor focused his attack on the environmental impact statements and the master plans, thereby ducking the primary issue of the hearings. His criticisms of the environmental impact statements were justified, as these were obviously inadequate, but his suggestion that uses of the monuments should be planned by a proposed joint federal-state land use planning commission and his request to the Secretary of the Interior for a moratorium (in defiance of the September 3, 1974, deadline set by Congress) expressed a desire to gut the Wilderness Act as it applies to Alaska.

Yet Governor Egan did not limit his remarks to criticism of procedural matters. "We have higher hopes for wilderness," the Governor said. These higher hopes, as revealed in his speech, included highways, harbors, more fisheries management, light airplane and float-plane facilities, potential weather and navigational air stations, and joint management with the Park Service of "excess wildlife populations" for Glacier Bay and Katmai, and, for Glacier Bay especially, mining, to which the Governor devoted ten paragraphs. For the Kenai National Moose Range, the "higher hopes" involved more oil and gas development, two more highways through proposed wilderness areas, mechanized access for hunters, and intensive management by the Alaska Department of Fish and Game of moose and other wildlife populations, in opposition to the USF&WS's trophy hunting management objectives.

In short, the present state administration would, if it could, extend multiple-use land management to every last acre in Alaska, including federally-reserved wilderness areas in the national parks and refuges. And the state ad-

ministration has the power to select up to an additional 78.5 million acres of unreserved federal land in Alaska, once land selections resume following settlement of the native claims questions. It is unlikely to make all of the remaining selections before the expiration of its term in 1974, but its record to date has national and state conservationists on edge. A past Egan administration did not hesitate to block a potential national park in the Wood River-Tikchik Lakes area by selecting the land being considered by the National Park Service. Given the vehemence with which the present Egan administration opposes wilderness, additional pre-emptive state selections are possible.

This is why a key provision in the final version of the Native Land Claims Bill is essential. It would protect the national interest in *potential* national park and refuge land in Alaska by precluding state selections therein.

Meanwhile, wilderness status is essential for the *existing* national park and wildlife refuge lands. Such status would shield park and wildlife refuge personnel from pressure by the State and other interest groups for multiple-use management of areas that are now managed as wilderness.

—Jack Hession

The East

It appears that public opinion has once again cracked the manacles forged in the minds of Washington bureaucracy. The Administration, after months of insisting that there was no way in which the federal government could purchase the Big Cypress Swamp in south Florida, has reversed itself and announced a plan to acquire 547,000 acres of it over the next ten years. This amounts to about a \$150 million change of mind, which is a lot of money; but it is about time the federal government stopped playing Scrooge with the Land and Water Conservation Fund.

The decision was long overdue, though nonetheless welcome. Conservationists in Florida and throughout the East pressured for acquisition. Florida Governor Reubin Askew pressured for acquisition. Florida Senator Lawton Chiles pressured for acquisition; and when Democratic Presidential hopefuls Jackson, Muskie and Humphrey joined the chorus, the Administration seized the opportunity. Obviously, the politics of ecology is no different than the politics of anything else.

The proposed designation of the area as a National Fresh Water Reserve is both appropriate and novel. For months the Park Service and other governmental agencies had wrestled with their own guidelines and classification criteria. The Big Cypress, being the distinctive ecological community that it is, defied bureaucratic description. It was not properly a national park in the way

that Everglades National Park is. It was not a national forest, wilderness area, wildlife refuge or recreation area. It was all of these and none of these. And whatever resemblance it had to any and all such federal classifications, it was not, to bureaucratic minds, worth the \$150 million it would cost to wrest it from private hands.

And yet the Big Cypress is a unique watershed, a key to the survival of Everglades National Park, Ten Thousand Islands, and neighboring communities. And as a fresh water reserve, worth every penny it will cost.

This new designation suggests that there may be other purposes of federal acquisition and preservation. Though conservationists disagree with the federal government's claim that there are no areas in the East that qualify as wilderness, they are honest enough to admit that there are not many. But this should not dismiss thought of further federal initiative in preserving what's left of the natural environment. There are many areas in the East that have escaped ecological ruin or recovered from past exploitation. They deserve to be preserved and given national recognition as open space reserves, natural and primitive areas, coastal preserves and ocean sanctuaries.

The Administration's decision to heed conservationists and to save the Big Cypress Swamp demonstrates that where there is a will there is a way to preserve what needs to be preserved. It further speaks to the need for the federal government to vastly expand its land acquisition program.

—Peter Borrelli

Statement required by the Act of Congress of August 24, 1912, amended by the Acts of March 3, 1933, July 2, 1946, June 11, 1960 (74 STAT. 208), and October 23, 1962, showing the OWNERSHIP, MANAGEMENT AND CIRCULATION OF the *Sierra Club Bulletin*, published ten times yearly at San Francisco, California—for December 1, 1971.

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(Signed) Leslie Hood

WASHINGTON REPORT

The second session of the 92nd Congress will have an environmental legislative menu mainly consisting of warmed-up leftovers. This was assured at adjournment in late December with the presence of numerous major natural resources measures still pending on Committee, House and Senate calendars.

Still unresolved were major changes in national water quality standards, a new national approach to siting of powerplants and transmission lines, major revisions in basic public land laws, curbs on strip mining, revision of the organic pesticides law — to name a few. No action was taken on critical timber-harvesting practices; not a single new area was added to the National Wilderness System.

Passage of the Alaska Native Claims Bill in the final days represented final action on a major issue; but its enactment was tied so closely to oil company and Nixon Administration plans for opening up arctic petroleum reserves with the Trans-Alaska Pipeline it hardly qualifies as a conservation accomplishment. Indeed, the Alaska Claims settlement guarantees an immediate escalation of the struggle to preserve our largest remaining wilderness.

Under its terms, the bill authorizes the Secretary of Interior to withdraw — within nine months — up to 80 million acres for study as potential additions to national park, forest, wildlife refuge and wild and scenic rivers systems. Studies by the Secretary could last up to two years. Congress would have five years to act on the Secretary's recommendations.

The total period for such withdrawals approximates seven years, but anyone with experience in establishment of new park, forest, and recreation units must recognize that this is not long for the completion of the laborious and time consuming procedures. Meanwhile, competition for ownership of these desirable natural areas goes on. And the threat of mining activity lurks in the background.

Fate of the proposed Joint Congressional Committee on the Environment is perhaps the best illustration of the first session's frustrations. Introduced on February 10 in both bodies, resolutions creating the new committee with joint surveillance over environmental matters moved rapidly to passage. But because of differences in the House and Senate version, the proposal was sent to conference. Rancor over committee jurisdiction, seniority and the initial chairmanship of the committee blocked agreement by the conferees, and it remained unresolved when adjournment bells rang out.

Somewhat similar difficulties blocked new water pollution standards, but this time the Administration moved in to slow conclusive action. The Senate voted 86 to 0 for revisions of standards, including establishment of 1981 as the goal for no discharge of pollutants into U.S. waterways. Spokesmen for the Administration, including Chairman Russell Train of the Council on Environmental Quality, and William Ruckelshaus of the Environmental Protection Agency, criticized it as costly, unrealistic and harmful to the environmental movement because of unattainable requirements. The House, which already had held several weeks of hearings, reconvened to take more testimony and to write a new bill.

At the start of 1971, everyone seemed to be for clean water, but at year's end neither Congress nor the Administration had made up their minds how clean is clean. This controversy will carry over to the second session as a high priority item, largely because of Sen. Edmund Muskie's key role in formulation of the Senate measure.

Legislation for protection of ocean mammals, including whales, seals and sea lions, stumbled over a squabble between wildlife, conservation and humane society groups as to management concepts. Brought up in the House under procedures requiring a two-thirds majority for passage, it went down to defeat by a narrow margin. Thus, this, too, will go over another year for final settlement — while threats to sea animals magnify.

Conservation and other tax deductible organizations looked forward to the new session for action on long-pending proposals to permit limited legislative and lobbying activities without loss of tax status. Twenty-three Senators co-sponsored S. 1408, introduced by Sen. Muskie, and 87 House members backed H. R. 8176, introduced by Rep. James W. Symington of Missouri. Although the bills restrict efforts to influence legislation, the strong backing aroused hopes for House Ways and Means Committee consideration of the problems facing these organizations, who must compete with multi-million dollar corporations for Congressional attention.

The large backlog of unfinished business will provide ample activity for conservationists. Also for pragmatic politicians who see enactment of pet environmental bills in an election year — a presidential election year — as a distinct plus in the months before the polls open.

—W. Lloyd Tupling

Winter scene from the Sierra Club Club Exhibit Format book *In Wildness Is the Preservation of the World*, available now in paperback as well as hardcover.

