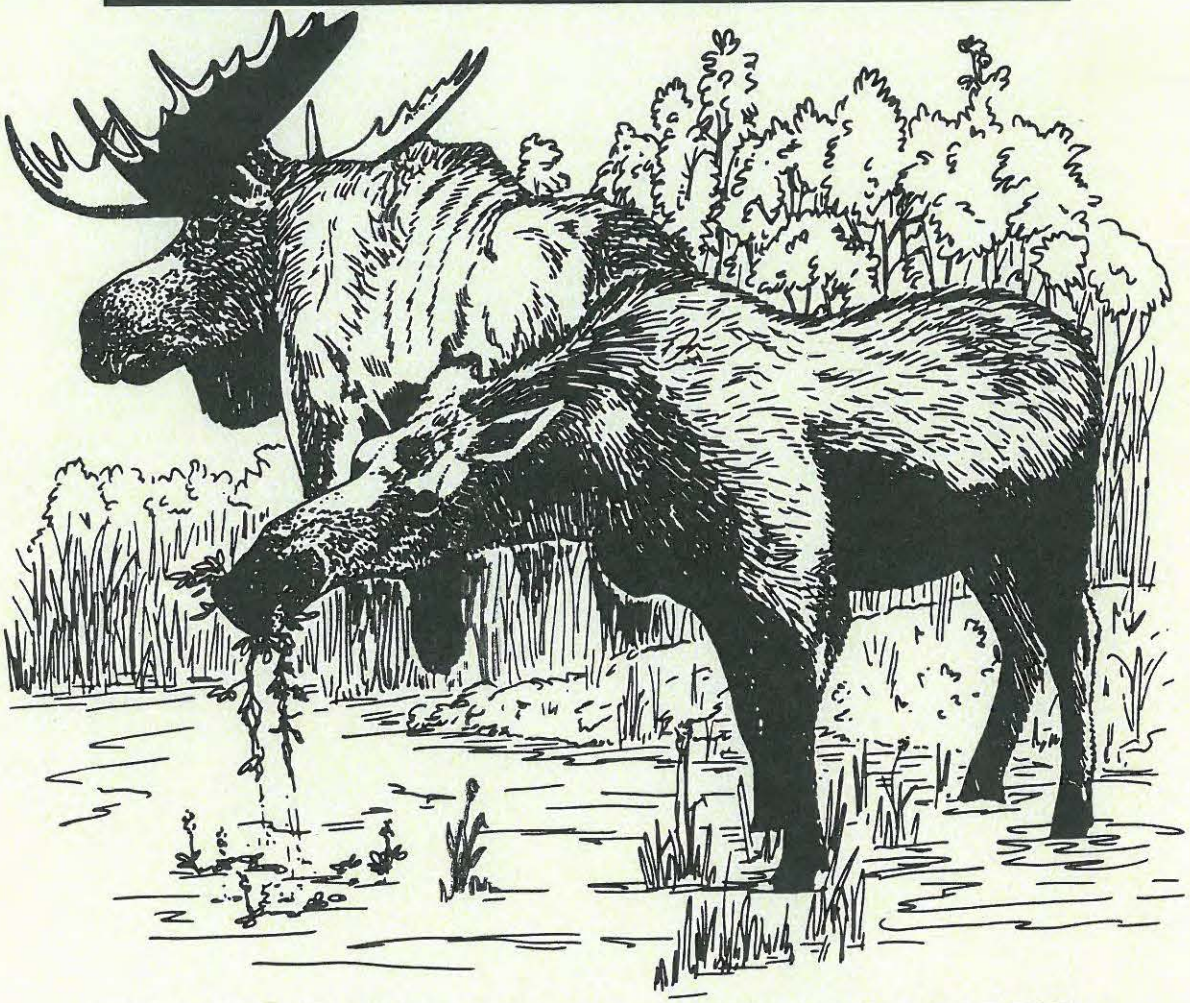
ANCHORAGE WETLAND TRENDS STUDY

(1950 TO 1990)



U.S. FISH AND WILDLIFE SERVICE, ANCHORAGE FIELD OFFICE

1993

ANCHORAGE WETLANDS TREND STUDY
(1950 TO 1990)

U.S. FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES, ANCHORAGE
605 W.4TH AVE.
ANCHORAGE, ALASKA 99501

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EXECUTIVE SUMMARY

Anchorage is the largest city in Alaska and contains over half the state's population. It is bounded by Cook Inlet and the Chugach Mountains. Anchorage wetlands provide habitat for a diversity of fish and wildlife resources.

In 1982 the Municipality of Anchorage produced the Anchorage Wetlands Management Plan (Wetlands Plan) to balance development and conservation of wetlands. To facilitate development, in 1983 the Wetlands Plan and the Corps of Engineers (Corps) Section 404 regulatory process were combined for use in the Municipality. Corps General Permits 83-1M & 2M were issued to allow the Municipality to issue permits for fill in wetlands designated suitable for development under the Wetlands Plan.

The Wetlands Plan and Corps general permits are due for revision and reauthorization in 1993. Consequently, the U.S. Fish and Wildlife Service Ecological Services Anchorage Field Office undertook the Anchorage Wetlands Trend Study. The study involved three parts: 1) review of Corps of Engineers and Municipality of Anchorage permits issued between 1950 and September 1990; 2) literature review and personal interviews; and 3) interpretation of aerial photographs from 1950, 1976, 1982, and 1990.

From 1983, the year the Wetlands Plan and the General Permits 83-1M & 2M became effective, to September 1990 approximately 1106.4 acres of wetland fill was authorized under Individual Permits and 1036.7 acres was authorized under the General Permits. Aerial photography for the same time period indicates actual placement of only 965 acres of fill.

The aerial photography interpretation indicated a loss of approximately 9,958 acres of wetlands in the Anchorage Bowl between 1950 and 1990. The 1990 wetland acreage is 52.7 percent less than that present in 1950 (18,903).

Approximately 8,283 acres (80.4 percent) of the wetland fill occurred before the 1976 expansion of Corps jurisdiction beyond navigable waters. Approximately 974 wetland acres were filled between 1976 and 1982, and 965 between 1982 and 1990. Between 1982 and 1990, approximately 29.8 acres of Preservation wetlands, 220.0 acres of Conservation wetlands and 618.4 acres of Developable wetlands were filled.

The loss of wetlands within the Municipality increases the importance of the functions and values provided by the remaining wetlands.

INTRODUCTION

Anchorage is the largest city in Alaska and contains over half the state's population. Much of the easily utilized, but as yet undeveloped land within the city is wetlands. These wetlands provide habitat for a diversity of fish and wildlife habitat and have hydrological, educational and aesthetic values, as well (see Appendix 1 for a detailed discussion of functions and values of Anchorage wetlands). As Anchorage's population has increased, development pressure on the wetlands has increased. In 1982 the Municipality of Anchorage developed a Wetlands Management Plan (Wetlands Plan) to balance development and preservation of wetlands in Anchorage. The Wetlands Plan and the Corps of Engineers' Section 404 program were integrated in 1983 when the Corps issued two General Permits (GP's) that authorized placement of fill for residential, business and industrial development (83-1M) and for road construction (83-2M) in Anchorage wetlands designated as suitable for development.

PHYSICAL SETTING

Anchorage is a coastal city lying in a geographic formation often called the Anchorage Bowl. The Anchorage Bowl is bound on the west, northwest, and south by the Knik and Turnagain Arms of Cook Inlet, and on the east and northeast by the Chugach Mountains. The Bowl lies on a glacial plain that is generally less than 400 feet in elevation and has low topographic relief (Salvesen 1989). Approximately 9000 acres of Anchorage is wetlands, the majority of which are typical northern peatlands with deep peat deposits (Hogan and Tande 1982). Expansion of Anchorage to the north is restricted by Elmendorf Air Force Base, to the north and east by Fort Richardson, to the west by Knik Arm, to the south by Turnagain Arm, and to the east by the Chugach Mountains and Chugach State Park.

ANCHORAGE WETLANDS TREND STUDY

During the 1988 review of GP's 83-1M & 2M (see Appendix 2 for permit content), numerous questions were raised regarding their cumulative impacts on Anchorage wetlands and the lack of an adequate accounting process with which to assess such impacts. Consequently, the Anchorage Field Office initiated the Anchorage Wetlands Trend Study to document wetland losses.

Methods

The study involved three parts. First, Corps permits issued from 1950 to September 1990 were reviewed to assess trends in the regulatory process. Second, a literature review and personal interviews were utilized to assess development impacts on Anchorage wetlands. Third, aerial photography was examined to estimate the area of wetlands that were present in 1950, 1976, 1982, and 1990.

Permit Data Analysis

Corps permits issued within the Anchorage Bowl from 1950 to September 1990 were reviewed. This database included: number and types of nationwide permits (Appendix 3 includes regulations for this form of permit), number of permits issued under the authority of Section 10 of the Rivers and Harbors Act, and number of issued, withdrawn and denied individual permit applications pursuant to Section 404 of the Clean Water Act. More detailed information was gathered by reviewing copies of each of the individual permits and records of violation. Such information included the type of project, conditions or mitigation required, acres of wetlands filled for individual permits, and acres of wetlands filled resulting from unauthorized activities and the resolution of these activities.

The data for GP's 83-1M &2M were obtained from the Municipality of Anchorage by reviewing copies of the projects proposed and/or authorized. Each action authorized via GP was reviewed to record the project purpose, conditions and/or mitigation, and the acres of wetland filled.

There are limitations to the permit data. Copies of the individual permits, general permits, and violations were not all found and/or acreage was sometimes not given. Of the 313 individual fill permits issued from 1950 to September 1990, 34 files were not found. Of the 107 cases of violation of Section 404 of the Clean Water Act, 35 files were not found. Where the acreage for a permit was not stated, it was estimated from the project plans, if the plans were available.

The "acreage filled" category was assumed to be the acreage of habitat altered by the issued permit. For some of the actions it was not clear from the data whether the project was within the study boundaries. Therefore, some may have been counted that are not within the boundary or vice versa.

The nationwide permits, Section 10 of the River and Harbor Act permits and withdrawals/denials were not looked at individually; therefore, some data may be lacking. No data on the fill associated with nationwide permits and Section 10 of the River and Harbor Act was calculated. Additionally, the nationwide permit number of some of the issued nationwide permits was unknown and therefore not counted. Modifications of individual permits were counted as separate individual permit actions.

Wetlands Data Analysis

Aerial photography from 1950, 1976, 1982, and 1990 was interpreted by the Service's National Wetlands Inventory Office in St. Petersburg, Florida to quantify wetlands in the Anchorage Bowl. These specific years were evaluated because 1) the first aerial photography available was in 1950 (historic base), 2) the federal regulatory process for discharge of fill in wetlands was broadened in 1976, 3) the Wetlands Plan was issued in 1982, and 4) the most recent aerial photography was 1990.

The following aerial photography was used in the analysis:

Year	Type	Scale
1950	Black and White	1:40,000
1976	Black and White	1:12,000
	Black and White	1:63,000
1982	Color	1:12,000
	Color Infrared	1:60,000
1990	Color	1:12,000

The 1990's photography was interpreted stereoscopically and annotated in accordance with photointerpretation conventions developed by the National Wetlands Inventory (U.S. Fish and Wildlife 1990). Wetlands were classified using the Service's wetland classification system (Cowardin et al. 1979). The results of the interpretation were transferred to overlays on U.S. Geological Survey 1:25,000 scale topographic base maps using a zoom transfer scope. The 1990 wetlands maps were then compared to the 1982 imagery on a stereo zoom transfer scope in order to annotate changes that occurred over the eight-year period.

Wetland losses, gains and classification changes were documented. The products resulting from this process included separate wetland overlays for 1990 and 1982, and a change overlay showing where wetlands were lost and gained. The same technique was followed for documenting changes between 1976 and 1982, and between 1950 and 1976. The map products were digitized to develop wetland acreage statistics.

Results

Permit Data Analysis

Table 1 summarizes the information gathered during our review of Corps and Municipality permit files. (Appendix 4 provides detailed information.) The permit data revealed that from 1950 to September 1990, approximately 3148.8 acres of wetland fill was authorized in the Anchorage Bowl. This acreage includes authorizations under individual, after-the-fact, Section 10 (navigable waters) and general permits, and violations. From 1956 to September 1990, 313 individual permits were issued and account for 2069.3 acres of the wetland fill proposals. During that period, another 17 permits (5.4 percent) were denied and 70 (22.4 percent) were withdrawn. An additional 1036.7 acres of wetland fill was authorized by General Permits 83-1M & 2M.

Figure 1 illustrates the types and relative percent of permits processed in the Anchorage Bowl between 1950 and September 1990. Figure 2 depicts the number and fate of individual permits processed between 1958 and September 1990. Figures 3 and 4 illustrate the number of GP's and associated wetland fill authorized between 1983 and September 1990.

Table 1. Summary of wetland fill proposals for 1950 to September 1990 based on Corps of Engineers and Municipality of Anchorage permit files.

Permit Type	Period Covered by Review	Authorized Wetland Fill
Individual	1956 to Sept. 1990	2069.3 acres
Individual	1983 to Sept. 1990*	1106.4 acres
General 83-1M & 2M	1983 to Sept. 1990**	1036.7 acres
Violations	1977 to Sept. 1990	362.1 acres
All types***	1950 to Sept. 1990	3148.8 acres

* 1983 is the year the Anchorage Wetland Management Plan became effective

** 1983 is the year the General Permits were authorized

*** Includes Individual Permits, General Permits, Section 10 (navigable waters), and violations; the acreages are not additive due to overlap of permit types for some projects.

Table 2. Gains and losses for selected categories of wetlands within the Anchorage Bowl between 1950 and September 1990.

Wetland Type	Estimated Acreage by Year				
	1950	1976	1982	1990	% Change
Estuarine intertidal vegetated	781	1553	1551	1549	+98.3
Lacustrine	308	620	660	662	+114.9
Riverine	120	144	144	144	+20.8
Palustrine open water	205	215	232	253	+23.4
Palustrine emergent	1119	545	506	502	-55.1
Palustrine scrub-shrub needle-leaved evergreen	1710	654	609	521	-69.5
Palustrine scrub-shrub broad-leaved deciduous	4245	2141	1869	1611	-62.0
Palustrine scrub-shrub/ emergent	6741	3168	2686	2174	-67.7
Palustrine forested needle-leaved evergreen	1253	606	468	433	-65.4
Palustrine forested broad-leaved deciduous	519	282	271	219	-57.8
Palustrine forested needle-leaved evergreen/ scrub-shrub broad-leaved deciduous	1501	716	677	641	-57.3
Palustrine forested broad-leaved deciduous/ scrub-shrub	403	240	235	235	-41.7
Totals	18903	10884	9910	8945	-52.7

Figure 1. Types of Permits Issued
1950 to Sept. 1990

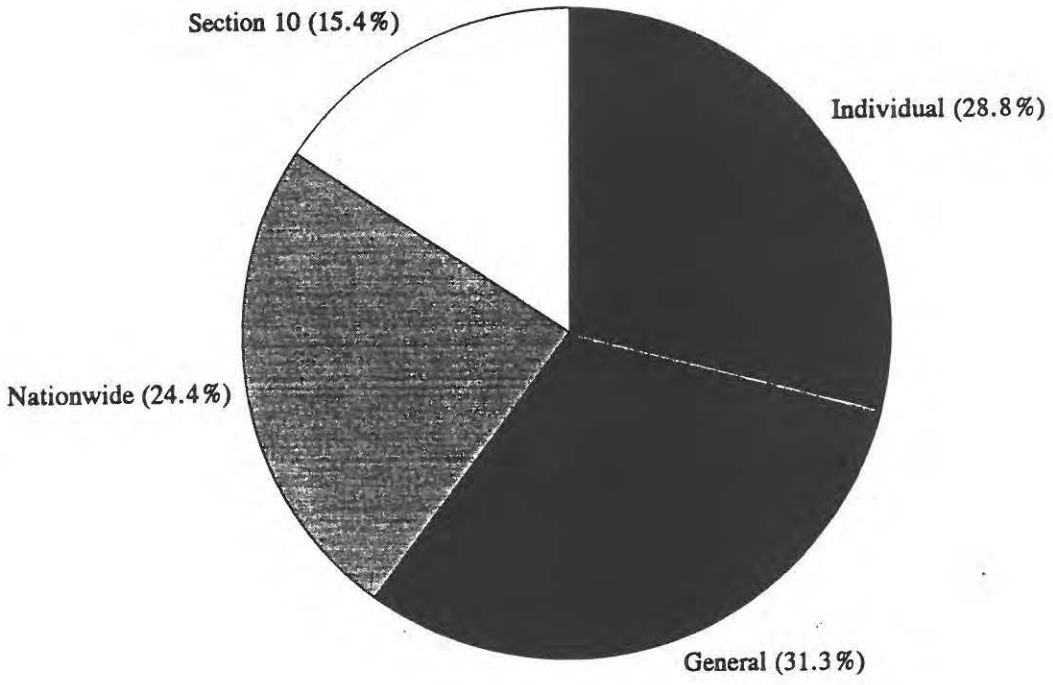


Figure 2. Individual Permits
Number & Fate, 1950 to Sept 1990

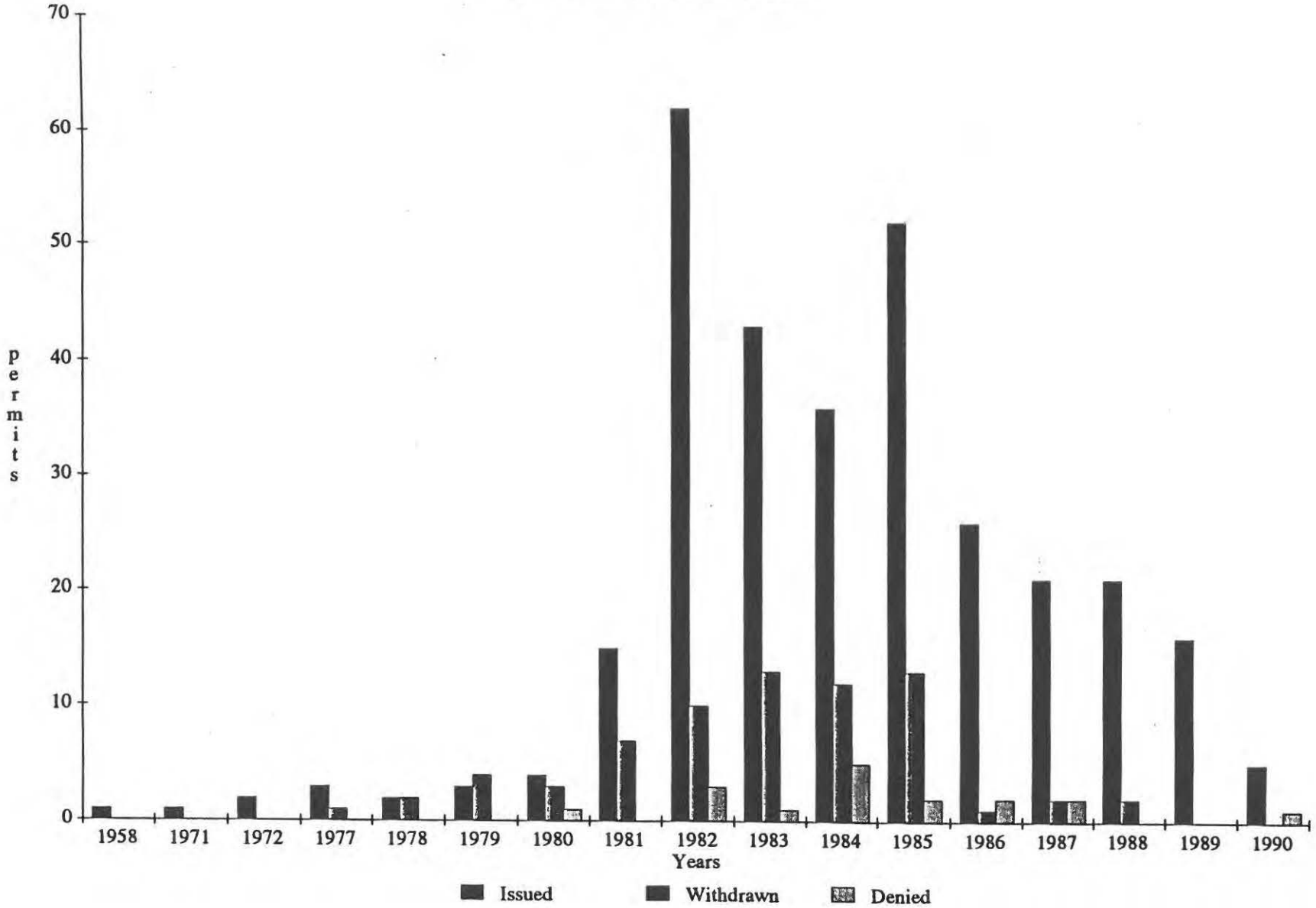


Figure 3. Number of General Permits
1983 to Sept 1990

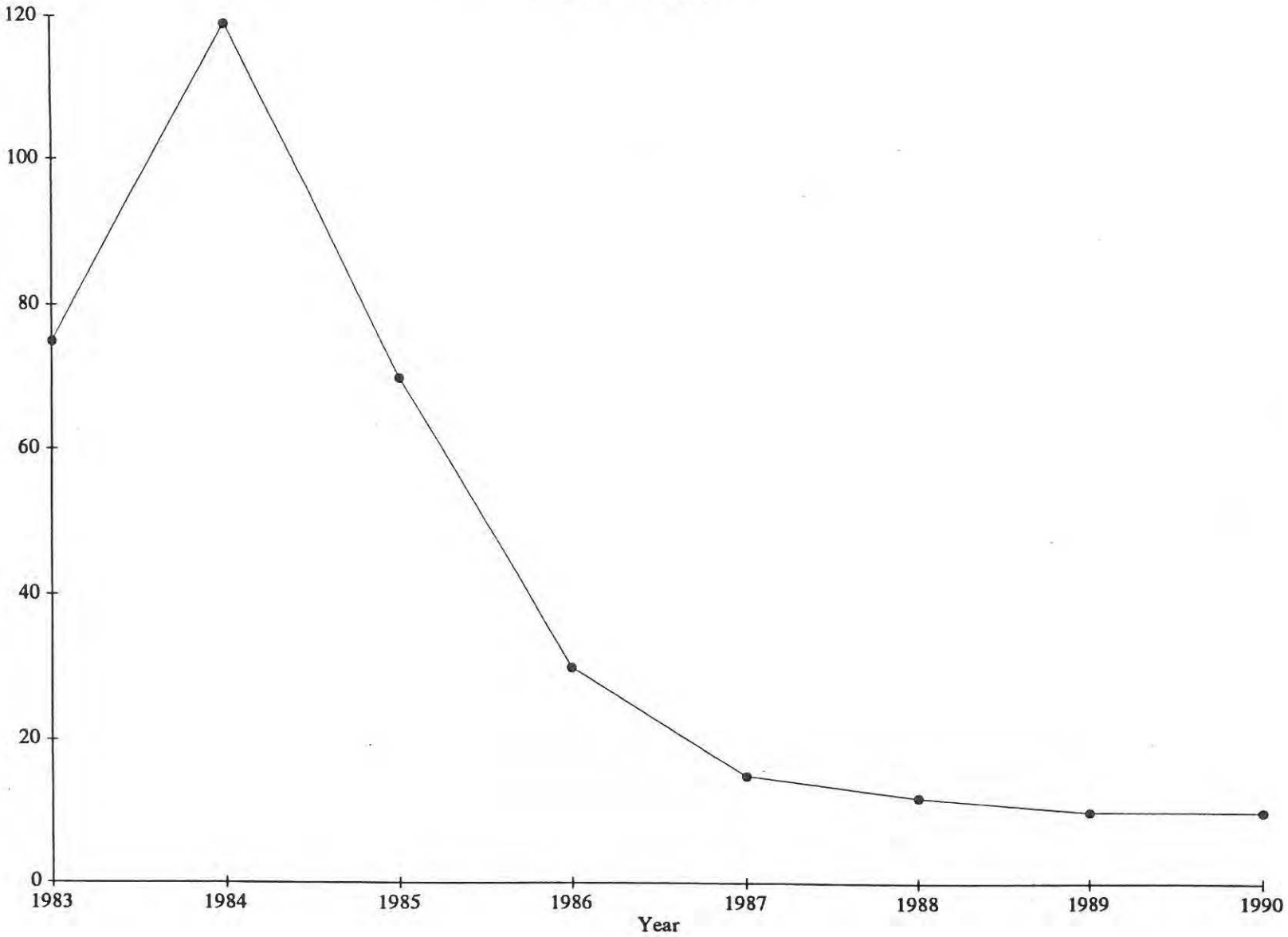
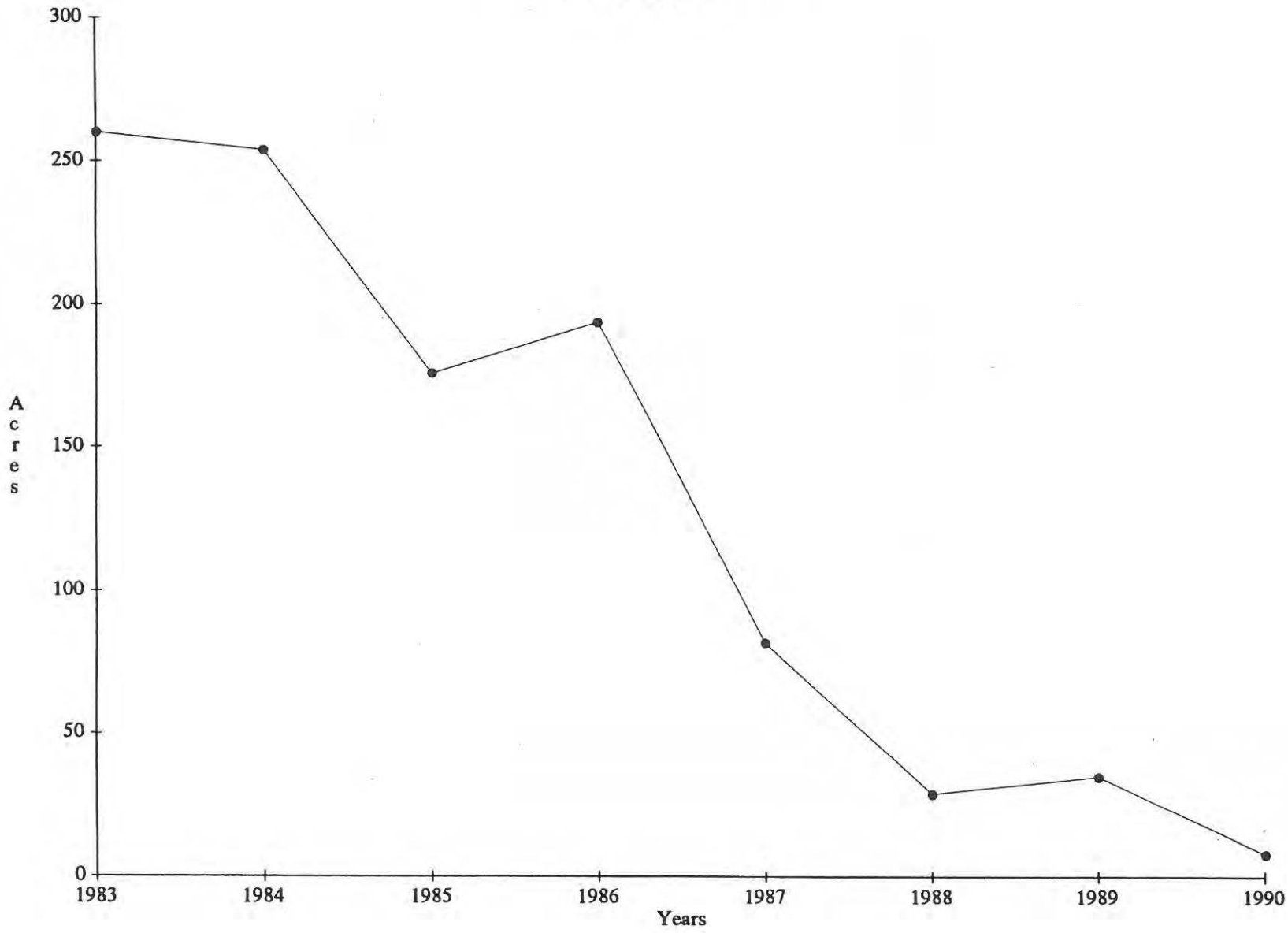


Figure 4. General Permit Fill
1983 to Sept 1990



Individual Permits

The Corps permit data revealed that limited monitoring occurred. Of the 313 Individual Permits issued during the study period, only 59 (19 percent) were checked for compliance. The other 81 percent were constructed with no checks to see if the projects and/or mitigation measures were completed according to plan.

A total of 2069.3 acres of fill was authorized by the 313 issued Individual Permits. Only 148 (47 percent) included special conditions for mitigation. The most commonly included mitigative conditions involved reducing project impacts by minimizing fill, limiting heavy equipment encroachment into the wetlands, working on frozen ground, and revegetation/reestablishment of disturbed areas. Only four of the projects included compensation for wetland loss. Of those projects, one was inadequately completed and a second was not constructed until the Anchorage Field Office reported it as a violation.

From 1977 to September 1990, 107 violations of the Clean Water Act, resulted in 362.1 acres of filled wetlands. The violations included non-compliance with issued permits and actions where no permits were involved. Twenty-six of the violations were resolved through issuance of "After-the-Fact" Individual Permits, 17 were resolved through restoration, 2 were "administratively" closed, and 10 were resolved through means not stated. The case files did not contain enough information to determine the resolution of the remaining 52 violations.

Our review of Corps files indicated data gaps regarding permit details. For example, permits did not always include the acreage or classification of wetlands filled (i.e., preservation, conservation, developable, special study as per the Wetlands Plan). Such information is an important part of assessing the impact of the Wetlands Plan. In addition, our review noted incomplete documentation of the evaluation of practicable alternatives as mandated by the 404(b)(1) Guidelines of the Clean Water Act and the Corps of Engineers Special Public Notice 86-1 dated January 7, 1986 (Appendix 4).

Only 17 permits were denied while 313 individual permits were issued between 1950 and September 1990. The permits were generally denied because practicable alternatives to the project were available that had a less damaging effect on the environment.

General Permits 83-1M and 83-2M

Review of the Corps and Municipality files regarding GP's 82-1M & 2M, revealed too little information to allow an accurate assessment of the cumulative impacts of these permits. For example, projects authorized under the GP's did not always include an estimate of the area of wetlands to be affected or a specific purpose. Additionally, neither the Corps or Municipality conducted follow-up inspections to assess whether the projects were constructed in compliance with the special conditions of the GP's. Without this basic information, it was not possible to determine whether wetlands were being developed and conserved as per the Wetlands Plan.

The project purposes authorized by the GP's were varied. Purposes included residential housing and associated construction, trail building, road building, utility construction, speculative filling, drainage, parking, recreation facility construction, and commercial, industrial, and government facilities construction.

Based on the records available, at least 1036.7 acres of wetland fill was authorized by 341 permits between 1983 and September 1990. However, few projects authorized under the GP's included mitigation to offset the impacts to wetland resources. Additionally, the Municipality files included no evaluation of practicable alternatives as required by the 404(b)(1) Guidelines of the Clean Water Act and the Corps of Engineers Special Public Notice 86-1 dated January 7, 1986.

Although violations of GP's 83-1M & 2M occurred, the extent or number of violations is unknown because there was no monitoring, enforcement, or detailed documentation. There was no information available at the Corps, and little at the Municipality on GP violations.

The review procedure for GP applications outside the Anchorage Coastal Boundary where "spillover" impacts to the coastal area could occur, as described in the Special Public Notice from the Corps of Engineers dated October 5, 1989 (Appendix 6), is not being followed to the extent mandated by the agreement between the State of Alaska and the Municipality of Anchorage. The Special Public Notice was not attached to each GP Public Notice and there was no formal review process for the execution of the mandated 5-day review process. There also was no mitigation for the high value wetlands listed in the Special Public Notice.

Anchorage Wetlands Management Plan

According to the Municipality's records from 1982 to 1990, 259.7 acres of Preservation wetlands, 316.4 acres of Conservation wetlands, and 1494.2 acres of Development wetlands were authorized for fill (Thede Tobish, Municipality of Anchorage, pers. comm., 1990).

General Losses and Impacts

There have been many changes in Anchorage wetlands as a result of urban expansion and population growth. Direct impacts include discharge of fill into wetlands for commercial, industrial, and residential development, marine facilities, roads and bridges, and peat mining. The impacts of filling wetlands in the Municipality include vegetation changes, lowered surface water levels, soil erosion, nutrient enrichment of lakes, and the loss of wetland and habitat diversity for many wetlands in the Anchorage Bowl (Tande 1988).

Though not well documented, the hydrology of Anchorage wetlands and waterways is changing. Bush (1974) noted that Chester Creek had been affected by growth and development in Anchorage. The creek had been altered in order to make the land near the creek more suitable for development. By 1974, more than 75 percent of Chester Creek below Muldoon Road had been channelized.

The hydrology of wetlands is also affected in other ways as development pressure increases. Wetlands are drained to provide upland construction sites and to prevent flooding of nearby housing divisions. Run-off and recharge areas are filled for roads and housing. The impact of these losses is lost capacity to retain flood waters and resupply the ground water table. Peak discharges are two to three times higher in the developed part of the Chester Creek basin than in the undeveloped part of the basin (Bush 1974). The filtering capabilities of Anchorage wetlands are reduced as more wetland areas are filled and/or drained. Brabets (1987) noted that during periods of rainfall and subsequent runoff, particulates from urbanized areas entered Chester Creek and cause an increase of constituents such as sediments and/or nutrients.

The vegetation of Anchorage's wetlands is being altered. According to Tande (1988), changes to Anchorage wetland vegetation include: 1) direct loss of total area and habitat diversity because of fill and urban expansion, and peat mining, 2) erosion caused by all-terrain vehicle and pedestrian use of vegetated shorelines, and 3) increased cover of aquatic vegetation because of ongoing nutrient enrichment of ponds and lakes from surrounding urban runoff and seepage. Peatland vegetation response to lowering water levels is gradual and was typically indiscernible in most of the wetlands Tande surveyed. Klatt Bog, however, has undergone changes related to drainage longer than most surveyed wetlands, and the effects of drainage are evident across the area. Drainage has promoted the growth of trees and shrubs at the expense of the more hydrophytic sedges, herbs, and mosses. Plant succession and wetland drying appears to be occurring at a more rapid pace than natural conditions would dictate (Berg 1988). Hogan and Tande (1983) noted that vegetation patterns around the perimeter of Strawberry Lake indicate the waterline has gradually receded. They felt the lower waterline was a result of the drainage ditches to the south.

As wetland habitats have been altered, populations and locations of Anchorage wildlife dependent on these areas have changed. Several of the obligate wetland bird species in Anchorage are in decline and include lesser yellowlegs, red-necked phalarope, Hudsonian godwit, solitary sandpiper, northern harrier, Canada geese, and Pacific and common loons (Tobish, pers. comm., 1991). Hemming (1966) observed unusually large numbers of Hudsonian godwits in the Anchorage area in the spring of 1964. During this time definite pairs were observed and display was frequent. During a survey by the Anchorage Field Office (Zapotocki 1991), only one Hudsonian godwit was documented exhibiting territorial behavior. Two species that were fairly common in 1971, the horned grebe and green-winged teal, declined in numbers as a probable result of habitat changes (Barnes and Trapp 1985).

Anchorage is one of the largest cities in North America with nesting loons (both common and Pacific), yet disturbance and loss of nesting habitat threaten their future (Tankersley 1989). Sand Lake, Jewel Lake, and Sundi Lake probably had nesting pairs, although none have been documented since the Alaska Loon Watch began in 1989 (Tankersley, pers. comm., 1990). Hogan and Tande (1983) documented a nesting pair of Pacific loons in Turnagain Bog, which has not been documented since the Alaska Loon Watch began in 1989. A survey conducted by this office (North 1991), recorded a loon nest not

previously documented on Jones Lake.

In 1988, Anchorage Field Office bird surveys noted that waterfowl species richness appeared stable, but waterfowl and waterbird densities had decreased overall since 1982 (Berg 1988). Additionally, bird-use trends had shifted from a high waterbird-passerine use ratio to a low waterbird-high passerine use ratio. It appears these bird-use changes are due in large part to bog-wide drying trends that have led to increased brushy habitats preferred by passerines and a decrease in hydrophytic sedges, herbs, and mosses preferred by waterbirds.

The altering of the wetlands in the Anchorage Bowl has had a profound effect on the Bowl's fisheries resources. These impacts include: 1) filling and draining of wetlands and loss of spawning and rearing habitat, 2) increased stream flows due to urbanization, increased runoff, channelization, and loss wetlands and their absorption quality, 3) increased pollution and sedimentation due to urbanization, increased runoff, and the loss of wetlands and their associated filtering capabilities, and 4) loss of riparian areas and their values such as cover and erosion control.

According to Roth (Pers. comm., 1990), historically Chester Creek supported most or all five species of salmon but is presently devoid of a salmon population due to urban development, pollution, and channelization. Prior to the 1940's, Ship Creek supported all five species of salmon. At present, it supports a resident Dolly Varden population and receives some natural spawning, in addition to the stocked king and coho salmon. Campbell Creek has seen a loss of rearing area, increased sedimentation, and channelization due to urban development which has lead to a decrease in the natural fish populations of the creek. The last documentation of anadromous fish in Fish Creek was a few juvenile coho salmon in 1987. Rabbit Creek and Little Survival Creek still support a natural population of salmon. These creeks have not been encroached upon as much by development and retain some of their natural, historical characteristics, including wetlands and water flows.

Wetland Data Analysis--Results of Photointerpretation

Aerial photography interpretation provided an accurate estimate of the wetlands filled in the Anchorage Bowl, whether authorized or not. Table 2 is a summary of that data. There was a loss of approximately 9,958 acres of wetlands in the Anchorage Bowl between 1950 and 1990. The total acreage is 52.7 percent less than the wetland acreage present in 1950 (18,903 acres).

Approximately 10,303 acres of wetland were filled but was partially offset by excavation of open water areas classified as wetlands. Lacustrine wetlands more than doubled between 1950 and 1990 due to lake excavation, primarily at the expense of vegetated wetlands. Interestingly, the acreage of vegetated estuarine intertidal wetlands also doubled between 1950 and 1976. The photointerpretation identified a change from palustrine emergent to estuarine emergent types that likely was a result of earthquake-induced subsidence (i.e., the earthquake of 1964). Approximately 137 acres of vegetated estuarine intertidal wetlands were filled between 1950 and 1990.

Approximately 8,283 acres (80.4 percent) of the wetland fill occurred before the 1976 expansion of the Corps jurisdiction beyond navigable waters. Approximately 974 wetland acres were filled between 1976 and 1982, and 965 wetland acres were filled between 1982 and 1990. Under the Wetlands Plan fill was placed in approximately 29.8 acres of Preservation wetlands, 220.0 acres of Conservation wetlands, and 618.4 acres of Developable wetlands.

Discussion

Permit records reflected an accelerated trend of permit issuance during the Anchorage building boom of the early 1980's and a decline through September 1990. Because most easily developed (i.e., flat) parts of Anchorage were wetland, as Anchorage increased in size, wetland losses occurred.

GP's were the most common form of authorization for wetland development. Under the broad purposes of road construction and residential, business, and industrial development, a diversity of projects were authorized with minimal review. This resulted in at least 1036.7 acres of wetland fill; a cumulative loss that is not minimal as is required under the definition of general permits provided in 33 CFR 322.2(f). Furthermore, many of the GP projects singly resulted in significant impacts. For example, GP-D-392, GP-A-391, and GP-S-404 each involved 30 to 60 acres of wetland fill. Additionally, the GP's were utilized to authorize piecemeal filling of subdivisions (e.g., GP-D-147, 224, 437, and 486 for one subdivision, and GP-K-230, 268, 317, 338 for another subdivision). By reviewing successive fill proposals individually rather than as a part of an overall project, the cumulative impacts of the fill were not addressed.

The general lack of mitigation for GP activities is in conflict with Condition 2(e) of the GP's and Chapter 9 of the Wetlands Plan. Indirect impacts to wetlands such as habitat fragmentation, polluted runoff, and drainage of wet areas were also not considered. In addition, impacts to unclassified wetlands were not addressed because these areas were not included in the Wetlands Plan. The continued loss of wetlands within the Municipality and the lack of mitigation to offset the impacts increases the importance of the functions and values provided by the remaining wetlands.

Between 1982 and 1990, more than twice as much wetland fill was authorized as was actually accomplished. Furthermore, the data for actual fill includes violations that were not authorized. Part of the discrepancy can be explained due to incomplete and/or inaccurate permit records. However, speculative planning and subsequent permitting likely accounts for the fill that did not occur despite authorization.

Summary

The Anchorage Bowl includes a wealth of wetlands that provide habitat for a diversity of fish and wildlife species, and have hydrological, educational and aesthetic values, as well. According to aerial photography, between 1950 and September 1990, 9,958 acres of wetlands within the Anchorage Bowl were developed. Between 1983 and September 1990, the effective period of the Wetlands Plan and the Corps GP's, approximately 2143.1 acres of wetland fill

was authorized under individual and general permits. Interpretation of aerial photography, however, indicated approximately 1939 acres of actual wetland fill. The discrepancy in the two datasets is likely due to speculative planning and permitting.

The loss of wetlands within the Anchorage Bowl has resulted in a decrease in fish and wildlife habitat diversity, increased pollution in local streams, and decreased flood amelioration.

FUTURE STUDY NEEDS AND DATA GAPS

There is now a data base for the acreage and types of wetlands in Anchorage. Data gaps and needed additional studies are identified below:

1) Document the ongoing changes in wildlife populations and their use of Anchorage wetlands;

2) Investigate the hydrology of and changes in hydrology of Anchorage wetlands;

3) Update the Hogan and Tande (1983) study of the vegetative changes in Anchorage wetlands; and

4) Quantify data on the values and functions of Anchorage wetlands.

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APPENDICES

1. Function and Values of Anchorage Wetlands
   - -General Fish, Wildlife and Habitat Values
   - -Fishery Resources
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6. Special Public Notice, dated Oct 5, 1989

FUNCTION AND VALUE OF ANCHORAGE WETLANDS

General Fish, Wildlife and Habitat Values

The land-water interface; i.e., wetlands, including upland buffer areas, is among the richest wildlife habitat in the world (Kusler 1983). The concentration of birds, mammals, and fish is due to the presence of abundant water, diverse vegetation that is the basis for food chains, and adequate cover (Kusler 1983).

Inland and coastal wetlands are essential to maintaining fish populations. Anadromous and freshwater fish depend on wetlands for survival; many species feed in wetlands or upon wetland-produced food, many fish use wetlands as nursery grounds, and almost all important recreational fish spawn in the aquatic portions of wetlands (Tiner 1984).

Wetlands also provide essential nesting, wintering, feeding, and resting grounds for many species of migratory waterfowl and other birds. For example, of the 41 species of birds counted in Conners Bog, at least 29 species were nesting or attempting to nest (Hogan and Tande 1983). Of the 50 lakes, ponds, man-made waterbodies surveyed in Anchorage all provided habitat for nesting birds (North 1991). The 1991 survey also documented 476 waterfowl broods containing 2584 young on the surveyed waterbodies in Anchorage, south of Ship Creek.

Fishery Resources

Five species of anadromous fish use the creeks and streams associated with Anchorage wetlands. Chinook, pink, coho, sockeye and chum salmon use various streams as spawning and rearing areas and as corridors to and from these areas. Freshwater fish found in creeks and the open water portions of Anchorage's wetlands are: Dolly Varden, Arctic grayling, rainbow trout, sculpin, Alaska blackfish and two species of sticklebacks (Kent Roth, Alaska Department of Fish and Game, Anchorage, Alaska, pers. comm., 1990).

According to the Alaska Department of Fish and Game (1990), the streams in Anchorage support the following species of fish:

Chester Creek: coho salmon, Dolly Varden, rainbow trout (stocked), stickleback, and sculpin

Campbell Creek: chinook, coho, sockeye, pink and chum salmon, Dolly Varden, rainbow trout (stocked), stickleback, and sculpin

Little Campbell Creek: coho salmon, Dolly Varden, stickleback, sculpin

Ship Creek: chinook (stocked), pink, coho (stocked), and chum salmon, Dolly Varden, rainbow trout, stickleback, and sculpin

Rabbit Creek: chinook, coho, and pink salmon, Dolly Varden, rainbow trout (stocked), and Arctic grayling

Little Rabbit Creek: coho salmon and Dolly Varden

Fish Creek: coho salmon, Alaska blackfish, stickleback, and sculpin

Little Survival Creek: coho salmon

A sport fishery exists for rainbow trout on Chester, Campbell, Ship, and Rabbit Creeks, and for salmon on Ship Creek.

The lakes within the Anchorage Bowl also provide habitat for a variety of fish species. As of 1991, the Alaska Department of Fish and Game (Kent Roth, pers. comm., 1991) lists the following species as present:

Campbell Point Lake: chinook salmon, Arctic char, rainbow trout, and stickleback

Campbell Lake: chinook, pink, coho, sockeye, and chum salmon, Dolly Varden, rainbow trout, stickleback, and sculpin

Cheney Lake: chinook salmon, rainbow trout, and stickleback

Conners Lake: stickleback

DeLong Lake: chinook salmon, rainbow trout, stickleback, and Alaska blackfish

Lake Hood/Spenard: Alaska blackfish and stickleback

Jewel Lake: chinook salmon, rainbow trout, and stickleback

Lake Otis: rainbow trout and stickleback

Sand Lake: chinook salmon, rainbow trout, and stickleback

Sundi Lake: rainbow trout and stickleback

Taku Lake: coho salmon, Dolly Varden, rainbow trout, stickleback, and sculpin

University Lake: coho salmon, Dolly Varden, rainbow trout, stickleback, and sculpin

Wildlife Resources

The wetlands of Anchorage are home to a variety of wildlife. Large mammals encountered are moose, and occasionally, coyote, and black and brown bear. There is a small resident population of moose in the Anchorage Bowl, however,

moose numbers increase each fall and winter as they move into Anchorage from the foothills of the Chugach Mountain. The moose utilize food encountered in Anchorage wetlands, including willow twigs and leaves, sedges, horsetail, and submerged aquatic vegetation (Alaska Department of Fish and Game 1990). Red squirrels, muskrats, snowshoe hares and least weasels are relatively abundant and commonly seen by local residents.

The most visible and well-known animals of the Anchorage wetlands are birds. Anchorage wetlands play a pivotal role in providing habitat for 159 different bird species (Scher 1989). While waterfowl are the most abundant inhabitants, raptors, shorebirds, cranes, gulls, terns and songbirds also rely on wetland habitats.

Canada geese nest and rear their young in many wetland areas throughout Anchorage. In late spring/early summer 1991, the Fish and Wildlife Service's Anchorage Field Office documented eight nests and six broods of Canada geese in the Business Park wetlands (approximately 20 acres) (Zapotocki 1991). A total of 51 young and 28 eggs were counted which is a large number of young for a relatively small wetland located within a major metropolitan area. A summer survey of Anchorage's lakes revealed 92 broods of Canada geese with a total of 514 young utilized the lakes and their wetland fringes for nesting and rearing habitat (North 1991). Migratory tundra swans, trumpeter swans, greater white-fronted geese and snow geese use the Anchorage mudflats in the spring and fall.

Ducks are the most abundant waterfowl in the Anchorage area and include green-winged teal, northern pintail, greater scaup, mallard, American wigeon and northern shoveler. Other nesting ducks include gadwall, lesser scaup, canvasback, and common goldeneye. According to North (1991), in the summer of 1991, a total of 476 waterfowl broods including 2584 young were produced on the lakes, ponds, and man-made ponds and ditches in Anchorage, south of Ship Creek. The most common waterfowl species found were mallard, American wigeon, and greater scaup.

Anchorage is one of the largest cities in North America with nesting loons (Alaska Department of Fish and Game 1990). Between May and August, Pacific and common loons can be found in the ponds and lakes associated with Anchorage wetlands. Connors, DeLong, Goose, and Little Campbell Lakes support nesting Pacific loons (Tankersley 1989). A new pair was documented on Jones Lake during the summer of 1991 (North 1991). Two species of grebes are also found in Anchorage; the horned and red-necked grebe. A total of 36 red-necked grebe nests and/or broods were documented in the summer of 1991 (North 1991).

The most common raptors are bald eagles, northern harriers, red-tailed and sharp-shinned hawks, and great horned and short-eared owls. Other year-round residents include the northern goshawk, boreal owl, and northern saw-whet owl. Less frequently seen are osprey, American kestrel, gyrfalcon, and peregrine falcons. Rough-legged hawks and merlins are frequently sighted during the fall and spring migrations (Mike North, U.S. Fish and Wildlife Service, Anchorage, Alaska, pers. comm., 1991).

Shorebirds found in Anchorage wetlands and the coastal mudflats include

semipalmated plovers, red-necked phalaropes, greater and lesser yellowlegs, dowitchers, and least, spotted, solitary, western, semipalmated sandpipers, and common snipe. Semipalmated plovers, red-necked phalaropes, lesser and greater yellowlegs, short-billed dowitchers, solitary, least, and spotted sandpipers, Hudsonian godwits, and common snipe nest in Anchorage wetlands (Thede Tobish, Municipality of Anchorage, Alaska, pers. comm., 1991).

Gulls and terns known to nest in Anchorage wetlands include glaucous-winged, mew, herring, and Bonaparte's gulls and Arctic terns. There are five significant mew gull colonies that remain in the Anchorage Bowl: Lake Hood/Spenard, Potter's Marsh, Eastchester/Westchester Lagoon, Business Park Wetlands, and Port of Anchorage (Mike North, pers. comm., 1991). At least 92 young were documented at Potter's Marsh during the 1991 summer survey. This same survey revealed a small colony (11 pairs) at Eastchester/Westchester Lagoon. In addition, a total of 40 mew gull nests were documented with 108 eggs in the Business Park wetlands (Zapotocki 1991).

Some of the most abundant songbirds found utilizing Anchorage wetlands are the tree, violet-green, bank and cliff swallows, red-breasted nuthatch, ruby-crowned kinglet, white-crowned, Lincoln's, and savannah sparrows, dark-eyed juncos, black-capped chickadees, alder and olive-sided flycatchers, yellow-rumped and orange-crowned warblers, and northern waterthrush. A newcomer to Anchorage wetlands is the red-wing blackbird. Common in marshes in other states but found in very few sites in Alaska, this species has established a colony near Potter Marsh (Alaska Department of Fish and Game 1990)

Other Values of Anchorage Wetlands

Anchorage wetlands have important values in addition to providing fish and wildlife habitat. For example, the creeks of Anchorage and their associated wetlands form natural floodways that convey and store flood waters from upstream to downstream points. The importance of wetlands in flood storage can be appreciated when it is recognized that a one acre wetland will hold approximately 330,000 gallons of water if flooded to a depth of one foot (Kusler 1983). City planners have estimated that Klatt Bog (covering approximately 1,442 acres) has a flood storage capacity of 1.6 million gallons of water per acre, assuming an unsaturated thickness of 5 feet (Municipality of Anchorage 1982).

Wetlands also lessen the impacts of floods by virtue of their ability to physically impede flood flows and reduce their velocity. The reduction in the velocity of water in upstream areas lessens the elevation of floods in downstream areas because the floodwaters have time to dissipate slowly. Additionally, wetland vegetation plays a major role in erosion control by: 1) binding and stabilizing substrate, 2) dissipating wave energy, and 3) trapping sediments (Sather and Smith 1984). The slow-moving water has opportunity to release sediments which would otherwise enter lakes and streams. Unretarded sediment may result in rapid filling of lakes and ponds and the destruction of fish and bird habitat (Kusler 1983).

A side effect of increased populations is increased levels of phosphorus, nitrogenous waste and other pollutants in urban stormwater run-off. Early in

1985, testing by the Alaska Department of Environmental Conservation (ADEC) indicated that pollutants in Anchorage's streams exceeded state water quality standards (Huntsinger 1987). ADEC stated differences existed in dissolved constituents between streams draining urbanized basins and streams draining non-urbanized basins in the Anchorage area (Brabets and Wittenberg 1983). This phenomenon illustrates the ability of wetlands to assist in reducing the pollutant loads to streams by acting as natural filters, removing nutrients from flooding waters and preventing eutrophication or over enrichment of natural water (Tiner 1984).

Wetlands are important in maintaining water quality because they function as filters to remove pollutants from moving waters. Water changes as it moves through wetlands. These changes occur primarily as a result of: 1) reduction in velocity as water enters and/or passes through a wetland, 2) decomposition of organic substances by micro-organisms, 3) metabolic activities of plants and animals, 4) photosynthesis, and 5) sediment binding of particles (Sather and Smith 1984).

Another benefit of Anchorage wetlands is their aesthetic value and ability to provide recreational opportunities. Not many cities the size of Anchorage can offer as abundant and diverse wildlife viewing opportunities. Wetlands offer open and green space opportunities for people within the boundary of the city. Other popular forms of wetland-associated recreation include hiking, fishing, skiing, photography, boating, swimming and ice-skating.

The wetlands of Anchorage also provide opportunities for people of all ages to learn more about the ecology of the Anchorage Bowl. Passive activities such as bird-watching, hiking, and wildlife photography are the most common means of utilizing the educational opportunities provided by Anchorage wetlands. Formal scientific study, either in a classroom setting or detailed field effort are other ways people can learn about wetlands.

Description of Wetland Plant Communities

Approximately 120 different wetland categories based on Cowardin et al. (1979) were identified on aerial photographs during the wetlands status and trends survey. These categories were combined into 12 types in order to present the wetland acreage data in a more manageable form. The following is a general description, including dominant vegetation, for each of the wetland types.

1. Estuarine Intertidal Vegetated

   Coastal tidal marsh along the shorelines of Turnagain Arm and Knik Arm. This type includes lower elevation areas of brackish marshes that are flooded regularly (daily) by tidal water, and higher elevation areas that are flooded irregularly (less than daily). The most extensive areas of this wetland type occur in the Potter Point State Game Refuge. Other examples include the marshes at the mouth of Campbell Creek, and the marsh complex north of Point Campbell. Common plant species include Lyngbye's sedge, Ramensk's sedge, arrowgrass, alkali grass, seaside

plantain, glasswort, and Pacific silverweed. Some areas along the landward fringe are dominated by dead spruce trees which were killed when the land subsided during the 1964 earthquake.

2. Lacustrine

This type includes all lakes greater than 20 acres in size. In addition to the open water portions of lakes, the category consists of lacustrine areas dominated by aquatic vegetation such as water-lily, pondweed, and water-milfoil. Although uncommon, exposed mud and sand flats located along lake borders are also included in the lacustrine class. Campbell Lake and Sand Lake are examples of lacustrine areas.

3. Riverine

The riverine type includes all wetlands and deepwater habitats (permanently flooded areas) contained within the channel banks of rivers, streams, and creeks. Most of the riverine class consists of open water channels. The remaining areas are sand, gravel, or cobble flats and bars. Although mostly non-tidal, the riverine type includes small stretches of freshwater tidal channels above the influence of brackish estuarine water. Ship Creek, Campbell Creek, and Chester Creek are typical of the riverine type.

4. Palustrine Open Water

This type includes all ponds and lakes less than 20 acres in size. In addition to permanently flooded open water, the category contains small areas of exposed mud and sand flats along pond margins, and a few areas dominated by aquatic vegetation such as yellow water-lily, white water-lily, pondweed, and water-milfoil.

5. Palustrine Emergent

This category includes all wetlands dominated by erect, herbaceous plants such as sedges, grasses, and forbs. Many palustrine emergent wetlands are commonly referred to as marshes. These wetlands are found in a variety of settings, including stream floodplains, isolated basins, bogs, and along the shorelines of lakes and ponds. Palustrine emergent wetlands can have flooding regimes ranging from temporarily flooded to permanently flooded. In marshes where standing water persists through most or all of the growing season, dominant plant species include swamp horsetail, buckbean, marsh cinquefoil, marsh marigold, water sedge, beaked sedge, soft-stem bulrush and marestail. These wet marshes are common in ponded areas of bog complexes such as Connors Bog and Klatt Bog.

In seasonally flooded emergent wetlands, standing water persists for about half of the growing season. Examples of these marshes include a wide zone surrounding the center of the Strawberry Lake basin, and areas in Potter Marsh. Common plants occurring in seasonally flooded marshes include meadow horsetail, bluejoint grass, awned sedge, creeping sedge, shore sedge, Lyngbye's sedge, cottongrass, and marsh cinquefoil.

6. Palustrine Scrub-shrub Needle-leaved Evergreen

These wetlands are dominated by black spruce in a scrub form (less than

20 ft. in height). Most sites also have a significant cover (30-50%) of broad-leaved shrubs including dwarf birch, labrador tea, bog blueberry, bog rosemary, sweet gale and willow. Nearly all of the wetlands in this category are associated with bogs throughout the Anchorage Bowl. A few small areas occur on temporarily flooded or seasonally flooded riparian zones.

7. Palustrine Scrub-shrub Broad-leaved Deciduous
   This category includes a wide variety of wetlands dominated by broad-leaved deciduous shrubs. Sites range from temporarily flooded willow and alder on floodplains to saturated shrub bog communities dominated by dwarf birch, labrador tea, sweet gale, bog cranberry, bog blueberry, bog willow, and shrubby cinquefoil. Scrub black spruce is usually mixed with the broad-leaved deciduous shrubs in the bog sites. These saturated areas also have a dense mat of sphagnum moss covering the soil surface. The largest wetland areas classified as palustrine scrub-shrub broad-leaved deciduous occur in bog complexes such as the Tudor Road bogs south of the Tudor Road/Muldoon Road curve.

8. Palustrine Scrub-shrub/Emergent
   This is the most common wetland type in the Anchorage Bowl. All sites are characterized by a mix of scrub-shrub and emergent vegetation with each class having an areal cover of at least 30%. Although most areas have a saturated water regime, other water regimes are represented including temporarily flooded, seasonally flooded, seasonally flooded-tidal, and semipermanently flooded.

   The saturated areas are primarily a mix of low, broad-leaved deciduous shrubs and emergents on peat soils. This bog type is prevalent in Klatt Bog, Potter Marsh, and many other wetland complexes in the Anchorage Bowl. Dominant shrubs include sweet gale, labrador tea, bog rosemary, dwarf birch, leatherleaf, crowberry, bog cranberry, bog blueberry, and willow species. Common emergents include bluejoint grass, rotund sedge, many-flower sedge, bog sedge, cloudberry, swamp horsetail, and cottongrass. A continuous mat of sphagnum moss or feathermoss occurs in many areas.

   Patterned bogs (strangmoor) are another large component of the palustrine scrub-shrub/emergent wetland type. These areas are characterized by narrow bog ridges (strangs) separating elongate, wet hollows (flarks). In many patterned bogs, the strangs are roughly parallel and oriented perpendicular to water movement within the bog complex. The ridges have a saturated water regime and the hollows are seasonally flooded or semipermanently flooded. Some of the largest patterned bog areas are found in the Connors Bog complex.

9. Palustrine Forested Needle-leaved Evergreen
   These wetlands are dominated by needle-leaved evergreen trees greater than 20 ft. in height and forming a closed canopy. Most of the trees are black spruce. White spruce and a few deciduous trees (paper birch and balsam poplar) occur in some areas. These wetlands usually have a saturated water regime - the substrate is saturated to the surface for

extended periods during the growing season, but surface water is seldom present. The type is most common along the edge of shrub bogs.

10. Palustrine Forested Broad-leaved Deciduous
    This type of forested wetland is dominated by broad-leaved deciduous trees including paper birch and balsam poplar. Needle-leaved evergreen trees (white spruce and black spruce) usually occur as a secondary subclass in the closed canopy. In the Klatt Bog area, these wetlands are characterized by a saturated water regime and a predominance of paper birch. The type also occurs on temporarily flooded stream floodplains (e.g., Campbell Creek). Balsam poplar is the dominant species on these riparian sites.

11. Palustrine Forested Needle-leaved Evergreen / Scrub-shrub Broad-leaved Deciduous
    These wetland areas consist of open canopy needle-leaved evergreen trees with an understory of broad-leaved deciduous shrubs. Most of the sites are saturated and associated with the drier portions of bog complexes such as Turnagain Bog, Connors Bog, and Klatt Bog. The trees are primarily black spruce greater than 20 ft. in height. The shrub understory consists of typical bog species including labrador tea, bog blueberry, shrubby cinquefoil, bog rosemary, dwarf birch, and various species of willow.

12. Palustrine Forested Broad-Leaved Deciduous / Scrub-shrub
    This category consists of open canopy deciduous trees with an understory usually consisting of broad-leaved deciduous shrubs. In a few sites the lower vegetation layer is dominated by scrub black spruce. Most areas occur on stream floodplains (e.g. Ship Creek and South Fork of Campbell Creek) where the temporarily flooded sites have a tree canopy dominated by balsam poplar. Paper birch dominates a few saturated sites associated with bogs. In the riparian areas, the deciduous shrub understory consists primarily of tall alder and willow.

GENERAL PERMIT 83-1M

Notice is hereby given that the Alaska District Corps of Engineers, in accordance with Title 33 CFR 325.2(e)(2) as published in the Federal Register, Volume 51, Number 219, now issues a general permit, pursuant to Section 404 of the Clean Water Act (PL 95-217, 33 U.S.C. 1344) for the placement of fill material into certain wetlands within the Municipality of Anchorage.

ACTIVITY:

This general permit authorizes the placement of fill into wetlands in the Municipality of Anchorage for residential, business, and industrial development. The wetlands covered by this general permit have been designated "Development" or "Mixed Development" by the Municipality of Anchorage in its April 20, 1982 Wetlands Management Plan. The general permit does not apply to coastal wetlands, in-stream work or any other activity or area that was not dealt with by the Municipality in its Plan. The general permit will not be altered by any change in the Municipality's Plan unless the District Engineer determines that an alteration is in the public's interest following a public interest review of the proposed change or alteration.

PROCEDURE:

The Municipality of Anchorage through ordinance and regulation determines that the work would meet local construction requirements. In addition, the Municipality of Anchorage is designated to ascertain the applicability of this general permit. Final determination of the applicability of this general permit remains with the Alaska District Engineer pursuant to General Condition "j". Individuals wishing to perform work under this permit must submit a completed Municipality of Anchorage General Permit Compliance Long Form to the Economic Development and Planning Department, including applicable drawings. If the Municipality of Anchorage determines that the proposed activity meets the criterion of the general permit, then the issuance of the necessary Municipal authorization will serve as the authorization to proceed under this general permit; for work to proceed under this general permit all necessary Municipal authorizations must have been obtained. At the time of the issuance of the authorization, the Municipality will give a copy of the conditions for this general permit to the individual.

A copy of all material submitted to the Municipality will be forwarded to the District Engineer quarterly and will be reviewed for compliance with the terms and conditions of the general permit. If during this review it is determined that an activity does not comply with the general permit or that a public interest review is required, then the permittee will be required to halt work and submit an application for individual processing. Such review might be necessary, for example, if the activity is located in known or suspected areas involving archaeological, environmental, or flooding concerns.

CONDITIONS:

All activities covered under this general permit will be subject to the following special and general conditions:

1. Special Conditions:

a. That the amount of fill authorized by this general permit shall be the same as that amount authorized by the Municipality in their various permits.

b. That there shall be no fill placed nor disturbance of existing vegetation within 65 feet of creeks, rivers, streams, or lakes except greater distances as recommended in the Anchorage Wetlands Management Plan.

c. That the activity shall not take place in or adversely affect a known archaeological site.

d. That the activity shall not jeopardize the continued existence of any wetlands designated preservation or conservation in the Anchorage Wetlands Management Plan. A 15-foot wide buffer zone in which no construction shall take place and in which all disturbed areas shall be regraded and reseeded is required for activities covered under this general permit that are adjacent to preservation wetlands.

e. That methods are implemented to filter or settle suspended sediment from all construction related waste prior to its direct or indirect discharge into any natural body of water. Design plans for storm water collection(s) system to be placed in the authorized fill must be approved by the Department of Environmental Conservation, Anchorage Regional Office, prior to construction.

f. That measures are implemented to attenuate flows, remove oil, grease, and other petroleum products and filter suspended sediments from the project storm water collection system (if present) prior to its discharge into any natural body of water or into a municipal drainage structure which in turn discharges untreated storm water into a natural body of water. The installation of a treatment facility is not mandatory if such a treatment facility is scheduled (as per the municipal capital improvement budget) to be completely constructed for the municipal system within two years of connecting the subject project's storm water system to the municipal system.

2. GENERAL CONDITIONS:

a. That all activities identified and authorized herein shall be consistent with the terms and conditions of the general permit and activities not specifically identified and authorized herein shall constitute a violation of the terms and conditions of this general permit which may result in the modification, suspension or revocation of any

authorization in whole or in part, as set forth more specifically in General Conditions j or k hereto, and in the institution of such legal proceedings as the United States Government may consider appropriate, whether or not this permit has been previously modified, suspended, or revoked in whole or in part.

b. That all activities authorized herein shall, if they involve during their construction or operation, any discharge of pollutants into waters of the United States or ocean waters, be at all times consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, pretreatment standards, and management practices established pursuant to the Clean Water Act (PL 95-217 33 U.S.C. 1344), the Marine Protection, Research and Sanctuaries Act of 1972 (PL 92-532: 86 Stat. 1052) and pursuant to applicable State and local law. ↳(401)

clear fill

c. That when the activity authorized herein involves a discharge during its construction or operation, of any pollutant (including dredged or fill material), into waters of the United States, the authorized activity shall, if applicable water quality standards are revised or modified during the term of this permit, be modified, if necessary, to conform with such revised or modified water quality standards within 6 months of the effective date of any revision or modification of water quality standards, or as directed by an implementation plan contained in such revised or modified standards, or within such longer period of time as the District Engineer, in consultation with the Regional Administrator of the Environmental Protection Agency, may determine to be reasonable under the circumstances.

d. That the activity will not jeopardize the continued existence of a threatened or endangered species as identified under the Endangered Species Act, or endanger the critical habitat of such species.

e. That the permittee agrees to execute the construction or operation of the work authorized herein, including measures imposed by the Municipality of Anchorage to mitigate the adverse impacts of the work consistent with Chapter 9 in the AWMP, in a manner so as to minimize adverse impact on fish, wildlife and natural environmental values.

g. That the permittee shall allow the District Engineer or his authorized representatives(s) or designee(s) to make periodic inspections at any time deemed necessary in order to assure that the activity being performed is in accordance with the terms and conditions prescribed in the general permit.

h. That the permittee shall maintain the structure or work authorized herein in good condition and in accordance with approved plans and drawings.

i. That this general permit does not convey property rights, either in real estate or material, or exclusive privileges: and that it does not authorize injury to property, or invasion of rights or any infringement of Federal, State, or local laws or regulations nor does the general permit nor any authorization obviate the requirement to obtain State or local assent required by law for the activity authorized herein.

j. That an activity being performed under authorization of this permit may be summarily suspended, in whole or in part, upon a finding by the District Engineer that immediate suspension of the activity authorized herein would be in the general public interest. Such suspension shall be effective upon receipt by the permittee of a written notice thereof which shall indicate (1) the extent of the suspension, (2) the reasons for such action, and (3) any corrective or preventive measures to be taken by the permittee which are deemed necessary by the District Engineer to abate imminent hazards to the general public interest. The permittee shall take immediate action to comply with the provisions of such notice. Within 10 days following receipt of a notice of suspension, the permittee may request a hearing in order to present information relevant to a decision as to whether the authorization should be reinstated, modified or revoked. If a hearing is requested, it shall be conducted pursuant to procedures prescribed by the Chief of Engineers. After completion of the hearing, or within a reasonable time after issuance of the suspension notice to the permittee if no hearing is requested, the authorization will either be reinstated, modified or revoked.

k. That this general permit may be either modified, suspended, or revoked in whole or in part, if the Secretary of the Army or his authorized representative determines that there has been a violation of any of the terms or conditions of this permit or that such action would otherwise be in the public interest. Any such modification, suspension, or revocation shall become effective 30 days after receipt by the permittee of written notice of such action which shall specify the facts or conduct warranting same unless (1) within the 30 day period the permittee is able to demonstrate satisfactorily that (a) the alleged violation of the terms and the conditions of this general permit did not, in fact occur or (b) the alleged violation was accidental, and the permittee has been operating in compliance with the terms and conditions of the permit and is able to provide satisfactory assurances that future operations shall be in full compliance with the terms and conditions of this general permit or (2) with the aforesaid 30 day period, the permittee requests that a public hearing be held to present oral and written evidence concerning the proposed modification, suspension or revocation. The conduct of this hearing and the procedures for making a final decision either to modify, suspend or revoke this permit in whole or in part shall be pursuant to procedures prescribed by the Chief of Engineers.

l. That any modification, suspension, or revocation of either authorization under this permit or this permit itself shall not be the basis for any claim for damages against the United States.

m. That the general permit does not approve the construction of particular structures, the authorization or approval of which may require authorization by the Congress or other agencies of the Federal Government.

n. That if and when the permittee desires to abandon the activity authorized herein, the permittee must restore the area to a condition satisfactory to the District Engineer.

o. That this permit does not authorize the interference with any existing or proposed Federal project and that the permittee shall not be entitled to compensation for damage or injury to the structures or work authorized herein which may be caused by or result from existing or future operations undertaken by the United States in the public interest.

p. That no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized by this permit.

q. That the permittee, upon receipt of a notice of revocation of authorization under this permit shall cease from any discharge of dredged or fill material and desist from future discharges. If the permittee fails to comply with the direction of the Secretary of the Army or his authorized representative, action will be taken leading to the referral of the case to the U.S. Attorney.

r. That construction (the placement of dredged and/or fill material) authorized under this GP must be completed within 1 year. At the end of 1 year, reauthorization may be issued by the Municipality of Anchorage.

This general permit is in effect for a period of 5 years, pending the annual issuance of State 401 Water Quality Certification and State Coastal Zone Consistancy Determinations. Failure by the State to reissue the requisite annual State certifications will result in the General Permit being suspended until certification is received. At the end of the 5-year period, an evaluation of the program will be made and at that time it would be decided whether or not this permit should be renewed. The District Engineer may, at any time during this 5-year period, alter, modify, or revoke this permit, if he deems such action to be in the public interest.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Date: 22 June 1988

for Robert K. Oja
Chief, Regulatory Branch
FOR: District Engineer
U.S. Army Corps of Engineers

States. (These phase-in dates are: After July 25, 1975, discharges into navigable waters of the United States and adjacent wetlands; after September 1, 1976, discharges into navigable waters of the United States and their primary tributaries, including adjacent wetlands, and into natural lakes, greater than 5 acres in surface area; and after July 1, 1977, discharges into all waters of the United States.) (Section 404)

(b) Structures or work completed before December 18, 1968, or in waterbodies over which the district engineer had not asserted jurisdiction at the time the activity occurred provided, in both instances, there is no interference with navigation. (Section 10)

§ 330.4 Public notice.

(a) *Chief of Engineers.* Upon proposed issuance of new nationwide permits, modification to, or reissuance of, existing nationwide permits, the Chief of Engineers will publish a notice in the Federal Register seeking public comments and including the opportunity for a public hearing. This notice will state the availability of information at the Office of the Chief of Engineers and at all district offices which reveals the Corps' provisional determination that the proposed activities comply with the requirements for issuance under general permit authority. The Chief of Engineers will prepare this information which will be supplemented, if appropriate, by division engineers.

(b) *District engineers.* Concurrent with publication in the Federal Register of proposed, new, or reissued nationwide permits by the Chief of Engineers, district engineers will so notify the known interested public by an appropriate notice. The notice will include regional conditions, if any, developed by the division engineer.

§ 330.5 Nationwide permits.

(a) *Authorized activities.* The following activities are hereby permitted provided they meet the conditions listed in paragraph (b) of this section and, where required, comply with the notification procedures, of § 330.7.

(1) The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard (33 CFR Part 66, Subchapter C). (Section 10)

(2) Structures constructed in artificial canals within principally residential developments where the connection of the canal to a navigable water of the United States has been previously authorized (see 33 CFR Part 322.5(g)). (Section 10)

(3) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable, structure or fill, or of any currently serviceable structure or fill constructed prior to the requirement for authorization, provided such repair, rehabilitation, or replacement does not result in a deviation from the plans of the original structure or fill, and further provided that the structure or fill has not been put to uses differing from uses specified for it in any permit authorizing its original construction. Minor deviations due to changes in materials or construction techniques and which are necessary to make repair, rehabilitation, or replacement are permitted. Maintenance dredging and beach restoration are not authorized by this nationwide permit. (Section 10 and 404)

(4) Fish and wildlife harvesting devices and activities such as pound nets, crab traps, eel pots, lobster traps, duck blinds, and clam and oyster digging. (Section 10)

(5) Staff gages, tide gages, water recording devices, water quality testing and improvement devices, and similar scientific structures. (Section 10)

(6) Survey activities including core sampling, seismic exploratory operations, and plugging of seismic shot holes and other exploratory-type bore holes. Drilling of exploration-type bore holes for oil and gas exploration is not authorized by this nationwide permit; the plugging of such holes is authorized. (Sections 10 and 404)

(7) Outfall structures and associated intake structures where the effluent from that outfall has been permitted under the National Pollutant Discharge Elimination System program (Section 402 of the Clean Water Act) (see 40 CFR Part 122) provided that the district or division engineer makes a determination that the individual and cumulative adverse environmental effects of the structure itself are minimal in accordance with § 330.7 (c)(2) and (d). Intake structures per se are not included—only those directly associated with an outfall structure are covered by this nationwide permit. This permit includes minor excavation, filling and other work associated with installation of the intake and outfall structures. (Sections 10 and 404)

(8) Structures for the exploration, production, and transportation of oil, gas, and minerals on the outer continental shelf within areas leased for such purposes by the Department of Interior, Mineral Management Service, provided those structures are not placed within the limits of any designated shipping safety fairway or traffic separation scheme (where such limits have not been designated or where changes are anticipated, district engineers will consider recommending the discretionary authority provided by 330.8 of this Part, and further subject to the provisions of the fairway regulations in 33 CFR 322.5(1) (Section 10).

Appendix

(9) Structures placed within anchorage or fleeting areas to facilitate moorage of vessels where such areas have been established for that purpose by the U.S. Coast Guard. (Section 10)

(10) Non-commercial, single-boat, mooring buoys. (Section 10)

(11) Temporary buoys and markers placed for recreational use such as water skiing and boat racing provided that the buoy or marker is removed within 30 days after its use has been discontinued. At Corps of Engineers reservoirs, the reservoir manager must approve each buoy or marker individually. (Section 10)

(12) Discharge of material for backfill or bedding for utility lines, including outfall and intake structures, provided there is no change in preconstruction bottom contours (excess material must be removed to an upland disposal area). A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquifiable, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone and telegraph messages, and radio and television communication. (The utility line and outfall and intake structures will require a Section 10 permit if in navigable waters of the United States. See 33 CFR Part 322. See also paragraph (a)(7) of this section). (Section 404)

(13) Bank stabilization activities provided:

(i) The bank stabilization activity is less than 500 feet in length;

(ii) The activity is necessary for erosion prevention;

(iii) The activity is limited to less than an average of one cubic yard per running foot placed along the bank within waters of the United States;

(iv) No material is placed in excess of the minimum needed for erosion protection;

(v) No material is placed in any wetland area;

(vi) No material is placed in any location or in any manner so as to impair surface water flow into or out of any wetland area;

(vii) Only clean material free of waste metal products, organic materials, unsightly debris, etc. is used; and

(viii) The activity is a single and complete project. (Sections 10 and 404)

(14) Minor road crossing fills including all attendant features, both temporary and permanent, that are part of a single and complete project for crossing of a non-tidal waterbody, provided that the crossing is culverted, bridged or otherwise designed to prevent the restriction of, and to withstand, expected high flows and provided further that discharges into any wetlands adjacent to the waterbody do not extend beyond 100 feet on either side of the ordinary high water mark of that waterbody. A "minor road crossing fill" is defined as a crossing that involves the discharge of less than 200 cubic yards of fill material below the plane of ordinary high water. The crossing may require a permit from the US Coast Guard if located in navigable waters of the United States. Some road fills may be eligible for an exemption from the need for a Section 404 permit altogether (see 33 CFR 323.4). District engineers are authorized, where local circumstances indicate the need, to define the term "expected high flows" for the purpose of establishing applicability of this nationwide permit. (Sections 10 and 404)

(15) Discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the United States, including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills provided such discharge has been authorized by the US Coast Guard as part of the bridge permit. Causeways and approach fills are not included in this nationwide permit and will require an individual or regional Section 404 permit. (Section 404)

(16) Return water from an upland, contained dredged material disposal area (see 33 CFR 323.2(d)) provided the state has issued a site specific or generic certification under section 401 of the Clean Water Act (see also 33 CFR 325.2(b)(1)). The dredging itself requires a Section 10 permit if located in navigable waters of the United States. The return water or runoff from a contained disposal area is administratively defined as a discharge of dredged material by 33 CFR 323.2(d) even though the disposal itself occurs on the upland and thus does not require a section 404 permit. This nationwide permit satisfies the technical requirement for a section 404 permit for the return water where the quality of the return water is controlled by the state through the section 401 certification procedures. (Section 404)

(17) Fills associated with small hydropower projects at existing reservoirs where the project which includes the fill is licensed by the Federal Energy Regulatory Commission (FERC) under the Federal Power Act of 1920, as amended; has a total generating capacity of not more than 1500 kw (2,000 horsepower); qualifies for the short-form licensing procedures of the FERC (see 18 CFR 4.61); and the district or division engineer makes a determination that the individual and cumulative adverse effects on the environment are minimal in accordance with § 330.7 (c)(2) and (d). (Section 404)

(18) Discharges of dredged or fill material into all waters of the United States other than wetlands that do not exceed ten cubic yards as part of a single and complete project provided the material is not placed for the purpose of stream diversion. (Sections 10 and 404)

(19) Dredging of no more than ten cubic yards from navigable waters of the United States as part of a single and complete project. This permit does not authorize the connection of canals or other artificial waterways to navigable waters of the United States (see Section 33 CFR 322.5(g)). (Section 10)

(20) Structures, work, and discharges for the containment and cleanup of oil and hazardous substances which are subject to the National Oil and Hazardous Substances Pollution Contingency Plan, (40 CFR Part 300), provided the Regional Response Team which is activated under the Plan concurs with the proposed containment and cleanup action. (Sections 10 and 404)

(21) Structures, work, discharges associated with surface coal mining activities provided they were authorized by the Department of the Interior, Office of Surface Mining, or by states with approved programs under Title V of the Surface Mining Control and Reclamation Act of 1977; the appropriate district engineer is given the opportunity to review the Title V permit application and all relevant Office of Surface Mining or state (as the case may be) documentation prior to any decision on that application; and the district or division engineer makes a determination that the individual and cumulative adverse effects on the environment from such structures, work, or discharges are minimal in accordance with §§ 330.7 (c) (2) and (3) and (d). (Sections 10 and 404)

(22) Minor work, fills, or temporary structures required for the removal of wrecked, abandoned, or disabled vessels, or the removal of man-made obstructions to navigation. This permit does not authorize maintenance dredging, shoal removal, or river bank snagging. (Sections 10 and 404)

(23) Activities, work, and discharges undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another federal agency or department where that agency or department has determined, pursuant to the CEQ Regulation for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Part 1500 et seq.), that the activity, work, or discharge is categorically excluded from environmental documentation because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment, and the Office of the Chief of Engineers (ATTN: DAEN–CWO–N) has been furnished notice of the agency's or department's application for the categorical exclusion and concurs with that determination. Prior to approval for purposes of this nationwide permit of any agency's categorical exlcusions, the Chief of Engineers will solicit comments through publication in the Federal Register. (Sections 10 and 404)

(24) Any activity permitted by a state administering its own Section 404 permit program for the discharge of dredged or fill material authorized at 33 U.S.C. 1344(g)–(l) is permitted pursuant to section 10 of the Rivers and Harbors Act of 1899. Those activities which do not involve a section 404 state permit are not included in this nationwide permit but many will be exempted by section 154 of Pub. L. 94–587. (See 33 CFR 322.3(a)(2)). (Section 10)

(25) Discharge of concrete into tightly sealed forms or cells where the concrete is used as a structural member which would not otherwise be subject to Clean Water Act jurisdiction. (Section 404)

(26) Discharges of dredged or fill material into the waters listed in paragraphs (a)(26) (i) and (ii) of this section except those which cause the loss or substantial adverse modification of 10 acres or more of such waters of the United States, including wetlands. For discharges which cause the loss or substantial adverse modification of 1 to 10 acres of such waters, including wetlands, notification to the district engineer is required in accordance with section 330.7 of this section. (Section 404).

(i) Non-tidal rivers, streams, and their lakes and impoundments, including adjacent wetlands, that are located above the headwaters.

(ii) Other non-tidal waters of the United States, including adjacent wetlands, that are not part of a surface tributary system to interstate waters or

navigable waters of the United States (i.e., isolated waters).

(b) *Conditions.* The following special conditions must be followed in order for the nationwide permits identified in paragraph (a) of this section to be valid:

(1) That any discharge of dredged or fill material will not occur in the proximity of a public water supply intake.

(2) That any discharge of dredged or fill material will not occur in areas of concentrated shellfish production unless the discharge is directly related to a shellfish harvesting activity authorized by paragraph (a)(4) of this section.

(3) That the activity will not jeopardize a threatened or endangered species as identified under the Endangered Species Act (ESA), or destroy or adversely modify the critical habitat of such species. In the case of federal agencies, it is the agencies' responsibility to comply with the requirements of the ESA. If the activity may adversely affect any listed species or critical habitat, the district engineer must initiate Section 7 consultation in accordance with the ESA. In such cases, the district engineer may:

(i) Initiate section 7 consultation and then, upon completion, authorize the activity under the nationwide permit by adding, if appropriate, activity specific conditions, or

(ii) Prior to or concurrent with section 7 consultation he may recommend discretionary authority (See section 330.8) or use modification, suspension, or revocation procedures (See 33 CFR 325.7).

(4) That the activity shall not significantly disrupt the movement of those species of aquatic life indigenous to the waterbody (unless the primary purpose of the fill is to impound water);

(5) That any discharge of dredged or fill material shall consist of suitable material free from toxic pollutants (see section 307 of the Clean Water Act) in toxic amounts;

(6) That any structure or fill authorized shall be properly maintained.

(7) That the activity will not occur in a component of the National Wild and Scenic River System; nor in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status;

(8) That the activity shall not cause an unacceptable interference with navigation;

(9) That, if the activity may adversely affect historic properties which the National Park Service has listed on, or determined eligible for listing on, the National Register of Historic Places, the permittee will notify the district engineer. If the district engineer determines that such historic properties may be adversely affected, he will provide the Advisory Council on Historic Preservation an opportunity to comment on the effects on such historic properties or he will consider modification, suspension, or revocation in accordance with 33 CFR 325.7. Furthermore, that, if the permittee before or during prosecution of the work authorized, encounters a historic property that has not been listed or determined eligible for listing on the National Register, but which may be eligible for listing in the National Register, he shall immediately notify the district engineer;

(10) That the construction or operation of the activity will not impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights;

(11) That in certain states, an individual state water quality certification must be obtained or waived (See § 330.9);

(12) That in certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (See § 330.10);

(13) That the activity will comply with regional conditions which may have been added by the division engineer (See § 330.8(a)); and

(14) That the management practices listed in § 330.6 of this part shall be followed to the maximum extent practicable.

(c) *Further information.* (1) District engineers are authorized to determine if an activity complies with the terms and conditions of a nationwide permit unless that decision must be made by the division engineer in accordance with § 330.7.

(2) Nationwide permits do not obviate the need to obtain other Federal, state or local authorizations required by law.

(3) Nationwide permits do not grant any property rights or exclusive privileges.

(4) Nationwide permits do not authorize any injury to the property or rights of others.

(5) Nationwide permits do not authorize interference with any existing or proposed Federal project.

(d) *Modification, Suspension or Revocation of Nationwide Permits.* The Chief of Engineers may modify, suspend, or revoke nationwide permits in accordance with the relevant procedures of 33 CFR 325.7. Such authority includes, but is not limited to: adding individual, regional, or nationwide conditions; revoking authorization for a category of activities or a category of waters by requiring individual or regional permits; or revoking an authorization on a case-by-case basis. This authority is not limited to concerns for the aquatic environment as is the discretionary authority in § 330.8.

§ 330.6 Management practices.

(a) In addition to the conditions specified in § 330.5 of this Part, the following management practices shall be followed, to the maximum extent practicable, in order to minimize the adverse effects of these discharges on the aquatic environment. Failure to comply with these practices may be cause for the district engineer to recommend, or the division engineer to take, discretionary authority to regulate the activity on an individual or regional basis pursuant to § 330.8 of this Part.

(1) Discharges of dredged or fill material into waters of the United States shall be avoided or minimized through the use of other practical alternatives.

(2) Discharges in spawning areas during spawning seasons shall be avoided.

(3) Discharges shall not restrict or impede the movement of aquatic species indigenous to the waters or the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

(4) If the discharge creates an impoundment of water, adverse impacts on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized.

(5) Discharge in wetlands areas shall be avoided.

(6) Heavy equipment working in wetlands shall be placed on mats.

(7) Discharges into breeding areas for migratory waterfowl shall be avoided.

(8) All temporary fills shall be removed in their entirety.

§ 330.7 Notification procedures.

(a) The general permittee shall not begin discharges requiring pre-discharge notification pursuant to the nationwide permit at § 330.5(a)(26):

(1) Until notified by the district engineer that the work may proceed under the nationwide permit with any special conditions imposed by the district or division engineer; or

(2) If notified by the district or division engineer that an individual permit may be required; or

(3) Unless 20 days have passed from receipt of the notification by the district engineer and no notice has been

Purposes for Proposed/Issued Individual Permits 1950 - Sept 1990

Note: individual permits could have several project purposes

Purpose	# of Times Stated as Project Purpose
Bank Stabilization	9
Bulkhead, Dock	14
Commercial/Industrial/ Government Facilities	27
Fish Habitat Improvement (riprap, boulders, bypass)	4
Landscaping/Farming/Nursery	4
Park/Recreation Center	15
Parking Area	14
Residential Housing	64
Roads/Bridges and Abutments	50
Stream Rechannelization	9
Trails	21
Utilities, including pipelines, water and sewer systems, electric cables	39
Water Control Structure including outfall structures, weirs and dikes	16

Types of Conditions/Mitigation on Issued Individual Permits 1950 - Sept 1990

Note: Individual permits could have several special conditions

Special Condition/ Mitigation	# of Times Included in Issued Permit
Wetland Creation	5
Erosion Control/Revegetation/ Establishment of Buffer Zone	79
Maintenance of Hydrology of Waterways and Wetlands: drainage maintained, no dewatering of adjacent wetlands, no altering of streams/creek	63

Minimizing Project Impacts on Water and Wetlands: minimizing fill, minimizing vegetation disturbance, limit fill to construction area, no heavy equipment in or adjacent to wetlands, remove excess to uplands, work on frozen ground	80
Timing: limiting project construction and operations with respect to life history of species utilizing area	14
Fish Habitat Improvements: fish ladders, culverts, instream flow	16
Restoring to Preproject Elevations and Conditions, Grading	19
Maintenance of Water Quality: filter sediments and storm water, clean fill, spill prevention measures, inwater work limits, oil/grease separators	67
Fencing or Signage for Protection of Habitat	4
Monitoring or Maintenance of Projects Required	8
Land Protection/Land Exchange Through Deeding	2

Of the 313 issued permits, 148 included special conditions and/or mitigation.

Appendix 4A: Individual Permits

Note: modifications were counted as an individual permit, not all copies of individual permits were found in the Corp of Engineers' files and/or acreage may not have been specified

Year	Proposed	Issued/Final Action	Acres of Fill
1956	1	0	0
1958	1	1	4.6
1965	1	0	0
1970	2	0	0
1971	3	1	1.5
1972	1	2	1.09
1976	1	0	0
1977	9	3	0
1978	3	2	0.44
1979	6	3	76.1
1980	13	4	61.74
1981	30	15	153.93
1982	77	62	654.50
1983	59	43	691.74
1984	44	36	222.15
1985	52	52	57.97
1986	16	26	37.49
1987	19	21	14.30
1988	9	21	10.58
1989	10	16	11.95
Jan-Sept 1990	4	5	60.21
TOTAL	361	313	2069.29

Of the 313 individual permits issued, 59 were checked for compliance

Withdrawals and Denials of Individual Permits

Year	# Withdrawn	# Denials
1977	1	-
1978	2	-
1979	4	-
1980	3	1
1981	7	0
1982	10	3
1983	13	1
1984	12	5
1985	13	2
1986	1	2
1987	2	2
1988	2	0
1989	0	0
Jan-Sept 1990	0	1
TOTAL	70	17

Appendix 4B: General Permits 83-1M and 83-2M

Year	Proposed and Issued	Acres of Fill
1983	75	259.82
1984	119	253.96
1985	70	175.71
1986	30	194.19
1987	15	81.73
1988	12	28.81
1989	10	34.61
Jan - Sept 1990	10	7.86
TOTAL	341	1036.69

Types of Projects Authorized by General Permits 83-1M & 83-2M, 1983-1990

Project Type	#
Residential Housing	182
Commercial/Industrial/Government Buildings	45
Roads/Driveways	42
Parking Areas	28
Landscaping/Yards	7
Drainage/Culverts	10
Trails/Recreation	5
Utilities	48
Future Fill/Speculative Fill/ No Project Purpose Stated for Fill	37

Appendix 4C: Nationwide Permits

Year	# Issued
1978	1
1979	1
1980	3
1981	12
1982	69
1983	37
1984	9
1985	6
1986	12
1987	21
1988	31
1989	37
Sept 1990	27
TOTALS	266

Nationwide Permits Issued From 1978 - Sept 1990

Note: the nationwide number (type) of some issued nationwides was unknown

Nationwide Number	# Issued
1	78
2	7
3	16
4	5
5	1
6	4
7	4
8	0
9	0
10	0
11	0
12	31
13	17
14	17
15	0
16	0
17	0
18	7
19	3
20	0
21	0
22	1
23	1
24	0
25	1
26	42

Appendix 4D: Permits Issued By Authority of Section 10 of the River and Harbor Act

Year	# Issued
1950	2
1952	2
1953	1
1954	1
1955	1
1956	3
1958	3
1959	3
1960	1
1961	2
1962	2
1963	5
1964	2
1965	9
1966	17
1967	10
1968	5
1969	2
1970	3
1971	6
1972	4
1973	1
1974	7
1975	10
1976	10
1977	6
1978	10
1979	5
1980	4
1981	2
1982	7
1983	1
1984	2
1985	4
1986	4
1987	4
1988	3
1989	1
Jan - Sept 1990	3
TOTAL	168

Appendix 4E: Violations of Section 404 of the Clean Water Act

Note: data may not contain all violations resolved through after-the-fact individual permits; some of the permit records were not found and/or acreage was not specified

Year	# of Violations	Acres Filled
1977	2	73.46
1978	4	0.23
1979	6	0
1980	9	11.83
1981	13	157.42
1982	18	58.96
1983	8	6.12
1984	15	15.6
1985	10	4.61
1986	9	32.1
1987	4	1.56
1988	3	0.23
1989	3	no total
Jan-Sept 1990	3	no total
TOTAL	107	362.12

Violations Resolved Through Issuance of After-the-Fact Permits, Restoration, or Being Administratively Closed by the Corps of Engineers, from 1977 - Sept 1990.

After-The-Fact Permits Issued	26
Restoration	17
Administratively Closed	2
Resolved (through means not stated)	10

US Army Corps
of Engineers
Alaska District
Regulatory Branch
Post Office Box 898
Anchorage, Alaska 99506-0898

Public Notice

Date: January 7, 1986

Identification No.: SPN 86-1

In reply refer to above Identification Number

Appendix 5

SPECIAL PUBLIC NOTICE - STATEMENT OF POLICY

This Special Public Notice serves to clarify and reaffirm an existing policy by which the U.S. Army Corps of Engineers, Alaska District (Corps) implements its responsibilities under Section 404 of the Clean Water Act, in relation to Anchorage wetlands. This notice coincides with a growing awareness that Anchorage wetlands are threatened by an increasing demand for human development and physical alteration of these sensitive natural resources.

BACKGROUND INFORMATION AND HISTORICAL PERSPECTIVE:

The Corps is responsible for regulating discharges of dredged and/or fill material into all waters of the United States, including wetlands. Pursuant to the Clean Water Act, development interests must obtain a Department of the Army permit prior to the placement of such material. The Corps' implementing regulations were established to ensure the chemical, physical, and biological integrity of the waters of the United States is protected from irresponsible and unwarranted discharges. Prior to rendering a decision on individual development proposals, the Corps actively solicits and considers the viewpoints of interested individuals and organizations including State, Federal, and local governing bodies and agencies, and conservation groups (i.e., the public interest review process).

On December 24, 1980, the Environmental Protection Agency (EPA) finalized guidelines for specification of disposal sites for dredged or fill material. These so-called 404(b)(1) Guidelines were jointly developed between EPA and the Corps, and serve as mandatory criteria by which the Corps evaluates proposals (applications) for permits to discharge material into all waters of the United States, including wetlands. Specifically, the 404(b)(1) Guidelines require the Corps to conduct a 404(b)(1) analysis as part of the public interest review process. The District Engineer may not issue a permit unless the proposed development activity meets the Guidelines, and issuance of the permit would be in the public interest. [More information on the 404(b)(1) Guidelines can be found in 40 CFR Part 230, Federal Register, Vol. 45, No. 249, pgs. 85336-85357.]

On April 20, 1982, the Anchorage Assembly adopted the Anchorage Wetlands Management Plan (AWMP), as part of the Anchorage Coastal Zone Management Plan and the Anchorage Comprehensive Plan. The AWMP is the product of extensive coordination with many interested individuals and groups, including the Corps. Among other things, the AWMP identifies those wetlands that provide important ecological and hydrological functions. These areas are referred to in the AWMP as "Conservation" and "Preservation" wetlands. The AWMP also identifies "Developable" wetlands having lesser ecological and hydrological functions than the previously noted designations. Developable wetlands according to the AWMP "may be developed to satisfy growth needs, not wetlands that automatically will be developed". (More detailed information on these designations may be found by referring to the AWMP directly.)

On April 1, 1983, the Corps issued General Permits 83-1 and 83-2 for: residential, business, and industrial development; and road construction, respectively, in Developable wetlands. These General Permits designated the Municipality of Anchorage as the administering body to determine whether proposed activities would meet the permit conditions.

The Corps is obligated by Federal law to rigorously implement the provisions of the 404(b)(1) Guidelines. We also continue to support the intent of the AWMP and the manner in which the Municipality of Anchorage administers the existing General Permits. Nevertheless, it has become increasingly obvious to the Corps that many development interests either do not understand or misinterpret the Corps' 404 regulatory procedures as they relate to Anchorage wetland issues. For that reason, the following information is provided to clarify and reaffirm the Corps' existing policy.

STATEMENT OF POLICY:

General Permits 83-1 and 83-2 will remain in effect and will continue to be administered by the Municipality of Anchorage. Development interests shall be prepared to identify the availability, or lack thereof, of "practicable" alternatives (as defined in 40 CFR Part 230.3, Subpart A) to impacting Developable wetlands, during their coordination with the Municipality of Anchorage.

Individual permits for the placement of dredged and/or fill material into Preservation wetlands will generally not be issued. The only exceptions will be to permit those activities which would enhance, restore, or preserve the natural character of the wetlands, or are overwhelmingly in the public interest according to the District Engineer. Such a determination will be made by the District Engineer only after all of the 404(b)(1) criteria have been satisfied.

Individual permits for the placement of dredged and/or fill material into Conservation wetlands will generally not be issued unless the applicant clearly demonstrates the following:

a. The qualitative and quantitative wetland values (e.g., fish and wildlife habitat, surface water retention and recharge, nutrient exchange, aesthetics, recreation, etc.) that would be impacted by the proposed activity.

b. The qualitative and quantitative wetland values that would remain if the project were to be implemented.

c. The onsite (within same ecosystem, e.g., discreet wetland area) mitigation measures proposed to lessen, compensate, or restore the wetland values that would be adversely impacted.

Furthermore, this information will be used by the Corps to determine whether the proposed activity would result in no overall loss to wetland values (i.e., the natural character of the wetlands), if the project were to be implemented. This policy applies to all aspects of delineated Conservation wetlands (in AWMP) whether they are characterized as fringe, core, etc. If applications are received which clearly reflect this information, and the proposal is found to be in the public interest (including compliance with the 404(b)(1) Guidelines), individual permits will be issued.

Prospective applicants are encouraged to review 40 CFR, Part 230.75, Subpart H - Actions to Minimize Adverse Effects, of the 404(b)(1) Guidelines, and Chapter 9 - Mitigation, of the AWMP, as projects are being designed.

CLOSING REMARKS:

The Corps encourages prospective applicants to participate in pre-application coordination with the Alaska District, Regulatory Branch and other interested agencies and organizations, prior to submitting an application. Questions, and requests for such coordination may be addressed by calling (907) 753-2712.

As noted previously, the Corps continues to support the intent of the AWMP. Should the Municipality of Anchorage choose to excercise the provisions for revising that document, the Corps will actively participate in that process.

Wilbur T. Gregory, Jr.
Colonel, Corps of Engineers
District Engineer

US Army Corps
of Engineers
Alaska District
Regulatory Branch
Post Office Box 898
Anchorage, Alaska 99506-0898

Public Notice

Date: 5 October 1989

Identification No GP 83-1M - GP 83-2M

In reply refer to above Identification Number

Appendix 6

SPECIAL PUBLIC NOTICE October 5, 1989

General Permit 83-1M
General Permit 83-2M

THIS SPECIAL PUBLIC NOTICE SHOULD BE ATTACHED TO ALL PREVIOUS COPIES OF GENERAL PERMIT 83-1M AND GENERAL PERMIT 83-2M.

On June 22, 1988, two General Permits were issued under authority of Section 404 of the Clean Water Act (33 U.S.C. 1344) to authorize the placement of fill into wetlands within the Municipality of Anchorage which have been designated "Development" or "Mixed Development" in the Anchorage Wetlands Management Plan (AWMP) for the purpose of residential, business, and industrial development (GP 83-1M) and for road construction (GP 83-2M). The two General Permits were issued for a period of five years pending the annual issuance of State 401 Water Quality Certification and State Coastal Zone Consistency Determinations.

This Public Notice is issued to announce that the State of Alaska has issued the 401 Water Quality Certification (Attachment A, dated September 22, 1989) and determined that the General Permits are consistent with the State Coastal Management Program. The Certification and consistency determination are now valid for the remainder of the General Permits' 5 year period.

The General Permits are hereby revised to reflect the State certifications which are in effect until June 22, 1993, and to inform the public of an agreement between the State and the Municipality of Anchorage (MOA) for a review procedure for General Permit applications for the placement of fill material within the Anchorage Coastal Boundary or in wetlands outside the boundary where "spillover" impacts to the coastal area could occur. This new MOA/State procedure is described by the State as the following:

> "Pursuant to the state's consistency determination and recertification conducted in September 1989, the state and the MOA will follow a different review procedure for certain wetland sites to ensure consistency. The procedure will be used for wetland sites with high value water quality, flood control or habitat functions which are located within the Anchorage Coastal Boundary or in wetlands outside the boundary where "spillover" impacts to the coastal area could occur.

A list of developable and mixed developable wetlands* with these values has been provided by the resource agencies for use by the Municipality, as described in the Memorandum dated 8/25/89 from the DFG to the DGC. Upon receipt of a General Permit Application for such a site, the Municipality shall provide state coastal consistency reviewers with a copy of all application materials plus any conditions which the Municipality intends to require of the applicant. State consistency reviewers will then have 5 working days to comment on the project. The scope of their review will be limited to determining what mitigation measures, if any, as indicated by Chapter 9 (Mitigation) of the AWMP, will be included in the Municipality's authorization.

"If no comments are received by the end of the five day period, the Municipality can issue its authorization as proposed. If comments are received and the Municipality concurs with any recommended conditions, the authorization can be issued accordingly. If comments contain additional conditions which the Municipality cannot concur with, the review will be extended for a regional level review coordinated by the Division of Governmental Coordination for resolution. If concurrence between the state resource agencies and the Municipality is not reached within 10 working days, the review will be "elevated" in a manner similar to the consistency review procedures [6 AAC 50.070(h) through (k)].

"This coordinated review process will be used to implement General Condition "e" of this general permit. It pertains only to activities proposed in the listed wetlands. Projects in other wetlands will be reviewed by the Municipality staff without the state agency coordination step."

The State/MOA review process has been added to the "PROCEDURE" section of the General Permits for information purposes only as the Corps of Engineers is not included in this State/MOA review process.

In addition, individuals wishing to perform work under these General Permits must submit a completed MOA General Permit Application (rather than the "Compliance Long Form" as stated in the GPs) to the Economic Development and Planning Department, including applicable drawings. The name of the form has changed and the General Permits are hereby revised to reflect that change.

* Same as "Development" and "Mixed Development" wetlands in the AWMP.

With the receipt of the State certifications, the General Permits are now in effect through June 22, 1993. At the end of this period, an evaluation of the program will be made and at that time it would be decided whether or not these permits should be renewed. The District Engineer may, at any time during this 5-year period, alter, modify, or revoke this permit, if he deems such action to be in the public interest.

This Special Public Notice should be attached to all previous copies of General Permit 83-1M and General Permit 83-2M. All other terms and conditions of the General Permit 83-1M and General Permit 83-2M remain the same. Please bring this announcement to the attention of anyone you know who is or may be interested. If further information is desired concerning this notice contact Ms. Jean A. Marx, Special Actions Section of the Regulatory Branch, at (907) 753-2712.

FOR THE DISTRICT ENGINEER:

05 October 1989
DATE

Larry L. Reeder
Chief, Special Actions Section
Regulatory Branch

US Army Corps
of Engineers
Alaska District
Regulatory Branch
Post Office Box 898
Anchorage, Alaska 99506-0898

Public Notice

Date: 29 June 1988

Identification No GP - 83-1M

In reply refer to above Identification Number

Appendix 2

General Permit 83-1M
Municipality of Anchorage

A general Permit has been issued under authority of Section 404 of the Clean Water Act (33 USC 1344) to authorize the placement of fill into wetlands within the Municipality of Anchorage which has been designated "Development" or "Mixed Development" in the Anchorage Wetlands management Plan (AWMP) for the purpose of residential, business and industrial development.

In response to Special Public Notice, identification number 83-1M and 83-2M, dated March 03, 1988, comments have been received from local, State, and Federal agencies, concerned organizations and the general public. Based on a review of all pertinent information, including a prepared Environmental Assessment, I have concluded that the issuance of this permit will not have a significant adverse impact on the environment and is in the general public interest.

All activities will be in accordance with the conditions of the General Permit, a copy of which is attached. Failure to comply with the terms and conditions of the permit may result in suspension of the work, revocation of the permit, and/or imposition of penalties as provided by law.

The attached Special and General Conditions outline the criterion which must be met in order for work to be accomplished under this General Permit. An individual wishing to perform work under the General Permit must review these conditions carefully. If the proposed work does not meet the requirements of the conditions, the General Permit will not apply and an individual Department of the Army permit application must be submitted.

The Municipality of Anchorage has been designated to determine that the work will meet local construction requirements, as well as the General Permit requirements. Individuals wishing to perform work under the permit must submit a completed Municipality of Anchorage General Permit Compliance Long Form to the Economic Development and Planning Department, including applicable drawings. If the Municipality of Anchorage determines that the proposed activity meets the criterion of the General Permit, a copy of all material submitted will be forwarded by the Municipality of Anchorage to the District Engineer. The Municipality will authorize issuance of local authorizations or permits.

US Army Corps
of Engineers
Alaska District
Regulatory Branch
Post Office Box 898
Anchorage, Alaska 99506-0898

Public Notice

Date: 29 June 1988

Identification No GP - 83-2M

In reply refer to above Identification Number

General Permit 83-2M
Municipality of Anchorage

A General Permit has been issued under authority of Section 404 of the Clean Water Act (33 USC 1344) to authorize the placement of fill into wetlands within the Municipality of Anchorage which have been designated "Development" or "Mixed Development" in the Anchorage Wetlands Management Plan (AWMP) for the purpose of road construction.

In response to Special Public Notice, Identification Number 83-1M and 83-2M, dated March 03, 1988, comments have been received from local, State and Federal agencies, concerned organizations and the general public. Based on a review of all pertinent information, including a prepared Environmental Assessment, I have concluded that the issuance of this permit will not have a significant adverse impact on the environment and is in the general public interest.

All activities will be in accordance with the conditions of the General Permit, a copy of which is attached. Failure to comply with the terms and conditions of the permit may result in suspension of the work, revocation of the permit, and/or imposition of penalties as provided by law.

The attached Special and General Conditions outline the criterion which must be met in order for work to be accomplished under this General Permit. An individual wishing to perform work under the General Permit must review these conditions carefully. If the proposed work does not meet the requirements of the conditions, the General Permit will not apply and an individual Department of the Army permit application must be submitted.

The Municipality of Anchorage has been designated to determine that the work will meet local construction requirements, as well as the General Permit requirements. Individuals wishing to perform work under the permit must submit a completed Municipality of Anchorage General Permit Compliance Long Form to the Economic Development and Planning Department, including applicable drawings. If the Municipality of Anchorage determines that the proposed activity meets the criterion of the General Permit, a copy of all material submitted will be forwarded by the Municipality of Anchorage to the District Engineer. The Municipality will authorize issuance of local authorizations or permits.

The General Permit is effective the date of the signature which is shown on the last page of the permit and is issued for a period of 5 years, pending receipt of annual reissuance of State 401 Certification, for water quality and Coastal Zone Determination. At the end of the 5-year period, an evaluation of the program will be made and at that time it will be decided whether or not this permit should be renewed. The District Engineer may, at any time during this 5-year period, alter, modify, or revolt this permit, if he deems such action to be in the public interest.

Questions or requests for additional information should be directed to: Alaska District, U. S. Army Corps of Engineers, ATTN: Regulatory Branch, P.O. Box 898, Anchorage, Alaska 99506, or phone Mr. John W. Bridges at (907) 753 2724.

District Engineer
U.S. Army Corps of Engineers

Attachment

GENERAL PERMIT 83-2M

Notice is hereby given that the Alaska District Corps of Engineers, in accordance with Title 33 CFR 325.2(e)(2) as published in the Federal Register, Volume 51, Number 219, now issues a general permit, pursuant to Section 404 of the Clean Water Act (PL 95-217, 33 U.S.C. 1344) for the placement of fill material into certain wetlands within the Municipality of anchorage.

ACTIVITY:

This general permit applies to the placement of fill material in connection with the construction of roads. The general permit authorizes the placement of fill into wetlands in the Municipality of Anchorage. The wetlands covered by this general permit have been designated "Development" or "Mixed Development" by the Municipality of Anchorage in its April 20, 1982 Wetlands Management Plan. The general permit does not apply to coastal wetlands, in-stream work or any other activity or area that was not dealt with by the Municipality in its Plan. The general permit will not be altered by any change in the Municipality's Plan unless the District Engineer determines that an alteration is in the public's interest following a public interest review of the proposed change or alteration.

PROCEDURE:

The Municipality of Anchorage through ordinance and regulation determines that the work would meet local construction requirements. In addition, the Municipality of Anchorage is designated to ascertain the applicability of this general permit. Final determination of the applicability of this general permit remains with the Alaska District Engineer pursuant to General Condition "j". Individuals wishing to perform work under this permit must submit a completed Municipality of Anchorage General Permit Compliance Long Form to the Economic Development and Planning Department, including applicable drawings. If the Municipality of Anchorage determines that the proposed activity meets the criterion of the general permit, then the issuance of the necessary Municipal authorization will serve as the authorization to proceed under this general permit; for work to proceed under this general permit all necessary Municipal authorizations must have been obtained. At the time of the issuance of the authorization, the Municipality will give a copy of the conditions for this general permit to the individual.

A copy of all material submitted to the Municipality will be forwarded to the District Engineer quarterly and will be reviewed for compliance with the terms and conditions of the general permit. If during this review it is determined that an activity does not comply with the general permit or that a public interest review is required, then the permittee will be required to halt work and submit an application for individual processing. Such review might be necessary, for example, if the activity is located in know or suspected areas involving archaeological, environmental, or flooding concerns.

CONDITIONS:

All activities covered under this general permit will be subject to the following special and general conditions:

1. Special Conditions:

a. That the amount of fill authorized by this general permit shall be the same as that amount authorized by the Municipality in their various permits.

b. That there shall be no fill placed nor disturbance of existing vegetation within 65 feet of creeks, rivers, streams or lakes except greater distances as recommended in the Anchorage Wetlands Management Plan.

c. That structures shall be installed within the road prism as necessary to adequately preserve and maintain natural drainage patterns including sheet flow of surface or near surface water.

d. That paralleling roads to streams, creeks, or lakes shall be avoided; roads will not parallel a stream, creek or lakeshore for any distance more than is necessary as determined by the Municipality of Anchorage in their various permits.

e. That the activity shall not jeopardize the continued existence of any wetlands designated preservation or conservation in the Anchorage Wetlands Management Plan. A 15 foot wide buffer zone in which no construction shall take place and in which all disturbed areas shall be regraded and reseeded is required for activities covered under this general permit that are adjacent to preservation wetlands.

f. That the activity shall not take place in or adversely affect a known archaeological site.

g. That methods are implemented to filter or settle suspended sediment from all construction related waste water prior to its direct or indirect discharge into any natural body of water.

h. That measures are implemented to attenuate flows, remove oil, grease, and other petroleum products and filter suspended sediments from the projects storm water collection system (if present) prior to its discharge into any natural body of water or into a municipal drainage structure which in turn discharges untreated storm water into a natural body of water. The installation of a treatment facility is not mandatory if such a system is scheduled (as per the municipal capital improvement budget) to be completely constructed for the municipal system within two years of connecting the subject project's storm water system to the municipal system.

i. Design plans for storm water collection(s) system to be placed in the authorized fill must be approved by the Department of Environmental Conservation, Anchorage Regional Office, prior to construction.

2. GENERAL CONDITIONS:

a. That all activities identified and authorized herein shall be consistent with the terms and conditions of the general permit and activities not specifically identified and authorized herein shall constitute a violation of the terms and conditions of this general permit which may result in the modification, suspension or revocation of any authorization in whole or in part, as set forth more specifically in General Conditions j or k hereto, and in the institution of such legal proceedings as the United States Government may consider appropriate, whether or not this permit has been previously modified, suspended, or revoked in whole or in part.

b. That all activities authorized herein shall, if they involve during their construction or operation, any discharge of pollutants into waters of the United States or ocean waters, be at all times consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, pretreatment standards, and management practices established pursuant to the Clean Water Act (PL 95-217 33 U.S.C. 1344), the Marine Protection, Research and Sanctuaries Act of 1972 (PL 92-532: 86 Stat. 1052) and pursuant to applicable State and local law.

c. That when the activity authorized herein involves a discharge during its construction or operation, of any pollutant (including dredged or fill material), into waters of the United States, the authorized activity shall, if applicable water quality standards are revised or modified during the term of this permit, be modified, if necessary, to conform with such revised or modified water quality standards within 6 months of the effective date of any revision or modification of water quality standards, or as directed by an implementation plan contained in such revised or modified standards, or within such longer period of time as the District Engineer, in consultation with the Regional Administrator of the Environmental Protection Agency, may determine to be reasonable under the circumstances.

d. That the activity will not jeopardize the continued existence of a threatened or endangered species as identified under the Endangered Species Act, or endanger the critical habitat of such species.

e. That the permittee agrees to execute the construction or operation of the work authorized herein, including measures imposed by the Municipality of Anchorage to mitigate the adverse impacts of the work consistent with Chapter 9 in the AWMP, in a manner so as to minimize adverse impact on fish, wildlife and natural environmental values.

f. That the permittee agrees that he will prosecute the construction work authorized herein in a manner so as to minimize degradation of water quality.

g. That the permittee shall allow the District Engineer or his authorized representatives(s) or designee(s) to make periodic inspections at any time deemed necessary in order to assure that the activity being performed is in accordance with the terms and conditions prescribed in the general permit.

h. That the permittee shall maintain the structure or work authorized herein in good condition and in accordance with approved plans and drawings.

i. That this general permit does not convey any property rights, either in real estate or material, or any exclusive privileges: and that it does not authorize any injury to property, or invasion of rights or any infringement of Federal, State, or local laws or regulations nor does the general permit nor any authorization obviate the requirement to obtain State or local assent required by law for the activity authorized herein.

j. That an activity being performed under authorization of this permit may be summarily suspended, in whole or in part, upon a finding by the District Engineer that immediate suspension of the activity authorized herein would be in the general public interest. Such suspension shall be effective upon receipt by the permittee of a written notice thereof which shall indicate (1) the extent of the suspension, (2) the reasons for such action, and (3) any corrective or preventive measures to be taken by the permittee which are deemed necessary by the District Engineer to abate imminent hazards to the general public interest. The permittee shall take immediate action to comply with the provisions of such notice. Within 10 days following receipt of a notice of suspension, the permittee may request a hearing in order to present information relevant to a decision as to whether the authorization should be reinstated, modified or revoked. If a hearing is requested, it shall be conducted pursuant to procedures prescribed by the Chief of Engineers. After completion of the hearing, or within a reasonable time after issuance of the suspension notice to the permittee if no hearing is requested, the authorization will either be reinstated, modified or revoked.

k. That this general permit may be either modified, suspended, or revoked in whole or in part, if the Secretary of the Army or his authorized representative determines that there has been a violation of any of the terms or conditions of this permit or that such action would otherwise be in the public interest. Any such modification, suspension, or revocation shall become effective 30 days after receipt by the permittee of written notice of such action which shall specify the facts or conduct warranting same unless (1) within the 30 day period the permittee is able

to demonstrate satisfactorily that (a) the alleged violation of the terms and the conditions of this general permit did not, in fact occur or (b) the alleged violation was accidental, and the permittee has been operating in compliance with the terms and conditions of the permit and is able to provide satisfactory assurances that future operations shall be in full compliance with the terms and conditions of this general permit or (2) with the aforesaid 30 day period, the permittee requests that a public hearing be held to present oral and written evidence concerning the proposed modification, suspension or revocation. The conduct of this hearing and the procedures for making a final decision either to modify, suspend or revoke this permit in whole or in part shall be pursuant to procedures prescribed by the Chief of Engineers.

l. That any modification, suspension, or revocation of either authorization under this permit or this permit itself shall not be the basis for any claim for damages against the United States.

m. That the general permit does not approve the construction of particular structures, the authorization or approval of which may require authorization by the Congress or other agencies of the Federal Government.

n. That if and when the permittee desires to abandon the activity authorized herein, the permittee must restore the area to a condition satisfactory to the District Engineer.

o. That this permit does not authorize the interference with any existing or proposed Federal project and that the permittee shall not be entitled to compensation for damage or injury to the structures or work authorized herein which may be caused by or result from existing or future operations undertaken by the United States in the public interest.

p. That no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized by this permit.

q. That the permittee, upon receipt of a notice of revocation of authorization under this permit shall cease from any discharge of dredged or fill material and desist from future discharges. If the permittee fails to comply with the direction of the Secretary of the Army or his authorized representative, action will be taken leading to the referral of the case to the U.S. Attorney.

r. That construction (the placement of dredged and/or fill material) must be completed within 1 year of authorization. At the end of 1 year, reauthorization may be issued by the Municipality of Anchorage.

This general permit is in effect for a period of 5 years, pending the annual issuance of State 401 Water Quality Certification and State Coastal Zone Consistency determinations. Failure by the state to reissue the requisite annual State certifications will result in the General Permit being suspended until certification is received. At the end of the 5-year period, an evaluation of the program will be made and at that time it would be decided whether or not this permit should be renewed. The District Engineer may, at any time during this 5-year period, alter, modify, or revoke this permit, if he deems such action to be in the public interest.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Date: 22 June 1988

for Robert K. Oja,
Chief, Regulatory Branch
FOR: District Engineer
U.S. Army Corps of Engineers

STATE OF ALASKA

STEVE COWPER, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION
SOUTHCENTRAL REGIONAL OFFICE
3601 C ST., SUITE 1334
ANCHORAGE, AK 99503

563-6529

CERTIFIED MAIL
RETURN RECEIPT
REQUESTED
September 22, 1989

Larry Reeder
U.S. Army Corps of Engineers
Regulatory Functions Branch
P.O. Box 898
Anchorage, Alaska 99506

Dear Mr. Reeder:

Re: Certification of Reasonable Assurance Modification
General Permits 83-1 and 83-2

This letter is to amend our June 1, 1988 certification of the subject general permits, by extending their authorization for another 4 years. In addition, stipulation #2 of our June 1, 1988 certification is deleted by this admendment, while stipulations 1, 3, 4 and 5 remain in effect.

If you have any questions concerning the above, please advise.

Sincerely,

Bill H. Lamoreaux
Regional Supervisor

BHL:TR:rs
cc: Louisa Rand, OMB/GCU Anchorage
Kerry Howard, OMB/GCU Juneau
Mark Dalton, MOA DEDP

ATTACHMENT A