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United States
Environmental Protection
Agency

Region 10
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Office of the Regional Administrator

EPA

Environmental Programs in Alaska

An EPA Report
1986

Introduction

Environmental issues continue to be objects of keen interest to both the U.S. Environmental Protection Agency and the government and citizens of the State of Alaska. The federal policy toward state assumption of primary responsibility for environmental programs continues to be implemented. Thus far, five of the eight programs for which delegation is possible have been partially or fully delegated. EPA continues to exercise oversight for these programs and retains primary responsibility for programs not delegated. EPA grants and technical assistance remain available for all programs.

This report discusses from an EPA perspective the major environmental issues in Alaska today. The status of the federal-state partnership is emphasized. Following the description of important issues, EPA's grants to the state are listed.

This report is a "snapshot" of issues that constantly change, sometimes overnight. For anyone wishing additional information or current developments on any of these subjects, the following roster of senior EPA staff in EPA Region 10 should be consulted.

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Water Programs

Drinking Water

The Safe Drinking Water Act provides quality standards designed to ensure that people are drinking healthful water. Drinking water is required to be sampled and analyzed by an approved laboratory. Such laboratory facilities are unavailable throughout much of rural Alaska. Commercial air service is inadequate to bring samples to a laboratory within the 48-hour period required by EPA regulations and sound scientific practice. No meaningful oversight of drinking water systems is possible without sampling and reporting. Therefore, the protection against waterborne illness is flawed. Fortunately, most of Alaska's population is not affected by this problem. Indeed, the existence of mainly small, decentralized water systems minimizes the population at risk in the event of an outbreak of waterborne disease.

Alaska's water systems face another potential difficulty in the near future. Amendments to the Safe Drinking Water Act passed this year by Congress will result in more stringent water quality criteria to be promulgated by EPA in 1987. Compliance with these criteria will likely require filtration for all surface water supplies, which will lead to a significant expenditure for many community water systems. Laboratory testing requirements for all systems will also be more extensive. No federal grant funding has historically been available for capital improvements to water supply systems.

Responsibility for the drinking water program has been delegated to Alaska. There has been an increase in the state's enforcement activity and compliance results in the past year. Issues which remain to be resolved in the future include federal enforcement overfiling in instances when state action is not timely and appropriate, and EPA's definition of significant noncompliers, which are those systems requiring the most immediate enforcement attention.

Placer Mining

Placer miners are required to operate under a National Pollutant Discharge Elimination System (NPDES) permit, issued by EPA. As of July, 1986 there were 572 permits for placer mining in Alaska. The permits establish effluent limitations, monitoring requirements, and management practices. The principal mining pollutants are settleable solids, turbidity, and arsenic. Miners are required to monitor these pollutants and submit discharge monitoring reports at the close of the mining season.

EPA inspections and the miners' own monitoring reports, or their failure to file reports, reveal a widespread pattern of non-compliance. EPA's enforcement effort has increased in order to achieve greater compliance. These data reflect the intensification of the enforcement drive:

1984	1985	1986
51 inspections (36 sampled)	52 inspections (46 sampled)	96 inspections (18 sampled)
3 referrals	13 referrals	
2 compliance orders	33 compliance orders	
66 consent orders	2 consent orders	
264 warning letters to nonreporters	77 warning letters/requests for information	
	378 warning letters to nonreporters	

The enforcement emphasis has led to improved compliance by many miners. They are upgrading their operations with better treatment systems and reduced wastewater discharge.

Surface Mining

U.S. Borax proposes to operate an open-pit molybdenum mine within the Misty Fjords National Monument in southeast Alaska. The firm has applied for a NPDES permit for the disposal of 80,000 tons per day of mill tailings (waste ore). Land impoundments have been ruled out as a feasible alternative due to their enormous size and the difficulty in controlling leachate in a rainy climate. The remaining alternatives are: disposal in the Boca de Quadra Fjord, or in Wilson Arm/Smeaton Bay, another nearby fjord. The Boca de Quadra offers a deeper and larger disposal site, with consequently less potential for affecting marine life. However, disposal in the Boca de Quadra will also require construction of a tunnel which will raise capital costs $59 million, or 8%.

The decision-making sequence will involve publication of an EIS with a preferred alternative. This is a joint product of the USFS and EPA. After the EIS is published, the EPA Regional Administrator will issue an ocean discharge permit based on the agencies' preferred alternative.

Wetlands

Section 404 of the Clean Water Act gives EPA joint authority with the U.S. Army Corps of Engineers over aquatic resources known as wetlands. Wetlands are considered by EPA as special aquatic sites because they provide fish and wildlife habitat, flood control, and natural water pollution treatment. Wetlands often are considered promising areas for development. Controversy may result when land development proposals compete with preservation in wetland areas.

EPA and the Corps of Engineers are jointly involved in an undertaking which holds great promise for the disposition of wetlands issues. Advanced Identification Planning is a process whereby the Corps of Engineers and EPA provide a non-binding plan to identify where dredge spoils should or should not be dumped. This process has already taken concrete form in the Juneau Wetlands Interagency Task Force. Formed at the behest of the City and Borough of Juneau, the Task Force includes approximately a dozen state, federal, and local agencies. The group's deliberations are designed to produce an effective planning tool for wetlands management in the Juneau area.

A similar effort with respect to the Colville Delta on the North Slope is just beginning. If successful, it may serve as a prototype for the management of the extensive wetlands on the North Slope.

EPA is working to improve relations with the Alaska Department of Transportation. In order to expedite permit issuance for road building activities, both agencies are encouraging pre-application processing of §404 permits so that priorities and standards are identified in advance, and surprises and last minute changes in permit conditions are minimized. This Abbreviated Permit Process (APP) already has proven successful in the issuance of oil and gas exploration permits.

NPDES Delegation

The Alaska Department of Environmental Conservation (ADEC) recently began to consider requesting delegation of the NPDES program. Under present law the entire program, including placer mining, oil and gas, seafood processing, and pulp mills, must be delegated as a package. The Clean Water Act, as re-authorized, would permit partial delegation of EPA programs to the state.

The assumption of primacy would have substantial resource implications for Alaska. The state now employs one person in each of three regional offices to handle permit certification. (Certification means approval by ADEC that a permit will satisfy state water quality and coastal zone management standards.) In addition, the Department also reviews EPA draft permits and provides the Agency with comments. Delegation will require a significant increase in state funding for environmental programs.

Air and Toxics Programs

Air Toxics

Nationally, EPA has identified air toxics as a top priority. Efforts are underway to assess the severity of this problem in Alaska. Region 10 has funded a private contractor to conduct an air toxics inventory, which will analyze everything from household wood stoves to small and large industry. ADEC is participating in an advisory role, assisting the contractor in file searches and information gathering. The Department is also requiring applicants for Prevention of Significant Deterioration (PSD) permits to submit air toxics information. The state has agreed to develop an air toxics program commensurate with the results of the inventory.

In a further instance of federal-state cooperation, EPA has fully funded one additional air quality manager position in the Southeast Regional Office of ADEC. The state in return has agreed to match this grant with an air toxics staff position.

Other obstacles to full compliance with clean air standards are particulate emissions from wood stoves and carbon monoxide levels in Anchorage and Fairbanks. Both problems involve fundamental issues of interference with individual lifestyles. A more stringent federal regulation for particulates will take effect in 1987. While the Anchorage and Fairbanks inspection and maintenance programs are among the best-managed in the country, additional measures will likely be needed to meet national air quality standards. Alternative means of transportation, highway planning, improved woodstoves, and alternate home heating methods also may have to be considered.

Asbestos

Asbestos contamination is a matter of great public concern. With over 100 asbestos renovation or demolition projects in Alaska per year, the problem is significant. EPA is prepared to delegate this program to the state, but ADEC has expressed interest only in the disposal portion of the program, which involves notification to contractors. One possible alternative is to delegate demolition and renovation to the Alaska Department of Labor, which already certifies contractors. Continued dialogue between federal and state officials will be required to resolve this issue.

Pesticides

ADEC has primary responsibility for the pesticide program in Alaska. Until FY87 the state has only accepted a minimal federal grant (approximately $15,000 per year) for certification of pesticide applicators. This year the state has been awarded an enforcement and compliance grant of $70,000. This is a consequence of an EPA pesticide profile that showed higher than anticipated pesticide use in Alaska - 5 pounds per person annually. Alaska's unique situation with respect to pesticides mandates careful attention: the lack of experience with pesticides increases the likelihood of misuse, the rapid increase in land under cultivation, the possibility of import violations due to mail orders and the difficulty of controlling import entry points.

Through the use of federal funds the state is increasing its pesticides enforcement capability. With the assistance of an EPA employee detailed to the state, ADEC is working on a program overhaul which will include proposals for statutory and administrative regulation revisions.

Hazardous Waste Programs

RCRA (Resource Conservation and Recovery Act) Authorization

RCRA "authorization" (the term of art for delegation in this program) has not yet been made to the state. A Cooperative Agreement and a grant for $264,800 are in place to deal with matters of hazardous waste disposal. Four ADEC staffers have been credentialed as EPA RCRA inspectors. The benefits to the state have been substantial: last year there were 40 state/federal inspections, whereas EPA alone could have accomplished only about 15. This year approximately 60 state/federal inspections are planned, a marked increase over what EPA could accomplish alone.

ADEC's credentialed staffers do more than conduct inspections. They prepare all the documentation, including recommendations to EPA, on potential compliance/enforcement cases. The state is also preparing its own program including regulations, permit and enforcement strategies, and a penalty matrix. Although recent amendments to RCRA will delay full state authorization for several years, the spirit of cooperation and the expertise being developed under the Cooperative Agreement are indicators of a strong future program.

In another promising development, the state is conducting a siting study to overcome Alaska's lack of a hazardous waste disposal site or off-site storage facility.

The state has taken an increasingly active role in EPA's issuance of RCRA Part B permits for approved hazardous waste facilities. ADEC is also assisting EPA in investigating the number of waste releases at the Prudhoe Bay Arco facility.

Superfund

Another joint federal-state activity is the Multi-State Cooperative Agreement (MSCA), the purpose of which is to investigate old hazardous waste sites. This assessement is designed to add or eliminate sites from the Superfund National Priority List -- those sites which qualify for a federal cleanup effort. The MSCA has eliminated 3 Alaskan sites from NPL consideration after about 50 inspections; 1 site may yet qualify for the NPL.

The passage of HB 470, establishing a state Hazardous Waste Response Fund, has provided a legal foundation for the state's involvement in hazardous waste issues. ADEC can now respond to emergency releases and investigate old dump sites. The surprising number (roughly 150) of CERCLIS (potential NPL) sites in Alaska includes sites being examined by the military under separate legal authority. Another reality is that we are adding sites to CERCLIS faster than they are being eliminated.

EPA Grants to the State of Alaska

SFY 87

(Grants are to ADEC unless otherwise noted. Amounts shown are approximate.)

Air Programs

Grant: $492,100
State of Alaska matches approximately the same amount.
$97,000 (direct grant to City of Anchorage; matched by
$238,000 from the City)

Drinking Water

Grant: $576,950
State Match: $192,317

RCRA

Grant: $264,800
State Match: $100,000

Alaska Health Project

Grant: $27,000
State Match: $2,700

UST

Grant: $160,000
State Match: $25,000

Water Pollution Control

Grant: $200,800
State Match: $104,300

CERCLA Site Investigation

Grant: $500,000

Pesticides (applicator training and certification)

Grant: $15,000
State Match: $15,000

Pesticides (enforcement)

Grant: $75,000
State Match: $13,200

Sewage Treatment Facility Construction

Grant: $10,824,000

Construction Management Assistance Grant (Clean Water Act § 205(g))

Grant: $457,358

Water Quality Management Planning (Clean Water Act § 205 (j))

Grant: $162,000

Groundwater Pollution Control

Grant: $160,000

A Glossary of EPA Programs in Alaska

Water Programs

- Water Pollution Control

The federal Clean Water Act provides for the regulation of water pollution through the issuance of NPDES permits, which control the level of pollutants that can be released into waters of the United States. In Alaska, the major permittees include pulp mills, placer miners, log transfer facilities, seafood processors, municipal sewage treatment facilities, and oil and gas operations. EPA conducts inspections of these industries to monitor compliance. In the event of non-compliance, administrative remedies, which often include compliance schedules, are available. In the event of a substantial violation, referral to civil or criminal litigation is also a possibility.

The principal EPA grant program, in terms of dollars, is for construction of treatment facilities to enable municipalities to meet secondary sewage treatment standards. Some funding is also provided for operation of the state's water quality management program.

- 404 Program

Section 404 of the Clean Water Act requires that discharges of dredge and fill material into waters of the United States, including wetlands, be authorized by the U.S. Army Corps of Engineers. The Corps' permitting program incorporates regulations promulgated by EPA. Furthermore, the EPA provides the Corps of Engineers with comments and recommendations on specific permit matters. The EPA may initiate an enforcement action to seek compliance in cases of unauthorized discharge of fill material. The EPA also may join with the Corps of Engineers, for purposes of advance planning, to identify areas generally suitable or unsuitable for the discharge of fill material.

- Drinking Water

The Safe Drinking Water Act (SDWA) provides for the monitoring of public drinking water supplies. Water must be sampled for such pollutants as turbidity and bacterial contamination and the samples must be analyzed by certified laboratories. Water systems must report their sample results. If they fail to report or if sampling reveals non-compliance with mandated standards of cleanliness, then a spectrum of administrative remedies, ranging from drinking water advisories and boil water notices to litigation for failure to comply, are available. Amendments to the SDWA passed in 1986 will impose stricter standards for surface water supplies, which may require filtration. New contaminants, including organic and inorganic chemicals, also must be sampled.

Air and Toxics Programs

- Air

The air program consists of monitoring of ambient air (which is concerned with the quality of the air we breathe regardless of source) and of point sources, such as large industrial facilities. The program features motor vehicle inspection and monitoring (I/M) stations in Anchorage and Fairbanks (due to the air quality problems associated with autos and cold winters) and air quality permits for larger individual sources.

- Pesticides

The pesticides program is concerned with misuse of pesticides (misapplication, illegally high concentrations), mislabeling, certification of applicators of restricted use pesticides (the most toxic ones), and import of pesticides that fail to conform to federal criteria for labeling and use. Marketplace inspections are the most common means of discovering violators.

- Toxics

Asbestos and PCBs (polychlorinated biphenyls) are the primary toxics of concern. The asbestos program focuses on demolition and renovation of buildings, with the attendant problem of asbestos waste disposal. The PCB program is aimed at one of our most toxic pollutants, which is most commonly found in electric utility equipment, such as transformers. The improper disposal of PCBs in the past has contributed to some of our worst Superfund problems.

Hazardous Waste Programs

- CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) -- "Superfund"

This program is designed to identify and investigate hazardous waste disposal sites which are threats to public health or the environment. The most serious sites are included on the National Priority List (NPL) where they become eligible for federal cleanup financing (the so-called Superfund) with the additional potential for cost recovery from the parties responsible for the waste dump.

- RCRA

The Resource Conservation and Recovery Act is designed to avoid creation of future Superfund sites by regulating wastes from creation to disposal ("cradle to grave"). EPA licenses disposal sites to handle hazardous wastes only if they can demonstrate adequate technology, appropriate management practices, and financial resources to minimize the chance that they will become an environmental hazard.

- Spill Response

EPA provides emergency response capability in the event of a spill or release requiring urgent measures. Several oil spills and a formaldehyde release at Moose Pass have brought EPA staffers out for emergency spill response, often in conjunction with state officials.

- UST

The UST program (Underground Storage Tanks) is designed to combat the unseen leakage of substances, usually oil and gas, from their underground repositories. A 1984 law requires these tanks to be manufactured and installed so as to minimize corrosion, and provides for monitoring of the tanks in case of leakage after installation.