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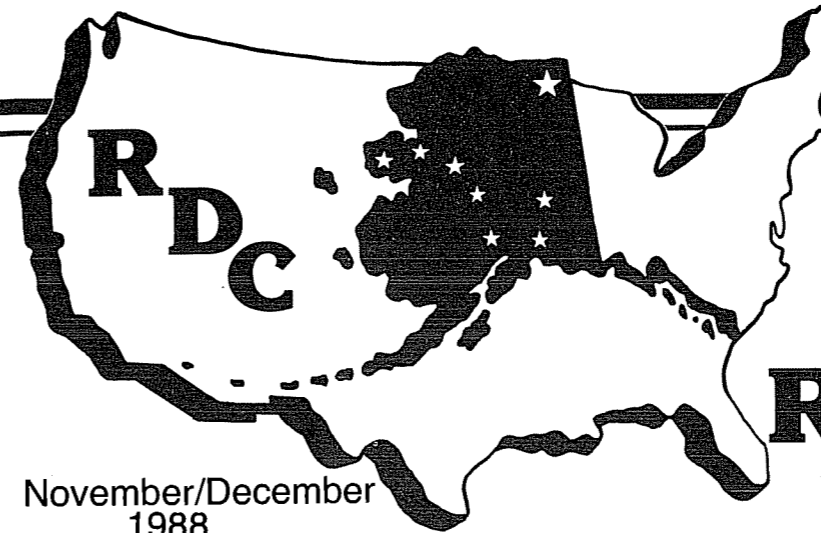


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November/December  
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# Resource Review

## FISH

By  
Charles P. Meacham

### Alaskans aim to harvest giant potential



*If Alaska were an independent nation, it would rank sixth in the world in terms of fisheries production. (C. Meacham photo)*

Three of the greatest development opportunities within the State of Alaska are FISH, FISH, and FISH. More specifically, our opportunities are commercial fisheries, sport fisheries, and mariculture. Unlike our very substantial and valuable mineral and oil resources that, when extracted, are gone, fish are renewable resources that allow moderate utilization year after year.

Fish were really Alaska's first permanent fund.\* This piscatorial permanent fund is well diversified and has many assets including salmon, herring, halibut, crab, shrimp, clams, a mix of groundfish, a number of freshwater sport fish species, and a variety of species yet to be tapped.

We have been living off the "interest" from this biological permanent fund for years, while not only maintaining the principal but adding to it through fisheries enhancement activities. The salmon component of our fisheries permanent fund alone has provided commercial fishermen with annual distributions that, during the past 100 years, have totaled over 5.9 billion fish. Considering that some of these salmon sell individually for more than a barrel of North Slope oil, one can quickly tabulate the awesome economic power of renewable resources.

Even the humble herring component of our aquatic permanent fund has over the years provided a total of 8.4 billion pounds of fish. In a single hectic three-hour sac-roe herring fishery in Unakwik Inlet, Prince William Sound, processors paid fishermen more for herring than the United States paid Russia for the purchase of all Alaska!

But, as one might expect, not all components of our biological permanent fund are contributing as well as they might. Many Alaskans are aware of the troubles with our shellfish fisheries. Still, even this depressed segment contributed nearly two-thirds

*(continued page 4)*

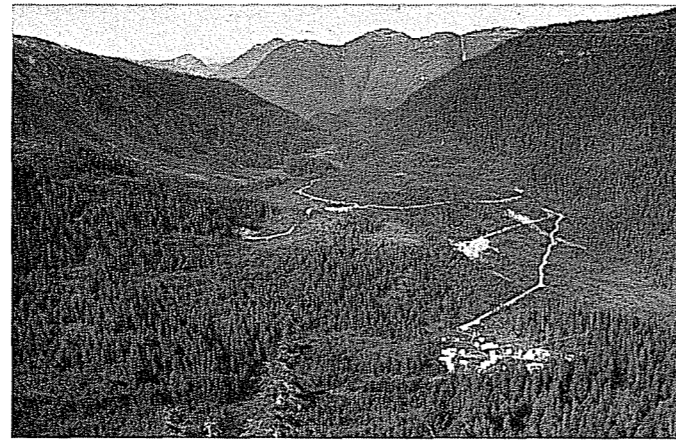
## Borax wins approval, but will hold off on Quartz Hill project

Although the operating plan for the Quartz Hill molybdenum project near Ketchikan has won final government approval, U.S. Borax does not plan to go ahead with the massive billion dollar project until markets for molybdenum improve.

Don Finney, Ketchikan manager of the Quartz Hill project, said the company is pleased with the final environmental impact statement issued by the U.S. Forest Service in October. The release of the EIS and the Record of Decision outlining the conditions under which the mine may operate, came after 14 years of debates, studies, public hearings and appeals. The approval sets the stage for development of the world's largest molybdenum mine.

Quartz Hill contains as much as 10% of the world's known reserves of molybdenum, a mineral essential for hardening and strengthening steel. The mining operation will eventually employ up to 1,000 people and will have an annual payroll of \$37 million. Service industries will bring an additional \$19 million into the Ketchikan economy. The state will collect \$12 million in taxes each year while the transportation industry will have a new \$4 million customer.

Finney, a longtime and active RDC board member, pointed out that U.S. Borax has spent well over \$100 million on the project, including \$75 million to build a 14-mile gravel road from tidewater to the mine site and to perform exploratory drilling. Some \$25 million has been spent on environmental studies,



Quartz Hill

documentation and testing.

"There's more environmental background on that area than any area in the world," Finney said.

The project has gone through a draft EIS, a revised draft, a draft final EIS, and a final EIS, with corresponding public comment periods.

Throughout the long and exhaustive process, Borax has worked with over a dozen government agencies to obtain permission to develop the mine. Before the mine is developed, at least 96 permits will be required along with \$1 billion to build the necessary facilities.

While the markets for molybdenum may be down, Finney said a turnaround could occur suddenly.

"Our objective is to get through all the environmental require-

(continued on page 6)

## RDC helped influence QH decision

It took nearly one-half of a generation, but finally a positive operating plan for the Quartz Hill molybdenum project near Ketchikan has won approval.

The Quartz Hill deposit was discovered in 1974, but over RDC's objection, it was included six years later in Misty Fjords National Monument by the Alaska National Interest Lands Conservation Act (ANILCA). With considerable effort, Alaskans were successful in getting the Act to recognize the importance of the deposit and allow for development under special environmental controls.

Over the past 14 years, U.S. Borax has spent over \$150 million and has worked with some 15 government agencies to gain approval for developing the site. In November, the government issued its Record of Decision, one that will allow development of the mine when molybdenum prices rebound.

Throughout this long and exhaustive process, RDC worked hard to support Borax while non-development groups fought to block the project. RDC was involved in every aspect of the public review



### Message from the Executive Director

By  
Becky L. Gay

process, challenging the approach and assertions made by groups intent on the non-development of Quartz Hill.

When the project went through its draft EIS stage, RDC formed a special Quartz Hill Task Force to review the multitudinous documents. RDC filed extensive and comprehensive comments not

(Continued on page 5)

## Ten reasons why you should join RDC

Here are ten good reasons why you should become a member of RDC:

1. When you don't have time to attend every last public hearing or submit written comments on land plans, RDC will be there to represent you and your pro-development point of view.

2. As a member, RDC will keep you abreast on resource issues. We'll be your eyes and ears around the state. Once you join, you'll be in RDC's vital information flow.

3. You will benefit from timely resource development and issues analysis in our monthly newsletter, the *Resource Review*. You'll also be invited to participate in RDC divisions, which are subgroups from each of the resource sectors that meet periodically to discuss pressing issues. And of course, you'll be invited to attend RDC's weekly breakfast forums, where we bring resource topics before the public.

4. RDC excels at consensus building among all economic sectors. Shoulder to shoulder management joins labor, professors and teachers join lawyers, accountants, bankers, native corporations, miners, farmers, and bricklayers to work with members from all resource sectors in the common cause of Alaska development.

5. As a member, RDC's lobbying team will work for you in Juneau and Washington, D.C. When a critical resource issue comes to the floor for a vote, you can be sure RDC was behind

## Getting the most from RDC

By  
Anne M. Bradley



the scenes beforehand.

6. RDC's board is composed of recognized leaders from around the state who have distinguished themselves in the private and public sectors.

7. RDC has a professional staff of five, all highly qualified, long-time Alaskans.

8. As a member you have access to the organization's resources — a fully equipped bulk mail facility, fax, conference room, and vast library of periodicals, news clippings, and other reference documents.

9. RDC is the voice for all pro-development, productive citizens. No one contributor or one industry predominates or dictates RDC's course of action.

10. RDC has been a strong advocate for sound resource development for the last thirteen years. We're a unique organization in a unique state and **we give it all we've got!**

Remember, there are more than 20 non-development organizations working against resource development in Alaska. Most are supported nationally. The bottom line is: if you don't support RDC, who will?

## RDC intern reflects on difficult tasks

by Sandra Scott

Spending the summer as an intern with RDC has been a very educational experience. I have met many wonderful people, and have learned much about the complexity of the issues facing our state. Most importantly, I can now fully appreciate the immense obstacles faced by the pro-development community.

One of the biggest issues facing Alaska is the debate over the Coastal Plain of ANWR. I have written several letters to congressmen, encouraging them to support the opening of the refuge. I have not yet received a reply but rather than being discouraged by this fact, this inaction has opened my eyes to the size of the task facing us.

Gaining support for Alaska development issues from both Congress and our fellow Alaskans is a large and difficult task. We must not only provide them with facts about these issues, we must also successfully dispel the myths about the negative effects of development.

The "Adopt-A-Congressman" campaign currently being waged by RDC is an excellent way to provide this education. The more letters congressmen receive from individual Alaskans supporting the opening of the Coastal Plain, the better our chances of gaining their support.

I have become very interested, not only in developing

our current industries more fully, but in discovering new areas of development for Alaska and securing new markets for our projects. Alaska is a beautiful state with a lot to offer the world, especially in the area of natural resources. When I left the state to attend college I did not fully appreciate its beauty, or its potential.

Being away from the mountains for two years has caused me to appreciate Alaska's beauty. Working at RDC has given me a new appreciation of its potential. The members and staff of RDC are wonderful people who are extremely knowledgeable about the effects of development, not only on the economy, but on the environment as well. Seeing people who love the state as much as I do work to fully develop its potential in all areas with a lot of hard work and energy. I encourage you to stop by the office, meet the all-Alaskan staff and find out what you can do to help. I'm sure your time at RDC will be just as enjoyable as mine.

My time at RDC has been so fulfilling that I would encourage everyone to get involved. Development will not occur without a lot of hard work and energy. I encourage you to stop by the office, meet the all-Alaskan staff and find out what you can do to help. I'm sure your time at RDC will be just as enjoyable as mine.

<p><b>Resource Development Council, Inc.</b></p> <p>The Resource Development Council (RDC) is Alaska's largest privately funded nonprofit economic development organization working to develop Alaska's natural resources in an orderly manner and to create a broad-based, diversified economy while protecting and enhancing the environment.</p>	<p><b>Executive Committee Officers</b></p> <p>President ..... J. Shelby Stastny                  Vice President ..... Ethel H. "Pete" Nelson                  Vice President ..... John Forcskie                  Secretary ..... Stephen Ellis                  Treasurer ..... Larry Laughman                  Past President ..... Joseph Henri</p>	<p><b>Resource Review</b> is the official monthly publication of the Resource Development Council, Box 100516, Anchorage, Alaska 99510 — (907) 276-0700.</p> <p>The RDC business office is located at 807 G Street, Suite 200, Anchorage.</p> <p>Material in the publication may be reprinted without permission provided appropriate credit is given.</p> <p>Carl Portman Editor &amp; Advertising Manager</p>
	<p><b>Staff</b></p> <p>Executive Director ..... Becky L. Gay                  Public Relations Director ..... Carl Portman                  Member Services Director ..... Anne M. Bradley                  Projects Coordinator ..... Debbie Reinwand                  Staff Assistant ..... Kimberly R. Duke</p>	

# Impact of new Congress on ANWR is unclear

A favorable decision in 1989?

Pro-development forces are looking ahead to 1989 for a positive decision from Congress on Alaska's most important congressional legislation — oil and gas development in the Arctic National Wildlife Refuge. However, the prospects for opening the Coastal Plain of the refuge to oil and gas exploration and development remain unclear following the November general election.

Generally, proponents of drilling were pleased to see Republican George Bush emerge victorious over Democrat Michael Dukakis. Bush supports environmentally-sound development of ANWR's potentially-huge oil reserves while Dukakis favors a Wilderness designation for the area. Such a designation would close the door to development and deny the nation up to 25 percent of its future domestic oil production.

However, the election also resulted in a number of changes within Congress which could spell trouble for pro-development forces.

The greatest volatility exists in the Senate Energy and Natural Resources Committee where three members who support development were rejected by voters. A member who opposed drilling, Senator Dan Evans, R-WA, did not seek reelection.

The Senate committee was the first panel to pass a bill permitting drilling on the Coastal Plain. The 1002(h) land in question is an area representing only eight percent of the refuge, 92 percent remains in minimal or Wilderness management. A development bill later passed the House Merchant Marine and Fisheries Committee, but died in the Interior and Insular Affairs Committee, because of its time element in relationship to the general election.

Democrats picked up six seats in the House, increasing their majority to 262-173 over Republicans. Since only six House incumbents lost, little change is expected in the makeup of committees handling ANWR legislation. The extensive public hearing record of the 100th Congress is expected to hold and not be repeated.

A strong supporter of ANWR energy development, Senator Bennett Johnston, D-LA., is back as chairman of the Senate Energy Committee. Johnston lost a bid for Senate majority leader when Democrats elected George Mitchell of Maine for the important post. It remains to be seen if Mitchell will advance the ANWR issue in his new capacity.

Evans, the sole committee Republican

The New Congress			
Senate	Before	After	
Republican	46	44	
Democrat	54	54	
Unresolved		2	

House	Before	After	
Republican	177	169	
Democrat	255	252	
Unresolved		14	

who tried to postpone a decision on oil development in ANWR until the completion of a comprehensive national energy policy, is reportedly on the list of potential nominees for the Secretary of the Interior post in the Bush administration.

The former senator enjoys support from environmental groups customarily at odds with Alaska development forces.

Others mentioned for the important Cabinet post include New Mexico Governor Garrey Carruthers and Idaho Senator Steve Symms. Lamar Alexander, the former governor of Tennessee, is considered a longshot because the Interior department job has traditionally gone to a Westerner since most public lands are located in the West and Alaska.

Carruthers would continue the pro-development legacy of the Reagan administration while Evans would reflect a change in direction toward the environmentalists agenda.

Some political analysts believe Bush is more likely to fulfill campaign pledges to the non-development community by nominating a moderate to head the Environmental Protection Agency while continuing a pro-development direction in the Interior Department.

## Quartz Hill ...

(continued from page 2)

ments and get some of the major permits ... so they're at the starting line ready to go when that window of opportunity comes," said Finney.

The ore will be mined from a large open pit. It will be crushed and tunneled through a mountain along a 4.5 mile conveyor belt to a secondary plant. The mine will produce 80,000 tons of ore per day over a 55-year operating life.

Among the critical issues approved in the Record of Decision are:

- The disposal of tailings into an 11-mile section of Smeaton Bay and Wilson Arm
- Use of Tunnel Creek and Blossom River for water sources
- A commuting workforce from Ketchikan, with no town constructed at site
- Power generation on site

The most controversial aspect of the project has been the dumping of tailings in Wilson Arm. The environmental community has challenged the project a number of times, primarily over the Wilson Arm issue.

However, the Forest Service stresses there is little difference in the environmental effects of tailings disposal in the marine environment between Wilson Arm and Boca de Quadra. Environmentalists favor the disposal of tailings in Boca de Quadra, but such an alternative would cost Borax over \$60 million in additional development and operating costs — jeopardizing the entire project.

The Record of Decision specifies additional mitigation measures addressing tailings disposal, water supply, water quality, site reclamation, timing of in-stream construction to minimize effects on fish habitat, visual impact of buildings, construction of mine components and the formation of a Resource Advisory Group.

### Notable Quote

"Nations which do not successfully utilize resources become subject to nations which do."

William R. Whiteside  
Laborer's Local #341  
and RDC board member

Conference set for December 8-9

# Boreal forest conference designed to guide way to profitable industry

Speakers will outline new programs in advancing positive timber projects

Forestry experts from across the United States and Canada will travel to Anchorage in December to address a two-day conference designed to guide the way and set an example of how to run profitable wood operations in northern-latitude forests.

Sponsored by the Resource Development Council Education Foundation and the University of Alaska, the conference, entitled "Development of Alaska's Boreal Forest Industry," will be held December 8-9 at the Anchorage Sheraton Hotel. Featured speakers will outline new techniques, forest management programs and market opportunities that have brought great progress in advancing positive timber projects in northern lands like Alaska.

"Our major objective in holding this conference is to help Alaskans lay the foundation for a wood products industry that has fewer environmental implications than urbanization or from deliberately leaving the land in wilderness," said Joe Henri, President of the RDC Education Foundation. "The information exchanged at the conference will help Alaskans plant the seed for a new industry that uses timber harvesting as a tool to improve the quality of our forest environment while at the same time realizing economic gain from a renewable resource."

Over 20 speakers will address an audience of about 200 resource managers, scientists, business executives, conservationists and legislators.

Governor Steve Cowper has been invited to open the Conference Thursday morning with a presentation outlining a state policy to encourage development of a forest products industry. R.S. Trail, mayor of Dawson Creek, B.C., and Perry Hagenstein, a natural resource consultant from Wayland, Massachusetts, will discuss the economic impacts of northern forestry development on local communities.

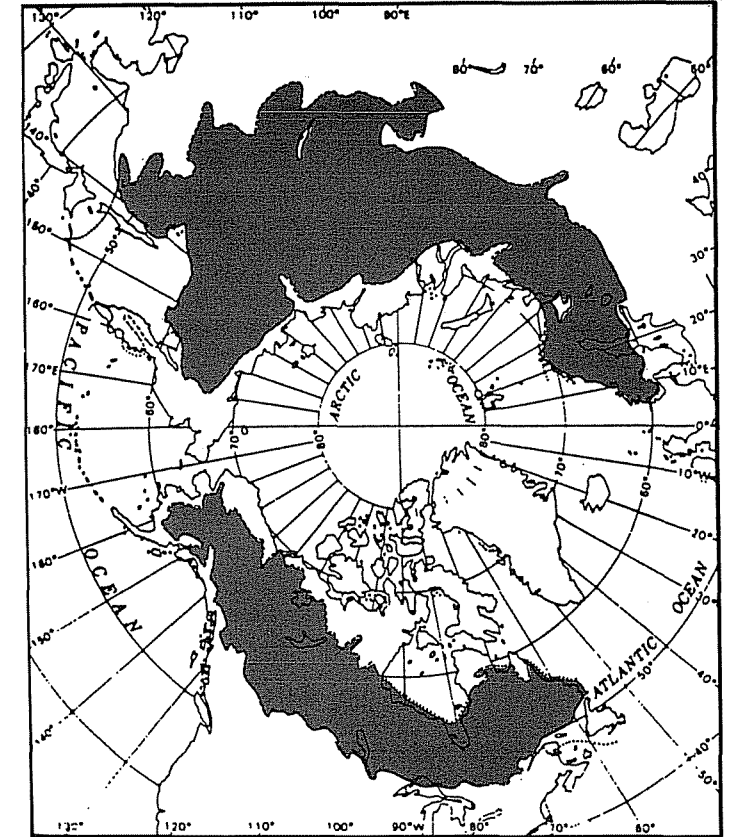
Nick Salterelli, a silviculturist with Abitibi-Price Corporation of Iroquois Falls, Ontario, will highlight new measures aimed at enhancing tree growth while Pat Wearmouth, a forester for Procter & Gamble Corporation, will focus on land management from an industrial view.

The Thursday keynote luncheon features Lester DeCoster, President of the American Tree Farm Association. DeCoster will address politics and forest industries development.

Con Dermott, Timber Management Director of the Alberta Forest Service, will open the afternoon segment with a presentation on tenure systems and multiple use management. Biology and wildlife habitat impacts will be covered by Lloyd Irland, President of The Irland Group of Augusta, Maine. Nicholas Kirkmire, Environmental Affairs Manager of the Glacier Park Company in Renton, Washington, will address multiple use management on a private industrial forest.

An integrated forest industry will be the subject of a Thursday evening banquet featuring Arne Hilden, a representative of the Trade Commission for Finland.

The conference continues Friday with a panel discussion on the utilization of boreal forest resources. Panelists Kent Hunt, a scientist with the Pulp and Paper Research Institute of Canada and Peter Koch, Director of Wood Science Laboratory, Inc., of



The circumpolar range of the boreal forests

Corvallis, Montana, will join Thomas Maloney, Director of the Wood Engineering Laboratory of Washington State University in discussing the utilization of pulp and paper, small diameter timber and panels.

The role of suppliers and processors will be discussed in a second panel discussion. Panelists include Bill Pickell, a logging contractor and consultant from Hoquiam, Washington, Frank Crawford, President of Crawford Sawmills in Athabasca, Alberta and Michael Chittick, President of Chugach Alaska Corporation in Anchorage.

Dr. John Choon Kim, Professor and Executive Director of the Alaska Center for international Business, will deliver the Friday keynote luncheon presentation, "Competitive Realities in World Markets."

The conference will close Friday afternoon following a panel presentation entitled, "Meeting the Market while Beating the Competition." Panelists include John Ward, President of John V. Ward & Associates of Washington, D.C., Gaston Malette, President of Waferboard Corporation in Timmons, Ontario and Bob Craig, President of Carroll Hatch International, Ltd., Watson Lake, Y.T.

The registration fee for the two day program, including lunches and the Thursday dinner banquet, is \$75. To register yourself and a friend call 276-0700 and ask for Kim Duke or Carl Portman.

# Alaska fisheries hold valuable development opportunities

(continued from cover)

as much to the economy as did our newer permanent fund in cash distributions. Think what this segment will do for our economy if we are able to rebuild stocks to their former strength.

The annual commercial harvest of between two and three million tons of fish from Alaskan waters and those waters immediately offshore places Alaska first in fisheries production for the United States. Further, if Alaska were an independent nation, we would rank sixth in the world in terms of fisheries production.

It is quite understandable, then, that our fishing industry is the state's largest private employer, providing jobs for 75,000 people during the peak of the season. In 1988, fishermen will be paid over 1.5 billion dollars for their catch, which, after processing, will provide about three billion dollars in fisheries products at first wholesale value. The financial benefits of fish harvesting and processing occurs throughout the state — even in Anchorage where the number of resident commercial fishermen makes the city Alaska's largest fishing village.

While fisheries has been our heritage, it can be our future as well. There is considerable potential for Alaska's commercial fisheries. With 70 percent of our nation's fish-rich continental shelf, a tremendous opportunity exists for Alaska to supply a national dietary growth trend for consumption of fish and fish protein products.

Much greater levels of economic benefit can be obtained from traditional Alaskan fisheries through improved forecasting and management, from Alaskanization of groundfish fisheries conducted offshore of Alaska, from expanding into underexploited fisheries, and through more complete utilization of fisheries by-products. Regarding the use of fish by-products, a year ago 1.5 million pink salmon skins from a new skinless-boneless canned salmon processing technique employed by North Pacific Processors in Cordova were shipped south for tanning. These salmon skins are now available in the form of high quality purses, belts, wallets, and shoes in some of the more fashionable leather goods outlets found in Montreal, New York, Tokyo, and London. More recently, a new Alaskan company with facilities in Juneau entered into the salmon skin tanning business, obtaining fish skins that otherwise would have been discarded by processors on the Kenai Peninsula and at Sitka.

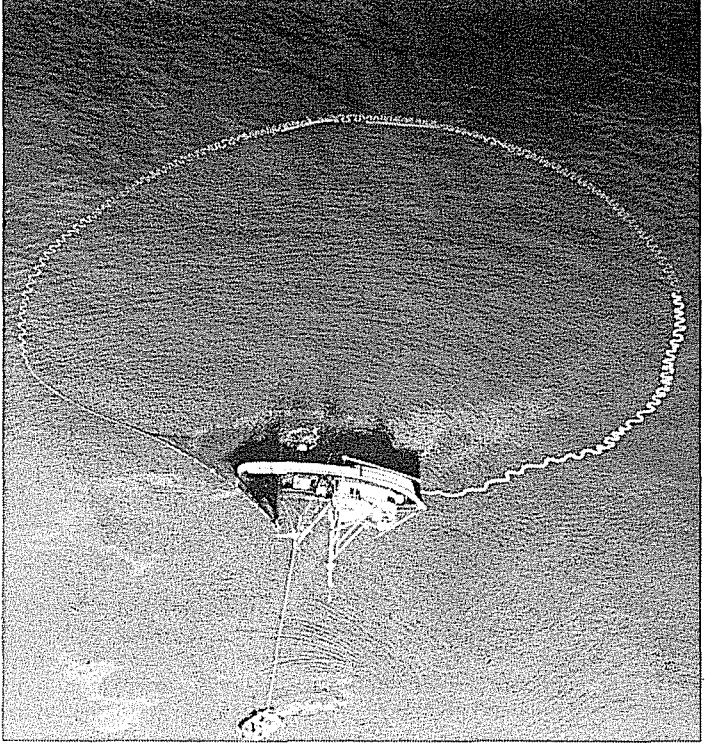
Alaska also hosts a rapidly growing sport fishery. Records for 1986 show that 360,000 anglers took over 1.7 million trips, catching over 3 million fish. One-third of these fishermen were non-residents, who provide a significant infusion of fresh funds into the state's sport fishing industry. And, substantial these revenues can be, with the standard charge for a week of fishing in one of the many Bristol Bay fishing lodges being \$3,000 per fisherman. Alaska contains more than 40 percent of the nation's surface-water resource. While not all of our lakes and streams contain sport fish resources, there are over 12,000 known and anadromous fish streams with 120,000 to 180,000 lineal miles of fresh water. Alaska also has thousands and thousands of miles of coastlines and adjacent marine waters, rich with sport fishing opportunities. With over half the sport fishing effort presently concentrated in the Cook Inlet region, there is substantial area into which this rapid

growth industry can be encouraged to expand. Mariculture is Alaska's newest fishery opportunity. Farming of the sea has occurred for many years, but recent biological and technological breakthroughs have created a highly profitable growth industry for countries bordering both the Pacific and Atlantic. Prominent among these countries are Japan, with a long tradition of farming the sea, and Norway, a more recent entry that quickly took advantage of available opportunities and became the leader in pen rearing of Atlantic salmon.

Japan cultures a wide variety of fish, shellfish, and sea plants. Their coho salmon pen rearing production, which began about ten years ago, now totals over 20 million pounds and already matches the average Alaskan wild stock coho salmon commercial catch. Norway's salmon culture program currently provides over 100 million pounds of Atlantic salmon. The 33,904 miles of unpopulated productive waters of Alaska's many sheltered bays and fjords exceed those of Japan or Norway. Much of this area is considered ideal for mariculture. The state and industry must proceed cautiously, however, since the wild stocks presently taken in our commercial fisheries are the life-blood of many of our coastal communities.

To realize our substantial fisheries opportunity requires the combined efforts of government and private industry. Firstly, government needs to work diligently to reassessable its fisheries program after the belt tightening and personnel layoffs experienced over the last few years and motivate those remaining management and research biologists to rise to the opportunities presented. To take full advantage of our fisheries opportunities also requires fisheries scientists trained in Alaskan fisheries problems. This can be best accomplished by developing a strong Ph.D. fisheries program with the University of Alaska.

It is also appropriate for the federal government to redirect fisheries emphasis to Alaskan issues since (1) Alaska provides two-thirds of the entire U.S. commercial fisheries harvest and (2) Alaska contains 40 percent of the surface water in the United States and is now recognized as a world class sport fish destination. Secondly, government should create the opportunity for private industry to extract full value from fisheries stocks. Two examples dealing with herring and salmon resources help clarify how govern-



Renewable fishery resources allow moderate utilization year after year.



There is considerable new potential for Alaska's commercial fisheries. Above, a fishing boat is filled to capacity. (C. Meacham photo)

ment can assist private industry. Commercial herring sac-roe fisheries throughout the state are generally managed to allow a harvest of 20 percent of the available resource during the short window of time at which the roe (egg) recovery is maximized. There is a five-fold difference in ex-vessel price between herring with 7-8 percent or less roe recovery (used for food and bait) and herring providing 10 percent or greater roe recovery (sold for egg extraction). Projects can be put in place to better determine and then achieve the 20 percent of biomass level of harvest. Intensive sampling projects are required to identify when herring have matured sufficiently to achieve roe recoveries in excess of 7-8 percent since these recovery values change dramatically over the space of a few days. Too early a harvest will provide a product of only one fifth its potential value as will a harvest which takes place after herring have spawned. Accurate assessment of abundance and fish maturity is critical to assist the thousands of fishermen involved in extracting full value from the herring resource. Commercial salmon fisheries are managed so as to harvest all fish in excess of spawning requirements. Determining the optimum number of spawners to maximize production from each unique river system is still underway for most Alaskan rivers but provisional escapement goals are in place for many of the more productive rivers. Managing commercial fisheries to achieve an appropriate split between harvest and escapement needs is a difficult process that, if improved, would lead to major economic gains through the state. In Bristol Bay alone, over the last five years, a total of 9.8 million sockeye salmon in excess of identified escapement goals swam up Bristol Bay rivers. At prices paid to fishermen last season, each fish sold for over \$10. More difficult to assess is the cost of taking too many salmon in the catch at the expense of salmon needed on the spawning ground to reproduce the species. The benefits of identifying optimum escapement levels and then achieving them can be substantial.

Our investment in fisheries management and research in Alaska is extremely cost effective relative to other West Coast states. Unfortunately, the state is presently in a cash shortage situation with every dollar spoken for. However, we should think about directing additional contribution toward fisheries management and research. In reality, they currently pay \$47 million in license fees and various taxes — more than it costs to manage the fisheries. But, these dollars go into the state's general fund and are not necessarily directed toward fisheries. Commercial fishermen were paid over 1 percent in addition to any general fund dollars that may be found, we may need to consider looking to the fishermen and industry for additional contribution toward fisheries management and research. Commercial Fisheries Division receives less than 1 percent. Commercial Fisheries Division receives less than 1 percent. In addition to the statewide general fund budget and the ceives 2 percent of the state's revenue generators. Presently, ADF&G re-programs which are revenue generators. Presently, ADF&G receiving a portion of any additional dollars that may be found to fisheries with every dollar spoken for. However, we should think about directing a portion of any additional dollars that may be found to fisheries programs which are revenue generators. Presently, ADF&G receives 2 percent of the statewide general fund budget and the Commercial Fisheries Division receives less than 1 percent.

"Mariculture is Alaska's newest fishery opportunity. Farming of the sea has occurred for many years, but recent biological and technological breakthroughs have created a highly profitable growth industry for countries bordering both the Pacific and Atlantic." — Charles Meacham

1.5 billion dollars for the fish they caught in 1987. A negligible fraction of that value directed toward management and research of the state's fisheries resources would yield significant benefits. In summary, while fisheries has been our heritage, it has a bright future as well. Alaska's cultured and natural seafood resource can be efficiently extracted from our cold ocean waters and find their way to dining tables throughout the world. Likewise, our premier sport fish resources will draw fishermen internationally — not once, but again and again. And this can continue forever. Such is the unparalleled economic strength of our renewable fisheries resource if appropriately managed.

\* The Alaska Permanent Fund is a savings account, restricted in its use, which belongs to all the people of Alaska. It was created in 1976 and requires that at least 25 percent of oil royalties be placed in the fund.

Charles F. Meacham, a former cannery worker and commercial fisherman, is presently serving as Regional Research Biologist, ADF&G, for Bristol Bay, Cook Inlet, and Prince William Sound.

## RDC Influence . . .

only on the draft EIS, but the subsequent revised draft and later a draft final EIS. More importantly, RDC was instrumental in drawing substantial public and governmental support for development of the project. When the windows of opportunity came for public comment, RDC sent detailed "Red Alerts" to our broad and diversified membership across Alaska urging positive responses of support to the federal and state agencies with jurisdiction on the issue. RDC's position on the specific aspects of the project were clearly stated for easy reference, knowing many state and federal permits required for the project would be strongly influenced by the exhaustive EIS process. RDC continuously shared its position with government agencies and others, asking that environmental controls be reasonable and balanced by economic considerations. It appears the positions it has been a decade-long battle, but it appears the positions and actions of the various government agencies were influenced to a significant degree by public comments. The EPA's Best Professional Judgment Report was completely revised. Metals toxicity, especially copper, was reviewed and re-described. Marine tailings disposal was modeled by the EPA. Additional sections on mitigation, monitoring, powerline interference and the air quality effects were re-analyzed. Provisions were made for re-visiting and updating socio-economic baseline information. It took 14 years just to get this far. When Quartz Hill finally comes on line, it will help stabilize the economy of Alaska by broadening its industrial base in Southeast.

The Quartz Hill decision proves that it takes all of us working together to overcome the obstacles and unlock the door to Alaska's undeveloped resources. Especially to those of you who helped on this one, a toast to the victory at Quartz Hill.