

SCOMM

62:22

FISCAL NOTE

REQUEST:

Revision Date: _____

Title: A Resolution urging coordinated
research and development of technology
of oil discharge

Sponsor: Rodey and Szymanski

Agency Affected: Environmental Conservation

BRU: Environmental Quality
and programs for prevention and cleanup

Components: Environmental Quality

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING		-0-	-0-	-0-	-0-	-0-
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL		-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME		-0-	-0-	-0-	-0-	-0-
PART-TIME		-0-	-0-	-0-	-0-	-0-
TEMPORARY		-0-	-0-	-0-	-0-	-0-

ANALYSIS : (Attach a separate page if necessary)

Prepared by: Dan Easton

Division: Environmental Quality

Phone: 465-2640

Date: April 11, 1989

Approved by Commissioner: AD/gh

Agency: Alaska Department of Environmental Conservation

Date: 4/12/89

Distribution (by preparer):

Legislative Finance

Legislative Sponsor

Requestor

Office of Management and Budget

Impacted Agency(ies)

SENATE COMMITTEE REPORT

FIRST COMMITTEE OF REFERRAL

Date of 5-DAY NOTICE
IN ACCORDANCE WITH UNIFORM RULE 23

**FISCAL NOTE(S) MUST BE ATTACHED
IN ACCORDANCE WITH AS 24.08.035

FURTHER

RES

4/5/89

DATE TURNED INTO OFFICE _____

Mr. President:

OIL AND GAS

Committee considered SCR 30

Urging coordinated research and development of technology and programs
for prevention and cleanup of oil discharges

and recommended:

☐ replace with CS _____ ☐ same title
☐ attached amendment(s) and ☐ new title

☐ _____ letter of intent adopted

☒ do pass

☐ do not pass

☐ no recommendation

☐ individual recommendations

☐ further referral to _____

*Fiscal note
coming*

FISCAL NOTE(S) attached ☐ zero
☐ appropriation no FN attached

☐ fiscal impact
☐ Gov. FN introduced w/ bill

MEMBERS SIGNING DO PASS

OTHER RECOMMENDATIONS

Rich Haysford
Paul Frick
Tim Kelly
Al Adams

Jim Wallace - 10/2/89
Chair signature and recommendation

☐ Committee backup attached



**Alaska
Pacific
Consultants**

3111 C Street, Suite 200 Anchorage, Alaska 99503 (907) 562-3427

April 2, 1989

Honorable Pat Rodey, Senator
Alaska State Senate
P.O. Box V
Juneau, AK 99811

Dear Senator Rodey:

The Alaska State Senate has passed a bill appropriating \$20 million to aid in the Prince William Sound oil spill disaster. If the House has not also passed, I trust it will do so shortly.

I suggest that the State of Alaska can do more. Over one year ago (March 31, 1988, Northern Lights Inn, Anchorage. See attached article), Mr. Henry Cole, Science Advisor to Governor Cowper, addressed the Resource Development Council of Alaska, Inc., stating that the Alaska Science and Technology Foundation would be funded with a \$100 million endowment. Unfortunately, that amount of money was not forthcoming. Now is the time to move aggressively forward to fund this Foundation for the purpose of researching, and developing recovery programs surrounding the Prince William Sound oil spill.

The Science and Technology Foundation might well address the following:

- **Oil Spill Research:** Recovery, appropriate disperants, skimmers, cleanup technology, wildlife protection and cleaning, plus a myriad of other appropriate technologies.
- **Social Science Research:** Study and development, in conjunction with existing local, state and federal agencies, programs to assist individuals, families and companies through the difficult economic and stressfull days ahead. As people face mortgages, unpaid bills, increased family conflict, mental anguish, and other problems faced with the "fallout" from this disaster, assistance will be needed.

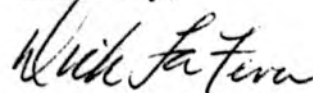
- **Economic Renewal Research:** Study how the recovery of the Prince William Sound's economic/social system will need a total systems approach. All of Alaska will be affected by this disaster, and we Alaskans are capable of designing our collective future, **IF** we choose to work collaboratively in collective best interests. To do this however, will, in my opinion, need the leadership the Foundation could provide.
- **Psychological Leverage:** Provide immediate attention and focus on Alaska's efforts to build toward the future. Not only is this good business, but it will provide Alaskans and potential visitors and investors the "psychological edge" proving that we are indeed in control of our destiny.

Mr. Ed Clinton, Chairman of the Alaska Science and Technology Foundation, will address the Alaska State Chamber of Commerce on Friday April 7, in Anchorage, at the NBA Main Branch, 3rd Floor Conference Room. It may be possible to get Mr. Clinton's attention on this before April 7, and to seek his input.

Further, I am asking that Mr. Clinton, and the other Science and Technology Foundation Board Members, Governor Cowper, appropriate State Department and Agency Heads, Alaska State Legislators, and appropriate private citizens be called to a "summit" on Alaska's Economic and Social Future to address this proposal. If appropriate, legislation addressing this concept might be the best method for moving forward. I, however, leave that to you, Senator Rodey.

Thank you for your kind and timely attention to these ideas.

Sincerely,



Dick La Fever, Director



3111 C Street, Suite 200 Anchorage, Alaska 99503 (907) 562-3427

August 16, 1988

Boards and Commissions
Office of the Governor
P.O. Box A
Juneau, AK 99811

Attn: Honorable Steve Cowper, Governor, State of Alaska
Re: **Alaska Science and Technology Foundation**

Two years ago we started Alaska Pacific Consultants. We are still in business and we are growing. No one in Alaska is more confident and "bullish" on Alaska than I.

Dr. Glen Olds, former President of Alaska Pacific University, once said, "Alaska is a State of Mind"! I agree. Our potential is great, our capacity for renewal, redirection and rededication to our collective Alaskan goals and aspirations is also great.

The **Alaska Science and Technology Foundation** can provide the structure for the application of our knowledge to achieve the practical results that will benefit all Alaskans.

I want to be a member of the first Board of Directors of the **Alaska Science and Technology Foundation**, and to serve the people of Alaska. Attached you will find my resume, including the current activities I'm involved with, plus references.

Thank you for your consideration.

Sincerely,

Dick La Fever, Director

attachments

Advisor urges cooperation in shaping economy

By Ray Tyson
Times Business Editor

Science and technology may not solve all of the state's problems, but they are necessary tools in rebuilding Alaska's shattered economy, according to the governor's science advisor.

"People have said we cannot afford this. I say we can't afford not to do this," Henry Cole said.

Cole brought that message to Thursday's Resource Development Council, saying a \$100 million endowment program being considered by the legislature is a "seed" for "a bold, innovative plan to bring economic development through applied use of science and technology to all of Alaska."

The program would be administered by the Alaska Science and Technology Foundation. The money would be used to develop projects initiated by Alaskans.

"A technological breakthrough, at a minimum investment, can be leveraged to create a whole new industry and many more jobs," Cole said.

State government in Alaska is only one of a handful in the country that doesn't directly support science and technology, he said.

Some 43 states invest \$700 million a year in that field, he said.

Seven of those states spend about \$350 million between them, including Pennsylvania, Massachusetts, Illinois, Minnesota, Michigan and Ohio.

"These are states that were in serious economic trouble," Cole said.

Only Alaska, West Virginia, Wyoming, North Dakota, Idaho, New Hampshire and Vermont don't invest in science and technology research, he said.

"These are states with small populations . . . that have no definite infrastruc-

ture," Cole said.

He said Alaska has an opportunity to break trail in applied science and technology.

Among them is construction. For example, Cole said, buildings in rural Alaska are often so poorly insulated they lose a third of their heat in winter.

"The Canadians are much further ahead of us. They allocated \$50 million (for research) to reduce their dependence on foreign oil," Cole said.

"We can be more competitive through arctic construction," he said.

Cole said his office has received a number of other proposals from Alaskans looking for state support.

"They represent real efforts by some Alaskans to solve some of these problems," he said. "There's a tremendous amount of inventiveness that exists in the state."

However, Cole described many of the proposals as "orphan Alaska projects," or proposals that don't quite fit the norm.

"They represent projects that fall between the cracks of existing funding agencies. They do not fall into the federal (model)," he said.

"They are too risky for private enterprise. There are no homes for them."

A state endowment program would help generate projects initiated by Alaskans, Cole said.

"Government spreads the risk around. There's a need for government to attend to some of these problems," he said.

"The Alaska Science and Technology Foundation can fund the research and development portion of projects in Alaska which help solve problems relating to Alaska and the arctic . . . A small investment can create a technological breakthrough."



Henry Cole
... can't afford not to

March 89

Arch Times

Scientists debate whether pride has a place in discovery

Some say national prestige serves as an impetus for advances

By Tom Siegfried

In science, there's a lot of prejudice against pride.

In particular, "national pride" comes in for a lot of criticism. There are those who argue against spending huge sums on such projects as the Superconducting Supercollider, sequencing the human genome or going to Mars on the grounds that such activities are undertaken merely as exercises of nationalistic ego.

After all, Europeans are building impressive particle accelerators that may tell physicists what they need to know. The Japanese are speeding along in their efforts to sequence the genome. Why should we waste money on such things when the only stakes are scientific pride?

"These are the kind of things that one has started to hear at the National Science Foundation," said Margaret Geller, an astronomer at the Harvard-Smithsonian Center for Astrophysics. "There's this attitude that we can't be good in everything — if somebody else is doing it, we shouldn't."

Molecular biologist David Baltimore, a Nobel Prize winner, expressed such a sentiment in Boston recently at the annual meeting of the American Associa-

tion for the Advancement of Science. Cataloging the 3 billion units of the complete human genetic code is not a race between nations, he said.

"I hope that we can tone down this whole concept that there's something we're racing for and that there's a winner and a loser," he said. "I think that the efforts in Japan and the efforts in Europe and the efforts in the United States will become coordinated so that the information will become available, no matter where it's gotten, to everybody in the scientific community."

But not all biologists believe that pride is an unworthy motivation for such an endeavor.

"I think it would be a good thing if it were national pride," said James D. Watson, also a Nobel laureate. "We have so little of it in our country."

Watson, who with Francis Crick discovered the structure of DNA, says there are worse things to be proud of than trying to understand the building blocks of human life.

"I really can't think of a better thing to do than to find out what we are . . ." he said at the Boston meeting. "I think this would be a good thing to have pride in."

Similarly, Geller invokes national prestige in arguing for more public support for basic scientific research. She cites ground-based astronomy (studying the stars with telescopes) as an example of a field in which the United States is in danger of losing its superiority.

"Ground-based astronomy is something where we lead," she said in a recent interview. "But the European nations have decided to make a major investment in a ground-based telescope. The U.S. . . has not. I think we're in danger of being in the same position in ground-based astronomy that we've gotten to be in particle physics, where the Europeans really took the lead. It seems to me that's a dangerous trend."

In the United States, she notes, the only major new ground-based telescope project is the Keck Observatory in Hawaii, being built with private funds. "And it's not of the same level as the European endeavor," she said.

"It's an issue of national prestige. It seems to me it's crazy to throw away fields in which we really do have the lead."

But is prestige really important? Geller argues that it is. The motivation of



pride, she suggests, helps to promote excellence.

"The best people are attracted into

fields where they can really be at the cutting edge," she said. If the United States lags behind the cutting edge of basic research, scientific research will no longer attract the people capable of providing the knowledge needed for technological advance.

"I think people have forgotten the connection between basic research and leadership in technology," Geller said. "The transistor and the laser and the maser, all those things came out of basic research, not out of technology-directed research. But you really have to be attracting the bright, creative people into basic research in order to have the technological spinoff. If you don't attract bright people into these fields, it's going to be bad for the technology as well as for leadership in basic research."

Pride should not, of course, be allowed to warp research priorities. But pride as an impetus to excellence is not such a terrible sin.

"It's true that one can't lead in everything," Geller said. "But if you don't have the attitude that you're going to lead, you're really doomed to second-rate status — or worse."

Tom Siegfried writes for the Dallas Morning News.

City/State

B

eigners visit oil spill; observe, advise



Times photo by MICHAEL DINEEN

Oppeneau, Head of Research, Ministry of the Environment, left, and Lalonde, French Minister of the Environment

By BOB ORTEGA
Times Writer

When the supertanker Exxon Valdez disemboweled itself on Bligh Reef nine days ago, crude oil gushed out so furiously that it billowed eight or 10 feet in the air before pancaking out in a vast flat slick.

As fast as the oil spread through the pristine waters of Prince William Sound, word of the disaster leapt by wire around the world — drawing oil spill experts and wannabes from every oil-producing country imaginable.

"We are here to see, and hopefully to learn more about the effects of the oil on the wildlife," said Reidar Hindrum, a nature management director from Oslo who arrived in Anchorage Saturday, along with four other Norwegian oil spill management technicians. The five men were to leave this morning for Valdez, at the south end of the trans-Alaska pipeline, and for the nearby fishing village of Cordova.

Several Canadian researchers ar-

rived early last week, Exxon spokesman Gene Sands said. Technicians and scientists from many other countries are also expected to show up.

"We've heard from literally every oil spill consultant and expert in North America and Europe," Sands said.

Saturday, France's Minister of the Environment, Brice Lalonde, and his head of research, Jean Claude Oppeneau, jetted in. They were to be joined today by another French spill expert bearing a gift — 10 tons of Inipol 90, a chemical dispersant that has been used frequently to break down oil slicks in European waters.

There's been some question as to whether the Inipol 90 will do any good. Early last week, special planes made a few low-altitude runs over the sound, spraying an American-made dispersant on the crude with some success. Then, five days ago, those directing the cleanup effort said that the slick had weathered too much for dispersants to be effective.

But Saturday, at Anchorage International Airport, a senior Exxon environmental scientist waiting with the Frenchmen for their luggage said the Inipol 90 might still prove useful.

The tall, bespectacled Dr. Al Maki agreed that the dispersant could be applied to the fresh oil that the Exxon Valdez continues to burp into the sound. And he said that the chemical might still work on the older, emulsified oil known as "chocolate mousse" for its color and consistency.

"There are long streamers of oil that are coated with mousse on the outside, but inside are relatively unweathered oil," he said.

"As the sea breaks apart the mousse, that fresh oil is exposed to water. That's why you still see that blue-green sheen on the water. The dispersants might work on that oil," he said.

Lalonde is hopeful that dispersants aside, he and his aides can offer suggestions. See Spill, page B-8

Spill: World learns

Continued from page B-1

gestions to make the cleanup more effective.

Eleven years ago, when the tanker Amoco Cadiz broke up off the northwest coast of France, it spilled more than 1.5 million barrels of oil, about six times as much as the Exxon Valdez. Huge stretches of the coast of Brittany were slimed with a thick goo that wiped out the wildlife; the local fisheries were destroyed.

At the time, Lalonde was the director of France's chapter of Friends of the Earth. He was involved heavily in the massive cleanup effort. He was involved in setting up new agencies to study the effects of the spill, how to prevent another one, and how to develop new and more effective

cleanup techniques.

"We know how it feels," he said, "the anger and the hopelessness . . . but cleaning up the coast is something we've learned to do. We'll see if the same techniques can be of use here."

Lalonde said he believes the rocky shores of Prince William Sound are similar to those of the Brittany coast.

Oyvind Schreiner, assistant director of Norway's State Pollution Control Authority, said the similarity of the sound's geography to Norway's fiords should make his experts' knowledge of shoreline cleanup relevant as well.

The Norwegians nearly didn't come. Wednesday, the U.S. Coast Guard declined their offer.

But Alaska officials quickly extended their own invitation.



Jan Nerland, Norway State Pollution Control Authority arrives in Anchorage.

Times photo by MICHAEL DINEEN



WESTRENDS

121 SECOND STREET 4TH FLOOR SAN FRANCISCO, CA 94105 TELEPHONE (415) 974-6422

WESTRENDS EXECUTIVE SUMMARY

Richard H. Bryan
Governor, Nevada
WESTRENDS Chairman

George Fleming
Senator, Washington

Thomas M. Hannigan
Assemblyman, California
Assembly Majority Leader

Jim Jones
Attorney General, Idaho

Stephen McAlpine
Lieutenant Governor, Alaska
WESTRENDS Vice-Chairman

W. Val Oveson
Lieutenant Governor, Utah

Chris Paulson
Representative, Colorado
House Majority Leader

Barbara Roberts
Secretary of State, Oregon

Raymond G. Sanchez
Speaker, New Mexico

Daniel M. Sprague
WESTRENDS President

Historically the West has been a region of change and growth. In recent years, however, the fundamental nature of the region has begun to shift. Key demographic and economic changes are permanently altering the socio-economic character of many parts of the region, adding new dimensions and challenges for public policy makers. Among the leading trends transforming the West are:

Fastest Growing Region of the United States

The West grew at a faster rate than any other U.S. region between 1980 and 1987. The region grew 15.1% during this time period, more than double the national average. The South was the second fastest growing region at 11.3%, followed by the Northeast and Midwest at 2.3% and 1.1% respectively. Population growth in the West is well above the national rate due to three factors: high birth rates, relatively high migration rates and very high immigration rates. A majority of western states are participating in the high rate of population growth; however, a handful of states experiencing serious downturns in their economies have had static or declining populations over the past several years.

Highest Dependency Ratio Among Regions

Among the four U.S. regions, the West has the highest dependency ratio. The "dependency ratio" refers to the burden placed on wage earning taxpayers between the ages of 18 and 64 to finance services such as education, and health for older and younger age groups. The region has the highest percent of the population under age 18 with the under-5 age group increasing 51%, or approximately five times the national rate from 1980 to 1987. During the same time period, the 65 and older age group in the West has increased by 49%, more than three times the national rate.

Growing Ethnic Diversity

A third demographic trend is the changing ethnic composition of the western region. The West leads the nation in legal immigration for the decade 1975-85. Asian and Hispanic immigration is highest to the region, where the greatest concentration of Hispanic and Asian Americans reside. In addition, from 1970 to 1980, the West, with the smallest percentage of blacks, experienced the greatest increase in black population among U.S. regions for that decade.

Metropolitization of the West

The growth in population and changes in metropolitan areas contribute to the shifting landscape of the West. The region is no longer a network of small towns; instead, it is largely comprised of sprawling metropolitan areas and newly suburbanized communities separated by large open spaces. In 1986 the West ranked above the national average, with 83.7% of the population residing in metropolitan areas, second only to the northeastern region at 88%. From 1980 to 1986, mountain states experienced an average annual metropolitan growth rate of 2.5%, lead by Arizona at 3.3%. Pacific states experienced an average annual metropolitan growth of 1.9%, with Alaska leading at 4.8%. Both sub-regions exceeded the national average of 1.1% for this time period. This metropolitan growth brings a shift in political and economic emphasis from rural areas to urban centers.

-over-

Importance of Natural Resources

Western states continue to rely upon natural resource industries for revenues and employment well above the national average. While natural resource-based industries have declined in recent years, signs of upturn are now evident in some areas. The creation of value added activities associated with natural resource production and processing will increase employment and productivity. Nonconsumptive uses of natural resources, such as tourism and recreation, are increasingly important revenue producers in the region. The continued importance of natural resources to the West is best understood in the context that the region does not have to import these basic commodities, and indeed they offer significant value added export opportunities for the future.

Increasing Manufacturing and Service Jobs

Concerted efforts have been made to diversify the western economy beyond the traditional natural resource sectors. Although the West has below the national average percent of population employed in manufacturing, the region added a net of 70,000 new manufacturing jobs to its economy between 1980 and 1986; while the other U.S. regions experienced a net decline in manufacturing jobs during this period. Moreover in 1985, the western region led the nation in export-related manufacturing employment. Though the West ranked third among the four regions in service employment from 1980 to 1986, the number of service workers increased by an impressive 1 million.

Pacific Rim Powerbase

Perhaps the most optimal circumstance for the western region is its inclusion in the Pacific Rim, the most dynamic sector of the global economy. In 1984, western states accounted for 23% of U.S. exports and imports. Total 1984 U.S. exports equaled approximately \$218 billion, of which \$50 billion moved through western ports. All western states, due to proximity to the emerging world class economies in the Pacific Rim, stand to be key players in unprecedented economic growth toward the year 2000 and beyond.

Changing Workforce Composition

The demographic and economic changes the West is experiencing underscore the need for a highly educated, well-trained labor force. Minorities and women will constitute an increasingly larger share of the western labor force, and they must be equipped with relevant skills to maintain the region's economic competitiveness. The West currently has the highest percent of high school graduates and the highest participation of women in the labor force among U.S. regions. The West, with the highest percent of population under age 18, has a sizeable labor pool for the future; however, the region has a significant challenge ahead in educating an increasingly diverse population for more highly skilled service sector employment.

Challenges to Environmental Quality

Compared to other regions, the West has experienced relatively less environmental degradation. Air and water quality has actually improved in many parts of the region in the past two decades. However, rapid population growth concentrated in large metropolitan areas is resulting in heightened concerns about air quality, adequacy of water supplies and general congestion in urban areas. Western states are highly dependent upon tourism to bring revenue to the region and a high quality of life to attract new businesses and residents. Reductions in environmental quality in major metropolitan areas will adversely impact tourism and related economic growth sectors. Therefore, Westerners need to be particularly attentive to the vital role of updating infrastructure including highways, water storage facilities, wastewater treatment plants and mass transit to provide for sound economic expansion and environmental protection.

Less Regional Cohesion

The West is unquestionably the most fractionalized region of the country. It is a land of contrasts, with the nation's most populous state, California, and several of the least populated states, such as Wyoming and Alaska. The citizens of the mountain West and the Pacific West hold widely different views on basic value issues such as abortion, religion and the role of government. The trends cited above tend to reinforce existing regional differences. Thus, the region will have to work more diligently on interstate issues and communication if it is to gain political cohesion and influence in national policy equal to its growing population.

Conclusion

The foregoing trends are most likely to have sustaining impact on the economic, social and political future of the western region to the year 2000. Together these trends present "good news - bad news" scenarios. Each brings positive values to the region, and each presents risks, or at least missed opportunities, if not appropriately addressed. The challenge for state leaders is to build upon an extraordinary set of positive attributes embodied in the people and the land. With a comparatively youthful, well-educated and enterprising population, the West continues to be a land of opportunity and is strategically positioned to have an era of sustained prosperity as part of the Pacific Century ahead. Whether the region will in fact realize this bright promise will be determined largely by the extent to which state leaders are willing and able to tackle the tough allocation choices immediately ahead - educating the young, maintaining environmental quality, anticipating the capital needs of fast growth, providing for the elderly, and strengthening regional ties and cooperation with neighboring states.