ALASKA LEGISLATURE COMMITTEE FILES 1993-1994 8672

8011 HOUSE RESOURCES

276

    * Surface resources: surface land, extraction sites, commercial forest tracts;

    * Sub-surface resources: oil and gas, coal, and minerals;

- There has been an agreement between parties as to what constitutes an attribute;

- Evaluations performed by DNR or Plaintiffs to describe the various resources by their attributes;

    * Data is pre-formatted into a jointly accessible data base.

VALUE ANALYSES

Valuation analyses are required to establish the Fair Market Value of the various resources of non-conveyable Original Trust Land and replacement land.

- Surface land valuations require the use of independent geographic panels (310,000 acres);

- Commercial forest valuations require the use of independent forestry consultants (50,000 acres);

- Sub-surface (mineral and coal) evaluations require the use of a mineral value model (200,000 acres);

- The results of the resource valuations are contained within a common data base;

REPLACEMENT LAND

Each party has the ability to nominate land or interests in land, and can involve the land estate, mineral estate, or fee estate.

- These nominations undergo the foregoing comparability and valuation analyses;

- Plaintiffs nominations: 550,000 acres scattered throughout the state (SE, SC, Northern) with the following resource selections:

  40,000 acres forest
  200,000 acres mineral/coal potential
  310,000 acres either land or mineral

- DNR nominations/review. DNR is reviewing Plaintiffs nominations presently, and should agree or disagree with Plaintiffs nominations within the next several weeks. DNR may nominate additional land, as a result of this review.

LAND EXCHANGE

The Chapter 66 legislation provides for an 'exchange' of non-conveyable Original Trust Land and replacement land subject to the general comparability of characteristics and equal value.

- This exchange will, essentially, involve the comparison of these resource attributes using a database program;

- If the attributes are similar, a 'match' occurs and an 'exchange' results;

- This comparison process occurs for each of the general categories of resources (coal, mineral, land, forest, etc.) and occurs iteratiuely for these general resource types until whole groupings of parcels are matched;

- When all the resource matches have occurred, the value of the non-conveyable Original Trust Land is compared with the value of replacement land;

- The Plaintiffs are allowed those replacement land nominations that are equal to the value of the non-conueyable land, subject to a public interest finding.

PUBLIC REVIEW PROCESS

Legislation requires that 'public interest' be established; this may provide the basis for retaining the replacement land in state ownership.

- Occurs through two sets of regional meeting:

  - July, 1993
  - June, 1994

5. Activities Accomplished

TITLE

- Identified non-conveyable, conveyable, and elective Original Trust Land;

- Performed title review of all replacement land.

COMPARABLE CHARACTERISTICS

- Identified comparable characteristics attributes for surface land, forestry tracts, oil and gas, coal, and mineral areas on all non-conveyable Original Trust Land;

- Identified Comparable characteristics attributes for commercial forest tracts and mineralized aeas on replacement land;

- Iniated contracts to identify the attributes of surface areas of replacement land.

VALUATION ANALYSES - SURFACE AND COMMERCIAL LAND

- Completed surface appraisals of 11(a)(2) affected land (30,000 acres);

- Developed process and methods for surface valuations;

- Initiated RFPs and contracts to value land and commercial forest resources.

LAND EXCHANGE

- Developed data bases and data structures for the land exchange process.

SUPPORT

- Mapping developed for Original Trust Land, Hypothecated Land and replacement land;

- Data bases/systems developed to support the title, comparability, valuation, and land exchange functions.

6. Activities Underway (January-May, 1993)

TITLE

- Identify encumbrances on conveyable Original Trust Land;

- Develop patents/interim conveyance documents for Original Trust Land.

COMPARABLE CHARACTERISTICS ANALYSES

- Complete all comparable characteristics analyses.

VALUATION ANALYSES

- Complete all (or most) land valuations of replacement land, to be performed by three review panels (500,000 acres);

- Complete all commercial forest tract valuations (40,000 acres);

- Complete all (or most) valuations of mineralized areas.

LAND EXCHANGE

- Develop, using the joint data base, tentative land exchanges of surface, forest, and mineral/coal resources;

- Identify replacement land necessary to equal the value of non-conveyable Original Trust Land.

7. Summary

The following will have been completed:

- Title work to identify encumbrances and the various types of Original Trust Land;

- Comparability evaluations of non-conveyable Original Trust Land (forest, surface, coal, and mineral);

- Land exchange identifications of the various resource types (forest, surface, coal, and mineral);

- Replacement land identification, sufficient to reconstitute the Mental Health Trust.

8. Conclusion

By June, 1993, the Project will, essentially, identified conveyable Original Trust Land, completed all substantive evaluations related to land exchanges, and identified the amounts and locations of replacement land.

Alaska State Legislature

Official Business

HOUSE RESOURCES COMMITTEE

State Capitol
Juneau, Alaska 99801-1182

TO: Legislators who attended House Resources Committee meeting this morning on the Mental Health Lands Trust Settlement

FROM: Rep. Bill William, Chairman

DATE: Wednesday, January 27, 1993

Following today's Resources Committee overview on the Mental Health Lands Trust Settlement, Attorney General Charlie Cole pro ded my office with the attached document entitled, "Weiss V. State: An Overview." He asked that it be distributed to all legislators who attended today's meeting.

WEISS v. STATE: AN OVERVIEW

January 27, 1993

The mental health trust litigation, Weiss v. State, has been pending for more than ten years and has been the subject of much discussion in the legislature and throughout the state. To understand the issues, this memorandum reviews the history of the case and its current status.

The federal law

Prior to 1956, the Territory of Alaska was precluded from legislating with respect to mental health. The federal government -- as distinct from the territorial government -- had that responsibility. The mental health program administered by the federal government was barbaric. The United States Attorney would file a complaint in court alleging that there was an "insane person at large." The person would be jailed, and then tried by a jury. If found "not insane," the person would be released back into the community. If found "insane," the person would be shipped to Morningside Hospital in Portland, Oregon, and institutionalized in a custodial (as opposed to therapeutic) setting.

Alaskans were dismayed by this approach to mental illness, and continually petitioned Congress to be given the authority to deal with the issue. They succeeded when Congress enacted the Alaska Mental Health Enabling Act ("the Enabling Act"), P.L. 84-830, 70 Stat. 709 (1956), which granted the Territory of Alaska the same authority with respect to mental health that the other states and territories had.

Since the territory had no taxing power, the Act included two forms of grants-in-aid. The first was a temporary transitional grant of decreasing amounts of money, and required that the territory meet certain program minimums. The second was a one million acre land grant and requiring that "[a]ll lands granted to the Territory of Alaska under this section, together with the income therefrom and the proceeds from any dispositions thereof, shall be administered by the Territory of Alaska as a public trust and such proceeds and income shall first be applied to meet the necessary expenses of the mental health program of Alaska." The land grant to the territory was confirmed to the state in sec. 6(k) of the Alaska Statehood Act.

State administration of the land grant

Initially, the state did not establish and maintain a separate account for proceeds from the lands. A record of trust land income was kept until 1973, however, and a board was set up to oversee management of the lands. As a rule, mental health expenditures greatly exceeded revenues from the lands.

the value of the lands.[2] The state appealed the first holding to the Alaska Supreme Court, and the plaintiffs cross-appealed the second holding.

In the meantime, the plaintiffs filed lis pendens[3] on all mental health lands, including those which the state had conveyed to third parties. The state moved to remove the lis pendens on the grounds that (1) title to mental health lands was not at issue in the case; and (2) the lis pendens were over broad in that (i) they reached lands the state had conveyed away, and (ii) they affected the rights of innocent third parties. The plaintiffs opposed, as did the Alaska Mental Health Association and two individuals (collectively "the Association"), even though at that time they were not parties to the action. The Association also moved to intervene on the ground that the original plaintiffs were not providing the class with adequate representation. Cook Inlet Region, Inc. ("CIRI"), filed an amicus brief in support of the state's motion to expunge the lis pendens and in opposition to the Association's motion to intervene. On October 31, 1984, Judge Taylor granted the state's motion to remove the lis pendens on the ground that the plaintiffs' remedy was money and not title to the land, and denied the Association's motion to intervene on the ground that they had delayed too long before moving to intervene. The Association appealed the denial of the motion to intervene.

In State v. Weiss, 706 P.2d 681 (Alaska 1985), the Alaska Supreme Court affirmed the trial court's finding that the 1978 legislation was a breach of trust, but reversed the monetary compensation remedy and invalidated the 1978 legislation. The Court distinguished the University of Alaska case on the ground that one could infer a legislative intent to compensate the trust in that case, which involved including university trust lands in Chugach State Park, but such an intent could not be inferred from the 1978 mental health lands redesignation legislation. The Court remanded the case to the superior court to reconstitute the mental health trust with those original mental health lands still in state

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[2] For this holding, the superior court relied on State v. University of Alaska, 624 P.2d 807 (Alaska 1981), in which the Alaska Supreme Court held that the legislature has plenary authority over state lands, including trust lands, and that the proper remedy for a legislative removal of trust lands from trust status for a specific purpose is monetary compensation and not invalidation of the law removing the lands from trust status if a legislative intent to compensate the trust can be inferred.

[3] Lis pendens are notices filed with the state recorder's office, giving notice that the lands are the subject of litigation. The filing of a lis pendens on a particular parcel of land makes it difficult to sell the land or use it as collateral to obtain a loan.

include (1) those traditionally thought of as mentally ill, (2) the mentally retarded and defective, (3) chronic alcoholics with psychoses, and (4) the senile elderly who, as a result of their senility, suffer major mental illness.

Chapter 48, SLA 1987 was thought to be a giant step toward settlement. It provided for a four-step settlement: (1) the commissioner of natural resources would value the original one million acre land grant as of the effective date of September 7, 1987 under procedures proposed by the commissioner and approved by the commission;[5] (2) the original lands would be exchanged for lands within legislatively designated areas (parks, wildlife refuges, etc.) of equal value which would then comprise the reconstituted mental health trust corpus; (3) the state would rent the reconstituted corpus for eight percent of its fair market value annually, adjusted at least every five years; and (4) pending conclusion of the valuation and exchange process, the state would pay five percent of unrestricted general fund revenues as a transitional measure. The payments would go into a mental health trust income account in the general fund (AS 37.14.011), and the legislature would be required to first make appropriations from the fund to meet the necessary expenses of the state's mental health program before it could appropriate any money in the account for other purposes.

The process broke down when the commissioner and the commission could not agree on procedures to determine the value of the one million acre land grant. The commissioner proposed procedures that produced a value of $574 million; the commission approved procedures proposed by the plaintiffs that produced a value of $2.243 billion. The commissioner then declared impasse and suggested that the matter would have to be resolved by the legislature.

The plaintiffs' attorneys wrote letters to a number of third parties to whom the state had conveyed mental health lands, threatening to file title challenges and suggesting that, in order to avoid such litigation, they urge their legislators to accept the plaintiffs' value of the original land grant. The state moved to enjoin the plaintiffs from filing such actions on the grounds that (1) filing quiet title actions in an effort to influence the political process was an abuse of the legal process, (2) the state would be irreparably harmed by that abuse of the legal process, (3) the plaintiffs could be adequately protected under the University of Alaska and Weiss cases' monetary compensation remedy, (4) the state would prevail on the monetary compensation theory, and (5) the public interest would be harmed if the preliminary injunction was not granted. No decision was immediately

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[5] The commission also was reduced to three: the commissioner and two plaintiffs' representatives.

The plaintiffs then moved for leave to file new lis pendens. Judge Greene granted the motion on August 12, 1990.

Usibelli Coal Mine, Inc. and Idemitsu Alaska, Inc. (operator of the Wishbone Hill coal project) moved to intervene in order to seek modifications of the preliminary injunction. Usibelli wanted to do some exploratory drilling on mental health lands it has under lease, which Judge Greene allowed; Idemitsu needed a mining plan approved,[7] but Judge Greene denied the motion.

The plaintiffs also filed a motion for a preliminary injunction to prevent the transfer to the general fund of the unappropriated balance in the mental health trust income account for FY 1990 -- that is, the portion of the five percent of unrestricted general fund revenues allocated to that account under the transitional provision of chapter 48 which was not appropriated to fund the state's mental health program.[8] The state opposed on the grounds that (1) the FY 1991 budget was predicated on the transfer of those funds, and preventing the transfer had the potential to unbalance the budget, and (2) preparation of the FY 1991 budget began in the fall of 1989 and was concluded with legislative passage of the operating budget at the end of the 1990 session, and it was unfair to allow the plaintiffs to challenge the transfer of funds on which the budget was predicated after it already had been enacted. Following oral argument on August 6, 1990, Judge Greene denied the plaintiffs' preliminary injunction motion to prevent the transfer of funds on the ground that the potential harm to the state of an unbalanced budget outweighed any potential harm to the plaintiffs. Judge Greene cautioned, however, that the state should not rely on such transfers to balance the budget in the future unless the state could show that the necessary expenses of the state's mental health program had been met.

The plaintiffs also moved for a declaratory judgment that the Enabling Act requires that the legislature consider the state's mental health needs independently of any other state needs and, to the extent that mental health trust revenues are available, must fund programs to meet those needs regardless of any other needs which might exist. That motion is still pending.

Legislation to deal with the case was introduced at the beginning of the 1991 legislative session (SB 65 and HB 79). As initially introduced, it would have (1) returned unencumbered

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[7] The Matanuska-Susitna Borough moved for leave to file an amicus brief in support of Idemitsu; the Wishbone Hill coal project would create approximately 200 new jobs in the Mat-Su Borough.

[8] The five percent totaled $125 million; $44 million was appropriated for the state's mental health program, leaving an unappropriated balance of $81 million.

thereafter.

On October 26, 1991, eight environmental and fishing organizations challenged chapter 66 on a number of grounds: (1) that article VIII, section 10 of the Alaska Constitution requires "other safeguards of the public interest" beyond public notice prior to disposal of state lands and chapter 66 did not include such safeguards either before conveyances to the Trust Authority or disposal by the Trust Authority and therefore is unconstitutional; (2) that chapter 66 does not provide for deposit of any mineral revenues from the reconstituted trust in the permanent fund and therefore is unconstitutional; (3) that the conveyance of the mineral estate in exchange lands to the Trust Authority would violate section 6(i) of the Alaska Statehood Act; (4) that requiring the conveyance of lands to the Trust Authority is an appropriation of lands and chapter 66 therefore includes an appropriation in a substantive bill in violation of article II, section 13; (5) the pledging of lands as security for performance through the hypothecation provisions of chapter 66 was unconstitutional as violating the three readings requirement of article II, section 14, being too broad a delegation to the Department of Natural Resources, violating the "other safeguards" provision of article VIII, section 10, and violating the "public trust;" (6) that the planning and classification provisions of AS 38.04 and 38.05 would have to be followed in reconstituting the mental health trust; and (7) that the forest management plans governing the Haines State Forest and the Tanana Valley State Forest would continue to govern management of the original mental health lands within their boundaries even though conveyed to the trust.

The administration and the settling plaintiffs negotiated and entered into a comprehensive settlement agreement to implement chapter 66 on April 6, 1992, and the state moved for preliminary court approval of the proposed settlement[9] on April 10, 1992. On May 4, 1992, the state and the settling plaintiffs jointly moved to modify the July 9, 1990 preliminary injunction and to remove the lis pendens on original mental health lands the state had conveyed to private third parties (the "moms and pops"). The settling plaintiffs moved for preliminary approval of the proposed

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[9] Because this is a class action, court approval is required before the case can be dismissed. The court process involves (1) preliminary approval of the proposed settlement as within the range of possible judicial approval, (2) notice to members of the class that a settlement has been proposed, and (3) a formal hearing at which all class members may express their views of the proposed settlement to the court. The court may only approve the settlement if it finds that it is fair, reasonable, and adequate. The primary criterion for making that determination is to compare the proposed settlement with the probable outcome of continued litigation.

Wastewater Briefing 3-12-93

Alaska State Legislature

HOUSE RESOURCES COMMITTEE

P.O. Box V
State Capitol
Juneau, Alaska 99811
(907) 465-3715

DATE: March 26, 1993

TO: HOUSE RESOURCES COMMITTEE MEMBERS

FROM: CHAIRMAN BILL WILLIAMS WRW

SUBJECT: Water and Wastewater Works Advisory Board

The attached information was sent to the committee as follow-up to our briefing by the Water and Wastewater Works Advisory on March 19th.

Water and Wastewater Works Advisory Board

State of Alaska
Department of Environmental Conservation

March 12, 1993

House Resource Committee
Room 128 Capitol
Juneau, Alaska 99801-1182

ATTN: Honorable Bill Williams

RE: Remote Maintenance Worker Program

Dear Chairperson Williams:

Thank you for the opportunity to address the House Resource Committee regarding the Water and Wastewater Advisory Board.

During the presentation a member of the committee requested specific information regarding the details of the remote maintenance worker (RMW). Enclosed are copies of the RMW 1993 Annual Report which provides historical and current program details.

We trust that this information is sufficient for your needs at the present time. If you have any questions or comments please contact Bill Fagan, Operations Assistance Program Manager, with the Department at 465-5142.

Sincerely,

John Hargesheimer

John M. Hargesheimer, PE
Board Secretary

ATTACHMENTS: RMW Annual Report

cc: Bill Fagan, ADEC-FCO

STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

FACILITY CONSTRUCTION AND OPERATION
410 WILLOUGHBY AVE., #105, JUNEAU, AK 99801-1795

Phone: (907) 465-5180
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DEPT. OF ENVIRONMENTAL CONSERVATION

March 2, 1993

The Honorable Steve Frank
Alaska State Senate
State Capitol, Room 518
Juneau, AK 99801-1182

Dear Senator Frank:

The following information regarding the Remote Maintenance Worker (RMW) program is provided in response to your questions during the Facility Construction and Operation BRU budget meeting on February 24.

The current RMW program provides service to the following areas:

Bristol Bay Area Health Corporation - Henry Shade, RMW (20 villages)

Aleknagik
Chignik Bay
Chignik Lagoon
Chignik Lake
Clark's Point
Dillingham
Egegik
Ekwok
Goodnews Bay
Igiugig
Ivanof Bay
Koliganek
Levelock
Manokotak
Naknek
New Stuyahok
Perryville
South Naknek
Togiak
Twin Hills

Tanana Chiefs Corporation - Dan Koch and Bill Dozette, RMWs (27 villages)

Alatna
Allakaket
Arctic Village
Beaver
Birch Creek
Chalkyitsik
Circle
Dot Lake
Eagle
Galena
Hughes
Huslia
Kaltag
Koyukuk
Manley
Minto
Nikolai
Northway
Nulato
Rampart
Ruby
Stevens Village
Takotna
Tanana
Tanacross
Tetlin
Venetie

Southeast Alaska Regional Health Corporation - Jim Ginnaty, RMW (13 villages)

Angoon	Kasaan	Port Protection
Craig	Klawock	Saxman
Hoonah	Klukwan	Thorne Bay
Hydaburg	Port Alexander	Yakutat
Kake		

Norton Sound Health Corporation - Jay Daw, Temporary RMW (15 villages)

Brevig Mission	Koyuk	Stebbins
Diomede	St. Michael	Teller
Elim	Savoonga	Unalakleet
Gambell	Shaktoolik	Wales
Golovin	Shishmaref	White Mountain

Yukon Kuskokwim Health Corporation - Patrick McAree (St. Mary's area) and Wally Wallace (Bethel area), RMWs (22 villages)

Alakanuk	Kotlik	Pilot Station
Aklachak	Kwethluk	Pitkas Point
Aklak	Marshall	Russian Mission
Atmautluak	Mountain Village	St. Mary's
Eek	Napakiak	Sheldon's Point
Emmonak	Napaskiak	Tuluksak
Kasigluk	Nunapitchuk	Tuntutuliak
	Oscarville	

Maniilaq Association - Craig Nordgren, RMW (11 villages)

Ambler	Kivalina	Point Hope
Buckland	Kobuk	Selawik
Deering	Noatak	Shungnak
Kiana	Noorvik	

If RMW program coverage were to be expanded to include additional villages, the Department recommends the following approach:

Three areas comprised of 33 villages are the most immediate candidates for expansion of the RMW program:

--Bethel area (a second position for 15 more villages) covering the villages along the coast from Scammon Bay to Platinum. The villages in the Yukon-

Kuskokwim Delta have a serious problem with compliance with the drinking water regulations. The area operators are in serious need of training to bring the area into compliance with state and federal rules. The cost of initiating additional service in the Yukon-Kuskokwim Delta is estimated at $120,000. Adding this RMW position would bring the total to three RMWs in the Yukon-Kuskokwim Delta.

--Kodiak Island (one position for six (6) villages) where the Kodiak Island Village Utility Council has requested assistance that could easily be provided. Kodiak Island is a relatively compact service area with good air transportation and a history of water of sewer problems. If an agreement could be negotiated with the Cook Inlet Corporation, additional villages could be added to this service area on the north side of Cook Inlet. This position would cost approximately $75,000 to initiate if only the Kodiak villages are covered; $100,000 if Cook Inlet villages are added.

--Aniak area (one position for 12 villages) covering the villages on the upper Kuskokwim River from Kalskag upward and four villages on the Yukon River from Grayling to Holy Cross. Assistance in this area is desperately needed. The area is covered by both Yukon-Kuskokwim Health Corporation and Tanana Chiefs Conference. An agreement will need to be negotiated between these two corporations. However, it is most economical to serve the Yukon villages from Aniak than from any other hub. This position is estimated to cost $100,000.

Other major areas which need RMW coverage include:

--Aleutian Chain, including the communities from Ivanof Bay to the end of the chain, as well as the Pribilof Islands. Villages in this region could be served from Cold Bay or Unalaska but travel would be very expensive. The total number of villages serviced would be 15.

--Iliamna, including the communities within the administrative areas of the Bristol Bay Area Health Corporation and the Cook Inlet Association. An agreement similar to the one needed in the Aniak area would be necessary. The total number of villages serviced would be eight.

--Glennallen area, including villages on the road system between Glennallen and Valdez. The total number of villages serviced would be 15.

Service from the Remote Maintenance Worker program is not required for the North Slope Borough. The Borough government currently provides operator assistance to the villages within the borough boundaries.

RMW PROGRAM PERFORMANCE

It has always been difficult to quantify cost savings to the State resulting from the RMW program and whether systems are being "properly" operated and maintained. For example many maintenance activities will not immediately show a cost savings, but savings will be shown through long-term record keeping. In an effort to better quantify future program successes, the Department has developed performance measures which will be used beginning in FY 94. However, we feel the program has been extremely valuable as indicated by:

1. Uninterrupted service - the majority (90% or more) of the communities serviced by RMWs have a consistent supply of water available with few interruptions. Over the last few years there has been only one catastrophic system failure. Most problems that develop are immediately addressed and service is maintained.

2. Bacteriological sampling compliance - this is also a good indicator of proper operation. Prior to the RMW program, routine drinking water sampling was virtually non-existent. There has been steady progress in each RMW service area. As detailed in our 1993 Annual RMW Report, sampling compliance (submitting samples) has reached an all-time high at a 75% compliance rate, with a couple areas having 100% compliance.

3. Operator training/certification - a few years ago there were almost no certified operators in villages serviced by the RMWs. The Department of Environmental Conservation (DEC), Public Health Service (PHS) and the Health Corporations recognized that we needed to build self-esteem in operators and decrease the operator turnover rate so we improved and increased operator training efforts. Even though the operator turnover rate has decreased, it will always be a problem and there will be a need for ongoing training. In addition, certification regulations require continued training to maintain valid operator certifications. The RMWs have played significant roles in certifying operators. As the 1993 Annual RMW Report indicates, each RMW service area now has a significant number of certified operators. They are beginning level certifications and we have a long way to go, but we feel this is a significant indicator of proper operator attention. The operators who have not been certified yet or have not been able to pass the exams have received both classroom and over-the-shoulder training. I would estimate that over 90% of all the operators within the RMW service areas have received some type of formal training. Operator training is not adequate to insure proper maintenance. They must receive proper managerial and financial support from the community. Local governments must operate

effectively if systems are to function on a long-term basis. The RMWs are assisting in these training functions.

4. Communities view the program as a success. A recent survey of communities served by the RMWs indicated that they view the RMWs as integral parts to their water and sewer utility operations and they consider the program a success and worth retaining.

5. Economic Savings - as mentioned above, there has been a significant reduction in major wintertime system failures. This has saved the State millions of dollars and has allowed these resources to be used in new system construction rather than system replacement. Additional RMWs would result in similar cost savings through expanded village coverage.

I hope this will help address your questions. If you would like more detailed information on the success of the RMW program, I would be happy to provide it.

Sincerely,

Keith Kelton
Director

BF/ss (h:\co\clerical\ragan\frank)

Enclosure

cc: The Honorable Al Adams
The Honorable Tim Kelly
The Honorable Gene Therriault
Kris Lethin, Legislative Liaison, Governor's Office

Alaska's Remote Maintenance Worker Program

January 1993

Maintaining Rural Water and
Wastewater Systems

Prepared by:
Alaska Department of Environmental Conservation
Division of Facility Construction and Operation

REMOTE MAINTENANCE WORKER PROGRAM
ANNUAL REPORT

JANUARY 1993

The Remote Maintenance Worker program began in 1981 with one person located in Saint Mary's serving ten Yukon Delta villages. This first Remote Maintenance Worker (RMW) provided skilled assistance to communities in an effort to keep village water and sewer systems functioning while providing on-the-job training to local operators.

That was 12 years ago. Today eight RMWs serve a total of 108 villages located in seven geographically separate service areas. The RMWs are centrally located in "hub" communities to facilitate travel. The "hub" communities are Saint Mary's (Yukon Delta), Bethel (Immediate Bethel Area), Dillingham (Bristol Bay Area), Kotzebue (Northwest Arctic), Nome (Norton Sound Area), Sitka (Southeast Alaska) and Fairbanks (Interior Alaska). A map showing the service areas covered by the RMWs is located in Appendix A.

Over the years there have been many significant advancements and service changes within each service area. Due to the consistency and longevity of the program in service areas such as Saint Mary's and Dillingham, improvements can be seen that have not yet been realized in other service areas. Each service area has continued to improve the operation and maintenance of the water and sewer systems in the communities within their boundaries. Service delivery improves at varying rates between service areas depending on the length of time that RMW services have been available. Specific improvements and survey results for evaluating future improvements are discussed later in this report.

During 1992, accomplishments were made in the areas of regionalized operator training activities, computerized communication systems and implementation of preventive maintenance management systems. In addition, there were no emergency declarations as a result of failed water and sewer systems.

Improving operation and maintenance programs and skills are relatively easy to identify where they can be visually observed. However, these improvements are very difficult to quantify and prove to others who are not familiar with the skills required by a water operator. For this reason, standards for evaluating the various RMW program grantees have been developed by the Department.

Performance standards and surveys can tell us what the program has done in the past and how it is presently doing. However, the future of the RMW program is not so clear. There are approximately 100 villages which do not receive the services of the RMW program. In addition, the majority of the villages which are currently served by the program have not yet progressed to a level where they are self-sufficient, consequently, they still need considerable assistance. This situation is very disturbing considering declining state revenues which could lead to decreases in program general funds. The program must continue to receive technical and financial support from the state if it is to remain viable. However, participating villages, grantees and others must recognize the need for the program to evolve and become more self-supporting if it is to remain viable on a long-term basis. Issues of State funding, support and future development of the program are discussed in the last two sections of this report.

IMPROVEMENTS OVER THE YEARS

The RMW program has resulted in many improvements over the years within each community served. Improvement has been in the areas of record keeping, improved operation and maintenance skills, increased fiscal support of the water and sewer systems by the community, reduced costs of operati and maintenance, and compliance with State and Federal drinking . ater regulations.

Record keeping in all the communities served by a RMW has progressed from no records to several years worth without interruption. This has been especially beneficial to engineers seeking information on water usag e and production capabilities at facilities needing upgrading. Long term records are being used to monitor water usage and to discover leaks in circulating loops. These kinds of records are now being kept in

Pilot Station and Saint Mary's and have resulted in savings by reducing chemicals added to the water, electrical costs of pumping lost water, as well as the amount of water that must be processed to meet community needs. Records must be consistently recorded day to day, month to month for several years if trends are to be analyzed. In addition to improved water usage record keeping, there has also been improvement in equipment, maintenance, finance and process record keeping.

The RMWs help to educate and remind communities of bacteriological sampling requirements, thus helping to improve drinking water monitoring compliance. Bacteriological monitoring as required by the State drinking water regulations (18 AAC 80) has reached an overall 75 percent mark where RMWs are present with several service areas having 100 percent compliance with state monitoring requirements.

Establishing more reasonable user fees has been a significant improvement within particular villages. The Saint Mary's area RMW was able to assist three of his villages in negotiating substantial increases in the water rates paid by the school district. He did this by developing graphs using water usage and production cost records kept by the operators. In at least two cases he was successful in negotiating a fee twice the original. The longer the service time of the RMW, the better the rapport with the operators and city officials. The RMWs with the longest service are best able to assist the communities.

Another example of improvements facilitated by the RMW and the diligence of the village operator to the proper operation of his facilities is the reduction of fuel consumed by the water and sewer utility. In 1987, Mountain Village used 19,632 gallons of fuel to add heat to the water circulating through the distribution system. By changing some of the operational procedures and instilling in the operators the necessity of proper operation, the 1988 fuel consumption was reduced to 8,126 gallons. Because the operators have continued to properly operate and maintain the heat-add system of the distribution lines the fuel consumption has been below 8,000 gallons since 1988. The amount of fuel consumed in one year (1987) now lasts almost 2.5 years.

In the Dillingham service area the operators no longer wait several

days to get replacement pumps for their facilities. The RMW has established a shop where old centrifugal and chemical feed pumps are rebuilt and stored until they are needed in a village. The pump is put on a plane and is usually in the village the same day it is requested by the operator. The RMW also repairs motors by changing the armatures. This has saved the villages money and time by having a reliable and quick source for pumps and spare parts.

In an effort to identify areas where improvements could be achieved, a survey was sent to all the communities now being served by a RMW. The survey was sent to city clerks, city administrators, council members as well as the operators of the water facilities in each community. These individuals are in the best position to be aware of the improvements, activities and changes in their community as a result of the RMW visits to their village. The results of that survey are provided below:

Three hundred fifty questionnaires were mailed. Seventy nine of the questionnaires were returned with 73 being completed. The six incomplete questionnaires were marked RMW unknown. These were from areas where the services of the RMW have been available for less than five years. In the areas where the program has been available for five years or more the response was significant. Eighty nine percent of the respondents said the RMW program benefitted their village. Ninety one percent said there had been an improvement in the operation and maintenance of the water and wastewater facilities since the RMW program began to serve their village.

According to the survey results the RMWs are knowledgeable about the equipment within the various facilities and they provide accurate information about the maintenance to the operators. The RMWs average 1-2 visits per year and usually explain the reason for their visit to city officials as well as their findings and recommendations. About 85 percent of the respondents said they receive trip reports from the RMW and are satisfied with the service received.

The survey did reveal the problem of user fee collection in rural areas. Villages still have a problem with establishing and collecting fees for the water and wastewater services within their community. Only 49

percent of the respondents have a water and sewer ordinance. Of these, many do not collect fees or they collect insufficient fees.

Overall, the villages appear to believe the RMW program has made improvements in their villages and is worth retaining even if they were asked to share in some of the expenses of the program. They would also be willing to participate in a regional cooperative that would support the RMW program activities. However, given the current fiscal status of the respondents only 21 percent said their councils would be willing to contribute funds to help maintain the RMW program or establish a cooperative. A positive point is that 32 percent said "maybe" they would be able to contribute funds to retain the RMW program or establish a cooperative.

ACCOMPLISHMENTS OF 1992

A move was made in 1992 to expand the traditional RMW role to go beyond mechanical repair, emergency response and on-the-job training.

During 1992 the RMWs began to participate in classroom presentations by helping instruct workshops. Certification of operators by the State has become one of the priorities in each service area. The RMWs assist in this by participating in the actual classroom training sessions preparing the operators for the certification examination. A special arrangement was made with the State certification program to allow the RMWs to proctor an Operator-in-Training examination immediately following the preparatory class. A total of 11 basic operator training and certification review classes were held. Four classes were taught with the assistance of Village Safe Water and the Public Health Service Planning and Training Unit. Seven classes were developed and taught by the RMWs in two different service areas. Tanana Chiefs Conference RMW program held three classes. Twenty two individuals attended. Thirteen now have a beginning level State certification. Southeast Alaska Regional Health Corporation held four training classes during 1992 with 14 individuals attending. A total of 66 village operators passed a State operator certification examination during 1992. The following table shows the effort of the RMWs in getting water operators certified by the State. However, this does not mean that all of the villages

with a certified operator are in full compliance with the certification requirements, but it is the first significant step.

Grantee Service Areas	# Certified Operators In Service Area	# of Villages (in Service Area with Certified Operators)	% of Villages
Southeast Alaska	16	8	61%
Bristol Bay	8	5	38%
Kuskokwim River	1	1	10%
Yukon Delta	7	5	50%
Norton Sound	11	7	47%
Maniilaq	10	5	50%
Tanana Chiefs	13	10	40%
TOTALS	66	41	37%

Through efforts of the RMWs the village water and wastewater operators are now being recognized within professional organizations. During 1992, three rural Alaskan operators were honored for outstanding achievement by the Alaska Water Management Association. The three operators were from Hydaburg, Huslia and Tuntutuliak. All three villages are covered by the RMW program. By recognizing rural operators as professionals just as the operators within the boundaries of any large municipality, the RMW program is establishing pride in a job well done.

Two service areas benefitted from the joint efforts of the Department of Environmental Conservation, Department of Community and Regional Affairs and the Public Health Service who provided utility and financial management training to village administrators, councils and clerks during 1992. The State, Regional Health Corporations and the Alaska Sanitation

Task Force recognize that solving sanitation problems goes beyond improving the knowledge and training of the water and wastewater operators. The Saint Mary's RMW has begun to coordinate and work with a newly created Remote Utility Business Advisor position located within his service area.

Each RMW has been connected to the Department of Environmental Conservation's electronic mail system. Trip reports, quarterly reports, annual reports and other general messages are now transmitted through the Department's computer network. The same information can be transmitted to all affected parties virtually at the same time. Emergency information can be transmitted to Village Safe Water, the Drinking Water Program, Public Health Service, and the Operations Assistance Unit at the same time. This helps reduce the number of phone calls and instances of misunderstandings about situations due to second or third hand conversations. All interested parties can now communicate more easily.

The e-mail system also allows the RMWs to exchange information about preventive maintenance and computer programs used in effective record keeping. It also provides a mechanism where RMWs can brainstorm troublesome maintenance problems. Some of the RMWs now use portable computers and access the e-mail system daily. This tool also allows more effective communication between the Department's program manager and the RMWs or Grantee's manager.

Preventive maintenance plans were developed by each Remote Maintenance Worker during 1992, which was another worthwhile accomplishment. The Southeast Alaska Regional Health Corporation RMW has developed a preventive maintenance program for all of the villages in his service area. He is in the process of implementing these plans with the operators and city officials. By implementing the preventive maintenance plans equipment longevity is increased and the cost of maintenance is reduced. Maintenance is no longer crisis driven but prevention driven. Some of the plans within the various service areas were developed using computer programs. These programs are provided to the communities who use computers in their water and wastewater record keeping procedures. The programs also provide community officials a list of duties to be performed by the operator on a daily, weekly,

monthly and annual basis. These tasks are also incorporated into the schedule printed out for the manager or mayor to use as an effective management tool. By developing and implementing more comprehensive preventive maintenance programs public health is better protected, as are the state and federal government investments in sanitation facilities.

There were no emergency declarations in 1992 which was a major accomplishment in itself. Consequently, the majority of state funding was spent on upgrading facilities or establishing new facilities where none existed, instead of on emergency replacement of water and sewer systems.

One last example of an accomplishment achieved in 1992, was the Bethel RMW efforts at Tuntutuliak. Through the guidance and assistance of the Bethel Area RMW, Tuntutuliak was able to repair and reopen their water plant after three years. The plant had frozen four years ago. By helping the community negotiate with a nonprofit organization within the village, the RMW was able to satisfy all factions within the community that the system would be properly operated. With the support of the nonprofit and RMW technical assistance, the operator was able to repair and reopen the facility. By knowing the community and the individuals the RMW was able to facilitate the agreement. This is something that could not be done by someone living outside the area and not familiar with the circumstances within the community.

PROGRAM STANDARDS DEVELOPED

As previously discussed, the Department developed performance measures for evaluating program grantees. The developed measures will set measurable goals for each grantee to achieve during the grant or contract period. If the grantees are to achieve these goals, the operators within their service area must acquire specific skills. These skills can be obtained through the knowledge transfer and training efforts of the grantee's RMW.

To gain a sense of improvement over the months, each grantee will be evaluated at the beginning of the FY 94 grant period and again at the end of the period. The subsequent evaluations will be done once per

year. Each evaluation will be compared to the previous one to determine improvement during the grant period. Each service area will have an area specific set of measures because service differs due to the number of villages served, development of maintenance skills within the area, longevity of RMW program service, and fiscal capabilities. Some of the performance measures that will be included in the FY 94 grant are as follows:

1. Certification of village operators in water and wastewater system operations by the State operator certification program.

2. Water supply source protection from pollution by oil spills or other pollutants.

3. Village operators attending and completing training courses (includes correspondence and classroom).

4. Compliance with State drinking water and wastewater disposal regulations.

5. Development and implementation of preventive maintenance plans within all the communities in the service area.

Other measures will be added to fit the level of expertise of the operators within an RMW service area. A more complete list of possible performance measures that may be attached to future grants or contracts for each service area is located in Appendix B.

SUPPORT FUNDING AND DEVELOPMENT OF THE REMOTE MAINTENANCE WORKER PROGRAM

Because rural Alaska lacks the tax base to support the program alone, the RMW program depends on the support of the State for its continuing success. The Department has encouraged the continued support and increased funding for the program, but recognizes that evolution of the program should not be solely a state responsibility. Declining state revenues dictate the need to provide non-general fund

support. FY 93 funding was reduced approximately 1.8 percent from FY 92 levels. Further reductions in program funding will be reflected in reduced services and support to those villages which are currently covered by the program.

As indicated in the survey results, many villages appear willing to help support the RMW program with funds. However, the amount of funds these communities could contribute would be small. Not all the villages within a service area can afford to contribute money. Some can only contribute moral support. These are the communities that need the services of the RMW the most.

Due to limited State resources and possible future reductions in program funding, grantees were asked to explore methods of generating additional resources and/or shifting their current resources and services within each area while controlling or cutting costs within the program. Each service area was to consider shifting their limited financial and technical resources to villages which are most in need of training away from those that have achieved a higher degree of self-sufficiency. However, those villages that have made a genuine effort to improve and become more self-sufficient cannot be completely dropped from the program. Many villages quickly lose self-sufficiency with local administration turnover and minor problems which turn into major catastrophes.

With more efficient use of resources in mind, the Department also asked the grantees to determine if the resources allocated to them could be shifted to other communities not yet receiving the RMW service in addition to shifting them to less self-sufficient communities within the service area. To date, two communities in the Norton Sound area have been identified as no longer needing routine training and assistance. These are Unalakleet and Shaktoolik. These communities have competent, certified operators who have the support of their respective city governments. The City of Dillingham has been identified in the Dillingham area as meeting the same standards as Shaktoolik and Unalakleet. The Bristol Bay Health Corporation has proposed the village of Platinum be added to their routine training and assistance list. Dillingham, Shaktoolik, and Unalakleet will still receive emergency

assistance if they request aid from their local RMW. Other communities will be identified later in this fiscal year in other service areas. These are a good examples of efforts being made to utilize resources more efficiently.

As stated earlier, there are currently 108 villages covered by the RMW program, but there are still another 100 villages that need the services of the program. If program service is to be extended, innovative means such as those described above must be employed to expand and support the RMW program. The program will dictate whether increased state funding is necessary or not. A well funded and managed RMW program does not always have to be the responsibility of the State. With time, the communities within the service areas could assume the program through cooperatives, regional authorities or other means.

The RMW program helps to improve the environmental health of the communities they serve. By training the operators to perform routine preventive maintenance, sampling, monitoring and testing of drinking water and sewage disposal systems, the probability of waterborne communicable illness is reduced. The standards for environmental health in rural Alaska are the same as in urban Alaska. However, technical assistance and resources are not always available to the village operator that are available to the urban operator. The RMW program strives to achieve those standards in the areas they serve. However, rural communities must be willing to help fund and support the program by committing resources, seeking available training, collecting and paying service fees, having sound financial and management systems in place and educating future community leaders. All citizens of Alaska are affected when these standards are not met since we all pay the costs associated with health care in one way or another.

FUTURE EXPANSION OF THE REMOTE MAINTENANCE WORKER PROGRAM

The ultimate goal is for the RMW program to be expanded to provide services to all villages across the state through an equal partnership of State and local resources to form a complete network of RMW services.

Providing statewide coverage would also allow a re-evaluation of service area boundaries to better serve all the villages from the "hub" communities. Those villages not in a current RMW service area would begin to improve their operation and maintenance skills, gain compliance with the State and Federal drinking water regulations, and begin to experience the benefits of the program. In doing so, these villages would be taking initial steps toward proper operation and maintenance in a self-sufficient manner.

Assuming the RMW program cannot be expanded state-wide during any one fiscal year, DEC recommends that the program be expanded to the Kuskokwim Delta first, then to the Kodiak Island area. These villages have difficulty meeting the State drinking water regulations. There are approximately 15 villages from Scammon Bay to Platinum that could immediately benefit from the services of the RMW program.

RMW Service Areas

APPENDIX A

APPENDIX B

PERFORMANCE MEASURES FOR EVALUATING REMOTE MAINTENANCE WORKER PROGRAMS

Operational Source/Water Quality

- \- Number of system problems addressed.
- \- Number oil spills around supply source.
- \- Number of times during the year community is without water due to equipment or operational problems.
- \+ Number of villages in compliance with all drinking water and operator regulations.
- \+ Number of RMW training sessions with sampling and monitoring as main topic.
- \+ Number of times RMW has checked the testing procedures or corrected deficiencies in procedures at each village.
- \+ Number of villages with adequate supply of chemicals on hand.

Operator Competence

- \+ Number of village operators certified by State Operator Certification Program.
- \+ Number of operators preparing monthly reports to city councils.
- \+ Number of operators requesting spare parts for emergency situations from City Council/Administration.
- \- Number of emergency calls to VSW/PHS for assistance.
- \+ Number of villages where people use safe potable water instead of creek or river as drinking water source.
- \- Number of times operator failed to complete a training course.
- \- Number of NOV or boil water notices issued to the villages in RMW service area.
- \+ Number of operators who have completed basic operator courses.
- \- Number of times sewer services are inoperable due to equipment or operational

problems.

Level of Community Commitment

+ Number of times operator is sent to training at village expense.

+ Number of villages with adequate water and sewer budgets using costs identified in the Operation and Preventive Maintenance Management Plan.

+ Number of villages with proper maintenance tools and equipment on hand. (Does RMW have to bring tools each trip, or is community self-sufficient as identified in O&M plan.)

+ Number of villages with operator for water and sewer only.

- Number of facilities the village has had during the last eight years.

+ Number of villages with developed, working preventative maintenance plans.

Grantees Commitment

+ Number of operation and preventive maintenance plans developed by RMW.

+ Number of opertion and preventive maintenance plans implemented by RMW.

+ Submittal of all trip, quarterly and annual reports in a timely manner (number of times reports were submitted on time).

+ Number of routine calls from operator or community to RMW or from RMW to operators to check operations and potential problems.

+ Number of alternative sources of funds or resources grantee has identified for supplementing the RMW program.

+ Number of times RMW has presented reports, findings, comments and recommendations to city councils.

+ Number of staff meetings during fiscal year between RMW's and their supervisors to plan travel; tasks completed; villages problems and concerns; review level of self-sufficiency of each community with respect to the RMW Program Development Plan.

+ Number of routine training trips by the RMW.

- Number of emergency trips made by the RMW.

General

(Is Grantee agreeable and making efforts to address issues.) Innovative approaches and plans for evolving and stimulating the RMW program in their service area to follow the program development path for community self-sufficiency, regionalization and/or cooperative formation efforts.

- Number of complaints, problems or concerns posed to DEC and DCRA concerning the lack of cooperative efforts between RMWs and RUBAs (where applicable).

- Number of complaints from PHS and VSW staff concerning lack of cooperation from RMWs.

- Number of complaints DEC receives from communities about RMW.

(fco\clerical\fagan\linda)

Operations Assistance
Dept. of Environmental Conservation

Presented by the Water and Wastewater Works Advisory Board

Abstract

The state has expended large capital appropriations in the construction of water and wastewater facilities. Furthermore, it is clear that the State needs to protect its investment in utility systems. Many existing systems risk premature failure unless a greater emphasis is placed on routine operation and maintenance and utility management.

To protect public health and capital investments in water and wastewater facilities, long-range operator certification and training programs must be maintained. This is difficult in the face of declining state and federal revenues. In order for certification and training programs to continue to be effective, there must be adequate routine annual operator certification and training budgets.

Alaska's geographically and culturally diverse populous has unique water and wastewater needs. Approximately one-half of the state's 550,000 people are located in urban areas served by large conventional community water and sewer systems. The remaining rural Alaskan families also desire community water and wastewater services. Often unique and innovative systems are required to overcome restraints imposed by climatic and geographical conditions. Competent operators are required to provide safe water supplies and adequate wastewater disposal

Tables I and II depict sanitation project funding during the past 12 years. There has been a combined expenditure of more than $910,000,000 in federal and state monies for new and improved sanitation facilities. Table I depicts annual state funding appropriated for water, wastewater and solid waste projects over the past 12 years. Sanitation systems require significant operation and maintenance expenditures. Frequent system fail-

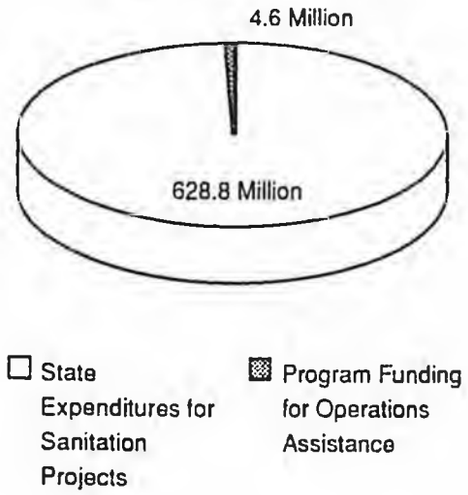
Table I, State Funding History for Sanitation Projects in Millions of $s

Fiscal Year	Municipal Grant	Village Safe Water	Direct DOA	Total
82	$9.36	$1.61		**$10.97**
83	$4.59	$0.52	$26.40	**$31.51**
84	$28.19	$0.69	$108.59	**$137.47**
85	$15.70	$7.97	$127.07	**$150.74**
86	$1.82	$0.87	$17.78	**$20.47**
87	$14.88	$10.38	$45.96	**$71.22**
88	$5.89	$5.62	$4.31	**$15.82**
89	$11.80	$6.24	$7.54	**$25.58**
90	$7.05	$11.16	$8.90	**$27.11**
91	$7.49	$6.85	$13.04	**$27.38**
92	$11.60	$27.16	$17.56	**$56.32**
93	$17.21	$24.50	$12.56	**$54.27**
				$628.86

Table II, Federal Sanitation Funding for Alaska in Millions of $s

Year	EPA Grants/ Loans	Indian Health Service	HUD	Total
82	$13.90	$8.89		**$22.79**
83	$13.90	$8.89	$3.50	**$26.29**
84	$13.90	$4.66	$2.35	**$20.91**
85	$13.90	$5.21	$2.65	**$21.76**
86	$13.90	$4.39	$9.25	**$27.54**
87	$13.40	$4.93	$3.09	**$21.42**
88	$12.90	$7.16	$2.25	**$22.31**
89	$10.60	$8.29	$3.47	**$22.36**
90	$10.90	$5.30	$4.39	**$20.59**
91	$12.30	$15.00	$3.00	**$30.30**
92	$11.60	$15.00	$5.00	**$31.60**
93		$10.00	$3.40	**$13.40**
				$281.27

Figure I, State Expenditures for Sanitation Projects vs. Operations Assistance Program Funding Since FY82



ures, often preventable by adequate operator training and utility management, result in service interruptions and community health concerns.

An effective water and wastewater facilities program includes proper operation and maintenance of the constructed systems to delay capital replacement costs while providing community health services. The annual investment in the Alaska Department of Environmental Conservation's (ADEC) Operations Assistance Unit is a cost-effective budget expense to enhance public health and to protect new capital expenditures.

The Division of Facility Construction and Operation of ADEC is responsible for protecting the State's investment in water and wastewater facilities, the public's health and the environment by ensuring that these facilities are properly operated and maintained. The Operations Assistance Unit consists of three individual components: Operator Certification and Training, Remote Maintenance Worker (RMW) and a Federal, over-the-shoulder training grant. The Unit currently has a staff of four with an annual budget of $332,700 which includes general funds, operator receipts, federal 104(g)(1) funds and the Governor's Water/Wastewater Works Advisory Board funds. This figure does not include the $784,800 RMW grant funds. Table III represents funding for the Operations Assistance Unit over the past five years. Figure I compares sanitation (capital) project funding with Operations Assistance Program funding since FY82.

The Advisory Board is an integral part of the State's Operator Certification and Training Program. The Board is a "working board" which specifically serves to advise the program staff regarding operator certification and training. The Board hears operator's appeals, determines regulatory policies and guidelines, assists with the development of regulations and reviews other related issues including reciprocity with other states.

The volunteer board is technically oriented and consists of engineers, operators, facility managers and other individuals that are actively involved and interested in the water and wastewater industry. This important group has proven to be an especially beneficial resource to the Department in providing direction to the operator certification and training program. Recently, the Department has taken steps to further utilize the Board's technical capabilities, requesting assistance in regulatory developments impacting the water and wastewater industry and related issues.

The mandatory state Operator Certification Training Program evolved from an industry-initiated, voluntary program in 1976. Subsequently, 18 AAC 74 required that water treatment and distribution systems, as well as, wastewater treatment and collection facilities be classified and operated by certified personnel. Continuing education requirements as well as separate certifications are required for all operators.

Certification of operators involves reviewing and evaluating applications for experience and education; development and grading of 20 different exams; coordination of special Operator in Training (OIT) courses and exams for village operators; record keeping, notification and resolution of operator concerns. These certification efforts represent a significant portion of the staff's work load and significant endeavors to effectively manage the 630 currently certified operators holding a combined total of more than 1,100 certificates. In addition, substantial effort and staff time is allocated towards training and certification of operators of smaller systems which do not require certified operators.

During 1992, 579 exams were given from Ketchikan to Barrow which required arranging and coordinating 64 proctor sites. Operator atten-

Table III
Operations Assistance Program Funding X 1,000

Fiscal Year	General Fund	Operator Receipts	Remote Maint. Worker	104(G)(1) Over/Shoulder	Advisory Board	Total
89	$86.00	$27.00	$585.00	$35.00	$5.00	**$738.00**
90	$93.00	$18.00	$538.00	$35.00	$5.00	**$689.00**
91	$291.00	$20.00	$577.00	$35.00	$5.00	**$928.00**
92	$280.00	$18.00	$799.00	$35.00	$5.00	**$1,137.00**
93	$272.00	$20.00	$784.00	$35.00	$5.00	**$1,116.00**
						$4,608.00

dance at proctor sites ranged from one to over 30 examinees. Advisory Board members often serve as proctors. Table IV depicts the number of certified operators by level and classification as of January 1, 1993.

By statute, certification regulations only apply to systems with 100 or more service connections or which are used by 500 or more people. Approximately 90 systems serving 446,305 people (80% of the state's population), currently fit this category. However, the majority of systems, those serving less than 500 people, are also encouraged to have certified operators.

An integral part of the certification program is the continuous classification of all systems in the state by the Department to determine the skill level required to operate each system. Currently, the Department is re-evaluating the system classifications of the 90 systems that serve greater than 500.

Recently adopted drinking water regulations require "qualified" operators in many of the smaller rural Alaskan systems. This expanded emphasis has increased the number of systems requiring certified or "qualified" operators and classification. Approximately 160 additional systems not currently subject to state certification are affected. Additional classification, training and certification efforts are necessary to fulfill the needs of all Alaskan communities as well as comply with regulatory requirements.

System size is not always a good indicator of system complexity or susceptibility to catastrophic failure. To effectively operate and maintain a system, an operator needs specialized training in operations and maintenance as well as sampling, monitoring, and reporting.

ADEC's training program has traditionally consisted of:

☞ **Operator Lending Library** - available by mail for in-house training.

☞ **Technical Assistance** - to operators and communities.

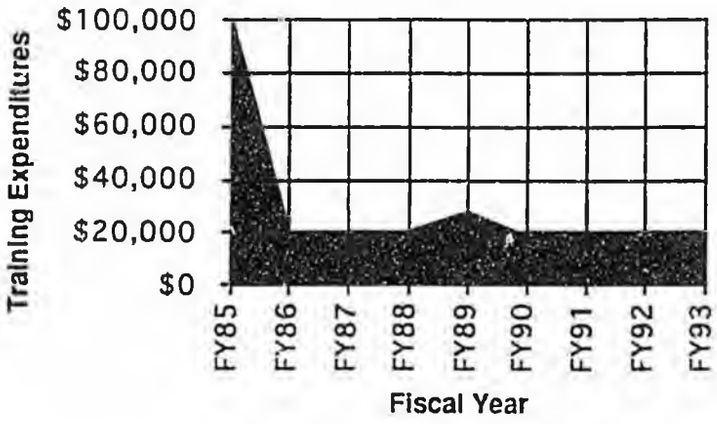
☞ **Training Material Development** - The Operations assistance Unit has recently worked with UAF and private trainers to develop training videos and short and correspondence courses for rural operators.

Table IV
Active Certificates*

	OIT	I	II	III	IV	Total
Water Distribution	47	87	57	21	13	225
Water Treatment	115	97	78	49	30	369
Wastewater Collection	31	69	57	7	12	176
Wastewater Treatment	38	87	98	73	42	338
Total	231	340	290	150	97	1108

* Numbers reflect total number of active certificates, not total number of operators. Operators may hold more than one certificate.

Figure II
Training Budget



☞ **Communication and Coordination of Training Opportunities** - development of ADEC/ private training calendar and quarterly newsletter distributed to a mailing list of over 1,500. In addition, ADEC is now actively involved in joint training efforts with the Public Health Service, the Department of Community and Regional Affairs, the Alaska Water Management Association and others. DEC has developed and will be publishing a 50 page, comprehensive "Training Resource Directory" which will detail all state, private and federal training resources.

The Operations Assistance Unit has not been able to fund and sponsor short courses since FY90 due to an insufficient training budget. However, staff has been coordinating with PHS and DCRA to offer basic operator and utility management courses in FY92 and FY93. Figure II depicts the ADEC training budget for the past nine years. Operator receipts are also used to update the library, publish the newsletter and other operator services. Prior to 1986 the program spent approximately $100,000 yearly specifically for training. Cost-cutting measures impacted the program and the training funds were lost. Subsequently, ADEC instituted a fee system which generates approximately $18,000 to $20,000 dollars per year.

If you have further questions regarding the Operations Assistance Unit of ADEC or the Water/Wastewater Works Advisory Board, please feel free to contact the Department or one of the Board members.✣

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Water Quality Regs Briefing 10-25-93

Alaska State Legislature

HOUSE RESOURCES COMMITTEE

P.O. Box V
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Juneau, Alaska 99811
(907) 465-3715

MEMORANDUM

TO: House Resources Committee Members

FROM: Rep. Bill Williams, Chair Bill
House Resources Committee

DATE: October 11, 1993

RE: House Resources Committee Meeting October 25, 1993

The House Resources Committee will be meeting at the Ketchikan Legislative Information Office, 352 Front Street, on Monday, October 25, at 1:30 p.m., for a briefing by the Department of Environmental Conservation on proposed changes in both water quality and solid waste regulations. Public comment is invited following the department's briefing, and the meeting will be teleconferenced. Current teleconference sites are Juneau, Anchorage and Fairbanks. The meeting will conclude following the public comment period, no later than 5:00 p.m.

For further information please contact Pete Ecklund of Rep. Williams' staff at 247-4672 in Ketchikan. Thank you.

DRAFT

M E M O R A N D U M

TO: Members of the House Resources Committee

FROM: Rep. Bill Williams, Chairman

DATE: December 6, 1993

RE: Water Quality Regulations

Last week I sent each of you copies of all of the written comments which my office had received since our committee's hearing regarding the water quality regulations being proposed by the Department of Environmental Conservation. After reviewing those comments, I have several questions which I would like to pose to DEC in an effort to get some clarification and elaboration from them about the content and justification for the regulations as they have proposed them.

Attached is a draft list of questions which I plan to send to DEC. I will ask that they respond to them in writing and I will distribute their responses to the members of the Resources Committee. Please look over these questions to see if there are any additional questions you would like to have included in the list. If so, please call my office at 465-3424 or 3715, or fax your additional questions to my office at 465-3793, by December 15. My staff will then compile all of the questions that the committee has suggested, and submit them to DEC.

Thank you.

DRAFT

C:WQ

DRAFT

QUESTIONS TO BE ASKED OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION REGARDING PROPOSED WATER QUALITY REGULATIONS

Questions by Rep. Bill Williams:

How to the cancer risks in your water quality standards compare to other cancer risks faced by Alaskans?

Is it possible to vary risk levels or health criteria by region of the state?

Using the standards proposed in these regulations, how many deaths will result?

Is it possible to incorporate pollution prevention incentives into these regulations?

Why can't Alaska have standards as strict as those mandated by other states?

What are the pros and cons of stronger and weaker standards?

DRAFT

DAVE Sturdevant

BRIEFING ON THE REVISION OF WATER QUALITY STANDARDS
for the HOUSE RESOURCES COMMITTEE
of the ALASKA STATE LEGISLATURE

Alaska Department of Environmental Conservation
October 25, 1993

Background. The Department of Environmental Conservation is conducting the Triennial Review and Revision of Water Quality Standards, as required under the federal Clean Water Act. The original focus of revisions in this triennial period was the adoption of water quality criteria for toxic pollutants required by the Clean Water Act, particularly the human health criteria for carcinogens. The human health criteria now have been deferred until 1994. In the current phase, the Department is addressing human health risk level, criteria for certain conventional pollutants (sediment, bacteria, color, and hydrocarbons), and narrative provisions concerning mixing zones, treatment works, site-specific criteria, and whole effluent toxicity.

The Department first proposed revisions and held public review pertaining to these topics in the summer of 1992. The public comment period, with three extensions of time, ran for four and one-half months, July 1 through November 15. Those proposals engendered considerable public controversy, and produced a total of roughly 2,000 written comments.

The Department did not adopt the 1992 proposals into regulation. Valid concerns expressed in written comments and public hearings led the Department to reconsider many of the issues. The Department carefully evaluated public comments and prepared a formal "comment and response summary." At Governor Hickel's direction, the Department formed a Water Quality Standards Citizens' Advisory Group to assist in reexamining and modifying those proposals. Members of the group represent a balance of industry, environmental and public interests. This group met three times in February and March 1993, holding roughly five full days of intensive discussion of the issues. Members of the group then submitted written comments to the Department.

Based on public comments, Advisory Group comments, and discussions with EPA, the Department developed modified regulatory proposals. The final draft prepared by staff of the Water Quality Management Section was distributed to the Advisory Group for final review. The final package then was approved for public review by the Governor's Resource Cabinet, and by the Governor. The second round, 90-day comment period began on August 2, 1993 and will end on November 1. The Department has just completed public information workshops and public hearings in six cities -- Fairbanks, Anchorage, Juneau, Haines, Sitka and Ketchikan -- in addition to a hearing by teleconference linking 19 towns across the state.

Most of the topics in 1993 proposals are similar to the 1992 proposals. They include both technical issues and matters of public policy. The major difference in 1993 is that the Department dropped proposals for human health criteria for dioxin, chloroform and arsenic, and added a proposal to adopt a human health risk level of 1 in 100,000, or

"10^{-5}," for carcinogenic pollutants. The risk level finally adopted will become the basis for later developing human health criteria for carcinogens. On this important issue, the Department wished to foster public consideration and response as an initial step toward the development of human health criteria.

Public response. Public response at the recently completed public hearings has provided severe criticism of the Department's proposals. From approximately 170 members of the public at large who testified, not one individual supported the department's proposals. Testimony generally was vigorous, articulate, and emotional, and reflected public outrage. Only a few representatives of extractive industries and municipalities delivered testimony in support of the proposals.

Public criticism principally was directed at the proposed human health risk level of 1 in 100,000. The public recognizes cancer as an epidemic disease, and nearly every individual has experienced cancer among family and friends, frequently in more than one case. There is an overwhelming feeling that little or no increased cancer risk is acceptable, and that no mixing zones for carcinogens should be allowed. It was often noted that two-thirds of states, and all western states except Nevada, have selected the 1 in 1,000,000 risk level. These themes were repeated very frequently.

There also was widespread opposition to proposals for mixing zones, treatment works, and natural conditions criteria, and to the perceived lowering of standards for sediment, fecal coliform bacteria, color, and hydrocarbons. There was little opposition to control of whole effluent toxicity, or to the prohibition on mixing zones in anadromous fish spawning areas.

Those testifying made a very strong case for the uniqueness and value of Alaska's clean waters, and the need to keep them as clean as possible as the basis for the continued health of the largest employment sector, the fishing industry, and the fastest growing sector, the tourism industry. For testifiers, clean waters clearly are an important element of quality of life as well as livelihood, and are viewed as a fundamental right. Testifiers pointed to the Governor's proposal to sell Alaska's water to the "lower 48," and to the millions of dollars spent annually to market Alaska's fish. Many spoke to the devastating impact that contamination of waters, real or perceived, will have on fisheries markets.

Those testifying also indicated repeatedly that they do not oppose extractive industries, but that industries must pay the cost for pollution control, and not pass the cost of pollution to other sectors or to the public for cleanup costs or health care. Testifiers noted that stiff regulations apply to oil and sewage discharge from fishing boats, and other regulation of individuals. Testifiers frequently pointed to the experience of the lower 48 in having to pay large costs to clean up past pollution problems.

Testimony frequently expressed a belief that the Department "caves in" to industry. Testifiers frequently stated that the Department of Environmental Conservation should be the guardian of the public trust, and should protect the environment and public health rather than favor industry.

Where do we go from here? The public comment period ends on November 1. The Department already has received around 150 written comments, and anticipates more in the final week. We have not assessed the written comments, but it is clear that they contain both "pro" and "con" positions.

We cannot say at this time what action will be taken on the proposed regulations, either as a whole or on particular items. Clearly, the public response obligates us to carefully review the comments and consider every item. We will do that through a structured and visible process. Our hope would be to proceed to adopt viable elements of the proposals into regulation. We will involve the Citizens' Advisory Group in the analysis, along with the Attorney General's office and, ultimately, the Resource Cabinet and the Governor. We also welcome the continued involvement of the Legislature.

Resolving specific issues will not be a simple matter. While it is easy to raise a cry for "no pollution" and "no cancer risk," we quickly run up against hard reality. For example, implementing a "no increase" limit for Total Suspended Solids would be extremely costly for municipal sewage treatment plants, with little environmental benefit. As another example, a lower cancer risk level of 10^{-6} could, in the case of arsenic, force standards far lower than background levels in marine waters.

Of course, the testimony at public hearings has been disappointing and frustrating to the Department. The testimony is sincere, and raises valid issues. Nonetheless, the Department believes that many of the proposals are misunderstood by the public. We feel that, due to the concern expressed on cancer risk and mistrust of the Department in general, most of the technical proposals are not being fairly examined. We also believe that issues have been persistently misrepresented to the public by activist groups opposing these revisions.

It is important to recognize that, regardless of the immediate outcome, the Department will be expanding and revising the Water Quality Standards on a continuing basis for several years to come. We will return to the human health criteria next year after the current phase is completed. We will be required to address acute aquatic life criteria, antidegradation, sediment criteria, and biological criteria. Further, we have a desperate need to develop a technical procedures document for mixing zones, treatment works, site-specific criteria, whole effluent toxicity, and other aspects of the Water Quality Standards. We have limited resource to apply to these tasks.

Thank you for this opportunity to provide an update on the revision of Water Quality Standards.

BRIEFING ON PROPOSED SOLID WASTE REGULATIONS
HOUSE RESOURCES COMMITTEE
KETCHIKAN OCTOBER 25, 1993

In Subtitle D of the Resource Conservation and Recovery Act (RCRA), Congress banned open dumping of solid waste and directed the Environmental Protection Agency (EPA) to establish national minimum standards for sanitary landfills. On October 9, 1991, in response to that direction, EPA promulgated Solid Waste Disposal Facility Criteria for all municipal solid waste landfills.

EPA expects all states to implement these standards. To ensure that they do, a number of incentives are built into the regulations. These incentives include additional flexibility in states with an approved solid waste program and some protection from third party suits for operators of landfills with a permit from an approved state program.

There are approximately 750 landfills in Alaska. The majority of these sites are considered open dumps under the definition in RCRA. It will be extremely difficult, if not impossible, for many of these facilities to meet the full requirements of the federal regulations. For this reason, the Department of Environmental Conservation (DEC) feels that it is extremely important for Alaska to gain solid waste program approval from EPA to take advantage of every possible area of state flexibility. These proposed solid waste regulations are designed with those goals in mind: stringent enough to allow Alaska to qualify for program approval, but with all the flexibility allowed in the federal regulations.

The federal regulations include two important exclusions from some requirements for small landfills. The first is for small landfills in arid regions (commonly known as the West Texas exclusion), and the other for small landfills in communities cut off from surface transportation at least three months of the year (the Alaska exclusion). DEC's proposed regulations take advantage of both these exclusions in order to set more attainable standards for small landfills.

However, program approval and use of the small landfills exclusions will not go far enough to allow some communities in Alaska to comply with the federal standards. For example, originally small communities were exempted from the groundwater monitoring requirements. On May 7, 1993 the Circuit Court of Appeals in Washington, D.C. ruled that all landfills must monitor groundwater. EPA responded by extending the effective date of the regulations for small landfills. They are also considering a request that alternative approaches to groundwater monitoring for small landfills be considered.

It is important that the Legislature, the Governor's office, and Alaska's Congressional delegation continue to work with EPA and Congress to seek further relief for small landfills in Alaska.

DEC staff will continue to work with national associations of state solid waste officials to gain the support of other states for further Alaska exemptions. Adopting solid waste regulations and seeking state program approval will buy us time to pursue a permanent solution: full exemption from federal solid waste requirements for small and remote communities in Alaska.

DEC will be soliciting comments on the proposed solid waste regulations through November 30. Public hearings on the regulations will be held on the following dates:

October 25	Bethel
October 26	Fairbanks
October 27	Soldotna
October 28	Anchorage
November 1	Juneau

Between November 30 and late January, changes to the proposed regulations will be made based on the comments received, as well as the results of preliminary review by EPA. DEC plans to adopt regulations in early February, with an estimated effective date of July 1, 1994. If the final regulations are acceptable to EPA, Alaska expects to receive state program approval on the effective date of the regulations.

Over the next several months, EPA will be seeking public comments on alternative approaches to groundwater monitoring at small landfills. EPA expects to hold a public hearing on this subject in Alaska in March or April. DEC urges representatives of affected communities to attend this hearing and provide testimony on practical monitoring alternatives for Alaska. For more information on this matter, please contact Glenn Miller or Heather Stockard at 465-5150.

Juneau Empire
Editorial
11/21/93

Don't fool with Alaska's water

Clean-water regs not strict enough

Pure, clean water is as fundamental to the Alaska mystique as glaciers, Mount McKinley, grizzly bears and the northern lights. Clean water is the very basis of life and the source of livelihood for many who live here.

It's no wonder, then, that proposals by the Hickel administration to relax Alaska's water-quality regulations have generated so much rancor. People just don't buy the argument that *minimum* clean-water standards are good enough. Not in Alaska, anyway.

Yet, when it comes right down to it, that's what administration officials are trying to sell.

They're not throwing out clean-water protections, but they are, in some cases, proposing to weaken already existing standards.

They're not proposing to let industrial polluters dump toxics into salmon-spawning streams, but they would allow carcinogens like dioxin and arsenic in saltwater mixing zones frequented by shellfish, salmon and marine mammals.

They're not ignoring guidelines on limiting the cancer risk to humans from industrial discharge, but they have chosen the most lenient practical standard allowed by the federal government. Thirty-six other states, including every western state except Nevada, have opted for tougher human health risk criteria. Even California, where our governor wants to sell Alaska's water, has the higher standard.

Of course, state officials strongly defend their plan and acknowledge that politics is part of the clean-water equation. They say they're trying to strike a balance between environmental protection and the economic gains provided by pulp mills, mines and other industries.

That's certainly a legitimate and admirable goal. Some critics of the state's water-quality proposals probably *would* be happy if resource development companies packed up and left Alaska.

That's not our sentiment. The mines and mills and the loggers belong here just as much as the kayakers, photographers and backpackers.

But just as relaxed water-quality rules would make life easier and less expensive for developers, they also could make it tougher for fishers, tourism companies and lots of other businesses that prosper from the state's pure-as-snow image. How many potential customers will turn away if the perception spreads that Alaska isn't being as tough as it could be about clean water?

No one wants to choose between, say, mining and tourism or logging and fishing – and no one should have to, even if the regulations are adopted exactly as proposed. But if politics has to be part of the water-quality decision, then why not acknowledge that many other states have adopted stricter standards and still have flourishing industries? Why shouldn't Alaska take that same tough-but-manageable approach to its clean-water rules?

It's one thing for environmental groups to find fault with the Hickel administration's proposal. However, they aren't the only critics. Federal agencies including the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and the Environmental Protection Agency all have suggested changes to the state's plan.

Generally, the agencies' comments are similar to those voiced by critics at public hearings around Southeast: Minimum clean-water standards just aren't good enough for Alaska. They are comments that state officials should heed.

Alaska Department of Environmental Conservation

Alaska's Water Quality Standards

- Now Under Review -

- Alaska's **Water Quality Standards** are required by the federal Clean Water Act to be **reviewed every three years**. This helps assure the standards are made **more effective, appropriate, and practical.**

- Standards' purpose: **protect human and aquatic life** - establish how much pollution is allowed for all waters in Alaska - fresh, marine, and ground waters. Establish **pollutants** to be controlled, the **designated uses** of waters to be protected, and the **criteria** -- the actual numeric limits for the pollutants.

- DEC made its **first proposals for revising the standards in 1992**, with a 3 1/2 month review period. **Two thousand public comments** came in, and the department reconsidered many of the issues. **Governor Hickel directed formation of a Water Quality Standards Citizens' Advisory Group** to assist in reviewing and modifying the 1992 proposals. The group met three times in February - March, 1993.

- The revised proposals now will undergo a **second public review from August through October, 1993.** The goal is to adopt **new standards** by December 1 to ensure **protection of human health and aquatic life, based upon sound science, while remaining reasonable and do-able.**

- **The 1993 proposals contain** all the topics in the 1992 proposals **except** the adoption of "human health criteria" for **dioxin, arsenic,** and **chloroform**. More time is required for these controversial and technically difficult issues; human health criteria for over 60 carcinogens will be taken up, with more public review, after current revisions are completed.

Still included in the proposals are revisions to:

- **Exempt some constructed waste treatment ponds from water quality standards:** Recognizes that a sewage lagoon, sediment settling pond, etc, cannot meet all water quality standards within the treatment works. Yet if this flexibility is given, care must be exercised to assure that water quality standards are met in all adjacent surface waters and groundwaters.

- **Update fecal coliform bacteria standard for recreational waters:** Old standards set the recreational limit the same as the limit for drinking water (20 fecal coliforms per 100 ml. of water). The recreational limit should be set at the nationally-recognized standard of 200 fecal coliforms per 100 ml. of water. Standards for drinking water use will remain at 20.

- **Clarify settleable solids / sediment standard** to bring in line with current actual practices for measuring this pollutant. Language of old standard restricts suspended solids to the point that, if actually applied, would shut down most industries and sewage treatment plants.

- **Update toxic substances standard** by putting in a new method that will let the state develop

"Alaska-specific" standards to protect waters at "no observed effects" levels–pollutant levels at which Alaska organisms can live normal lifespans with no observed effects. Also, add new prohibition of toxic effects in waters or sediments.

- **Raise the aesthetic color limit for drinking water use** from 5 to 15 "color units" to bring it in line with the federally-recommended limit for public water supplies. Also, change the seafood processing use from 5 color units to language stating, "shall not interfere with the use, or make the water unfit or unsafe for the use."

- **Correct the method for measuring the "total hydrocarbons" standard**: The old method for measuring is incorrect; a scientifically-correct method will be substituted. Retain existing criteria for hydrocarbons. Also, remove reference to criteria based upon the EPA "acute toxicity test," and require instead that discharger show no toxicity in any discharge outside of a "mixing zone".

- **Adopt a human health risk level of 1 in 100,000** as the basis for developing "human health criteria" for carcinogens in 1994. Selecting a human health risk level is a public policy decision, and is not a matter of science. The risk level represents an individual's probability of additional cancer from a lifetime of consuming set amounts of contaminated water and fish. The stated risk applies only to those who consume contaminated water and fish, not the general population. The current cancer rate in the U.S. is 25,000 per 100,000 people. At the proposed human health risk level, if a population of 100,000 people drank and ate the same amounts of contaminated water and fish, cancer cases would be expected to increase to 25,001. Human health criteria set limits on pollutant discharges that will not exceed the selected risk level. The criteria incorporate assumptions for fresh water consumed and fish products consumed, and scientific values for "bioaccumulation" and "cancer potency factor." All of these factors will be addressed in developing human health criteria in 1994.

- **Limit the toxicity of whole effluents** by requiring dischargers to test directly the actual whole effluent. This will guard against possible cumulative effects of toxic substances that are combined in discharges.

- **Modify site-specific criteria** so that, where natural conditions exceed the state's existing criteria, DEC can adopt the naturally-occurring levels as the criteria that apply. That is, the discharger can discharge the same concentrations as occur naturally, but no more.

- **Update and clarify the provisions for mixing zones**, which are prescribed areas of water in which dischargers are allowed to dilute their discharges to meet water quality standards. Standards can be exceeded in a mixing zone, but not outside of it. Changes will clarify mixing zone provisions and add new restrictions to limit bioaccumulation and carcinogens in mixing zones; protect uses of the waterbody as a whole; require treating waste using the most effective and feasible methods; add procedures for existing zones in rivers and streams; and others.

- **Clarify the criteria for groundwater**: Groundwaters currently are protected as fresh waters and also for marine industrial use. This clarification will remove the redundant marine industrial use.

To obtain copies of the proposed regulations or other information, contact:

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NEWS RELEASE

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Phone: (907) 465-5009 Fax: 465-5097

July 28, 1993 Contact: Marti Early

STATE INVITES SECOND ROUND OF PUBLIC REVIEW FOR REVISIONS OF WATER QUALITY STANDARDS

Juneau... After one round of public review last year, with involvement of a Citizens Advisory Group, the state made substantial changes in its proposals for revising water quality standards. The Department of Environmental Conservation (DEC) is inviting another look by the public, from August 2 through November 1.

"Last time we received over 2000 comments across a wide spectrum of opinion, and with many constructive technical and policy suggestions. Our proposals were improved a great deal by this public input, and now it's time to see what Alaskans think about the final package. We're hoping for full participation," said DEC Commissioner John Sandor.

The revisions are part of a "triennial review and revision" of water quality standards required by the federal Clean Water Act. Water quality standards set specific numerical limits for how much pollution, and which types, can be discharged into all fresh and marine waters of the state.

In the first round of public participation, six public hearings were held in Alaska communities in addition to meetings with individual interest groups. The department received roughly 2000 written comments.

The new proposals will be available at local DEC offices during the comment period beginning August 2. Both workshops and hearings will be held in six Alaska cities, followed by a statewide teleconference. During the public comment period DEC staff also will make presentations to local clubs and civic organizations to explain the proposals.

"The extra time to verify scientific information, methods of analysis and details of procedures have improved these proposed water quality standards from the July 1992 version," according the Doug Redburn, chief of DEC's Water Quality Management section. Public comments and meetings of the newly established Water Quality

Standards Advisory Group were instrumental in strengthening the proposals, according to Redburn.

SCHEDULE OF PUBLIC WORKSHOPS AND HEARINGS

A public information workshop will be held one day before each public hearing. The workshops will be to discuss the proposed revisions to the water quality standards, and the public hearings to receive public testimony on the proposed revisions.

City	Workshop	Hearing	Location
Fairbanks	Sept. 27	Sept. 28	Noel Wien Library, 1215 Cowles St.
Anchorage	Sept. 29	Sept. 30	Egan Center, Boardroom, 555 West 5th Ave.
Juneau	Oct. 4	Oct. 5	Centennial Hall, Egan Room, 100 Egan Dr.
Haines	Oct. 6	Oct. 7	Chilkat Center, Tower Rd. and Theater Dr.
Ketchikan	Oct. 11	Oct. 12	Westmark Cape Fox, 800 Venetia Way
Sitka	Oct. 13	Oct. 14	Centennial Bldg, Rousseau Rm., 330 Harbor

Both hearings and workshops will begin at 7:00 pm and end at 10:00 pm.

In addition, a statewide public hearing by teleconference, using Legislature's teleconference system, will be held on October 19, 9:00 am through 7:00 pm. Locations to be announced.

Inquiries regarding the water quality standards or public participation should be directed to:

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ATTACHMENT: Fact sheet on proposed Water Quality Standards revisions.

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Alaska Department of Environmental Conservation
Division of Environmental Quality
Water Quality Standards Review
410 Willoughby Ave., Suite 105
Juneau, Alaska 99801

Revisions to Water Quality Standards
1992 and 1993 Proposals; Current Regulations

	1993 Proposal	1992 Proposal	Current Regulation
Treatment Works	Add a new paragraph at .010(c) to exclude Treatment Works from WQS; adopt the statutory definition of "waters;" change restriction that treatment systems be "lined or constructed so that seepage into the ground is not allowed" to meeting criteria "in adjacent surface waters and groundwaters at specified points of compliance."	Modified exclusion of treatment systems in current definition of "water" from those that are "lined or constructed so that seepage into the ground is not allowed" to those that are "approved by the department" or are "constructed and operated in accordance with valid state or federal disposal permits."	The current definition of "waters" exempts waters that are "lined or constructed so that seepage into the ground is not allowed." There are two concerns with this provision: it does not accommodate unlined ponds, and it inappropriately modifies the statutory definition of waters.
Fecal Coliform Bacteria	SAME as 1992	Change the criterion from 20 to 200 Fecal Coliforms per 100 ml for the Contact Recreation designated use.	The current criterion for the Contact Recreation designated use is 20 Fecal Coliforms per 100 ml.
Sediment/Settleable Solids	SAME as 1992	Change name, definition and selected criteria from Sediment to Settleable Solids.	The current standards for Sediment are stated in ambiguous terms. Only a method for measuring Settleable Solids is expressed; no method for measuring suspended solids is stated. However, legal challenge has resulted in a court ruling that the standard must be interpreted to include measurement of Total Suspended Solids.
Toxic Substances	Replace criteria based on 0.01 times LC_{50} with discretionary NOEC criteria; make Drinking Water Standards secondary to aquatic life criteria for the Fish and Wildlife use; add prohibition of toxic substances in concentrations that cause toxic effects.	Replace LC_{50} with NOEC as in 1993; delete aquatic life criteria from applicability to groundwater (latter dropped in 1993).	Current regulations state that criteria for toxics will be the lowest of 0.01 times LC50, EPA Goldbook criteria, or Alaska Drinking Water Standards.
Color	SAME as 1992, plus add to all numeric criteria "or the natural color unit level, whichever is greater."	Change color limit for freshwater Drinking Water use from 5 to 15 color units; change marine Seafood Processing limit from 5 color units to a narrative.	Current color limit for freshwater Drinking Water use and marine Seafood Processing use is 5 color units if water is untreated and 75 color units if water is to be treated.

	1993 Proposal	1992 Proposal	Current Regulation
Petroleum Hydrocarbons			
	Change "Total Hydrocarbons" to "Total Aqueous Hydrocarbons"; retain 15 ppb and 10 ppb criteria; specify correct analytical method; delete requirement for criteria based on 0.01 times LC_{50}.	Delete "Total Hydrocarbons" criterion (15 ppb); retain "Total Aromatic Hydrocarbons" criterion (10 ppb).	Current criteria are 10 ug/l for Total Aromatic Hydrocarbons and 15 ug/l for Total Hydrocarbons.
Human Health Risk Level			
	[NEW SECTION .022] Adopt 10^{-5} cancer risk level as basis for later development of human health criteria.	No specific proposal for risk level; adopt human health criteria for dioxin, arsenic and chloroform at 10^{-5} risk level.	No provision for Human Health Risk Level in current regulations.
Whole Effluent Toxicity			
	[NEW SECTION .023] Prohibit chronic toxicity outside mixing zone as a limit of 1.0 chronic toxic unit; require toxicity testing; may require use of resident test species.	Similar; slightly different wording.	No provision for Whole Effluent Toxicity in current regulations.
Site-specific Criteria			
	Modify section .025 to state that natural conditions shall be the applicable site-specific criteria where they are of lower quality than existing criteria; ADEC will establish natural conditions criteria in permits; natural conditions will be set at the highest quality natural level; an applicant must provide all information necessary; site-specific criteria other than natural conditions must be established as regulations.	Add a new paragraph at .010(c) to state that ADEC will, in its discretion, approve natural conditions as applicable criteria in permits if they exceed existing criteria.	Current regulations allow for setting site-specific criteria at natural levels, but terms are unclear.
Mixing Zones			
	Clarify criteria restricting approval of mixing zones (bioaccumulation, carcinogenic effects); prohibit toxic effects outside the mixing zone; require fully protecting existing uses of the waterbody as a whole; require that wastes be treated using most effective and feasible methods; add new paragraph on procedures for mixing zones in flowing fresh waters; state that the applicant is responsible for providing all information reasonably necessary and carries the burden of proof; define "carcinogenic," "fully protect existing uses," "significantly adverse effects," "toxic," and other key terms.	Similar changes but less specific; wording considerably refined in 1993; no prohibition on toxic effects outside the mixing zone; "fully protect existing uses" applied only to fresh waters.	Current language in Mixing Zone section needs clarification and expansion. Contains no procedures for Mixing Zones in flowing fresh waters.
Groundwaters			
	Remove the marine Industrial designated use from application to groundwaters; retain application of aquatic life criteria.	Remove the marine Industrial designated use from application to groundwaters; remove application of aquatic life criteria.	The marine Industrial designated use applies to groundwaters; aquatic life criteria also apply to groundwaters.

Water Quality Standards

Briefing Package

for

Governor Walter J. Hickel

Alaska Department of Environmental Conservation

July 8, 1993

Water Quality Standards Timetable

1990

January.....Start Triennial Review
February.....Public Hearings
.....Response to public comments

1991

.....Research

1992

March .....Pulp mill draft permits
May/Oct/Nov .....Legislative hearings
July 1.....Public review begins
Sept/Oct/Nov .....3 extensions of public review
December .....form Citizens' Advisory Group
.....Review public comments

1993

February/March .....3 Advisory Group meetings
May 14 .....WQM section recommendations
June .....Water Mgt. Council review
June 28 .....Resource Cabinet Meeting
July 8.....Governor's briefing
August-October ....Public review & hearings
December .....DEC final adoption of regs.

ADEC
July 1993

Water Quality Standards Revision

Topics Included

- Exclusion of treatment works
- Fecal coliform bacteria
- Settleable solids / Sediment
- Toxic substances
- Color
- Petroleum hydrocarbons
- Human health risk level
- Limiting toxicity of whole effluent
- Site-specific criteria
- Mixing zones
- Groundwater criteria

Topics Dropped

- Fish consumption
- Dioxin
- Arsenic
- Chloroform

ADEC
July 1993

Water Quality Standards Revision

Advisory Group

Mining
- — placer
- —hard rock

Oil and gas
Pulp mills
Seafood processing
Timber
Fisheries
- —Southcentral
- —Southeast

Environmental
- —Interior
- —Southeast

Tourism/Recreation
Subsistence
Municipal
- —Large
- —Small

Academic (vacant)
Alaska Native Health Board
Water and Wastewater Board
Water Resources Board

Agencies

Alaska Dept. of Fish & Game
State Attorney General
U.S. Environmental Protection Agency

ADEC
July 1993

Formula for Establishing Human Health Criteria for Carcinogens

Industry Discharge Limit :

$$\frac{\text{Risk Level} \times \text{Body Weight}}{\left[\text{Fish Consumption} \times \text{Bioaccumulation} + \text{Water Consumption}\right] \times \text{Cancer Potency Factor}}$$

Policy

- Risk Level

Policy & Science

- Fish Consumption
- Water Consumption
- Body Weight

Science

- Bioaccumulation
- Cancer Potency Factor

ADEC
July 1993

Water Quality Standards Revision

Interest Groups

- Industry
- Municipalities
- State & Federal agencies
- Native Alaskans
- Environmental groups
- Fisheries groups
- Media

Controversial Issues

- Human health risk level
- Mixing zones
- Sediment
- Exclusion of treatment works
- Color
- Site-specific natural criteria

ADEC
July 1993

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PROPOSED SOLID WASTE REGULATIONS (18 AAC 60)
COMPARISON WITH FEDERAL (40 CFR PART 258) AND STATE REQUIREMENTS

FEDERAL MUNICIPAL SOLID WASTE REQUIREMENTS:

STATE CITATION	FEDERAL CITATION	COMMENTS
60.005 Applicability	258.1	State regs propose 3 classes of landfills not specifically tied to the EPA small community exemptions.
60.025 Access Requirements	258.25	Relaxed for Class III landfills
60.030 Surface Water	258.27	Relaxed for Class III landfills
60.050 Procedures to exclude...	258.20	Relaxed for Class III landfills. Waivers may be granted for communities with no hazardous waste generators.
60.300 Purpose, scope,...	258.1	Adds municipal solid waste user fee.
60.305 Airport Safety	258.10	
60.310 Floodplains	258.11	
60.315 Wetlands	258.12	Adds mitigating language to the "no net loss" provision.
60.320 Fault areas, seismic...	258.13, 258.14, 258.15	Modified for Alaskan conditions. State flexibility allows for appropriate demonstrations.
60.325 Mandatory closure	258.16	State flexibility may allow additional time.

60.330 Cover material requirements...	258.21	Allows alternative cover and provides exemption for combustion ash monofills.
60.335 Cover material, working...	258.21	Relaxed standards for Class III landfills.
60.340 Explosive gases control	258.23	Relaxed for Class III landfills and combustion ash monofills.
60.345 Open burning	258.24	Relaxed for Class III landfills.
60.350 Liquids restrictions	258.28	
60.360 Recordkeeping requirements	259.29	State flexibility allows alternative schedules. State may opt to maintain records for small landfills.
60.365 Design criteria	258.40	State flexibility allows alternative designs. Generally does not apply to Class II or Class III landfills.
60.370 Closure criteria	258.60	State flexibility allows alternative final cover. Closure plan not required for Class III landfills.
60.375 Post-closure care requirements	258.61	State flexibility allows longer or shorter periods of care. Relaxed for Class III landfills.
60.380 Financial assurance	258.70-.73	Not required for Class III landfills. Delayed compliance date for Class II landfills.
60.385 Allowable mechanisms	258.74	State may approve alternative mechanisms.
60.820 Groundwater monitoring...	258.50	May be suspended in areas without an aquifer of resource value. Relaxed for Class III landfills. State flexibility allows alternative compliance schedule.

60.825 Groundwater monitor. systems	258.51	Groundwater monitoring wells must be designed and installed according to State recommended practices.
60.830 Groundwater sampling...	258.53	
60.840 Parameters for...	258 Appendices I & II	State expanded the federal list of parameters to include those analyses required in the 1987 State regulations.
60.850 Detection Monitoring Program	258.54	
60.860 Assessment Monitoring...	258.55	
60.870 Assessment of corrective...	258.56	
60.880 Selection of remedy	258.57	
60.890 Implementation of corrective...	258.58	State flexibility allows "no action" alternative.
60.990 Definitions	258.2	Some definitions added.

MUNICIPAL SOLID WASTE REQUIREMENTS NOT SPECIFIED IN FEDERAL 40 CFR PART 258:
SOME PROVISIONS ALSO APPLY TO NON-MUNICIPAL LANDFILLS

STATE CITATION	PREVIOUS CITATION/REQUIREMENT/COMMENTS
60.010 Accumulation and Storage	60.010 -- Some regions have requested a strengthening of this section to address "sham recycling" situations.
60.015 Transport	60.025 --no significant change
60.020 Wellhead and Aquifer Protect.	State Wellhead Protection Policy
60.035 Intermediate Cover	60.045 -- Some Alaskan landfills operate seasonally. This section will help reduce water pollution during temporary landfill closure.
60.040 Disease Vector, Wildlife...	60.035 -- Wildlife control is more of a problem in Alaska than in "Lower 48" states. This is an appropriate Alaskan provision. Relaxed standards apply to Class III landfills. Modified version of requirement in 1987 regulations.
60.065 Permafrost Landfills	Allows operators of permafrost landfills an exemption from some requirements if they monitor to ensure the landfill remains frozen. Alternatively, a permafrost landfill may opt to follow the full requirements of 18 AAC 60.
60.080 Prompt Closure	60.410(a)(1)(A)
60.200 Permit Requirement	60.200 -- Specifies disposal activities which do not require a permit.
60.205 SW Mgt. Planning	New section added based on requirements of AS 46.06.021 and 46.03.100(e). DEC may not issue disposal permits unless planning has been done.
60.210 Permit Application	60.210 -- Changes reflect new Part 258 requirements and state user fees. (NOTE: Federal law requires states to have a permit program to gain approval. This section and those following set up procedures for the permit system.)

60.220 Permit Issuance	60.220 --
60.225 Permit Renewal & Transfer	60.225 --
60.230 General Permit	60.230 --
60.240 Permit Revocation	60.240 --
60.301 Minimum operator...	This provision was requested by the Solid Waste Association of North America and agreed to by all affected Class I landfill operators.
60.355 Controlling impacts...	60.035
60.800 Visual monitoring	60.310
60.810 Surface water monitoring	Appropriate in areas where subsurface conditions force leachate to move laterally rather than down.
60.900 Waivers	60.900 -- Allows state flexibility to grant additional waiver of requirements (except for Class I landfills)

NON-MUNICIPAL SOLID WASTE REQUIREMENTS (NOT COVERED BY FEDERAL REGULATIONS 40 CFR PART 258)

STATE CITATION	PREVIOUS CITATION/REQUIREMENT/COMMENTS
60.045 Hazardous Waste	60.087 -- Simplified and clarified.
60.055 Medical Waste	60.087(g) -- Exemption added for rural villages to treat waste under the supervision of a licensed health official.
60.060 Radioactive Devices	60.087(e) -- Includes standards for disposal.
60.070 Vehicles and Const. Equip.	60.085 -- Some regions feel this is an important provision.
60.075 Snow Dumps	Added to resolve conflicts in Northern and Southcentral regions.
Article 4 Monofills	Replaces Article 5 Drilling Wastes, 60.085(b), and 60.087(c). Adds standards for Wood Waste, Asbestos, Inert Wastes and Sewage Solids. (SEE NOTE BELOW)
Article 5 Landspreading of Biosolids	Replaces 60.085(b)(3) and incorporates new federal requirements in 40 CFR Part 503.

NOTE: Wood waste, drilling waste and inert waste monofill regulations have no parallel in the federal register. The Solid Waste program created these standards for the following reasons:

1. State law requires a site operator to obtain a permit before disposing of these wastes on the land.
2. If no regulations are adopted, regional permit writers will have no criteria by which to approve or deny permit application.
3. Permits will not be uniform between regions of the state causing unfair advantages to industries operating in only one region. Unwarranted pollution may also result.
4. Minimum standards prevent "bad actors" from damaging the image of industries producing these wastes and provide operators with clear information about the requirements they are expected to meet.

NOTICE OF PROPOSED CHANGES IN THE REGULATIONS OF THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Notice is given that the Alaska Department of Environmental Conservation, under authority vested by AS 46.03.010, 46.03.020, 46.03.100, 46.03.110, 46.03.810, and AS 46.06.080, proposes to amend Chapter 60, Title 18, of the Alaska Administrative Code dealing with Solid Waste Management (18 AAC 60), to implement AS 46.03.020 46.03.100, and AS 46.06.080 as follows:

PURPOSE OF PROPOSED CHANGES

18 AAC 60 is proposed to be amended to

1. Incorporate amendments to federal law;

2. Adopt regulations for solid waste management planning as required by AS 46.03.100(e);

3. Modify regulations for disposal of oil industry drilling waste as suggested by the Interstate Oil and Gas Compact Commission;

4. Propose new regulations to clarify department policy regarding the disposal of nonhazardous, nonmunicipal waste such as construction debris, wood waste, and contaminated soil;

5. Include user fees for certain solid waste management activities.

These proposed regulations are designed to improve solid waste management in Alaska. The federal government established the overall direction for solid waste management with the passage of the Resource Conservation and Recovery Act (RCRA) in 1976. The U.S. Environmental Protection Agency (EPA) was directed by the same law to examine state programs and approve only those programs that prohibit open dumps. In 1991 EPA published minimum standards for municipal waste landfills. As an incentive for states to adopt the program, EPA will allow approved states to take a flexible approach to implementing the regulations. In states which do not adopt an effective program, the rigid and more stringent federal standards will be enforced.

NOTICE IS GIVEN that any person interested may present oral or written statements or arguments relevant to the proposed action at public hearings to be held as listed below. **The hearings will be preceded by an informational presentation by department staff, beginning at 7:00 p.m., with testimony taken thereafter.**

Date	Time	City	Location
October 25	7:00 p.m.	Bethel	Log Cabin 326 Akiachak Avenue
October 26	7:00 p.m.	Fairbanks	Alaskaland, Pioneer Hall Lobby, 2300 Airport Way

October 27	7:00 p.m.	Soldotna	Kenai Peninsula Borough Assembly Chambers 144 N. Binkley
October 28	7:00 p.m.	Anchorage	William A. Egan Civic and Convention Center 555 W. Fifth Avenue
November 1	7:00 p.m.	Juneau	Centennial Hall Egan Room, 101 Egan Dr.

The hearing might be extended to accommodate the testimony of any person who is present before 8:00 p.m. and, if necessary, will continue from day to day until all testimony has been taken.

NOTICE IS ALSO GIVEN that any person interested may present written statements or arguments relevant to the proposed action by writing to Mr. Glenn Miller, Alaska Department of Environmental Conservation, 410 Willoughby Avenue, Suite 105, Juneau, AK 99801-1795. **Comments will be included in the record if they are received on or before 4:30 p.m. on November 30, 1993.**

If you are a person with a disability who may need special modification in order to comment on the proposed regulations, please contact Billie Wilson at (907) 465-5061 no later than November 8, 1993, to make any necessary arrangements.

This action is not expected to require an increased appropriation.

Copies of the proposed regulations, including a 15-page summary of the proposed changes, may be picked up at any regional office of the department or by writing to Mr. Miller at the address given above.

Additional information on the proposed amendments to 18 AAC 60 may be obtained by calling Mr. Miller at 465-5153.

The Department of Environmental Conservation, after November 30, 1993, will either adopt these or other proposals dealing with the same subject, without further notice, or decide to take no action on them.

Dated at Juneau, Alaska, this 16 day of September, 1993.

For
John Sandor, Commissioner
Department of Environmental Conservation

DRAFT SOLID WASTE REGULATIONS
FACT SUMMARY SEPTEMBER 8, 1993

The solid waste program drafted new regulations for landfills. We are requesting comments from people who are interested in solid waste management. Our goal is to make the regulations easy to understand and fair to landfill operators as well as their site neighbors. The comment period is open now and will close on November 30, 1993. We have arranged public meetings to discuss what the regulations mean, and who will be affected. We will record formal testimony at the meetings. All written comments and oral testimony will be fully considered after the comment period ends.

The state is proposing new solid waste regulations because the federal government has set new minimum standards for municipal solid waste landfills (MSWLF). In this summary and in the regulations you will see references to "RCRA subtitle D," and "Part 258." "RCRA" means the Resource Conservation and Recovery Act passed by Congress in 1976. In RCRA subtitle D, Congress banned open dumps and ordered the Environmental Protection Agency (EPA) to define the term "open dump" in regulations. The regulations written by EPA are found in Part 258, Title 40 of the Code of Federal Regulations ("Part 258"). They were finalized in October 1991.

The federal regulations are written as national standards. Some regulations do not consider the special conditions found in Alaska. Alaska is attempting to adopt regulations, and gain approval from the Federal EPA to control all of the solid waste management in the State. The EPA will approve Alaska's solid waste program only if Alaska adopts regulations that meet RCRA standards. We must also get landfill operators to comply with our regulations. If the State fails to build an effective program, the Federal regulations, which are more stringent, and less flexible than the State regulations, will go into effect.

Besides the regulatory changes for MSWLFs, new rules are being proposed for handling various other wastes. If these regulations are adopted, landfills will be classified as:

a. Class I municipal waste (serving more than 10,000 people)
b. Class II municipal waste (serving less than 10,000 people)
c. Class III municipal waste (serving small villages with subsistence economies)
d. Drilling wastes (from the oil industry)
e. Wood wastes (from the timber industry)
f. Asbestos
g. Inert wastes (such as broken pavements, construction debris, coal boiler ash, etc.)
h. sewage solids and septic tank pumpings

We are also proposing new regulations for the landspreading of biosolids (formerly known as sewage sludge).

If you wish to find out how you will be affected by the regulations, start with the general standards in Article 1 on page 2. Since most of the rules are for landfills, we start by defining various types of landfills. The general standards make it illegal to store or transport waste carelessly, or store for more than one year without a good reason. Some standards that apply to all landfills are included in Article 1 so we do not have to repeat them elsewhere. For example, all landfills are required to prevent water pollution, and to control access to the site by site users and animals. Article 1 also limits the disposal of radioactive materials and other special wastes.

Waste managers who wish to store large quantities of waste, or gain approval for a plan to close out an inactive drilling waste site, must pay a fee of $1,000 to support the services provided by the Solid Waste Program field operations. A fee of $2,000 must accompany each application for an industrial waste monofill, while Class I and Class II municipal waste disposal sites must pay an annual fee of $1 for each ton of waste disposed. DEC feels these fees are a legitimate cost of waste management oversight, and should be passed on to the people who generate the waste. Fees based on waste management will provide a dependable source of funding, to supplement declining state revenues. Without a stable funding source the State program might not obtain program approval from EPA.

The regulations propose a new definition of medical waste, based on a definition written by the Agency for Toxic Substances and Disease Registry. The regulation concerning medical waste remains the same. Medical waste must be disinfected or incinerated before landfilling.

Smoke detectors and other wastes which give off some radiation will be allowed into landfills, provided the operator can certify that workers at the landfill will receive less than a 10 millirem exposure per year, and members of the public will receive less than a 1 millirem exposure per year.

Article 2 includes procedures that the State and all landfill operators must follow to meet the legal requirements for a permit. No person is allowed to operate a landfill without a permit issued by DEC.

The draft regulations allow waste disposal without a permit as part of an approved contaminated site clean up under 18 AAC chapters 75 and 78. This is for tank leaks, spills, or illegal dump sites. The intent is to streamline the procedure of leaving soil with trace contamination in place, where appropriate, and returning purified soil to the site. Another key factor in deciding whether a fill site needs a landfill permit is the definition of "solid waste". The definition has been changed. The new definition is printed at the end of this fact summary sheet.

One of the most controversial sections of the draft regulations is the requirement for landfill permit applicants to prepare a solid waste management plan. This is not a federal requirement but rather a state mandate. In 1990 the legislature passed a law known as the Waste Reduction, Recycling and Planning Act, which sets policy for waste management. The policy of the State is that waste reduction, recycling, and treatment options should be exhausted before disposal of the waste is considered. Landfill permit applicants must show that this is being done before a permit can be issued. The planning requirement is found in 18 AAC 60.205.

Article 3 sets standards for Municipal Solid Waste Landfills (MSWLFs).

1.General Standards

Class I landfills will be required to comply with all of the federal criteria as modified by State flexibility.

The Class II category generally consists of landfills serving communities of approximately 10,000 people or less. These landfills do not necessarily need liners but will normally have to monitor ground water.

The Class III category includes landfills in small (less than 1,000 people), villages that have a primarily subsistence economy.

To qualify as a Class III facility, the landfill must accept no greater than 3 tons per day (based on an Alaskan average of 6 lbs/person/day; this equates to a community of approximately 1,000 people or less). Small villages that take more than 50% of their waste from industrial or government operations will not qualify as Class III.

Alaska proposes a Class III category of landfills that, beyond providing an exemption from the design requirements available to Class II landfills, would allow for a much more flexible set of operating standards. A Class III community would have to agree to sign a permit under the condition that, within a period of ten years from the date of permit signature, or within 15 years of the effective date of the State regulations, whichever is sooner, the landfill must comply with the full set of standards required for a Class II facility. Alaska would prefer to adopt permanent Class III standards. The Federal EPA may not have the statutory authority, however, to approve our solid waste program if the regulations allow permanent Class III landfills. Alaska is working to modify the RCRA law to allow more State flexibility in regulating Class III landfills.

Many rural community landfills currently do not have a permit. While a permit will help legitimize a landfill by allowing it to operate legally, it also will encourage resolution of land ownership issues in many of these communities. Many Class III communities will be reluctant, however, to agree to a permit that requires them to follow landfill operating requirements that are well beyond their economic capabilities, leaving them with no option other than illegal open dumping. DEC issued a Field Directive on November 30, 1990 that allows villages with overwhelming solid waste problems to make incremental improvements under a solid waste management plan without the threat of enforcement.

The next few pages provide a detailed explanation of the municipal solid waste regulations.

a. Airport Safety

Alaska's airport safety provisions are found in 18 AAC 60.305. Municipal landfills may not be located near airport runways unless the landfill owner or operator can show that aircraft will not strike birds attracted to the waste.

b. Floodplains

Alaska will adopt the federal language regarding MSWLF restrictions in floodplains. These restrictions may be found in 18 AAC 60.310. Alaska has had similar restrictions in place since 1983; however, no demonstrations were required of permittees. The new requirements will include the provision for a demonstration that will be done in conjunction with permit issuance.

c. Wetlands

The new regulations adopt the federal language regarding MSWLF restrictions in wetlands to allow the siting of landfills in these locations. These regulations may be found in 18 AAC 60.315 They include a provision for consideration of applicable state wetland laws regarding no net loss of wetlands. The State has added a statement to the federal no net loss language as follows. "The level of mitigation determined to be appropriate and practicable under section 230.10(d) may lead to individual permit decisions which do not fully meet this goal because the mitigation measures necessary to meet this goal are not feasible, not practicable or would accomplish only inconsequential reductions in impacts."

d. Fault Areas, Seismic Impact Zones, and Unstable Areas

Alaska has modified the federal requirements regarding siting an MSWLF in fault areas, seismic impact zones, and unstable areas. These regulations may be found in 18 AAC 60.320. In some areas of the state the fault lines and seismic impact zones are not well understood. Alaska will not require extensive geologic investigations as part of the permit process. Alaska proposes to approve landfill sites located more than 100 feet from faults identified on published maps. The State proposes that any demonstrations be done in conjunction with permit issuance. Alaska believes that the demonstrations will not be extensive for many Class II and III municipal landfills, where few structural components will be needed (e.g., no liner or leachate collection systems will be required at many of these landfills).

e. Closure of Existing Municipal Solid Waste Landfills

Alaska will adopt the federal closure requirement for owners or operators of landfills who cannot make successful demonstrations regarding airport safety, floodplains, or unstable areas. The landfills will be required to close. These requirements can be found in 18 AAC 60.325.

f. Wellhead and Aquifer Protection Program

In addition to the federal location restrictions, Alaska will require owners or operators of any Class of new, existing, or lateral expansion MSWLF to identify and locate existing and possible water supply wells that may potentially be impacted by the MSWLF and take appropriate steps to reduce the level of contamination to the recharge area of the supply well. At a minimum, the owner or operator will be required to ensure that leachate from the landfill does not cause a violation of the State's standards for drinking water quality, set out at 18 AAC 80.020(a) and at 18 AAC 80.050(a), in an aquifer that otherwise would be suitable for use as a drinking water supply. The wellhead and aquifer protection program requirements may be found in 18 AAC 60.020.

Operating Criteria

a. Procedures to Exclude Receipt of Hazardous Waste

As discussed in 18 AAC 60.050, Alaska will require owners or operators of Class I and II municipal landfills to begin an inspection program, or employ other methods (such as prearrangements with collection companies) to ensure that regulated hazardous waste and PCBs are not accepted at the facility. Owners or operators of Class III municipal landfills will be required only to post a sign at the

entrance of the MSWLF notifying users that disposal of regulated hazardous wastes and PCB waste is prohibited.

b. Cover Material Requirements

Alaska is adopting the federal criteria requiring a 6-inch soil cover over the waste at the end of each operating day for Class I and II landfills, including the flexibility to allow:

(1) alternative daily cover as long as it meets the performance standard of 258.21(b); and

(2) temporary waivers due to extreme climatic conditions.

Alaska will not require Class III landfills to cover at the end of each operating day. For most of the Class III communities, the requirement to place cover at the end of each operating day, even if the landfill were open only one day per week, would be difficult to meet. Many of these communities do not: (1) have readily available sources of earthen material for daily cover; (2) have the equipment to apply the material or alternative materials; and/or (3) have the revenue to pay for the labor to apply the daily cover, whether it is earthen material or an alternative material.

c. Explosive Gases Control

Alaska is requiring in 18 AAC 60.340 that owners or operators of Class I and II municipal landfills institute a gas monitoring program to ensure that methane gas concentrations do not exceed the levels in the federal criteria, and take corrective action where the levels are exceeded. The State is allowing owners or operators of Class I and II landfills to monitor less frequently than quarterly if they can show that a less frequent monitoring program would be as protective of human health. The State believes that these demonstrations would be achievable in locations where gas generation and migration would be minimal, such as in areas experiencing continuous permafrost.

Class III MSWLF landfills will be required to comply with the gas control requirements for Class I and II landfills only on an as needed basis to ensure protection of human health. Most of these small landfills have no onsite buildings and are located away from the village living areas so as not to present a potential for endangerment to human health.

d. Air Criteria

Alaska is prohibiting open burning at Class I and II MSWLF landfills, while allowing burning of solid waste at Class III landfills in compliance with the State Implementation Plan under 18 AAC 50.045. Open burning of solid waste at Class III landfills is one of the few methods of controlling scavenging by bears and other forms of wildlife.

e. Surface Water Requirements

The State will require that all landfills be managed to ensure that solid waste is not placed directly in surface water. Additionally, Alaska will require that Class I and II landfills, and to the extent practicable for Class III landfills, do not cause (1) a discharge to waters in violation of the States wastewater discharge requirements under 18 AAC 72, or (2) a discharge of nonpoint sources in violation of the State's nonpoint source pollution control strategy developed under Section 319 of the Clean Water Act and that violate the State's water quality standards set out in 18 AAC 70. Landfill permit applicants will be required to show proof that they have filed a "notice of intent" meeting the storm water discharge requirements of the Clean Water Act.

f. Liquid Restrictions

Alas[illegible] adopting the Federal liquid restriction requirements for all Classes of municipal landfills. Landfill operators may not recirculate leachate into the waste unless the landfill has a composite liner meeting the federal design standard (18 [illegible]C 60.350).

g. Wildlife and Domestic Animal Control

A major concern regarding landfill management in Alaska is the prevention of wildlife and domestic animal access to garbage. Bears, eagles, dogs, fox, and other animals are often attracted to putrescible waste at the landfill, presenting an unhealthy diet for the animals and a danger to users of the facility. Alaska is therefore adopting 18 AAC 60.040(a), requiring owners or operators or Class I and II municipal landfills to operate in a way that prevents access by wildlife and domestic animals to the putrescible waste. Class III landfills will be required to minimize, to the extent practicable, access by these animals.

m. Recordkeeping Requirements

Alaska is requiring that all Classes of MSWLFs maintain the following information, as required, in an operating record:

- o location restriction demonstrations;
- o inspection records, training procedures, and notification procedures;
- o demonstrations for reduction in frequency of gas monitoring, results from monitoring, and remediation plans;
- o ground-water and surface water monitoring demonstrations, certifications, findings, testing, and analytical data;
- o closure and post-closure plans and associated monitoring, testing, and analytical data; and
- o cost estimates and financial assurance documentation.

The State is reserving the right to maintain the aforementioned information for the owner or operator. The State is not requiring the owner or operating to notify the State each time an item has been placed in the operating record; however, the State does reserve the right to request information in the operating record be made available for inspection.

Design Criteria

The State is requiring that the design criteria in 18 AAC 60.360. apply only to new and lateral expansion of Class I municipal landfills. Because Class II and III landfills meet the federal small landfill exemption, these two Classes of landfills will not be required to install a liner system. The State will require a liner in Class II or III landfills if: (1) ground-water contamination resulting from the landfill is discovered, or (2) the State believes that a liner is necessary for protection of human health or the environment. In terms of the liner design requirements, the State will adopt both the design standard and the performance standard as specified in the Federal criteria.

Closure and Post-Closure Standards

The State will require that an owner or operator of any Class of MSWLF close according to the federal criteria:

- o the cover must have a permeability no greater than 10^{-5} cm/sec;
- o at least 18 inches of earthen material; and
- o at least 6 inches of soil to support native growth.

If a landfill has a clay or flexible membrane liner then the final cover design must also include a clay or flexible membrane layer. The State reserves the flexibility to approve

an alternative cover system that meets the objective of the Federal criteria. This will be useful in areas where earthen material for compaction to 10^{-5} is not readily available or in permafrost situations where a "freezeback" design may not be accommodated by the Federal cover design.

The State is requiring that all Classes of MSWLF undergo post-closure care for a 30 year period, unless the State, in its discretion, determines that a shorter or longer period is appropriate. The post-closure care activities are the same as the Federal activities. The State is requiring written post-closure plans from owners or operators of Class I and II landfills.

Financial Assurance Criteria

The State will require financial assurance for closure, post-closure, and known corrective action for owners and operators of Class I and II landfills, except those owners or operators who are Federal or State government entities whose debts and liabilities are those of the United States or of Alaska. The State is requiring that Class I landfills have financial assurance in place by April 9, 1995, while Class II landfills will be given an additional 9 years to demonstrate compliance (i.e., April 9, 2004). The State believes that this additional time is necessary to allow these communities to secure financial assurance. Owners and operators of Class III landfills will not be required to comply with the financial assurance requirements; however, because Class III landfills will be required to comply with Class II requirements within 10 years of signing their permit, the timeframe for Class III owners/operators to secure a financial instrument is, de facto, the same as for Class II owners/operators. The State's financial instruments are the same as the Federal instruments. The state intends to adopt a financial test for local governments and corporations when the rule concerning this new test is published by the EPA. The State is reserving the flexibility to allow an alternative instrument as long as it meets the criteria in 258.74(!).

Article 4 Monofills

Monofills are landfills that are used for disposal of primarily a single type of waste. This article is made up of some regulations from DEC's existing 1987 regulations, and some new standards. The wastes covered under article 4 are not municipal solid waste or hazardous wastes as defined by the federal government. Wastes covered include

1. Drilling wastes (from the oil industry)
2. Wood wastes (from the timber industry)
3. Asbestos
4. Inert wastes (such as broken pavements, construction debris, coal boiler ash, etc.)
5. Sewage solids and septic tank pumpings

The first two sections apply to all monofills. Monofills must be located on stable ground, where they are safe from floods. They must be operated to keep noise, litter, and other nuisance factors under control.

The oil industry drilling waste regulations have the following changes:

-- Set a deadline for the close out of inactive waste sites.
-- Set a more flexible compliance point for surface water monitoring.
-- Expand temporary storage requirements.
-- Prohibit less than 2 ft of freeboard in reserve pits.
-- Adopt ground water monitoring methods from the municipal waste regulations.
-- Prohibit the construction of new barrier berm containment structures.

A new section on wood waste disposal is proposed in 18 AAC 60.425. The wood waste rules are intended to help control water pollution and combustion in wood piles used by the timber industry. A layer of non-combustible material will separate 10 ft layers of wood chip monofills more than 20 feet high. Operators of wood chip monofills more than 20 feet high will be required to monitor the temperature of the waste to detect combustion before fires break out. Large wood waste landfills that might threaten drinking water aquifers will be required to collect leachate, and monitor for ground water contamination.

The asbestos disposal regulations have been updated to reflect changes in the federal regulations. Manifests are now required for waste asbestos shipments. Asbestos landfill operators will be required to inspect incoming loads, sign manifests, and keep records for each shipment. The new regulations have also been relaxed to allow non-friable asbestos disposal in any permitted landfill. The DEC asbestos disposal field directive (2350) will be canceled when the new regulations take effect.

A new regulation is proposed for Inert Waste in 18 AAC 60.435. Inert waste is defined at the end of this summary. The regulation calls for the installation of a ground water monitoring system at inert waste landfills located in areas with good ground water. Liners are not required.

The EPA recently published regulations for the disposal of sewage sludge. The federal regulations (40 CFR Part 503) cover the agricultural landspreading, landfilling, and incineration of sludge. In article 5 of the draft regulations, starting on page 56, DEC proposes to regulate agricultural landspreading of sludges (we call them biosolids) according to the minimum federal standards. The landfilling of wastes like waste water lagoon dredge, and septic tank pumpings has been added to article 4 in 18 AAC 60.440. DEC does not plan to adopt the federal standards for sludge incineration at this time.