Water Resources Board

STATE OF ALASKA

STEVE COWPER, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

WATER RESOURCES BOARD

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ANCHORAGE, ALASKA 99510-7005
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January 30, 1990

Nancy Peterson
Office of Senator Bettye Fahrenkamp
P.O. Box V
Juneau, Alaska 99811

Dear Ms. Peterson:

As we discussed on the phone, the Water Resources Board would like to meet with the Senate Resources Committee as part of its semi-annual meeting in Juneau on March 13-15, 1990. The Water Resources Board is a seven member citizen advisory board established under the Alaska Water Use Act, AS 46.15, to advise the governor on all water-related matters. Because the Board is made up of private citizens, it is a good forum to provide public input in public policy formulation. Enclosed is a list of Water Board members and some background information about the Water Board.

The Board has been meeting with the Senate Resources Committee for a number of years and looks forward to the opportunity to do so again this year. Topics the Board will likely want to discuss include pending water resources legislation, groundwater contamination issues in the Kenai area, and recommendations for funding water resources programs in the Departments of Natural Resources and Environmental Conservation.

As we discussed, the afternoon of March 14, 1990 would be a good time on the Board's agenda to meet with the Senate Resources Committee. Another option would be to meet jointly with both the Senate and House Resources Committees during that afternoon. I will keep in touch with you as the meeting draws closer to finalize the time and arrangements.

Thanks for your help in setting up this meeting. If you need further information, please call me at 762-2263.

Sincerely,

Mary Lu Harle

Mary Lu Harle
Water Resources Board Coordinator

cc: Peg Tileston
Gary Gustafson

Alaska Water Resources Board

Established pursuant to AS 46.15.190-240

January 1990

Margaret B. (Peg) Tileston
Chairwoman
4780 Cambridge Way
Anchorage, AK 99503
Work: 563-4375
Home: 561-0540
Term ends: 2/21/92
Occupation: Researcher and Writer

Thomas E. Meacham
Vice-Chairman
810 N Street
Anchorage, AK 99501
Work: 276-6100
Home: 346-2981
Term ends: 2/21/90
Occupation: Attorney

Lauri J. Adams
325 Fourth Street
Juneau, AK 99801
Work: 586-2751
Home: 586-3872
Term ends: 2/21/93
Occupation: Attorney

Stosh Anderson
P.O. Box 310
Kodiak AK 99615
Home: 486-3673
Term ends: 2/21/93
Occupation: Commercial Fisherman

Alan "Mike" Neimeyer
503 East Sixth Avenue
Anchorage, AK 99501
Work: 279-5516
Home: 272-3948
Term ends: 2/21/93
Occupation: Land Analyst-Calista

Keith E. Tryck
P.O. Box 310
Girdwood, AK 99587
Work: 277-2204
Home: 783-2666
Term ends: 2/21/92
Occupation: Miner

Wayne Westberg
P.O. Box 110378
Anchorage, AK 99511
Office: 345-4000
Term ends: 2/21/93
Occupation: Well driller

Lennie Gorsuch
Commissioner
Department of Natural Resources
400 Willoughby Avenue
Juneau, AK 99801
Office: 465-2400
(executive secretary)

Dennis D. Kelso
Commissioner
Department of Environmental Conservation
Box O
Juneau, AK 99811-1800
Office: 465-2600
(ex-officio member)

ALASKA WATER RESOURCES BOARD

The Alaska Water Resources Board was created by Article 3 of AS 46.15, the Water Use Act of 1966. This seven member citizen Board serves as an advisory group to the Governor on all matters relating to the use and appropriation of water in the State of Alaska. The Commissioner of Environmental Conservation is an ex-officio member and the Commissioner of Natural Resources is the executive secretary and provides staff to the Board. Members are appointed by the governor, subject to confirmation by the Legislature. Board members represent a geographic diversity and a variety of occupations and professions associated with water resources. A list of current members is attached.

The Board is charged by AS 46.15.220 to hold at least two meetings per year, with one of these meetings being held in the State capital. The Water Resources Board functioned as an active group from the Water Use Act's passage until 1975. The Board did not meet in 1976 and 1977. In late 1977, a concerted effort was made to re-establish the Board as a citizen advisory group to provide input on an increasingly complex array of water resources issues facing the State, and the Board began meeting again in May 1978. Due to lack of funds, the Board did not meet from April 1982 to July 1983. In August 1983, sparked by the interest of the new Sheffield administration, the Board held a meeting in Anchorage and funding for the Board for FY'85 was requested. The Board has continued to meet twice a year.

The Water Resources Board covers a wide range of topics at its meetings. In general, a presentation on a topic is given by an agency, industry or interest group representative, or member of the public followed by a discussion of the topic by the Board members. Action taken by the Board is usually in the form of a resolution to the governor, but the Board may also send a resolution or letter to the appropriate agency or informally discuss problems with agency representatives.

The required annual Juneau meeting is held in the spring when a principal activity of the Board is to review pending or proposed legislation affecting water resources. The Board also meets with the Governor and appropriate Legislative Committees during the Juneau meeting. The Board attempts to hold the other meetings in different parts of the state to discuss regional water issues and to afford residents of all areas an opportunity to voice their water resources concerns to the Board.

The Board has been particularily supportive of water resources legislation, including amendments to the Alaska Water Use Act for reservations of water for instream uses, basin-wide water rights adjudications, and housekeeping amendments to improve water rights adjudication. The Board has also been supportive of dam safety legislation. The Board strongly encouraged and supports state participation in the Western States Water Council. The Board has taken a keen interest in the state's water quality programs and water quality standards. Most recently, the Board has concentrated on evaluating the effects of declining budgets on the state's water resources-related programs.

Quoted in G & A Contractors, Inc. v. Alaska Greenhouses, Inc., Sup. Ct. Op. No. 987 (File No. 1763), 517 P.2d 1379 (1974).

Sec. 46.15.185. Appeals. Appeals to the superior court under this chapter are subject to the provisions of the Administrative Procedure Act, AS 44.62.560 — 44.62.570. (§ 1 ch 50 SLA 1966)

Article 3. Water Resources Board.

Section
190. The Water Resources Board
200. Term of office
210. Duties of the board
220. Board meetings
230. Public meetings
240. Compensation of board members

Sec. 46.15.190. The Water Resources Board. There is created the Water Resources Board composed of seven members having a general knowledge of the use and requirements for use of the waters of the state and the conservation and protection thereof, and the commissioner of environmental conservation or his designee shall serve as an additional, ex officio member serving without a vote. The commissioner of natural resources shall act as the executive secretary of the board, and shall provide clerical staff for the board. Members of the board are appointed by the governor, subject to confirmation by a majority of the members of the legislature in joint session. (§ 1 ch 50 SLA 1966; am § 1 ch 58 SLA 1972)

Sec. 46.15.200. Term of office. The term of office for members of the board is four years. The first members appointed serve as follows: two members serve for one year, three for two years and two for three years. If a vacancy occurs, the governor shall fill it by appointment for the unexpired term. The appointment shall be submitted to the legislature for confirmation at the next regular or special session. (§ 1 ch 50 SLA 1966)

Sec. 46.15.210. Duties of the board. The board shall inform and advise the governor on all matters relating to the use and appropriation of water in the state, including, but not limited to: the effect and adequacy of all state laws and regulations governing the establishment of water rights, the multi-purpose uses of water, the prevention of pollution and the protection of fish and game, studies of the state's water supplies and plans for future requirements, development of water resources, participation of local governmental units in the management of water resources, lands which are or may be needed for dams, reservoirs, flood dams, flood ways, canals or ditches for the impoundment, storage, flow and control of waters. (§ 1 ch 50 SLA 1966)

Sec. 46.15.220. Board meetings. The board shall hold one regular meeting annually at the state capital and one or more additional meetings at the time and place in the state the board selects for the transaction of business. (§ 1 ch 50 SLA 1966)

Sec. 46.15.230. Public meetings. The board may hold and conduct public meetings at any time or any place in the state in order to obtain public opinion on a water use problem or proposal and it may, by majority vote of all members, formally or informally delivered, authorize one or more of its members to hold and conduct a public meeting. (§ 1 ch 50 SLA 1966)

Sec. 46.15.240. Compensation of board members. Each member of the board is entitled to travel expenses and per diem as authorized for state boards by AS 39.20.180 while traveling to or from, or in attendance at, regular or special meetings or conferences authorized by the board. (§ 1 ch 50 SLA 1966)

Article 4. General Provisions.

Section
250. Enforcement authority
260. Definitions
270. Short title

Sec. 46.15.250. Enforcement authority. The following persons are peace officers of the state and they shall enforce this chapter:

(1) a state employee authorized by the commissioner;

(2) a police officer of the state. (§ 1 ch 50 SLA 1966)

Sec. 46.15.260. Definitions. In this chapter, unless the context otherwise requires,

(1) "appropriate" means to divert, impound, or withdraw a quantity of water from a source of water, for a beneficial use or to reserve water in accordance with AS 46.15.145;

(2) "appropriation" means the diversion, impounding or withdrawal of a quantity of water from a source of water for a beneficial use or the reservation of water in accordance with AS 46.15.145;

(3) "beneficial use" means a use of water for the benefit of the appropriator, other persons or the public, that is reasonable and consistent with the public interest, including, but not limited to, domestic, agricultural, irrigation, industrial, manufacturing, fish and shellfish processing, navigation and transportation, mining, power, public, sanitary, fish and wildlife, recreational uses, and maintenance of water quality;

(4) "source of water" means a substantial quantity of water capable of being put to beneficial use;

(5) "water" means all water of the state, surface and subsurface, occurring in a natural state, except mineral and medicinal water;

(6) "commissioner" means the commissioner of natural resources;

(7) "director" means the director of the division of lands, Department of Natural Resources;

MEETING SUMMARY
ALASKA WATER RESOURCES BOARD
Soldotna, Alaska
October 23-24, 1989

Board members in attendance:

Peg Tileston, Chairwoman, Anchorage
Tom Meacham, Vice-chair, Anchorage
Lauri Adams, Juneau
Stosh Anderson, Levelock
Mike Neimeyer, Anchorage
Keith Tryck, Girdwood
Wayne Westberg, Anchorage

Peg Tileston, Chairwoman, called the meeting to order.

Rod Swope, Deputy Commissioner, Department of Natural Resources (DNR), opened DNR's agency report by emphasizing the importance of the Board and expressing the commitment of the Commissioner's Office to participate in Board meetings. He then presented a budget update, noting that the Division of Land and Water Management (DLWM) FY 90 appropriation for water rights adjudication is $524,700. New increased fee regulations for water rights became effective in August and the Legislature has approved up to $50,000 of these fees to be used by this project for increased field work, computer capabilities, and public information materials. The proposed FY 91 budget for this project includes an increment for instream flow adjudication ($101,000). For FY 90, $72,000 was appropriated for dam safety. Dam safety regulations, including new fees, became effective in August and the Legislature has approved up to $50,000 of these fees to be used for this project. DNR also expects to receive $10,000 from the Corps of Engineers to update the dam safety inventory. In the Division of Geological and Geophysical Surveys (DGGS), $810,000 was appropriated in general funds, and $150,000 in interagency receipts and $50,000 in federal receipts is expected. New FY 90 increments included the Taku Glacier investigation and North Kenai groundwater investigation. FY 91 increments include glacial hazards investigations and water resources inventory in ANWR.

Mr. Swope next discussed DNR's instream flow work. The water management regulation revisions, including instream flow regulations, have completed public review and are being revised. Last spring DNR testified at two House Resources Committee hearings on HB 210. During the interim, DNR has met with the Department of Fish and Game (DFG) and Representative Davidson and has written to other western states to gather their instream flow laws. Field work on three recreational rivers this summer included installing of two stream gages and numerous staff gages. The National Park Service assisted by conducting user and instream flow needs surveys

on the three rivers. The Bureau of Land Management (BLM) instream flow application for Beaver Creek Wild and Scenic River was granted and DNR staff assisted BLM hydrologists this summer to collect instream flow data on the Delta River. DLWM, with DGGS assistance, is currently adjudicating four instream flow applications.

Major recent dam safety projects include approval of large sedimentation dams for two placer mines, reconstruction of the Campbell Lake dam and preliminary review of the A-J Mine tailings dam. Work is ongoing to notify dam owners of the new regulations, upgrade the dam inventory and re-start the periodic dam safety inspection program under the new regulations.

Regarding resolutions from the last meeting, DGGS has begun planning for a groundwater quality data base and a large-scale test of interagency data systems is being conducted for the Sterling area. A North Kenai groundwater investigation was funded by the Legislature and DGGS is beginning that work. DNR appreciated the Board's support of its FY 90 budget request, and all the water programs were funded at maintenance level. The Fin Fish Task Force was funded and has been meeting; reports are due to the Legislature in December and January.

Questions and discussion followed on the Campbell Lake dam, state employee use of private aircraft, data collection and funding needs for recreational rivers, fiscal requirements related to HB 210, and glacier investigations.

Dennis Kelso, Commissioner, Department of Environmental Conservation (DEC), began with a summary of oil and hazardous spills actions. Work is underway to increase the safety of Prince William Sound and Cook Inlet tanker traffic. The Alyeska Contingency Plan is being reviewed along with all other contingency plans statewide. The Governor has asked the Coast Guard to improve navigational aids and tanker traffic control systems. The recommendations from the Glacier Bay spill in Cook Inlet have been implemented. More funding is needed for Cook Inlet investigations. Regarding the Exxon Valdez spill, winter work is underway evaluating and mapping beaches and staff is in Valdez continuing to work with local citizens.

On other topics, Commissioner Kelso reported that the drinking water regulations that include new federal requirements are out for public review. DEC received funding to begin a rural health and environment program to work on basic water, air, solid waste issues and oil and hazardous spill sites. He noted that Alaska natives are now included in the Clean Water Act. The Skagway lead cleanup is proceeding. Groundwater is not contaminated and the public water supply is not affected. Low levels of solvents are present in drinking water, but not lead. He described efforts to resolve the Cherrier, King, and Cherrier contaminated water system in

Girdwood and noted that certification is ongoing for the Alyeska Wastewater Ballast Treatment system. He noted that solid waste issues will need attention in the 1990's, especially for coastal communities affected by MARPOL.

Commissioner Kelso thanked the Board for its assistance with the FY 90 budget and noted that progress was made to increase funding. He reported that DEC is asking for one-third of its projected budget shortfall for FY 91 and listed a number of projects that need funding. He concluded by noting federal legislation is being considered including national wetlands "no net loss" legislation and both good and bad oil spill legislation.

Questions and discussion followed on funding for rural health, costs to the private sector for service station underground tank replacement, discussion of the Exxon Valdez oil spill, Alyeska's oil spill contingency plan, and oil spill contingency planning generally.

Jim Hayden, Kenai Cleanup Project Coordinator for DEC, described work on this project. This three year project began in 1988 and has five goals: (1) increase staff, (2) provide training for staff, (3) pre-qualify contractors in hazardous waste site investigation and expedite contracting, (4) contract for an inventory of all sites on the Kenai, and 5) write reports for all investigations. One hundred sites have been identified that need further reconnaissance investigations. A special council in the Governor's office is concentrating on compliance agreements and cost recovery of money spent on cleanup. DEC is involved in two types of actions in this program; cleanups, such as the Tesoro plant, and investigations as at Anchor Point, Scout Lake, and Sterling, among others. The main problem in the Kenai area is contamination of groundwater by petroleum and chlorinated hydrocarbons. Both of these contaminants will be regulated in the new drinking water regulations. Project accomplishments to date include the backlog of sites is under control, working relationships with industry have been established and a professional staff has been hired. Questions and discussion followed on information and data sharing between industry and state agencies, time required to complete cleanups, and deep injection wells.

Jim Munter, Division of Geological and Geophysical Surveys, DNR, described the Central Kenai Peninsula Project being conducted by DGGS. The project has three goals: (1) subregional hydro-geological evaluations combining new and historical data, (2) site specific technical assistance to DEC or the public, and (3) long-term data management of well logs, water use data, and water level data. FY 90 components include emphasis on Sterling and Nikiski, and area-wide date management. He reported that in the Sterling area, the Sterling Special Waste Site is in a recharge area and a

hydrologic divide and the geology is complex. Liquid waste has been disposed of at the site for ten years, but the type and amount of liquids is not documented. Monitoring shows low levels of contamination, but the nature and extent is not clear. There are several hundred wells in three directions around the site, but most are not directly adjacent to the site. He then reported that the Port Nikiski area is very industrialized and that the use of groundwater likely rivals that of the Anchorage area. There is abundant groundwater in three aquifers; the shallow unconfined aquifer, the upper confined aquifer, and the lower confined aquifer. He noted that water quality and water use are related. Questions and discussion followed on the need for coordinated and comprehensive data collection, the timeline for maps produced from the investigations, and the nature of the aquifers.

Dick Troeger, Planning Director for the Kenai Peninsula Borough discussed the borough's perspective on groundwater quality issues. The borough does not have land use regulations, such as zoning, and the borough is non-regulatory regarding water quality. A number of programs relate to groundwater contamination issues, such as the cooperative program with USGS to study water availablity, permitting actions in the borough, and solid waste issues. Solid waste is the biggest present problem, and a plan is underway to study waste disposal. There are also some problems with underground storage tanks at school sites. The Public Works Department, the Planning Department and the Maintenance Department all work together to find solutions and reorganization is being looked at. The absence of land use regulations has caused problems with regard to waste disposal. There is an ordinance that can be used, but it is complaint driven. The assembly formed a task force to re-write the ordinance which would set up a permitting system and this is still underway. The borough has completed a draft of its coastal management plan which will give additional local control over environmental issues along the coast. The comprehensive plan for the borough is also being revised. He then listed several projects on borough property, including land-fills, ground water sampling at schools and landfills, the Sterling Waste Site, and underground storage tanks. He described the operation and closure of the Sterling Special Waste Site. He also noted that twelve underground tanks have been removed and five were contaminated. A program is in place so that all the tanks will be inspected and in compliance by 1993. Questions and discussion followed on the land use ordinance, the Sterling Special Waste Site, and drilling mud disposal site selection.

John Hammelman, Unocal Chemicals Division, began by showing location maps of the industrial plant. Ammonia and uria were discovered in the groundwater and twelve monitoring wells were installed in 1974. Wells 5 and 8 are the most contaminated, but contamination levels are decreasing. The source of the contamination is thought to be early spills during the plant start-

up. In September, 1988 a workplan was completed and a contractor hired to conduct a new groundwater investigation. Eight new monitoring wells have been installed. Arsenic has also shown up with the other two contaminants, but it is unclear if the source is the soil or something else. Arsenic background levels are unknown at this time. Questions and discussion followed regarding the sharing of data, using Cabin Lake for drinking water, and the nature of the monitoring wells.

Roy Roberts, Unocal Oil and Gas, began by reviewing past and current practices. Wastes were initially put into evaporation pits but now two injection wells are used. Drill cuttings are now boxed and other wastes are now reduced and segregated, then recycled or sent Outside for disposal. Actions to prevent contamination or remediate contamination include reviewing files to find problems and sites, looking for disposal alternatives, doing assessments, and research. Recommendations for further efforts include cooperation between industry and the agencies, regulations that include public participation and that are performance based, and a new transfer and storage disposal facility. Questions and discussion centered on drill cuttings, assessments of reserve pits and the Poppy Lane gravel pit, groundwater contamination sites, disposal of wastes, and injection wells.

Damon King, Tesoro Alaska Petroleum Company, reported that benzene was discovered contaminating groundwater in well #2 in February, 1987. In March, 1987, a contractor was hired to find the source, which was found to be the oily water sewer recovery system. Well #2 is completed in the upper confined aquifer and more area is contaminated than first thought. Investigations now include property adjoining the industry site. In 1989 a second contamination plume was discovered and a recovery and remediation program to cleanup and treat the problem is underway. Improved prevention procedures have been instituted. Three million dollars have been spent so far with 115 exploratory, monitoring and recovery wells and test bores completed. Under an EPA order, five to seven million dollars are expected to be spent over the next five to seven years on clean up. Questions and discussion followed on the location of the contamination plumes, the quantity of recovered hydrocarbon, monitoring wells, cleanup of a recent jet fuel spill, and potable drinking water.

Tom Brooks, Marathon Oil Company, began with a historical overview. The company's first lease was in 1957 and operations now include four offshore platforms, two onshore facilities at Trading Bay and Granite Point to prepare gas for marketing, the Beaver Creek onshore production field in the Kenai Wildlife Refuge, 50% interest in the Kenai gas field, and work involved at the Poppy Lane gravel pit. The contamination prevention program includes proper waste

management, such as waste segregation, minimization, and recycling; facility inspections; and spill prevention and equipment surveys, including pipelines, tanks, and employee awareness. He next described pollution assessment and remediation. At the Beaver Creek field where there is hydrocarbon contamination, the soil has mostly been excavated. Two million dollars have been spent to date at the Poppy Lane gravel pit, which between 1965 and 1985 was used as a gravel pit, then a refuse dump and also to deposit Kenai gas field wastes. Soils assessment and groundwater investigations started in 1987 and 270 soil borings have been done. During 1988 and 1989 groundwater assessment work was done. Soil remediation is planned. Most groundwater samples show no hydrocarbons and only one offsite well (the Hardy well) shows contamination. He concluded by recommending that regulations and procedures developed in the 1980's be allowed to work. Questions and discussion followed on EPA testing, a waste disposal site on the West side of Cook Inlet, the injection well at Beaver Creek, incineration of soils, and the need for a work plan.

Fritz Krusen, Phillips Petroleum Company, described current operations. The company operates one offshore platform and exports liquid natural gas (LNG) to Japan. He described the process of liquefying natural gas for transport. He then reported that the company has three water wells, but uses only one of them. Well #1 produces 750 gallons of water per minute (gpm) and is completed into the upper confined aquifer. It is contaminated and is surrounded by five test wells, one of which is also contaminated. Well #2 is in the upper confined aquifer, but is not used. Well #3 is in the upper confined aquifer, produces 550 gpm and is used for potable water. Most of the water used in the LNG plant evaporates, but the remaining water is treated.

Jim Ives, ARCO Alaska, Inc., reported that the company operates the Swanson River oil and gas field, the Beluga Field and the King Salmon platform. The Swanson River field is on the Kenai National Wildlife Refuge; BLM manages the subsurface and the U.S. Fish and Wildlife Service (USFWS) manages the surface use. He described the wells and sewage treatment facility. Most pads have water wells for oil drilling needs that are shallow, generally less than 100 feet deep. There are four class two injection wells for water and non-hazardous wastes below 2,100 feet. Waste management techniques include minimization, recycling, and segregation. Hazardous wastes are shipped Outside. No underground storage tanks are used; all of them have been removed and above ground tanks are used when needed. The PCB remediation is overseen by USFWS, BLM, EPA, and DEC. The contamination resulted from a 1972 explosion, and the contaminated material was subsequently used on roads. Excavation of soils began in 1987 and the soils are being incinerated. This cleanup will cost approximately $40 million and is one of the largest in the country. In 1988, an old spill was detected and

mitigation plans are underway. There has been no contamination of production wells or contamination around the disposal site.

Public Comment Session

Vesta Leigh began by showing a schematic of the three area aquifers. She explained that there is no complete hydrology study for the Nikiski area, and that the 1981 report by Nelson of the U.S. Geological Survey (USGS) is the most comprehensive study. She noted that most private wells are in the upper unconfined aquifer and that most industry and city wells are in the upper confined aquifer, with a few in the lower confined aquifer. She further noted that the upper unconfined aquifer is connected to Beaver Creek, which is used by the city for public water supply. She concluded by urging that the area be included in the USGS basin studies, and that a hydrology study for the area is needed.

Betty Farrally of Soldotna spoke regarding the Sterling Special Waste Site. She explained that the Borough has created a committee to study options for a new waste disposal site. She urged support for an area hydrology study and full funding for SB 15 and HB 13. She also listed various potential contaminants in the area.

Charles Dickson displayed a map of the east side of the Kenai Peninsula with locations of city wells, known contaminant sites and large areas of known contamination. He noted that there are 330 suspected contaminated sites and that a contaminated site is 1,700 feet from the city well. He also passed around a number of pictures showing specific examples of water pollution in the area. He commented that there are too many documents being produced and not enough action, and that DEC is not doing its job. He suggested that Board members look at the bluff below the Tesoro and Unocal plants, and he believes the clam beds are contaminated. He also commented that resident and non-resident fish in the Kenai River are contaminated. He concluded by urging the Board not to accept all that industry and the state agencies say.

Cliff Sisson of Sterling began by showing a map of fault lines and an area of intense ground breakage. He expressed concern about deep injections wells, and commented that industry should recycle, separate, and treat water and return it clean rather than inject it. He further noted that resources are being abused and that is it best to err on the side of the environment and put money into prevention rather than have to put it into cleanup. He noted that industry should be treated the same as others, and that action is needed. He commented that pipelines are leaking and that a blowout at 100 feet has affected surface water. Discussion followed on his well and the effects of water pollution on local citizens.

Mary Sisson commented that property devaluation resulting from contaminated water is a problem in the community. She detailed health problems experienced by her family as a result of water contamination. She has had her water tested and given the results to DEC and ARCO. She urged that a hydrology study is needed for the Sterling Waste Site.

Billie Hardy owns 160 acres and explained that her barn well is polluted. As a result, they cannot raise cows and cannot safety live on their property which is by the Poppy Lane gravel pit. The oil company has agreed to supply water to her family.

Tom Hippsman of Sterling described well problems at the Resurrection Christian Academy and contamination of a local spring used by residents for drinking water. He noted that problems that are reported are not investigated. He urged that a hydrology study is needed.

Tuesday, October 24

Bill Ashton, Department of Environmental Conservation, began with an update of the Groundwater Quality Protection Strategy. Public meetings were held in October, 1988. Revisions are being done now, but were disrupted by the oil spill. The final Strategy will be complete in several months. He listed actions that are underway to implement the Strategy: enforcement and compliance in the drinking water program, working with boroughs on areas needing attention under the coastal zone program, the Mat-Su Borough groundwater study, above and underground storage tank legislation, drinking water regulation revisions, waste minimization legislation, working with boroughs on solid waste, setting up an enforcement unit in DEC, and working with DGGS on the Kenai hydrologic study.

He next talked about the Kenai area and explained the hydrologic cycle in the Nikiski area. He noted that there is leakage between the upper unconfined and upper confined aquifers, but how much is unknown. He discussed underground tanks, noting leaks are often from the fittings, and showed a schematic of product movement underground. He next described the Tesoro investigation and noted that DEC is negotiating a compliance order with Tesoro. He described four interim measures which must be done within two weeks after signing the order: additional recovery wells and evaluation of existing wells, evaluating effects of pumping production wells on the movement of contaminants, delineating plumes of contamination, and modeling the aquifer system and the effects of

pumping. Other steps will include a RCRA facility investigation and additional investigation of the facility site outside known plumes.

He noted that Unocal has submitted a workplan to define the area of contamination at that facility, monitoring wells will determine gradients between aquifers, and the company will then further define needed work and remediation. A RCRA facility assessment will follow. At Poppy Lane, Marathon has submitted a preliminary remediation plan and is working on a final plan. He noted that the PCB cleanup is underway at the Swanson River Oil Field. The Sterling Special waste Site is now closed. He showed a schematic of the site layout and monitoring wells. DGGS is doing a subregional hydrologic study of this area. With regard to DEC, DGGS and DLWM work in the Kenai area, he explained that DEC is doing site specific work, while DGGS and USGS are doing regional studies. Ambient water quality also needs to be studied. A water use summary is planned for the Nikiski area and is needed to model pumping effects. Data management is also being coordinated. The DLWM is also working on water rights in the Nikiski area. In summary, progress is being made, but it is taking some time.

Questions and discussion followed on the scope, adequacy and required resources for a regional groundwater study. Under present funding levels, the DGGS study will take four to five years. Industry representatives expressed possible willingness to help finance a study, if they can participate in the study design. Discussion also centered on the need to clearly define the questions that the study should answer, that a speedy process is needed, and that the public also needs to be involved. Discussion also focused on public dissatisfaction with DEC's response to contamination reports.

Mary Sisson, Public Awareness Committee for the Environment, spoke to the Board about the Sterling Special Waste Site. She described the history of the site and presented a map of the site and monitoring wells. She described health problems in the area and noted that they result from environmental problems. She also gave a general description of local well problems. She then showed a video of the site before, during and after closeout, and commented that the closeout is not adequate. She also described the effects of the gas well blowout.

Daniel Doshier, Refuge Manager of the Kenai National Wildlife Refuge, U.S. Fish and Wildlife Service, described the PCB cleanup that is underway. He described the 1972 explosion and that appropriate cleanup for that time was done. In the early 1980's, the material was used for dust control on roads and in 1984 PCB's and heavy metals were found. A sampling plan and risk assessment was done and active cleanup began in 1987 by ARCO who was then the

unit operator. It was determined that the most sensitive animal is the red back vole, so cleanup is being done to 10 parts per billion to protect this animal. 83,000 tons of soil was removed and stockpiled and 17,000 tons have been incinerated thus far. Processing is around the clock and cleansed soils have non-detectable levels of contamination. The cleanup is expected to be complete in two years. Approximately 20,000 soil and water samples have been analyzed; a lab is onsite. This is the largest cleanup on any USFWS refuge in the United States and will cost an estimated $35 million dollars. He concluded by saying that industry is doing an admirable job.

Gordon Nelson, U.S. Geological Survey (USGS), reported that no USGS investigations have occurred on the Kenai since 1980, and nothing is on the horizon. He described the stream gage stations and monitoring wells maintained by USGS in the area. He next discussed the small stream program, which was a USGS - Department of Transportation and Public Facilities (DOTPF) cooperative program of index stream gage stations used to predict flood frequency. The program has died because of lack of funding, but DOTPF has requested funding to re-start the program. Discussion followed on costs to establish and maintain stream gages and possibilities of future studies for the Kenai River basin.

Water Board Work Session

The Board adopted the following resolutions:

Resolution 90-1: Kenai Peninsula Hydrology Study
Resolution 90-2: Kenai Peninsula Illegal Dump Sites
Resolution 90-3: Response to Previous Resolutions

The Board has scheduled its next meeting during the first half of March, 1989 in Juneau. The meeting will focus on pending water resources legislation and the proposed A-J Mine in Juneau.

ALASKA WATER RESOURCES BOARD

Resolution No. 90-1

Kenai Peninsula Hydrology Study

WHEREAS: The Alaska Water Resources Board has previously requested that the Kenai Peninsula be targeted for a hydrological study in Resolution 89-16 (enclosed); and

WHEREAS: The Alaska Water Resources Board has just concluded a meeting in Soldotna during which it received testimony documenting many serious groundwater problems in the area which reinforced the premise of Resolution 89-16; and

WHEREAS: The public presented much support for the study, as outlined in the Division of Geological and Geophysical Surveys (DGGS) Administrative Report 89-1, and stressed the urgent need for it; and

WHEREAS: Industry representatives expressed support for the study and presented the possibility of participation therein; and

WHEREAS: The DGGS received approximately one-half the funding in FY 90 necessary to do justice to the immediacy of the situation and the pressing need for a coordinated effort to begin the study this year;

NOW THEREFORE BE IT RESOLVED: That the commissioners of the Department of Natural Resources and the Department of Environmental Conservation identify as an immediate priority the need to convene a special task force of appropriate representatives from their agencies, the industry, the Borough and the public which will have the specific charge of developing and accomplishing a DGGS and industry jointly-funded regional hydrogeologic study of the Central Kenai Peninsula area; and

BE IT FURTHER RESOLVED: That the Commissioners agree upon and appoint one individual who will be responsible for contacting participants, convening, and facilitating the initial meeting of the task force before November 30, 1989; and

BE IT FURTHER RESOLVED: That the task force endeavor diligently to finalize a design for a jointly funded regional hydrogeologic study, (1) with deadlines for completion of each portion of the work, (2) which will meet the needs of the public, the industry, the Borough, and the agencies; and (3) which will be submitted to industry for a voluntary commitment of funding in cooperation with DGGS current efforts by January 31, 1990.

Adopted this 24th day of October, 1989
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

Alaska Water Resources Board
Resolution No. 89-16

Kenai Peninsula Hydrological Survey

WHEREAS: The central Kenai Peninsula area contains the heaviest concentration of industry in the state.

WHEREAS: This area contains many known landfills and several industrial waste disposal sites which may contain hazardous wastes.

WHEREAS: This area contains one of the larger population concentrations in the state.

WHEREAS: Known instances of groundwater contamination exist.

WHEREAS: Much hydrologic information on this area exists as a result of private sector and government studies.

WHEREAS: This information needs to be compiled into an area-wide study with any gaps in data researched and reported.

WHEREAS: This study should be of use to everyone in the area, providing benefits and the basis for planning of:

- Zoning and development
- Waste disposal sites
- Sewage disposal sites
- Groundwater contamination containment and reclamation measures
- Landfill reclamation
- Water production well siting and wellhead protection zones

WHEREAS: This study could be the basis for an area-wide water management plan.

WHEREAS: This is a study in which industry could and should be encouraged to participate with information sharing and support with funding and logistical aid.

THEREFORE, BE IT RESOLVED: That the Alaska Water Resources Board supports the Kenai Peninsula Water Study as a necessary and vital step in the process of solving the current water problems of the area and in providing the basis for the longterm planning and development of the area. The Alaska Water Resources Board urges the Governor, legislators and state agencies involved to support legislation and funding of this activity.

Adopted this 9th day of March, 1989
Alaska Water Resources Board

Peg Tilleston

Peg Tilleston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-2

Kenai Peninsula Illegal Dump Sites

WHEREAS: At the Alaska Water Resources Board's fall, 1989 meeting on the Kenai Peninsula the Board heard testimony from numerous individuals regarding the existence of illegal dump sites on the Peninsula; and

WHEREAS: Individuals and members of the public testified that they have brought the existence and location of possible illegal dump sites to the attention of the Department of Environmental Conservation (DEC) and have not been satisfied that investigations have been undertaken and appropriate action taken to address any contamination associated with these sites; and

WHEREAS: The Board believes that the suspected illegal dump sites have deleterious impacts on water quality and public health;

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board urges DEC to establish a hotline system which encourages the reporting of illegal dump sites including a mechanism for anonymous reporting, assures timely investigation and remedial action by agency personnel, and includes appropriate follow-up communication with the concerned members of the public to ensure public confidence in DEC's response to the information.

Adopted this 24th day of October, 1989
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-3

Response to Previous Resolutions

WHEREAS: The Alaska Water Resources Board has previously urged action to authorize immediate oil spill response by State or Federal authorities in its Resolution No. 89-17; and

WHEREAS: The Alaska Water Resources Board has twice previously requested the Governor to establish a multi-agency task force to improve water and sanitation delivery programs in rural Alaska in its Resolutions No. 89-10 and 89-18; and

WHEREAS: The Alaska Water Resources Board has not received a response to these resolutions; and

WHEREAS: The Alaska Water Resources Board continues to be concerned about immediate oil spill response and improved village safe water conditions;

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board urges the Governor to review and respond to the Board's Resolutions No. 89-10, 89-17 and 89-18.

Adopted this 24th day of October, 1989
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

Alaska Water Resources Board
Resolution No. 89-17

Authority For Immediate Oil Spill Response by
State or Federal Authorities

WHEREAS: Recent oil spills by tankers and other vessels in Alaska waters have demonstrated that immediate and effective response may make a critical difference between success or failure of the eventual containment and clean-up of the spill; and

WHEREAS: Conventional assumptions regarding the vessel and cargo owner's responsibility hold that the owners must be given first opportunity to take effective measures to contain and clean-up the spill, and that only after a demonstrated failure to do so may the state or federal agencies assume control of the clean-up and control strategy; and

WHEREAS: The vessel and cargo owners' motivations and actions regarding clean-up may in some instances be influenced by economic rather than environmental considerations; and

WHEREAS: The potential for delay while inadequate or ineffective control measures are attempted has potentially drastic consequences for the natural environment and the economic livelihood of Alaskans.

NOW THEREFORE BE IT RESOLVED: The Alaska Water Resources Board urges the Governor to request that the Attorney General analyze any legal constraints on the ability of the State to enact legislation permitting the Alaska Department of Environmental Conservation or the U.S. Coast Guard, as appropriate, to take control of the containment and clean-up of an oil spill immediately after it is discovered, if the agency has reason to believe that effective response may otherwise be delayed, or the resources potentially affected are of such high value, that immediate governmental direction is required.

Adopted this 9th day of March, 1989
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

Alaska Water Resources Board
Resolution No. 89-10

Village Safe Water

WHEREAS: There is a direct connection between the quality of drinking water and waste disposal and human health; and

WHEREAS: A number of Alaska's rural communities have numerous health problems that are caused by water-born factors; and

WHEREAS: Many federal and state agencies and some private entities have projects in rural Alaska which require the availability of both water and waste disposal; and

WHEREAS: Increased communication and data exchange among these agencies and organizations is an important step in addressing the problem;

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board requests the Governor to establish a multi-agency task force consisting of representatives from Department of Environmental Conservation, Department of Community and Regional Affairs, Department of Transportation and Public Facilities, and the Department of Health and Social Services; and

Further: That the governor request the participation in the multi-agency task force by representatives from Bureau of Indian Affairs and Public Health Service; and

Further: That the Governor request representation on the multi-agency task force by regional corporations and appropriate non-profit organizations; and

Further: That the Governor request the multi-agency task force determine the current and planned activities of each agency which affects, or will affect, water quality and waste disposal in Alaska villages, and method of interagency cooperation, and shared resource allocations, both data and financial, to improve the serious existing problem.

Adopted this 6th day of October, 1988
Alaska Water Resoources Board

Peg Tileston, Chairwoman

Alaska Water Resources Board
Resolution No. 89-18

Multi-Agency Task Force

WHEREAS: The Alaska Water Resources Board has previously requested the Governor to establish a multi-agency task force in its Board Resolution No. 89-10; and

WHEREAS: The Water Resources Board has received no response to its resolution; and

WHEREAS: The Alaska Water Resources Board continues to be very supportive of improved village safe water conditions;

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board urges the Governor to review the Board's previous request that a multi-agency task force be established to improve water and sanitation delivery programs to rural Alaska.

Adopted this 9th day of March, 1989
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

March 8, 1990

To the Alaska Water Resources Board:

I am writing on behalf of the Kenai Groundwater Task Force, which was created in response to the Water Board's Resolution No. 90-1. The members of the group are pleased with the open forum for discussion between government resource agencies, industry, and community/environmental interests. We have no official chair, but operate under the direction of a steering committee consisting of a representative from each of the three main interests represented on the task force. With the approval of the other task force members, I volunteered to update the Water Board on our activities to date.

We have met in full twice this year, both times in Soldotna. Thus far, we have adopted the purpose stated in Resolution 90-1 as our overall goal. We are using the Division of Geological and Geophysical Surveys administrative report 89-1 as our starting point. We have identified an initial nine objectives that will lead us toward the design and implementation of a regional hydrogeological study. We foresee the project operating in several phases, and are prioritizing the most important needs to be accomplished in Phase I in order to get things started. Task force members expect that as more information becomes available and we move along in the project, our priorities may change. The objectives are as follows:

I. Identify principle issues (all phases).
II. Identify tasks to address issues (all phases).
III. Prioritize and select tasks and issues for Phase I.
IV. Estimate Phase I costs.
V. Develop study plan (Phase I).
VI. Develop funding (Phase I).
VII. Initiate work (Phase I).
VIII. Report results (Phase I).
IX. Plan Phase II.

At our March 7th meeting, the task force accomplished Objective I and identified principle issues. They are:

I. Identify principle issues (all phases).

A. Lack of regional groundwater water information.
1. Flow direction
2. Water quality
3. Water quantity
4. Surface/groundwater interaction

B. Lack of data quality control.

C. Lack of information transfer.
   1. Agencies
   2. Public
   3. Industry

D. Importance of Subregional and Site-specific variability on regional trends.
   1. Directional flow
   2. Quality
   3. Quantity
   4. Contaminant movement

E. Aquifer protection strategy
   1. Quality
   2. Quantity
   3. Alternate Sources

The task force also accomplished Objective II by adopting a series of technical components developed by the hydrology committee at a meeting February 20th. The hydrology committee, which consists of resource agency personnel, is currently working to develop an overall project outline designed to address Phase I needs. Phase I was initially identified as addressing issues A, B and C. The task force is happy to provide the Water Board with any of the documents we are using and developing in this process.

The task force recognizes the importance of our task: to develop a hydrogeologic study that, when completed, answers the questions of the public, industry and the state. We appreciate the need for adequate state funding to show strong state commitment to a background study of Kenai's water in order to complement any industry commitment. People must be able to trust the water they use. The task force strongly urges the Water Board to pass a resolution in support of House Concurrent Resolution 13 and Senate Concurrent Resolution 15, both of which request funding for hydrogeologic work on the Kenai. We also urge the Board to support these resolutions in their report to the Legislature.

We thank the Water Resources Board for its support of the task force, and look forward to continuing our work.

Sincerely,

Karen Wood

Karen Wood
Kenai Peninsula Groundwater Task Force Member

Membership

REVISION DATE: 2/6/89

WATER RESOURCES

MEMBER	APPT	REAAPT	REAPPT	TERM
(1) Lauri J Adams 419 Sixth St., Suite 323 Juneau 99801 Public/Restricted	87/09/01	0/00/00	0/00/00	89/02/21
(2) Lennie Gorsuch Commissioner, DNR Juneau 99811 Comm./Mandated	89/01/00	0/00/00	0/00/00	0/00/00
(3) Dennis D Kelso Commissioner, DEC Juneau 99811 Comm./Designee	87/01/05	0/00/00	0/00/00	0/00/00
(4) Thomas E Meacham 810 "N" Street Anchorage 99501 Public/Restricted	82/09/17	86/03/03	0/00/00	90/02/21
(5) A. Michael Neimeyer 503 East Sixth Anchorage 99501 Public/Restricted	85/01/09	0/00/00	0/00/00	89/02/21
(6) Margaret B Tileston 4780 Cambridge Way Anchorage 99503 Public/Restricted Chair	80/02/28	84/03/27	88/05/12	92/02/21
(7) Keith E Tryck P.O. Box 310 Girdwood 99587 Public/Restricted	88/05/12	0/00/00	0/00/00	92/02/21
(8) David Vanderbrink P.O. Box 1236 Homer 99603 Public/Restricted	81/02/03	85/03/08	0/00/00	89/02/21
(9) Wayne E Westberg P.O. Box 110378 Anchorage 99511 Public/Restricted	81/02/03	85/06/05	0/00/00	89/02/21

APR 9 1990

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

WATER RESOURCES BOARD

STEVE COWPER, GOVERNOR

3601 C STREET
P.O. BOX 107005
ANCHORAGE, ALASKA 99510-7005
PHONE: (907) 561-2020

April 2, 1990

Senator Bettye Fahrenkamp
Chairwoman
Senate Resources Committee
P.O. Box V
Juneau, AK 99811

Dear Senator Fahrenkamp:

During the meeting between the joint House and Senate Resources Committees and the Water Resources Board on March 14, 1990, you asked for information on the stream gaging cooperative program between the U.S. Geological Survey (USGS) and DNR's Division of Geological & Geophysical Surveys (DGGS). You also asked for information on the small stream cooperative program between USGS and the Department of Transportation and Public Facilities (DOTPF).

Funding for the cooperative stream gaging program between DNR's Division of Geological & Geophysical Survey (DGGS) and USGS has declined significantly during the last few years (since 1982). FY90 cooperative program funding is $75,000, and DNR is projecting a similar commitment for FY91. The following table lists the history of state general funding for this USGS cooperative program.

FY	($1000)	FY	$1000)
82	672.0	87	166.0
83	544.0	88	105.0*
84	515.0	89	98.0
85	345.0	90	75.0
86	310.0	91	75.0 (estimated)

*All DGGS hydrologists become seasonal, 10-month employees to to save funds.

There are several reasons for declining funding. Generally, cuts in funding for water resource activities correlate with decreases in general funds allocated to DGGS over the last few years. Second, increasing numbers of water resources "crisis" projects have demanded use of larger portions of the small budget and staff time. Examples include Kenai groundwater pollution, the proposed Alaska-Juneau Mine, and placer mining water studies. Third, USGS has increased their annual billing costs in terms of fewer gages

"per dollar." Fourth, DGGS has developed the skill and equipment to install and operate gages at less cost that USGS. DGGS operates approximately 30 gages other than the 8 USGS-DGGS cooperative gages. Thus, the total number of state-supported gages operated per year totals about the same number as when USGS operated all of the DGGS gages.

This cooperative stream gaging program is important to Alaska and should be supported by a larger general fund budget for DGGS, large enough to maintain DGGS hydrology programs and improve the DGGS-USGS cooperative activities. Also enclosed is a letter from the USGS describing recently discontinued stream gages.

Your second question relates to the small stream cooperative program between USGS and DOTPF. The small stream program involves collecting peak stream flow data at many sites throughout the state to assist in road and bridge design. This stream flow data is also useful to resource managers in other state departments, including DNR and ADF&G. In past years, the state through DOTPF has contributed $160,000 annually to the USGS for a cooperative program. There has been no state funding for this program since October 1, 1989, but USGS has continued the program in hopes of getting the necessary state match. No state funding for this program has been requested for FY91. We have been informed that at least two of the DOTPF regions are still trying to locate funds. The Water Board believes this is a very valuable program and that funding is needed to continue the baseline data collection.

We appreciate your interest in the state's water resources data collection programs. If you have further questions, please contact me at the above address or phone 563-4375, or Bob Forbes, Director of the Division of Geological & Geophysical Surveys.

Sincerely,

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

jls
cc: Lennie Gorsuch
Bob Forbes
Gary Gustafson
Alaska Water Resources Board Members
Mary Lu Harle

United States Department of the Interior

GEOLOGICAL SURVEY
Water Resources Division
4230 University Drive - Suite 201
ANCHORAGE ALASKA 99508-4664

March 22, 1990

Dear Water Resource Personnel,

In an effort to keep all interested parties informed of changes in U.S. Geological stream-gaging activities in Alaska, we have prepared the following list of stations that have been discontinued as of the dates indicated:

USGS No.	Station name	Drainage area sq. mi.	Years of Record	Remarks
	Stream-gaging stations discontinued October 1, 1989			
15067900	Upper Mahoney Lk Outlet nr Ketchikan	2.03	12	(1)
15087690	Indian River nr Sitka	10.1	9	(2) (3)
15303010	Silver Salmon Creek nr Aleknagik	4.46	4	(4) (5)
15744500	Kobuk River nr Kiana	9,520	13	(2) (6)
15747000	Wulik R below Tutok Cr nr Kivalina	705	5	(2) (7)
	Stream-gaging stations discontinued January 1, 1989			
15277600	East Fork Eklutna Cr nr Palmer	38.2	5	(8)
15277800	West Fork Eklutna Cr nr Palmer	25.4	5	(8)
	Stream-gaging stations discontinued October 1, 1988			
15087545	Municipal Watershed Cr nr Petersburg	2.20	10	(9)
15087545	Rocky Pass Cr nr Point Baker	2.72	12	(10)
15106980	Tonalite Cr nr Tenakee	14.5	20	(10)
15637000	Gold Run Cr nr Teller	24.2	3	(11) (12)

Remarks-

(1) Funded jointly by the Corps of Engineers and the USGS. This station was established because of the potential for hydroelectric development. It has served its original purpose for data collection.

(2) Funded jointly by the Alaska Dept. of Natural Resources, Division of Geological and Geophysical Surveys (DGGS) and the USGS. Funding was discontinued by DGGS July 1, 1989.

(3) Data from this station has transfer value to ungaged sites and it would be desirable to collect an additional 10 years of data for that purpose. Water downstream of the the gage is subject to several water-rights claims.

(4) Funded jointly by the Alaska Department of Transportation-Public Facilities and the USGS. Discontinued because of the stage-discharge relationship continuously changed due to beaver activity.

(5) Operated only during the open water season for 2 years and operated throughout the water year for another 2 years..

(6) This station is the only remaining large stream north of the Yukon River in the USGS data base network. It would be desirable to operate this station indefinitely.

(7) This station is downstream from the newly developed Red Dog Mine and is in an area were little data have been collected.
(8) Funded jointly by the Municipality of Anchorage and the USGS. The station had served its original purpose to provide data on inflow to Eklutna Lake- A major source for Anchorage's water supply.
(9) Funded by the USGS. The station served its purpose to provide data for regional network studies.
(10) Funded by the U.S. Forest Service. This station served its original purpose.
(11) Funded cooperatively by the Alaska Department of Transportation-Public Facilities and the USGS. The stage-discharge relationship was poor and stream-gaging activities were moved to the nearby site 15635000, Eldorado Creek nr Teller.
(12) Operated only during the open-water season.

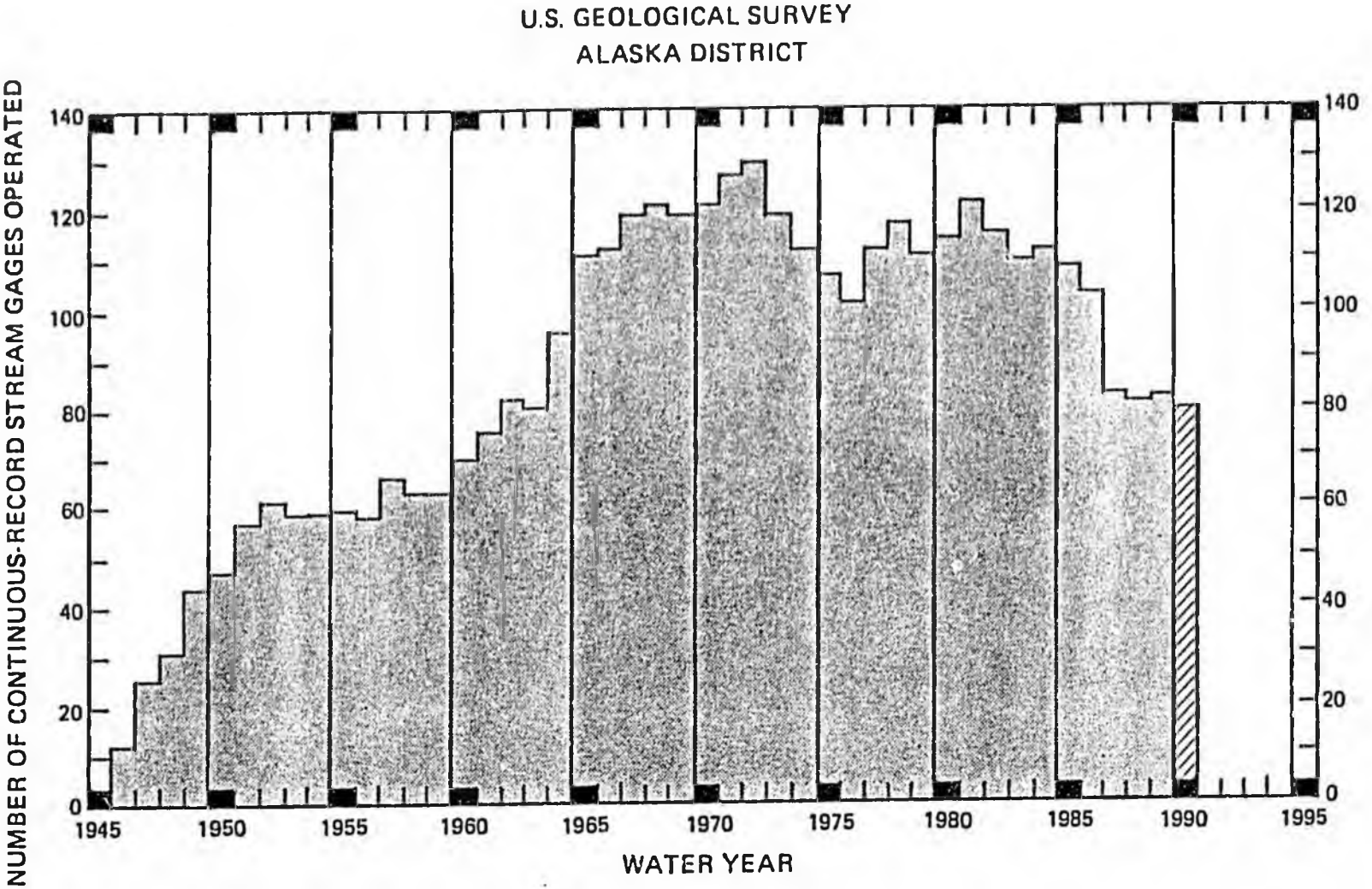
If your agency has a need for additional information or is interested in funding these or other sites, we would like to discuss our program with you. Please contact me or Ken Thompson at 271-4138 if you have questions or comments.

We are making every effort to operate as many stream-gaging stations as possible, but the number of stations continues to decline in response to a loss of matching funds from State and local agencies. Since 1972, the number of stations has decreased from 130 to 79. A bar graph showing the history of stream-gaging activity in Alaska by the USGS since 1945 is attached. Another discouraging trend shows the loss of numerous stations that have transfer value to ungaged sites in Alaska.

For your information, we have also attached a list of the remaining active stream-gaging stations operated by the USGS:

Sincerely,

Philip J. Carpenter
District Chief


U.S. GEOLOGICAL SURVEY
ALASKA DISTRICT
NUMBER OF CONTINUOUS-RECORD STREAM GAGES OPERATED
0
20
40
60
80
100
120
140
1945
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
WATER YEAR

Active stream-gaging stations in 1990 water year.
Updated March 15, 1990

SOUTHEAST

15022000	Harding River near Wrangell
15248000	Stikine River near Wrangell
15028300	Farragut River near Wrangell
15039900	Dorothy Lake Outlet near Juneau
15041200	Taku River near Juneau
15049900	Gold Creek near Juneau
15051008	Salmon Creek above canyon mouth near Juneau
15052500	Mendenhall River near Auke Bay
15056560	Klehini River near Klukwan
15070000a	Swan Lake (Falls Creek) near Ketchikan
15072000	Fish Creek near Ketchikan
15081497	Staney Creek near Klawock
15081580	Black Bear Lake Outlet near Klawock
15083500	Perkins Creek near Metlakatla
15085100	Old Tom Creek near Kasaan
15087570	Hamilton Creek near Kake
15090000a	Green Lake Outlet near Sitka
15101490	Greens Creek at Greens Creek Mine near Juneau
15101500	Greens Creek near Juneau
15106920	Kadashan River above Hook Creek near Tenakee
15129500	Situk River near Yakutat

SOUTHCENTRAL

15200280	Gulkana River near Sourdough
15212000	Copper River near Chitina
15214000	Copper River at Million Dollar Bridge near Cordova
15216000	Power Creek near Cordova
15226000b	Solomon Gulch near Valdez
15237360	San Juan River near Seward
15238648	Upper Nuka River near Homer
15238820	Barbara Creek near Seldovia
15238990	Upper Bradley River near Homer
15239000	Bradley River near Homer
15239050	Bradley River Tributary near Homer
15239070	Bradley River near tidewater near Homer
15239500	Fritz Creek near Homer
15258000	Kenai River at Cooper Landing
15266300	Kenai River at Soldotna
15271000	Sixmile Creek near Hope
15272200c	Placer River near Portage
15272280	Portage Creek at Portage Lake near Whittier
15272302c	Portage Creek at mouth at Portage
15272400c	Twentymile River near Portage
15274550	Little Campbell Creek at Nathan Drive at Anchorage
15274600	Campbell Creek near Spenard
15275100	Chester Creek at Arctic Blvd. at Anchorage
15276000	Ship Creek near Anchorage
15290000	Little Susitna River near Palmer
15292000	Susitna River at Susitna Station
15292700	Talkeetna River near Willow
15294005	Willow Creek near Willow
15294350	Susitna River at Susitna Station
15295700	Terror River at mouth near Kodiak
15297485	Kizhuyak River near Port Lions

SOUTHWEST

15302000	Nuyakuk River near Dillingham
15302500	Nushagak River at Ekwok
15303650	Tatalina River near Takotna (seasonal)
15304000	Kuskokwim River at Crooked Creek
15304393	Browns Creek near Bethel (seasonal)

YUKON

15344400	King Creek near Dome Creek (seasonal)
15356000	Yukon River at Eagle
15388950d	Porcupine River at Old Crow
15388960d	Porcupine River near International Boundary
15453500	Yukon River near Stevens Village
15476000	Tanana River near Tanacross
15484000	Salcha River near Salchaket
15485500	Tanana River at Fairbanks
15493000	Chena River near Two Rivers
15493700	Chena River below Moose Creek Dam near North Pole
15511000	Little Chena River near Fairbanks
15514000	Chena River at Fairbanks
15515500	Tanana River at Nenana
15518080	Lignite Creek near Healy
15564875	Yukon River at Pilot Station

NORTHWEST

15621000	Snake River near Nome
15743850	Eldorado Creek near Teller (seasonal)
15743850	Dahl Creek near Kobuk (seasonal)

ARCTIC SLOPE

15798700	Nunavak Creek near Barrow
15896000	Kuparuk River near Deadhorse
15906000	Sagavanirktok River Tributary near Pump Station 3 (seasonal)
15908000	Sagavanirktok River near Pump Station 3

Footnotes:

a. Records furnished by power-plant operators.
b. This site has 4 stations, but the records have to be combined to get the discharge at the mouth.
c. Stations operated to obtain inflow to Turnagain Arm in a special project.
d. Discharge records furnished by Water Survey of Canada.

United States Department of the Interior

GEOLOGICAL SURVEY
Water Resources Division
4230 University Drive - Suite 201
ANCHORAGE ALASKA 99508-4664

March 22, 1990

Dear Water Resource Personnel,

In an effort to keep all interested parties informed of changes in U.S. Geological stream-gaging activities in Alaska, we have prepared the following list of stations that have been discontinued as of the dates indicated:

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15106980	Tonalite Cr nr Tenakee	14.5	20	(10)
15637000	Gold Run Cr nr Teller	24.2	3	(11) (12)

Remarks-

(1) Funded jointly by the Corps of Engineers and the USGS. This station was established because of the potential for hydroelectric development. It has served its original purpose for data collection.

(2) Funded jointly by the Alaska Dept. of Natural Resources, Division of Geological and Geophysical Surveys (DGGS) and the USGS. Funding was discontinued by DGGS July 1, 1989.

(3) Data from this station has transfer value to ungaged sites and it would be desirable to collect an additional 10 years of data for that purpose. Water downstream of the the gage is subject to several water-rights claims.

(4) Funded jointly by the Alaska Department of Transportation-Public Facilities and the USGS. Discontinued because of the stage-discharge relationship continuously changed due to beaver activity.

(5) Operated only during the open water season for 2 years and operated throughout the water year for another 2 years..

(6) This station is the only remaining large stream north of the Yukon River in the USGS data base network. It would be desirable to operate this station indefinitely.

(7) This station is downstream from the newly developed Red Dog Mine and is in an area were little data have been collected.
(8) Funded jointly by the Municipality of Anchorage and the USGS. The station had served its original purpose to provide data on inflow to Eklutna Lake- A major source for Anchorage's water supply.
(9) Funded by the USGS. The station served its purpose to provide data for regional network studies.
(10) Funded by the U.S. Forest Service. This station served its original purpose.
(11) Funded cooperatively by the Alaska Department of Transportation-Public Facilities and the USGS. The stage-discharge relationship was poor and stream-gaging activities were moved to the nearby site 15635000, Eldorado Creek nr Teller.
(12) Operated only during the open-water season.

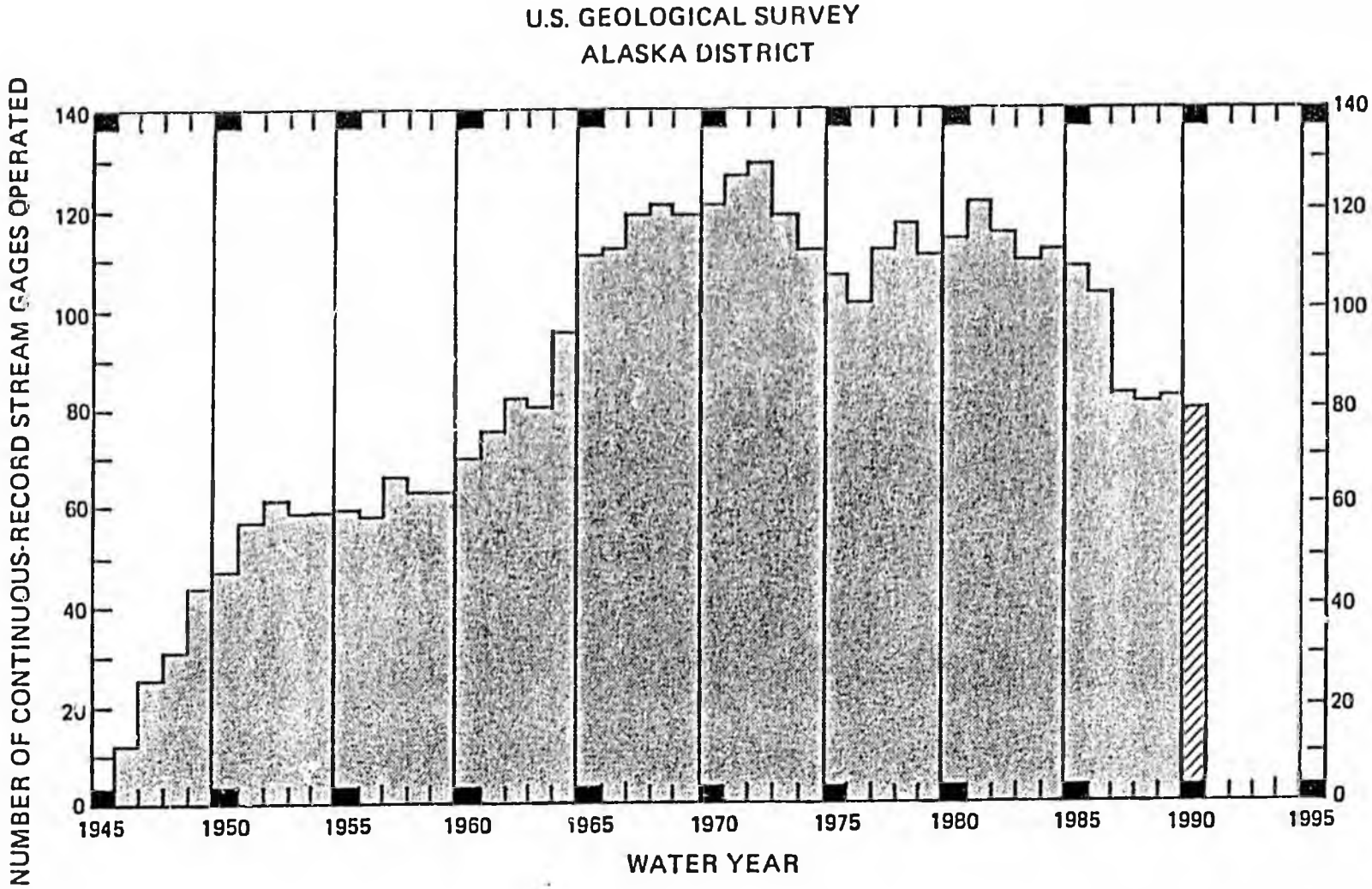
If your agency has a need for additional information or is interested in funding these or other sites, we would like to discuss our program with you. Please contact me or Ken Thompson at 271-4138 if you have questions or comments.

We are making every effort to operate as many stream-gaging stations as possible, but the number of stations continues to decline in response to a loss of matching funds from State and local agencies. Since 1972, the number of stations has decreased from 130 to 79. A bar graph showing the history of stream-gaging activity in Alaska by the USGS since 1945 is attached. Another discouraging trend shows the loss of numerous stations that have transfer value to ungaged sites in Alaska.

For your information, we have also attached a list of the remaining active stream-gaging stations operated by the USGS:

Sincerely,

Philip J. Carpenter
District Chief


U.S. GEOLOGICAL SURVEY
ALASKA DISTRICT
NUMBER OF CONTINUOUS-RECORD STREAM GAGES OPERATED
0
20
40
60
80
100
120
140
1945
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
WATER YEAR

Active stream-gaging stations in 1990 water year.
Updated March 15, 1990

SOUTHEAST

15022000	Harding River near Wrangell
15248000	Stikine River near Wrangell
15028300	Farragut River near Wrangell
15039900	Dorothy Lake Outlet near Juneau
15041200	Taku River near Juneau
15049900	Gold Creek near Juneau
15051008	Salmon Creek above canyon mouth near Juneau
15052500	Mendenhall River near Auke Bay
15056560	Klehini River near Klukwan
15070000a	Swan Lake (Falls Creek) near Ketchikan
15072000	Fish Creek near Ketchikan
15081497	Staney Creek near Klawock
15081580	Black Bear Lake Outlet near Klawock
15083500	Perkins Creek near Metlakatla
15085100	Old Tom Creek near Kasaan
15087570	Hamilton Creek near Kake
15090000a	Green Lake Outlet near Sitka
15101490	Greens Creek at Greens Creek Mine near Juneau
15101500	Greens Creek near Juneau
15106920	Kadashan River above Hook Creek near Tenakee
15129500	Situk River near Yakutat

SOUTHCENTRAL

15200280	Gulkana River near Sourdough
15212000	Copper River near Chitina
15214000	Copper River at Million Dollar Bridge near Cordova
15216000	Power Creek near Cordova
15226000b	Solomon Gulch near Valdez
15237360	San Juan River near Seward
15238648	Upper Nuka River near Homer
15238820	Barbara Creek near Seldovia
15238990	Upper Bradley River near Homer
15239000	Bradley River near Homer
15239050	Bradley River Tributary near Homer
15239070	Bradley River near tidewater near Homer
15239500	Fritz Creek near Homer
15258000	Kenai River at Cooper Landing
15266300	Kenai River at Soldotna
15271000	Sixmile Creek near Hope
15272200c	Placer River near Portage
15272280	Portage Creek at Portage Lake near Whittier
15272302c	Portage Creek at mouth at Portage
15272400c	Twentymile River near Portage
15274550	Little Campbell Creek at Nathan Drive at Anchorage
15274600	Campbell Creek near Spenard
15275100	Chester Creek at Arctic Blvd. at Anchorage
15276000	Ship Creek near Anchorage
15290000	Little Susitna River near Palmer
15292000	Susitna River at Susitna Station
15292700	Talkeetna River near Willow
15294005	Willow Creek near Willow
15294350	Susitna River at Susitna Station
15295700	Terror River at mouth near Kodiak
15297485	Kizhuyak River near Port Lions

SOUTHWEST

15302000	Nuyakuk River near Dillingham
15302500	Nushagak River at Ekwok
15303650	Tatalina River near Takotna (seasonal)
15304000	Kuskokwim River at Crooked Creek
15304393	Browns Creek near Bethel (seasonal)

YUKON

15344400	King Creek near Dome Creek (seasonal)
15356000	Yukon River at Eagle
15388950d	Porcupine River at Old Crow
15388960d	Porcupine River near International Boundary
15453500	Yukon River near Stevens Village
15476000	Tanana River near Tanacross
15484000	Salcha River near Salchaket
15485500	Tanana River at Fairbanks
15493000	Chena River near Two Rivers
15493700	Chena River below Moose Creek Dam near North Pole
15511000	Little Chena River near Fairbanks
15514000	Chena River at Fairbanks
15515500	Tanana River at Nenana
15518080	Lignite Creek near Healy
15564875	Yukon River at Pilot Station

NORTHWEST

15621000	Snake River near Nome
15743850	Eldorado Creek near Teller (seasonal)
15743850	Dahl Creek near Kobuk (seasonal)

ARCTIC SLOPE

15798700	Nunavak Creek near Barrow
15896000	Kuparuk River near Deadhorse
15906000	Sagavanirktok River Tributary near Pump Station 3 (seasonal)
15908000	Sagavanirktok River near Pump Station 3

Footnotes:

a. Records furnished by power-plant operators.
b. This site has 4 stations, but the records have to be combined to get the discharge at the mouth.
c. Stations operated to obtain inflow to Turnagain Arm in a special project.
d. Discharge records furnished by Water Survey of Canada.

APR 9 1990

STEVE COWPER, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

WATER RESOURCES BOARD

3601 C STREET
P.O. BOX 107005
ANCHORAGE, ALASKA 99510-7005
PHONE: (907) 561-2020

April 4, 1990

The Honorable Steve Cowper
Governor, State of Alaska
P.O. Box A
Juneau, Alaska 99811-0101

Dear Governor Cowper:

Enclosed are the correspondence and resolutions adopted by the Alaska Water Resources Board at our recent meeting in Juneau. The following resolutions were adopted by the Water Resources Board:

Resolution 90-4:	Fish Creek Restoration
Resolution 90-5:	Funding of Stream Crest Gages Along Road Systems by the Department of Transportation and Public Facilities
Resolution 90-6:	Ship Creek Watershed Protection, Chugach State Park
Resolution 90-7:	Indian River Stream Gaging, and Coordination of the Stream Gaging Program between the Division of Land and Water Management and the Division of Geological and Geophysical Surveys
Resolution 90-8:	Recovery of Departmental Expenses in Processing Unbudgeted Applications and Projects
Resolution 90-9:	Solid and Hazardous Waste Management
Resolution 90-10:	Support for Forest Practices Act, with Amendment
Resolution 90-11:	Kenai Peninsula Hydrologic Study
Resolution 90-12:	National Wetlands Policy Development
Resolution 90-13:	Matching Funds for Stream Gage Programs
Resolution 90-14:	Support for Oil Spill Legislation
Resolution 90-15:	STORET Program

The Water Resources Board looks forward to your response to these resolutions. Please call on us if we can be of assistance to you on these or any other issues.

Sincerely,

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

cc: Lennie Gorsuch
Dennis Kelso
Mark Hickey
Larry Merculieff
Denby Lloyd
Penny Forsmo
Senate Resources Committee
House Resources Committee
Water Resources Board Members

ALASKA WATER RESOURCES BOARD

Resolution No. 90-4

Fish Creek Restoration

WHEREAS: The channelization and culverting of Fish Creek in Anchorage has contributed greatly to flooding in the Spenard area; and

WHEREAS: Fish Creek is little more than a run-off conduit, having lost fish and other biologic communities; and

WHEREAS: Reopening and restoring Fish Creek to its natural stream bed will improve flood control and water quality.

NOW THEREFORE BE IT RESOLVED: The Alaska Water Resources Board recommends funding for planning and design of Fish Creek restoration, water flow and pollution projects.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-5

Funding of Stream Crest Gages Along Road Systems by
The Department of Transportation and Public Facilities

WHEREAS: The Alaska Water Resources Board has recently learned that the Alaska Department of Transportation and Public Facilities (DOTPF) has failed to obtain approval for its nominal budget request to continue its program of measuring peak stream flows through bridges and culverts along the State's road system; and

WHEREAS: The data provided by these crest gages is invaluable for the proper design and construction of DOTPF facilities, to insure that all stream and river crossings are adequately sized and properly designed; and

WHEREAS: Matching funds for the crest-gage program have been available through the U.S. Geological Survey's Small Streams program; and

WHEREAS: The nominal cost to DOTPF of the crest-gage program is minuscule when compared to the future costs of repair and reconstruction of state highways and bridges which may be inadequately designed to accommodate peak stream flows, where such data is unavailable; and

WHEREAS: The crest-gage data provided by DOTPF is also vital to the Alaska Department of Fish and Game and the Alaska Department of Natural Resources in fulfilling their statutory responsibilities for land, water, and habitat planning and management, particularly in areas of the state where no comparable data is available from other sources;

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board urges the Governor and DOTPF make every effort to adequately fund the existing crest-gage stream measurement program, to insure the continuity of this valuable data for many important state functions.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-6

Ship Creek Watershed Protection, Chugach State Park

WHEREAS: Ship Creek Valley is a designated watershed for Ft. Richardson and the Municipality of Anchorage, and is a designated wilderness management zone in the Chugach State Park Master Plan; and

WHEREAS: The use of horses for recreation and hunting in Ship Creek Valley during the late summer and fall months has created a network of very muddy, flooded trails and bogs in Ship Creek Valley which have received significant adverse publicity and public comment; and

WHEREAS: The present management of Ship Creek Valley by the Alaska Division of Parks has been ineffective to prevent or mitigate the proliferation of muddy ditches and bogs which are nearly impassable to other trail users, and which have not been allowed to recover their stability and ground cover over time;

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board requests that the Division of Land and Water Management and the Alaska Division of Parks jointly assess the adverse effects, if any, of the continued use of horses on the water quality of the Ship Creek watershed, taking into consideration the Valley's current management designation as municipal watershed, state park, and wilderness management zone; and

BE IT FURTHER RESOLVED: That the Board requests that the Department of Natural Resources report to the Board at its next meeting on the conclusions reached regarding the continued allowance of horses in Ship Creek Valley, and any options which the Department is considering to control this use and mitigate its effects.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-7

Indian River Stream Gaging, and Coordination of the Stream Gaging Program between the Division of Land and Water Management and the Division of Geological and Geophysical Surveys

WHEREAS: The gathering of accurate stream-flow data on Indian River has been important to support the State's ability to adjudicate all water claims and rights on Indian River; and

WHEREAS: The conclusion of the current water rights adjudication will not determine federal claims to Indian River, which will remain to be quantified or litigated at some future time; and

WHEREAS: The continuous historical record provided by the Indian River stream gage is vital to both that river drainage, and by extrapolation, to numerous other Southeast rivers which have no stream gage records.

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board urges that the Division of Geological and Geophysical Surveys (DGGS) maintain the Indian River stream gage in its present location with its own funds, federal USGS matching funds, Department of Fish and Game participation, or any workable combination of funds which will assure continuation of the historical record provided by this gage; and

BE IT FURTHER RESOLVED: That the Board urges DGGS to closely coordinate and consult with the Division of Land and Water Management (DLWM) regarding any future plans to abandon stream gauges where an historical record of importance to the State has been established; and

BE IT FURTHER RESOLVED: That the Board urges DGGS to annually coordinate with DLWM concerning locations important for the installation of new stream gages, and the financial support for such installations.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-8

Recovery of Departmental Expenses in
Processing Unbudgeted Applications and Projects

WHEREAS: The divisions of the Department of Natural Resources are expected to annually develop work plans and budgets to support those plans; and

WHEREAS: Private-sector applications and projects which propose to use state lands, water or other public resources often require considerable unbudgeted agency time and effort to respond to these proposals; and

WHEREAS: Regular work schedules and budget allocations are often diverted to respond to such proposals, due to their publicity and high visibility.

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board recommends that the Department of Natural Resources adopt regulations to charge for time and expenses incurred by department personnel for necessary work associated with the evaluation and processing of public sector projects or applications which are not included in its annual budget.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-9

Solid and Hazardous Waste Management

WHEREAS: Appropriate management practices for disposal of solid and hazardous waste are essential for the protection of Alaska's numerous public water supplies; and

WHEREAS: Many communities in the state do not have adequate technical or financial resources to develop adequate waste management facilities; and

WHEREAS: Enforcement of the international marine pollution convention (MARPOL) will have an enormous and unplanned financial impact upon many coastal communities; and

WHEREAS: Recycling and solid waste reduction are important components of good waste management programs.

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board strongly supports House Bills 478, 479, 480 and 481.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-10

Support for Forest Practices Act, with Amendment

WHEREAS: The Alaska Water Resources Board has repeatedly expressed concern about ground and surface water and the management of Alaska's forests; and

WHEREAS: Watershed protection is essential for maintenance of water quality and quantity; and

WHEREAS: The Alaska Water Resources Board encouraged the establishment of a Forest Practices Task Force to review and recommend changes to the Alaska Forest Practices Act; and

WHEREAS: SB 317 requires watershed, water quality and non-point source pollution considerations as well as riparian standards for stream protection in forest management plans; and

WHEREAS: Public forest lands are in the public trust even if managed or owned by a separate agency such as the University, Mental Health Board, or a city or borough, and therefore, should not be excluded from state forest practices regulation;

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board urges passage of SB 317, if amended to include all non-federal public forest lands.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-11

Kenai Peninsula Hydrologic Study

WHEREAS: Alaska Water Resources Board resolution 89-16 previously addressed the need for hydrologic studies on the Kenai Peninsula; and

WHEREAS: Alaska Water Resources Board resolution 90-1 initiated the formation of a unique task force composed of representatives from state and local government, industry, and the public to design and direct the regional hydrologic study; and

WHEREAS: Industry has indicated a willingness to consider joint funding of this endeavor with the state; and

WHEREAS: It is imperative for the state to demonstrates its intent to support this endeavor.

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board urges that the State continue to support and participate in the Kenai Peninsula Hydrologic Study; and

BE IT FURTHER RESOLVED: The Alaska Water Resources Board supports House Concurrent Resolution No. 13 and Senate Concurrent Resolution No. 15.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-12

National Wetlands Policy Development

WHEREAS: The National Wetlands Policy is of vital concern to the State of Alaska; and

WHEREAS: The State of Alaska is engaged in a dialogue with the Federal Government on the formation of that policy with the goal of securing consideration of Alaska's unique conditions; and

WHEREAS: The Commissioners of the Departments of Environmental Conservation, Natural Resources and Commerce have taken the state's lead position in these negotiations and have solicited input from other government agencies in order to address their concerns on Wetlands Policy; and

WHEREAS: There are wetlands users in Alaska whose interest will not necessarily be addressed by the government agencies.

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board requests that these Commissioners be directed to solicit input from non-government wetlands users, including but not limited to mining, fishing, logging, and recreational groups.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-13

Matching Funds for Stream Gage Programs

WHEREAS: For many years the U. S. Geological Survey (USGS) has provided matching funds to the state for gaging the amount of water flowing in Alaska's streams; and

WHEREAS: This jointly funded procedure has accounted for the majority of stream flow data available in the state; and

WHEREAS: Over the past several years, the state has reduced the amount of matching funds available for stream flow gages; and

WHEREAS: Stream flow data is important for sound decision-making by both government and business; and

WHEREAS: The joint Senate-House Resources Committee requested that the Alaska Water Resources Board provide information concerning levels of matching funds between USGS and the Department of Natural Resources/Division of Geological and Geophysical Surveys (DGGS) and the Department of Transportation and Public Facilities (DOT/PF).

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board requests the Department of Natural Resources, the Department of Transportation and Public Facilities and the USGS provide data concerning these matching funds to the Board.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-14

Support for Oil Spill Legislation

WHEREAS: Oil Spills can occur during the production, transportation and storage of petroleum products; and

WHEREAS: Oil from such discharge can and often does pollute surface or ground water; and

WHEREAS: Required implementation of oil spill contingency plans, determination of financial responsibility, authority to inspect facilities by state personnel, and strengthened penalties for oil spills are measures needed to help protect Alaska's water resources.

NOW THEREFORE BE IT RESOLVED: That the Alaska Water Resources Board supports SB 502/HB 565, SB 503/HB 566, SB 504/HB 567, SB 497/HB 409 and HB 315.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

ALASKA WATER RESOURCES BOARD

Resolution No. 90-15

STORET Program

WHEREAS: During the years 1981 to 1984 the Department of Natural Resources, with assistance from a grant from the Environmental Protection Agency, began numbering river miles for stream reaches in the STORET system; and

WHEREAS: When the funds for this project were discontinued work on the STORET system ceased; and

WHEREAS: The STORET program identifies stream reaches on a mile--by-mile basis, making the computer storage and retrieval of information more readily available; and

WHEREAS: The identification of river miles on streams is important for many reasons; such as instream flow designations, placer mining requirements, river corridor planning, and fish habitat management, to name a few;

NOW THEREFORE BE IT RESOLVED: The STORET program be funded and reactivated to complete the identification of river miles on USGS maps, enter this information into DNR's LAS computer system, and integrate this system with DNR's other water management computer systems.

Adopted this 15th day of March, 1990
Alaska Water Resources Board

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

STEVE COWPER, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

WATER RESOURCES BOARD

3601 C STREET
P.O. BOX 107005
ANCHORAGE, ALASKA 99510-7005
PHONE: (907) 561-2020

April 2, 1990

Senator Bettye Fahrenkamp
Chairwoman
Senate Resources Committee
P.O. Box V
Juneau, AK 99811

Dear Senator Fahrenkamp:

During the meeting between the joint House and Senate Resources Committees and the Water Resources Board on March 14, 1990, you asked for information on the stream gaging cooperative program between the U.S. Geological Survey (USGS) and DNR's Division of Geological & Geophysical Surveys (DGGS). You also asked for information on the small stream cooperative program between USGS and the Department of Transportation and Public Facilities (DOTPF).

Funding for the cooperative stream gaging program between DNR's Division of Geological & Geophysical Survey (DGGS) and USGS has declined significantly during the last few years (since 1982). FY90 cooperative program funding is $75,000, and DNR is projecting a similar commitment for FY91. The following table lists the history of state general funding for this USGS cooperative program.

FY	($1000)	FY	$1000)
82	672.0	87	166.0
83	544.0	88	105.0*
84	515.0	89	98.0
85	345.0	90	75.0
86	310.0	91	75.0 (estimated)

*All DGGS hydrologists become seasonal, 10-month employees to to save funds.

There are several reasons for declining funding. Generally, cuts in funding for water resource activities correlate with decreases in general funds allocated to DGGS over the last few years. Second, increasing numbers of water resources "crisis" projects have demanded use of larger portions of the small budget and staff time. Examples include Kenai groundwater pollution, the proposed Alaska-Juneau Mine, and placer mining water studies. Third, USGS has increased their annual billing costs in terms of fewer gages

"per dollar." Fourth, DGGS has developed the skill and equipment to install and operate gages at less cost that USGS. DGGS operates approximately 30 gages other than the 8 USGS-DGGS cooperative gages. Thus, the total number of state-supported gages operated per year totals about the same number as when USGS operated all of the DGGS gages.

This cooperative stream gaging program is important tc Alaska and should be supported by a larger general fund budget for DGGS, large enough to maintain DGGS hydrology programs and improve the DGGS-USGS cooperative activities. Also enclosed is a letter from the USGS describing recently discontinued stream gages.

Your second question relates to the small stream cooperative program between USGS and DOTPF. The small stream program involves collecting peak stream flow data at many sites throughout the state to assist in road and bridge design. This stream flow data is also useful to resource managers in other state departments, including DNR and ADF&G. In past years, the state through DOTPF has contributed $160,000 annually to the USGS for a cooperative program. There has been no state funding for this program since October 1, 1989, but USGS has continued the program in hopes of getting the necessary state match. No state funding for this program has been requested for FY91. We have been informed that at least two of the DOTPF regions are still trying to locate funds. The Water Board believes this is a very valuable program and that funding is needed to continue the baseline data collection.

We appreciate your interest in the state's water resources data collection programs. If you have further questions, please contact me at the above address or phone 563-4375, or Bob Forbes, Director of the Division of Geological & Geophysical Surveys.

Sincerely,

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

jls
cc: Lennie Gorsuch
Bob Forbes
Gary Gustafson
Alaska Water Resources Board Members
Mary Lu Harle

United States Department of the Interior

GEOLOGICAL SURVEY
Water Resources Division
4230 University Drive - Suite 201
ANCHORAGE ALASKA 99508-4664

March 22, 1990

Dear Water Resource Personnel,

In an effort to keep all interested parties informed of changes in U.S. Geological stream-gaging activities in Alaska, we have prepared the following list of stations that have been discontinued as of the dates indicated:

USGS No.	Station name	Drainage area sq. mi.	Years of Record	Remarks
	Stream-gaging stations discontinued October 1, 1989			
15067900	Upper Mahoney Lk Outlet nr Ketchikan	2.03	12	(1)
15087690	Indian River nr Sitka	10.1	9	(2) (3)
15303010	Silver Salmon Creek nr Aleknagik	4.46	4	(4) (5)
15744500	Kobuk River nr Kiana	9,520	13	(2) (6)
15747000	Wulik R below Tutok Cr nr Kivalina	705	5	(2) (7)
	Stream-gaging stations discontinued January 1, 1989			
15277600	East Fork Eklutna Cr nr Palmer	38.2	5	(8)
15277800	West Fork Eklutna Cr nr Palmer	25.4	5	(8)
	Stream-gaging stations discontinued October 1, 1988			
15087545	Municipal Watershed Cr nr Petersburg	2.20	10	(9)
15087545	Rocky Pass Cr nr Point Baker	2.72	12	(10)
15106980	Tonalite Cr nr Tenakee	14.5	20	(10)
15637000	Gold Run Cr nr Teller	24.2	3	(11) (12)

Remarks-

(1) Funded jointly by the Corps of Engineers and the USGS. This station was established because of the potential for hydroelectric development. It has served its original purpose for data collection.

(2) Funded jointly by the Alaska Dept. of Natural Resources, Division of Geological and Geophysical Surveys (DGGS) and the USGS. Funding was discontinued by DGGS July 1, 1989.

(3) Data from this station has transfer value to ungaged sites and it would be desirable to collect an additional 10 years of data for that purpose. Water downstream of the the gage is subject to several water-rights claims.

(4) Funded jointly by the Alaska Department of Transportation-Public Facilities and the USGS. Discontinued because of the stage-discharge relationship continuously changed due to beaver activity.

(5) Operated only during the open water season for 2 years and operated throughout the water year for another 2 years..

(6) This station is the only remaining large stream north of the Yukon River in the USGS data base network. It would be desirable to operate this station indefinitely.

(7) This station is downstream from the newly developed Red Dog Mine and is in an area were little data have been collected.
(8) Funded jointly by the Municipality of Anchorage and the USGS. The station had served its original purpose to provide data on inflow to Eklutna Lake- A major source for Anchorage's water supply.
(9) Funded by the USGS. The station served its purpose to provide data for regional network studies.
(10) Funded by the U.S. Forest Service. This station served its original purpose.
(11) Funded cooperatively by the Alaska Department of Transportation-Public Facilities and the USGS. The stage-discharge relationship was poor and stream-gaging activities were moved to the nearby site 15635000, Eldorado Creek nr Teller.
(12) Operated only during the open-water season.

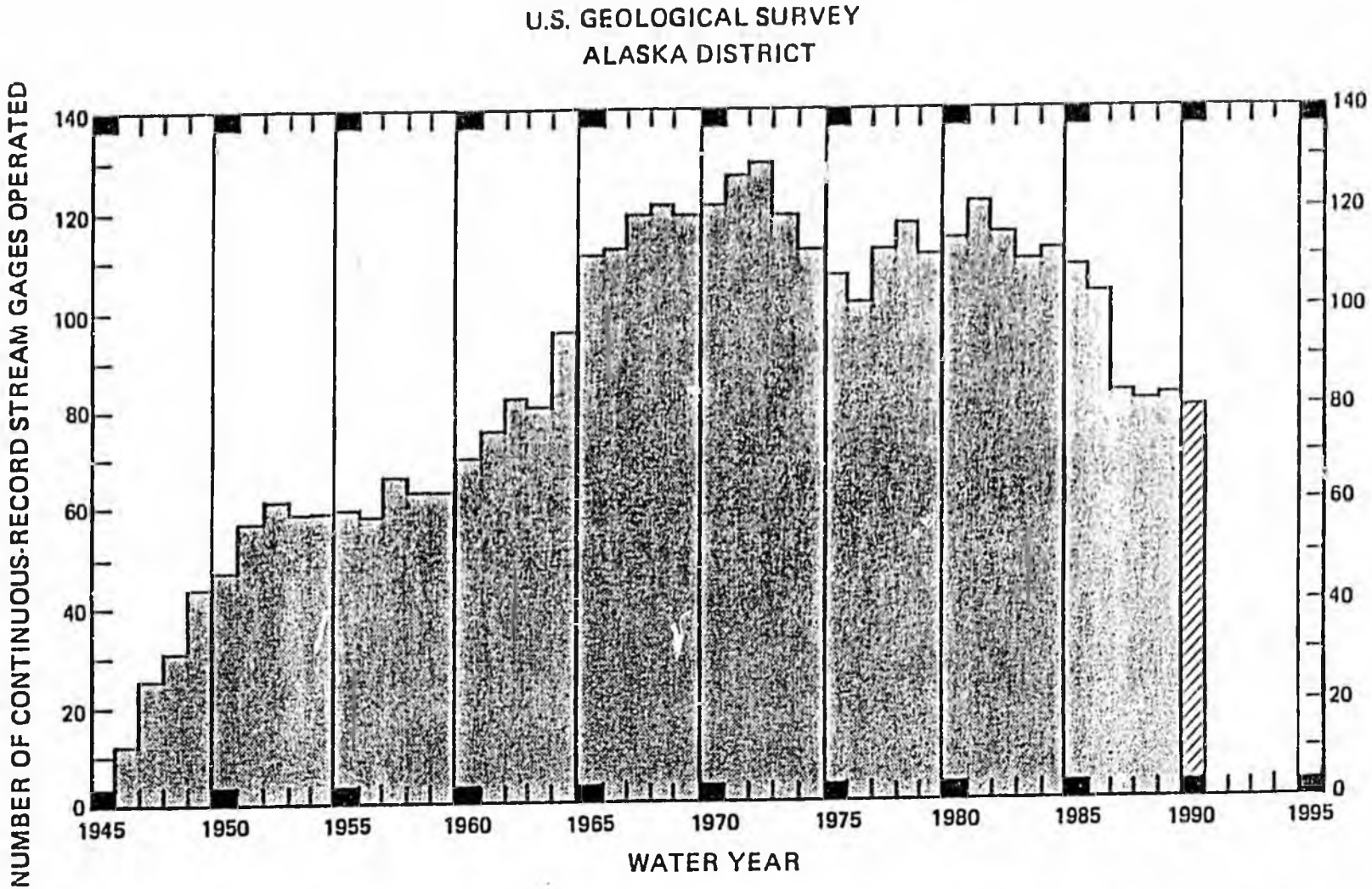
If your agency has a need for additional information or is interested in funding these or other sites, we would like to discuss our program with you. Please contact me or Ken Thompson at 271-4138 if you have questions or comments.

We are making every effort to operate as many stream-gaging stations as possible, but the number of stations continues to decline in response to a loss of matching funds from State and local agencies. Since 1972, the number of stations has decreased from 130 to 79. A bar graph showing the history of stream-gaging activity in Alaska by the USGS since 1945 is attached. Another discouraging trend shows the loss of numerous stations that have transfer value to ungaged sites in Alaska.

For your information, we have also attached a list of the remaining active stream-gaging stations operated by the USGS:

Sincerely,

Philip J. Carpenter
District Chief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Updated March 15, 1990

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15052500	Mendenhall River near Auke Bay
15056560	Klehini River near Klukwan
15070000a	Swan Lake (Falls Creek) near Ketchikan
15072000	Fish Creek near Ketchikan
15081497	Staney Creek near Klawock
15081580	Black Bear Lake Outlet near Klawock
15083500	Perkins Creek near Metlakatla
15085100	Old Tom Creek near Kasaan
15087570	Hamilton Creek near Kake
15090000a	Green Lake Outlet near Sitka
15101490	Greens Creek at Greens Creek Mine near Juneau
15101500	Greens Creek near Juneau
15106920	Kadashan River above Hook Creek near Tenakee
15129500	Situk River near Yakutat

SOUTHCENTRAL

15200280	Gulkana River near Sourdough
15212000	Copper River near Chitina
15214000	Copper River at Million Dollar Bridge near Cordova
15216000	Power Creek near Cordova
15226000b	Solomon Gulch near Valdez
15237360	San Juan River near Seward
15238648	Upper Nuka River near Homer
15238820	Barbara Creek near Seldovia
15238990	Upper Bradley River near Homer
15239000	Bradley River near Homer
15239050	Bradley River Tributary near Homer
15239070	Bradley River near tidewater near Homer
15239500	Fritz Creek near Homer
15258000	Kenai River at Cooper Landing
15266300	Kenai River at Soldotna
15271000	Sixmile Creek near Hope
15272200c	Placer River near Portage
15272280	Portage Creek at Portage Lake near Whittier
15272302c	Portage Creek at mouth at Portage
15272400c	Twentymile River near Portage
15274550	Little Campbell Creek at Nathan Drive at Anchorage
15274600	Campbell Creek near Spenard
15275100	Chester Creek at Arctic Blvd. at Anchorage
15276000	Ship Creek near Anchorage
15290000	Little Susitna River near Palmer
15292000	Susitna River at Susitna Station
15292700	Talkeetna River near Willow
15294005	Willow Creek near Willow
15294350	Susitna River at Susitna Station
15295700	Terror River at mouth near Kodiak
15297485	Kizhuyak River near Port Lions

SOUTHWEST

15302000	Nuyakuk River near Dillingham
15302500	Nushagak River at Ekwok
15303650	Tatalina River near Takotna (seasonal)
15304000	Kuskokwim River at Crooked Creek
15304393	Browns Creek near Bethel (seasonal)

YUKON

15344400	King Creek near Dome Creek (seasonal)
15356000	Yukon River at Eagle
15388950d	Porcupine River at Old Crow
15388960d	Porcupine River near International Boundary
15453500	Yukon River near Stevens Village
15476000	Tanana River near Tanacross
15484000	Salcha River near Salchaket
15485500	Tanana River at Fairbanks
15493000	Chena River near Two Rivers
15493700	Chena River below Moose Creek Dam near North Pole
15511000	Little Chena River near Fairbanks
15514000	Chena River at Fairbanks
15515500	Tanana River at Nenana
15518080	Lignite Creek near Healy
15564875	Yukon River at Pilot Station

NORTHWEST

15621000	Snake River near Nome
15743850	Eldorado Creek near Teller (seasonal)
15743850	Dahl Creek near Kobuk (seasonal)

ARCTIC SLOPE

15798700	Nunavak Creek near Barrow
15896000	Kuparuk River near Deadhorse
15906000	Sagavanirktok River Tributary near Pump Station 3 (seasonal)
15908000	Sagavanirktok River near Pump Station 3

Footnotes:

a. Records furnished by power-plant operators.
b. This site has 4 stations, but the records have to be combined to get the discharge at the mouth.
c. Stations operated to obtain inflow to Turnagain Arm in a special project.
d. Discharge records furnished by Water Survey of Canada.

STEVE COWPER, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

WATER RESOURCES BOARD

3601 C STREET
P.O. BOX 107005
ANCHORAGE, ALASKA 99510-7005
PHONE: (907) 561-2020

March 27, 1990

Lennie Gorsuch, Commissioner
Department of Natural Resources
400 Willoughby Avenue
Juneau, AK 99801

Dear Commissioner Gorsuch:

Re: Decision/Eklutna Utilities, Inc. Water Use Applications

It was with great interest and approval that we read your final decision referenced above.

We believe that your judicious decision and identification of the issues represented in this case is an outstanding example of the intent of and need for the water rights adjudication process provided for in the Alaska Water Use Act. Through the years, the Water Resources Board has strongly supported and promoted Alaska's water right adjudication process. The issues addressed in this case establish useful precedents which will hopefully expedite future decisions. Additionally, this case demonstrates to the public that water rights are important to protect the right to use water.

Sincerely,

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

jls

STEVE COWPER, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

WATER RESOURCES BOARD

3601 C STREET
P.O. BOX 107005
ANCHORAGE, ALASKA 99510-7005
PHONE: (907) 561-2020

March 27, 1990

Ms. Penny Forsmo
Director of Boards & Commissions
Office of the Governor
P.O. Box A
Juneau, AK 99811-0101

Dear Ms. Forsmo:

Subject: Reappointment of Tom Meacham to Water Resources Board

We request that Governor Cowper reappoint Tom Meacham to the Alaska Water Resources Board. The Water Resources Board is an effective advocate for water quantity and quality issues and for aggressive water management in the state.

Since the Water Resources Board only meets twice a year, it is important to retain members with knowledge of water issues and experience working with the Water Board.

Tom Meacham understands water resources issues, both from a legal and practical perspective, and has been an invaluable resource to the Water Board. We believe it would be a significant loss to the Board if he is not reappointed. Of the seven members, three have been on the Board less than one term and one has just started a second term.

We appreciate your careful consideration of this appointment. If you have any questions, please call me at 563-4375.

Sincerely,

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

jls

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

WATER RESOURCES BOARD

STEVE COWPER, GOVERNOR

3601 C STREET
P.O. BOX 107005
ANCHORAGE, ALASKA 99510-7005
PHONE: (907) 561-2020

March 27, 1990

David Stone
Echo Bay Mines
3100 Channel Drive, Suite #2
Juneau, AK 99801

Dear Mr. Stone:

The Alaska Water Resources Board wishes to thank you for the time and labor involved in briefing us and giving us a tour the A J Mine facility. We appreciate your apparent regard for the water-related issues and the related concerns of the public.

We look forward to seeing the progress on this project and would be happy to take you up on your offer to go underground next year.

Sincerely,

Peg Tileston

Peg Tileston, Chairwoman
Alaska Water Resources Board

jls