MEETING SUMMARY
ALASKA WATER RESOURCES BOARD

December 2-4, 1981
Soldotna, Alaska

The Alaska Water Resources Board meeting was held in Soldotna at the municipal building on December 2-4, 1981. Members in attendance were:

Willard Sims, Kodiak (Chairman)
Peg Tileston, Anchorage
Dave Vanderbrink, Homer
Wayne Westberg, Anchorage
Fred Boness, Anchorage

The following minutes summary comprises the Alaska Department of Environmental Conservation portion of the meeting.

Wednesday, December 2

Gary Hayden, Water Quality and Environmental Sanitation Section Chief, opened the presentation. He noted that Jim Sanders, formerly the EPA 208 Grant Project Coordinator, had transferred to Community and Regional Affairs. He mentioned that we have two new environmental research analysts who are managing various 208 projects.

Major Points:

* The oil spill program in September adopted oil spill contingency and financial responsibility regulations. They require any facility which transports oil, has an offshore production or exploration activity, or any storage facility on land containing more than 10,000 barrels of oil to have a contingency plan for cleaning up or responding to any spill from that facility. In response, the oil companies formed a co-op, called "ABSORB," jointly purchased equipment, set up personnel training programs, and established a communication network for spills.
* The State has approval rights over the oil spill contingency plans.
* Freeze-up and break-up pose the major problems in terms of cleanup efforts. Hayden said, "You almost cannot respond to a spill--that's why

we've contended that we need restrictions on drilling depending on season and time of year."

Question: What enforcement takes place?

Answer: Field people deal day-to-day with companies, making sure there is substance behind words placed on paper. They check the integrity of the equipment involved in drilling and production of oil and gas. They check management practices at the exploratory well sites.

Question: What training do the staffs have?

Answer: We require field manuals, and we're pushing toward oil companies setting up training for their staff.

Question: What reporting system exists?

Answer: There are two entities receiving reports: the Feds through the Coast Guard and the State through a Zenith 9300 number.

John Halterman: The Clean Water Act is up for review. We may want to make two recommendations: (1) state primacy could be achieved for enforcement at least under circumstances in oil spill cleanup, and (2) if there is such a requirement (for a mandatory fine) it would be removed or amended to have federal agencies listen to state recommendations.

Dick Sims: With a mandatory fine, there are two risks. You increase the chance of not even getting the spill reported, and you encourage a lie about the size of the spill if you do report it.

* The drinking water program staff targeted systems serving more than 500 people for compliance with regulations as far as sampling. The current year target is 200 systems and commercial class B systems along the roadways. We had 153 sample analyses that showed some suspected contamination last year, and that came down to about 23 systems with problems.

* Waste Water Disposal Program: There have been several primary activities, the first of which was a state position on national effluent guidelines for

the seafood processing industry. Second, we analyzed water quality issues related to petrochemical development and prepared a report.

* Replacement of federal funds: Department-wide, the loss is $1,300,000 out of the FY 82 budget that will be unavailable in FY 83. We requested an increment of $1,000,000 in replacement funds. In our section, we lost about $900,000 and requested a replacement of $300,000. Rather than doing a lot of outside contracting, we'll try to work with our staff.
* General permits for wastewater discharge: ADEC is trying to establish a sequence for issuing permits for project-wide activities. In the Kenai Borough, we've been working to resolve review of waste water disposal plans in subdivisions. We have not yet reached accord on this issue. Another holdup is that Section 301 (h) of the Clean Water Act allowed some municipalities to get a waiver from secondary treatment requirements. The department position is that provision should be extended to other people if they can demonstrate that disposal of their sewage won't damage the environment.
* The future funding of the Water Resources Board was the next major point addressed. ADEC budgeted $10,000 to fund WRB activities in FY 83.

The meeting then adjourned until 7:30 p.m. At that time, Floyd Heimbuch, Cook Inlet Aquaculture Association, addressed the WRB. The Board cautioned him that he should coordinate water requirements with local user groups. The Board adjourned until 9 a.m. the following morning.

Thursday, December 3

George Franklet opened the Thursday session with the 208 Projects briefing. He reviewed progress project by project.

Major Points:

* Cordova and St. Mary's were chosen to work with the contractor awarded the waste oil demonstration project. Completion date is estimated to be June 30. The contractor will define sources or potential sources of funding for the demonstration project.

* The issue of a funded project arose, and the WRB suggested that DOTPF be contacted in regard to using the recommendations of the contractor in new construction this spring.
* The On-site Disposal Project was modified and more specific problem situations were designated for examination. Two best alternative solutions would be developed for each problem when possible; when this is not feasible, one solution would be designed.
* In the Sludge Disposal Project, there had been a technical advisory group designated to review projects. We proposed to EPA that this group be disbanded and that public input be solicited in different fashions. Local area contractors would be contacted, and regional office staff would be asked to review products and to solicit local comment.
* The suggestion was /made that information regarding requirements be given to the lending institutions.
* The Wetlands Project was discussed next. Major points included description of the education portion which consists of an inventory of wetlands materials available to public schools and evaluation to determine if these materials are pertinent to unique Alaskan wetland conditions.

  The public information portion involves publicizing availability of the wetlands manual, defining wetlands, their importance and informing people of the permitting process.

  Another component is publication of a brochure to be placed in banks, lending institutions, and similar places. The brochure would advertise availability of the manual.
* The Waste Oil Project was briefly reopened when Jerry Brossia of ADEC discussed a pressure-powered sonic nozzle developed that would burn sludge. It is being used successfully in Fairbanks.

* The next project is the Agricultural Project which is being managed by the Soil Conservation Service. One product consists of mapping acreage usable for agriculture purposes. End products include identifying best management practices for specified agricultural areas, investigating the impact of pesticides, fertilizers, etc., and problems that might be associated with agricultural activities down the road. One potential problem is that areas logged for agricultural development have no market for logged materials, and massive burns may occur.
* Wetlands Project. George Franklet indicated members had received a draft wetlands construction manual. He updated the WRB regarding the status of publication. The publication will be oriented toward the average individual and is designed to assist in clarifying requirements to build on wetlands. Peg Tileston suggested radio and TV spots to advertise the manual's availability.
* The next project discussed was discontinuation of plans for an aerial surveillance project. The project was dropped from EPA funding. The plan has been modified to include aerial photographs of solid waste disposal sites, some landfills, and assessment of site performance. The first step in the revised project is to attend a training session put on by EPA staff which would illustrate uses that existing photography has and the extent of information which may be obtained from it. The uses of 35mm and 70mm cameras would be explored as well as limitations.

  The next step would be a week-long training program for regional staff.

  The project would cover two field seasons.
* Village Sanitation Project. The Norton Sound Health Corporation was selected as the contractor. They would work with 12 villages in differing matters. The first program would be full assistance--working with city council, training and advising them on operation of facilities, including operator

training and an education program covering water-borne and food-borne diseases. The second degree would include working with the city council and managing their systems and operator training. The third level would consist of assistance on an emergency basis, i.e., if there was a problem, we'd go in and assist with that particular crisis. The final component of the program would be evaluation of which process and what level of involvement works best and shows the most satisfactory economic returns. Dave Vanderbrink requested some standardization of operation and indicated that such an approach would keep them operating.

* The next report was given by Jerry Brossia, of DEC's Northern Regional Office. He began with an overview of placer mining activites in the northern region. There are four separate agencies permitting: land management agencies, water use agencies, habitat agencies, and waste discharge agencies. On the federal level, there are the U.S. Forest Service, BLM, National Park Service, U.S. Fish and Wildlife Service. On the state level, land management occurs in DNR which has the Division of Minerals and Energy Management and the Division of Parks. Another regulator of surface activities would be Native corporations.
* The water use agency is the Division of Land and Water Management. Habitat is protected by the Fish and Wildlife Service and the state Department of Fish and Game. Waste discharge is the business of EPA and the Department of Environmental Conservation.
* The federal EPA regulates effluent discharges. The state water quality standards pertain primarily to receiving waters.
* EPA recommended settling ponds as BMP, but environmental groups recommended zero discharge, or total recycle. Miners favor settling ponds as the best practical treatment method.

* In our project, we've tried to look at the phases through which all mineral development passes, exploration, development, and production. We've worked to educate miners regarding minimizing surface disturbance and reducing the amount of mud going into creeks. We've encouraged detailed prospecting methods; the benefit to the miners is more efficient operation, and the benefits to us are less ground disturbance and reduction of sediment going into the ground. During developent phases, we encourage miners not to use hydraulic monitors. We also discourage direct dumping of overburden into creeks. In the production phase, we recommend maximum classification systems. There are a series of screens and grizzlies used to grade off progressively larger rocks until uniform size is achieved. Uniform size ging into sluice boxes avoids surges, gives constant flow, increases recovery of gold, and reduces the amount of water necessary to the process. If you use less water, you have less to treat. We also encourage maximum use of settling ponds.

Question: Do you attempt to weight economics? Do you evaluate what you have to strip, the time involved and the capital expense?

Answer: You've got to put some value on the fishery and recreation uses of streams. Canada has made some tradeoffs. They've designated mining areas where that is the foremost activity.

Jerry Brossia then summarized different types of sluicing and recovery operations, using slides to illustrate his examples.

* He then described ADEC's demonstration pond project in detail. Preliminary conclusions seem to show that settling ponds are very easy to build. Brossia said the pond tood four days to construct and cost $12,000 for initial construction. It was extremely effective at removing settleable solids, did a fair job of removing suspended solids, and failed miserably at removing turbidity. Turbidity levels were around 50%.

* He was asked for some figures. Around 1300 to 1400 people claimed to be actively involved in placer mining. The largest district was the Fairbanks area with around 275 people. A typical placer mine has three to five people operating it. Sixty mines were sampled last season; 40 had permits. On that basis, the department is getting about 65% reporting of miners. The Circle Mining District president indicated there were actually 3,000 people involved in placer mining, where ADEC had less than 300 according to permit applications.

  In reporting miners' attitudes, Brossia said they would like more practical state requirements and regulations, and in turn would achieve higher water quality standards than would be the situation if more tringent requirements were imposed. They would also like a set of rules established for a five to ten year period rather than living with a state of flux. He encouraged a continuing "one-window" approach to the mining industry and objective analyses of miner's problems versus ADEC's problems.

* Brossia made the point that agency cooperation (between ADF&G, DNR, and ADEC) was critical from the miners' standpoint. Visits to sites must be coordinated so that the miner isn't deluged with enforcers every other day.

* The report given by the contractor, R & M Consultants, will consist of two products. The first report will be rather technical and will summarize actual performance at various ponds visited and constructed. The second report will be a guideline manual. It will illustrate ideas to try, ways to size ponds, techniques that have been used, and some that are experimental.

* Wayne Westberg indicated he preferred a system of stream classification for use. Brossia said he'd received no petitions for stream reclassification. Wayne westberg said Brossia's project was the most thorough, complete, and best done project he'd ever seen.

* Following a lunch break, John Halterman, Direcotr of the Divison of Environmental Quality Management, spoke to the WRB regarding funding. He indicated funds were budgeted for continued support of the WRB. He then suggested some agenda items for the next meeting, including coal development and the hazardous waste program.

Peg Tileston: Could you clarify the difference between the hazardous waste program and the toxic waste program.

Halterman: "Yes, we could do that." He was then asked how hazardous waste disposal relates to water and responded that one of the critical issues in regard to hazardous waste disposal is the effect upon water resources within an area you'd select.

* The next agenda item was a briefing on petrochemical development and the state involvement. Deborah Kirk gave the overview for ADEC. She indicated the Dow-Shell proposal would be a radical departure from any kind of industrial development that has previously occurred in Alaska. She said their proposal was a very basic first step in processing of hydrocarbons and pointed out that one area needing consideration would be development of "downstream" industries springing into existence as a result of the first operation.

* Ms. Kirk indicated that the state is in a unique position because this sort of industry has not previously existed, and controls can be put in place before the operation begins enabling us to avoid the hazards other states have encountered.

* The work until June 1982 will consist of preparation of a budget and a work plan for 1983 to meet issues of ancillary development, assess power requirements, and deal with transportation-related water quality problems.

* Peg Tileston commented that two issues were emerging: the first was development of expertise in the agencies to deal with a complex issue; the second was having packages of regulations in place at an early stage in petrochemical development.
* Deb Kirk said two things are currently happening. A review is being undertaken to address issues raised in the feasibility study, and agency technical expertise is being examined with an eye to meeting future needs and developing a unified needs package for all agencies.
* The next presentation was made by Morris Thompson of Doyon Limited, a regional corporation. He opened with a background on Doyon, during which he indicated that Doyon was an energy-related company. He then presented the Doyon Plan for petrochemical development in Alaska. Their plan involved transporting natural gas liquids through less environmentally sensitive areas paralleling the Alyeska Oil Pipeline. They would use a 16-inch ambient temperature buried pipeline from Delta Junction down to Glennallen. There they would extract 50,000 bpd of crude from the Alyeska oil line, commingle the crude and the natural gas liquids in a 20-inch line from Glennallen down through the Palmer area, under Cook Inlet, skirt the range, and come into Kenai. There they would have an oil and gas fractionation plant where they would separate the crude and natural gas liquids. The natural gas liquids would be made available to a petrochemical company, and the crude would be made available to in-state refineries. He summarized by saying that Doyon considers its proposal better able to meet the needs of the state.
* The next speaker was George Easley, representing Dow-Shell Chemical Company. He started by saying that the Dow-Shell study was <u>not</u> an environmental impact study, it was a feasibility study. He said the

EIS would cost about $10 million and would take 12 to 18 months to complete. He said the type of plant being considered for Alaska is not a new concept and that there are dozens all around the world. The effluent is well-known and measured, and there are thousands of studies regarding how such plants related to receiving waters and receiving air. He said that each site had sufficient water, but whether or not it would be desirable to use needs further analysis. He stated that the process treatment for a petrochemical plant is one of the cleanest industries in the world. State and federal standards are easily met with secondary and tertiary treatment. Ambient air is a little tougher because of generating electricity which puts out a lot of nitrogen oxides and carbon monoxide, but water discharge is not a major issue.

* Questions were raised regarding routing, and Easley said that bridging streams would probably be the best option. When asked about pollution factors, he said the only potential problem would be temperature.
* He was asked when the doors would open and he said that if serious work started by 1984, the doors would open about five years later.
* The next discussion involved training and importation of personnel to operate plants. Easley said that Dow-Shell would not import because people don't stay. He said training courses would be set up through the University of Alaska and community colleges.
* He said that the state would set limits regulating what chemicals could come out of the pipes, and Dow-Shell would live with the limits.
* The final item covered was a presentation by Linda Perry Dwight on behalf of the Council on Science and Technology. They have a budget of $2 million and fund research grants. At a recent meeting, the members requested an issue paper on Alaska Water Resources research

needs. Commissioner Mueller asked Dick Dworski to chair a group to prepare this paper. Meetings will be held in Anchorage, Fairbanks, and Juneau to organize a document summarizing research needs, discussing planning needs, implementation, legal, financial and institutional problems of getting research to a utilization point.

* Linda Perry Dwight then asked the WRB to co-sponsor a publication to be done in which Dick Dworski intends to solicit 15 to 20 papers summarizing water resources issues in Alaska. The board agreed to co-sponsor the papers which have prior notification and approval.
* Dean Brown of DNR talked to water rights adjudication projects and said that authority to sign-off on water rights cases have been passed to the districts in 95% of the cases. In order to ensure quality control and identification of need for policy procedures, an audit system has been established.
* The WRB then adjourned pending the afternoon business session.