

D-2000

development concept plan
environmental assessment

IN
STORAGE

january 1983

File:
KATMAI / ANIAKCHAK
KING SALMON HEADQUARTERS



KATMAI NATIONAL PARK AND PRESERVE
ANIAKCHAK NATIONAL MONUMENT AND PRESERVE

PLEASE RETURN TO:
TECHNICAL INFORMATION CENTER
DENVER SERVICE CENTER
NATIONAL PARK SERVICE

ON MICROFILM

DEVELOPMENT CONCEPT PLAN/
ENVIRONMENTAL ASSESSMENT

KING SALMON HEADQUARTERS

KATMAI NATIONAL PARK AND PRESERVE
ANIAKCHAK NATIONAL MONUMENT AND PRESERVE
ALASKA

Denver Service Center
National Park Service
U.S. Department of the Interior

CONTENTS

BACKGROUND	/	1
PURPOSE OF AND NEED FOR ACTION	/	2
AFFECTED ENVIRONMENT	/	4
Existing Development	/	4
Natural Resources	/	7
Cultural Resources	/	8
Socioeconomic Conditions	/	8
ALTERNATIVES INCLUDING THE PROPOSED ACTION	/	9
Alternative A - No Action	/	9
Alternative B - Proposed Action	/	9
Alternative C	/	14
ENVIRONMENTAL CONSEQUENCES	/	17
APPENDIXES	/	21
BIBLIOGRAPHY	/	25
PREPARERS/CONSULTANTS	/	26

MAPS

Location	/	3
Existing Conditions/Alternative A	/	5
Alternative B	/	11
Alternative C	/	15

BACKGROUND

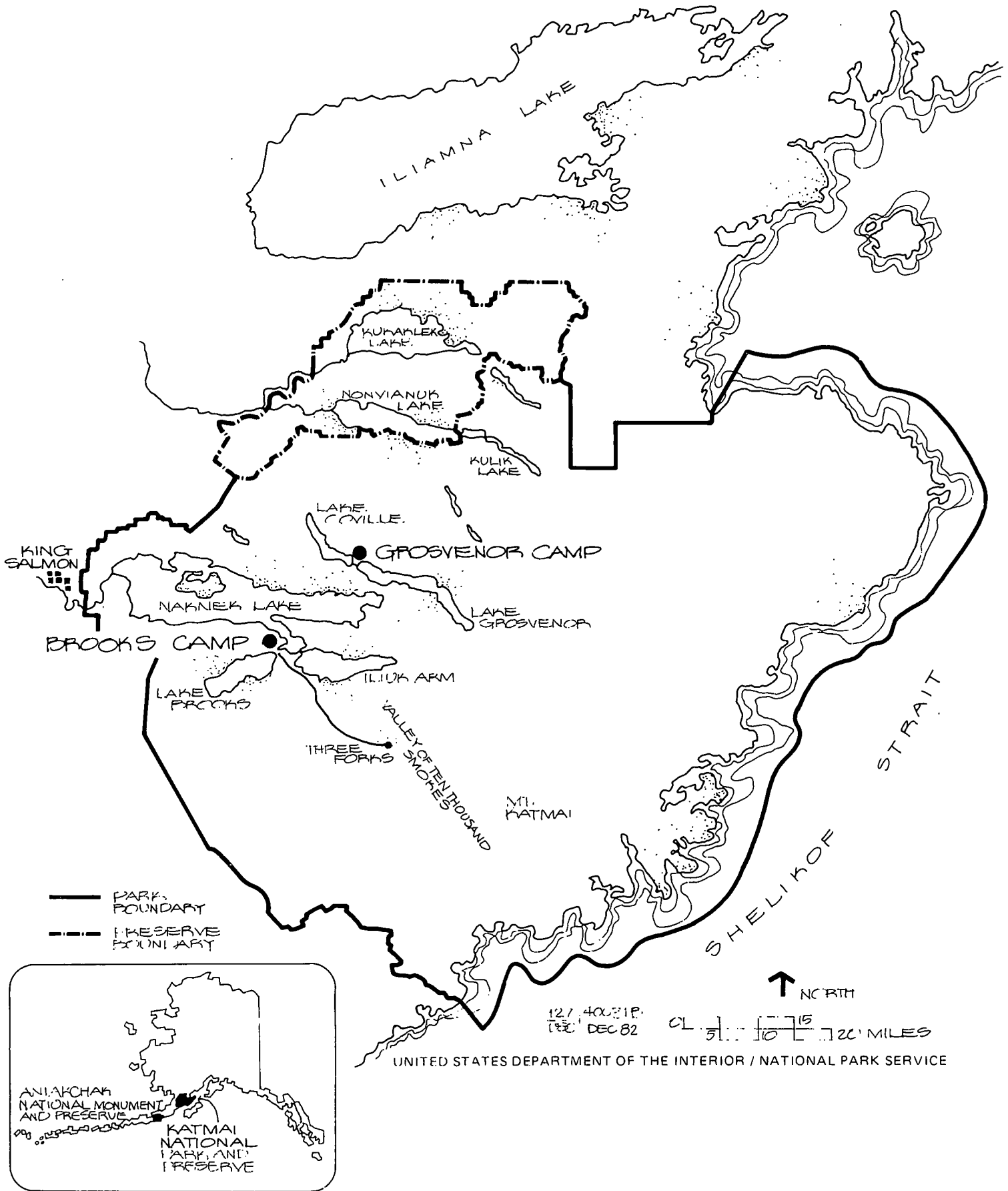
Katmai National Park and Preserve was originally established as a national monument in 1918 by President Woodrow Wilson to protect the scientific and scenic wonders associated with Mt. Katmai, Novarupta, and the Valley of Ten Thousand Smokes. Following this proclamation, several additions were made reflecting the evolving perception of the area's purpose and values. By 1959 the monument's operation had become large enough to require that park management be moved from Mt. McKinley (Denali) National Park to King Salmon, a site closer to the monument. In 1980 ANILCA designated Katmai as a 4-million-acre national park and preserve.

Aniakchak, which contains 514,000 acres, was established as a national monument by presidential proclamation in 1978. Under ANILCA the monument's boundary was adjusted and it was designated as a national monument and preserve.

PURPOSE OF AND NEED FOR ACTION

Because of the increased size of Katmai National Park and Preserve and the additional legal and administrative requirements under ANILCA, the King Salmon headquarters development is no longer adequate with regard to office and maintenance space and housing. There is insufficient housing for permanent staff and no housing for seasonal staff and future employees. The maintenance and storage areas are overcrowded. During fall and winter months materials and equipment received at headquarters need to be stored until weather permits their transport to the park proper; current storage space is limited and at times nonexistent. The two-room office is cramped for the six permanent employees and allows no space for the seasonal employees or for visitor contact. The 36-inch-diameter seepage pit--the existing wastewater disposal system--no longer functions in accordance with Alaska wastewater regulations.

This Development Concept Plan/Environmental Assessment contains several alternative solutions to the problems described above. The alternatives are analyzed for their impacts on natural and cultural resources, park management, and the regional economy. A preferred alternative (the proposed action) is identified that, if implemented, would provide a headquarters with sufficient office, maintenance, storage, and residential space and related utility capacities to function effectively as a living/working environment for the staff who administer Katmai National Park and Preserve and Aniakchak National Monument and Preserve.



LOCATION

ON MICROFILM

KATMAI NATIONAL PARK AND PRESERVE

AFFECTED ENVIRONMENT

The 11.43-acre headquarters site for Katmai National Park and Preserve and Aniakchak National Monument and Preserve is in King Salmon, a small community on the Alaska Peninsula about 15 miles from Bristol Bay and approximately 300 air miles southwest of Anchorage. There are no roads linking King Salmon to the state highway system. Primary access is by commercial airline from Anchorage and from several other communities in southwestern Alaska. King Salmon is the nearest community to the park with year-round transportation and necessary amenities.

The present headquarters site was acquired through Public Land Order 1861 on May 26, 1959, for the express purpose of developing a headquarters/administration facility for Katmai National Monument. In 1978 Aniakchak came under National Park Service jurisdiction, and since then it has also been managed from the King Salmon site. The headquarters is about 7 miles west of the Katmai park boundary, about 40 air miles west of Brooks Camp, the primary development in Katmai, and about 150 air miles north of Aniakchak.

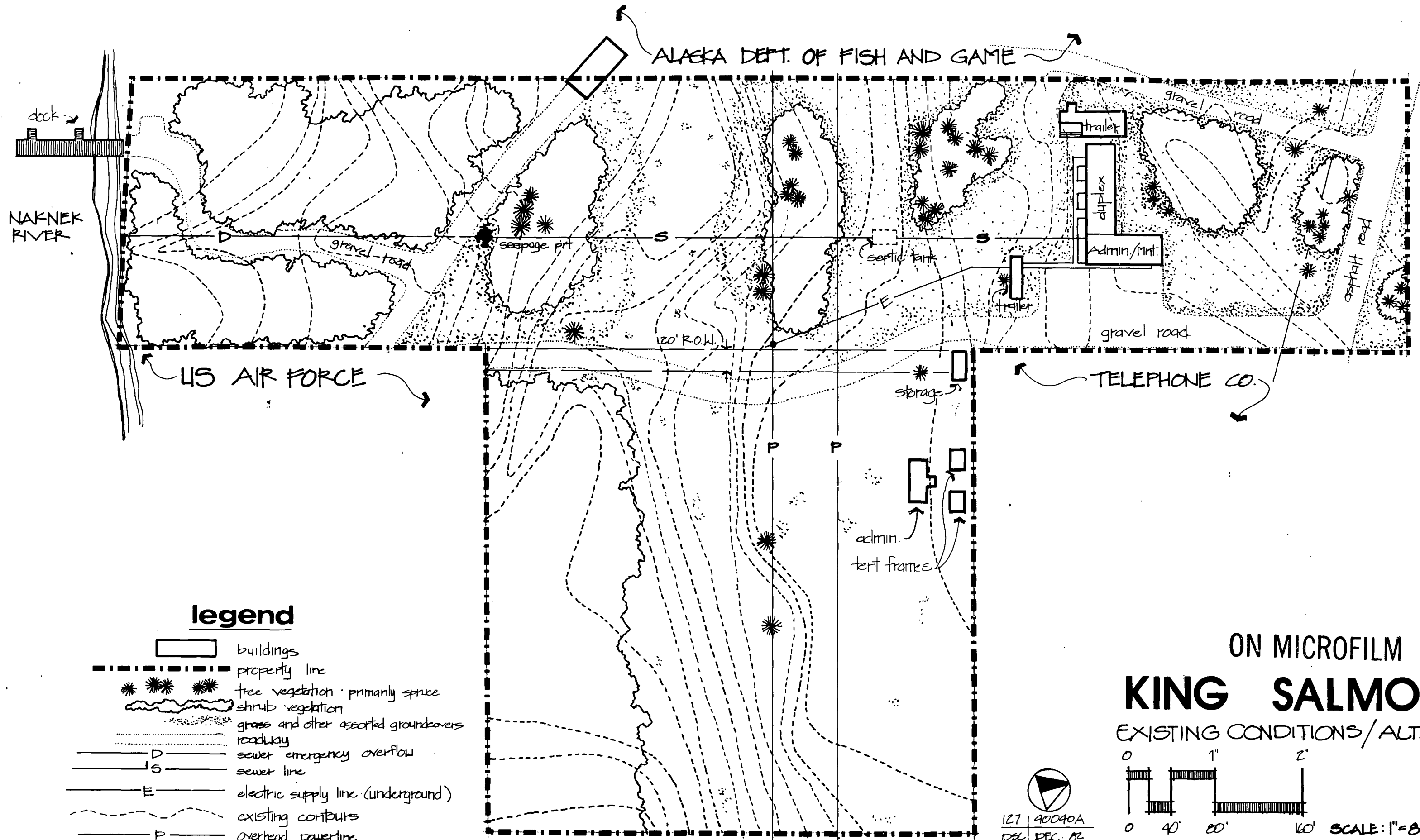
The community of King Salmon has about 300 residents, mainly employees of state and federal agencies. It is also the site of a major air force base, which houses about 500 residents. An Alaska Department of Fish and Game facility (office and housing) adjoins the boundary of the headquarters site to the west; the Bristol Bay Telephone Company owns the land to the northeast; and the air force property is to the southeast. The King Salmon airport and Wien Airlines terminal building are approximately 500 feet north of the headquarters.

EXISTING DEVELOPMENT





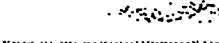
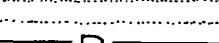
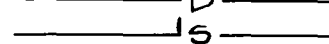
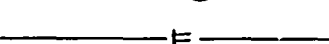
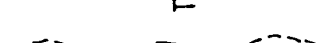
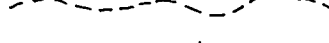
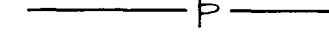
The headquarters site currently has a residential duplex and an office, shop, and heating plant, all constructed in 1964 (see Existing Conditions map). These functions are housed in an L-shaped unit and are linked underground by a "utilidor," a corridor that acts as a pipe chase for utilities. There are also two residential trailers and a small butler-type building used for storage. The space next to this storage building is used for outdoor storage of miscellaneous equipment and supplies. There are two short gravel roads on the site and one major access road, which runs north-south the entire length of the site. A dock approximately 70 feet long by 6 feet wide on the Naknek River at the south end of the property accommodates one float plane and two skiffs.

Electrical power for the existing development consists of three-phase 600-amp service from a commercial source in King Salmon. To augment the commercial power, a 4-kw wind-powered generator will be installed by the park staff at the headquarters site in the summer of 1983. The generator will be located away from the development to reduce noise levels and provide a 75-foot clear radius in the event that the tower collapses.

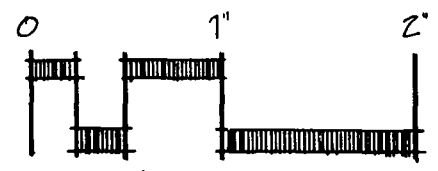
Hot water is supplied by two oil-fired Birchfield boilers. Each boiler produces approximately 1.2 million Btus. Domestic water is heated by a



legend

-  buildings
-  property line
-  tree vegetation - primarily spruce
-  shrub vegetation
-  grass and other assorted groundcovers
-  roadway
-  sewer emergency overflow
-  sewer line
-  electric supply line (underground)
-  existing contours
-  overhead powerline

127 40040A
 DSC DEC 02

ON MICROFILM
KING SALMON
 EXISTING CONDITIONS/ALT. A

 SCALE: 1"=80'
 KATMAI NATIONAL PARK AND PRESERVE
 UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

tube bundle in each boiler. The system has no storage tank; the hot water piping system is used for storage. The existing boilers are large enough to provide hot water heating and domestic water for approximately twice the current demand (based on conversation with Jack O'Neal, engineer in the NPS Alaska Regional Office).

The water system has a 6-inch-cased, 97-foot-deep well located in the pumphouse of the office, shop, and heating plant building. Water pumped from the well is stored in a 6,000-gallon reservoir beneath the pumphouse. All water is automatically treated with chlorine as it is pumped from the well into the reservoir. Both the well and the storage capacity are capable of serving a larger number of people than those currently residing at the headquarters site.

Wastewater from the existing development is collected in a 5-inch soil line that discharges into a concrete septic tank approximately 200 feet south of the developed area. Effluent from the septic tank is discharged through a 6-inch pipeline to a seepage pit another 200 feet south of the septic tank. The seepage pit no longer functions properly because it is too small to handle the quantity of wastewater produced; in addition, the soils do not provide an adequate filter medium for this type of disposal in the long term.

NATURAL RESOURCES

King Salmon is on the Bristol Bay lowlands of the Alaska Peninsula in the ecotone between the tundra zone and the boreal spruce forest. The administrative site is on the northern bank of the Naknek River at an elevation of approximately 35 feet.

King Salmon has a maritime climate, with relatively little diurnal temperature variation. Summer high temperatures average just above the 50° F isotherm considered necessary for tree growth. During July, the warmest month, temperatures average 54° F, and there are an average of five days with temperatures reaching 70° F. The average daily high temperature for July is 63°. During the winter temperatures average 12.5° F, with the typical daily minimum temperature for January ranging from 7°-11°. Overcast skies and fog are common; however, snowfall is low, averaging only 45 inches per year. Total annual precipitation in King Salmon is 24 inches. The prevailing winds are from the east; however, during the winter strong north winds are extremely cold and sweep the area clear of snow.

The site is generally flat, ranging from 11 feet in elevation on the Naknek River at the southern end to just over 37 feet at the northern end. The floodplain has not been mapped, but there is no evidence that it would extend higher than 20 feet in elevation. Most of the site is above the water table, although there are several low swampy pockets.

Soils in the King Salmon area are glacial in origin. The areas have been glaciated at least twice and possibly four times. The glaciers left outwash and moraines that generally created well-drained soils. Only small spots within the administrative site, primarily near the river, are permanently frozen, and they do not pose an obstacle to construction.

Vegetation is sparse. Small clusters of white spruce grow within larger masses of willow and alder shrubs on most of the site. This vegetation is typical of the forest-tundra ecotone, especially where it borders a river. The open space on the northern or developed portion of the site has been planted with grass for recreational use.

Because the 11-acre site is in a relatively developed strip along the Naknek River, few animals are found. However, brown bears are occasionally sighted in the area, as are fox, hare, weasel, and moose. No threatened or endangered species are known to exist in the King Salmon area (personal communication with Michael Amaral of the U.S. Fish and Wildlife Service, Anchorage office).

The Naknek River is the major drainage in the region and is a major spawning area for red, king, chum, and silver salmon. The river also supports populations of northern pike, arctic grayling, rainbow trout, and Dolly Varden. At King Salmon the Naknek River is a tidal estuary and is classified under state water quality standards as a suitable drinking water supply (class A). However, surface water is not used for domestic purposes by the National Park Service (or by most others in King Salmon); a well on site provides potable water.

The most appealing view on the site is to the southeast toward the Naknek River. All other vistas contain buildings or other man-made intrusions, ranging from the airline terminal to several old, unpainted buildings.

CULTURAL RESOURCES

A cultural resource clearance survey has been conducted, and unconditional clearance is recommended (see appendix B).

SOCIOECONOMIC CONDITIONS

The major industry of the Bristol Bay area is fishing, but King Salmon is primarily a government town. The air force base and a variety of state and federal agency offices serve the Alaska Peninsula. Schools are in the town of Naknek, 14 miles west of King Salmon.

Katmai National Park and Preserve is visited by 10,000-12,000 visitors annually. Approximately 9,000 of these are recorded at Lake Camp, 10 miles east of King Salmon and the only portion of the park accessible by road. Many of these visitors are people from the local area who periodically stop by the Park Service office for information.

About half of the 2,200 annual visitors to the interior of Katmai are on commercial tours. They fly into King Salmon, change planes, and immediately fly to Brooks Camp or one of the other two lodges in the park/preserve for 2-7 days. Other visitors, primarily campers and backcountry users, also fly into King Salmon. These people often have some layover time, during which they go to the Park Service office to get information about the park.

ALTERNATIVES INCLUDING THE PROPOSED ACTION

ALTERNATIVE A - NO ACTION

The existing development would remain as is, and any additional employees would be housed off site (see Existing Conditions map). No changes would occur on site except the construction of a new 800-linear-foot leachfield to replace the existing seepage pit (as described in alternative B) and any minor improvements that the staff accomplished.

ALTERNATIVE B - PROPOSED ACTION

This alternative proposes seven new housing units for permanent staff, arranged in a stepped fashion to create sheltered open space for outdoor activities. The units would be a mixture of two- and three-bedroom units approximately 1,100 to 1,300 square feet each. There would be shared carports attached to the units to be used for storage as well as protection of vehicles. The carports would be equipped with electrical hookups for engine block heaters. Subject to subsurface soil and water conditions, all of the housing units would have basements, and the utilities would be housed in utilidor. The existing duplex would continue to be used for permanent staff housing.

Seasonal housing would be provided in two new duplexes (four two-bedroom units total) located close to the existing L-shaped structure. One unit would be on the approximate site of the administrative technician's trailer; the other would be on the site of the facility manager's trailer. Both trailers would be removed from the site, as would the butler storage building. The new units would have basements to serve as storage and indoor recreation space for permanent residents as well as seasonal employees.

The existing administration/maintenance building would be converted entirely for maintenance. It would include a two-bay vehicle work area with lifts, a carpentry shop, a welding cage, a paint booth, and a secured tool storage area. In addition, a new maintenance facility would be constructed near the existing outdoor storage area; this facility would have 3,000 square feet of indoor workshops and space for storage of wood and metal supplies, paint, and a variety of tools. About 2,000 square feet of outdoor space for materials storage and vehicle parking and circulation would be included.

A 2,500-square-foot administration building would be constructed north of and adjacent to the existing administration/maintenance building. It would include a receptionist area with space for visitor contact, office space for six employees, a superintendent's office, a conference room, and a library with interpretive file space. A raised boardwalk would direct visitors to the building entrance.

Design considerations for most buildings, particularly for those housing permanent employees, would include a southeasterly orientation to take advantage of the view of the Naknek River. The main living spaces

would be on the southeast side of each unit for the same reason. The units would be clustered to create wind blocks and heat pockets to the west, thereby providing sheltered areas for outdoor recreation. Building entrances would be screened with fencing on the north and east and would have double entries creating generous spaces that could be used as mud rooms to store boots, coats, snow shovels, etc. The buildings would be heavily insulated, and only a few (if any) windows would be placed on the north and northeast walls. All windows would be double-glazed thermopane units with wooden frames, moldings, and mullions.

The proposed buildings would be constructed of natural materials, except for the use of metal roofing, which is appropriate in this climate. Because of King Salmon's remote location, labor and building materials would not be readily available. It is therefore recommended that semi-custom-designed prefabricated units be purchased, in Seattle for example, and installed on site with a minimum of construction. Soil and groundwater conditions permitting, basements would be provided in all the new units to meet existing needs for storage and recreational space.

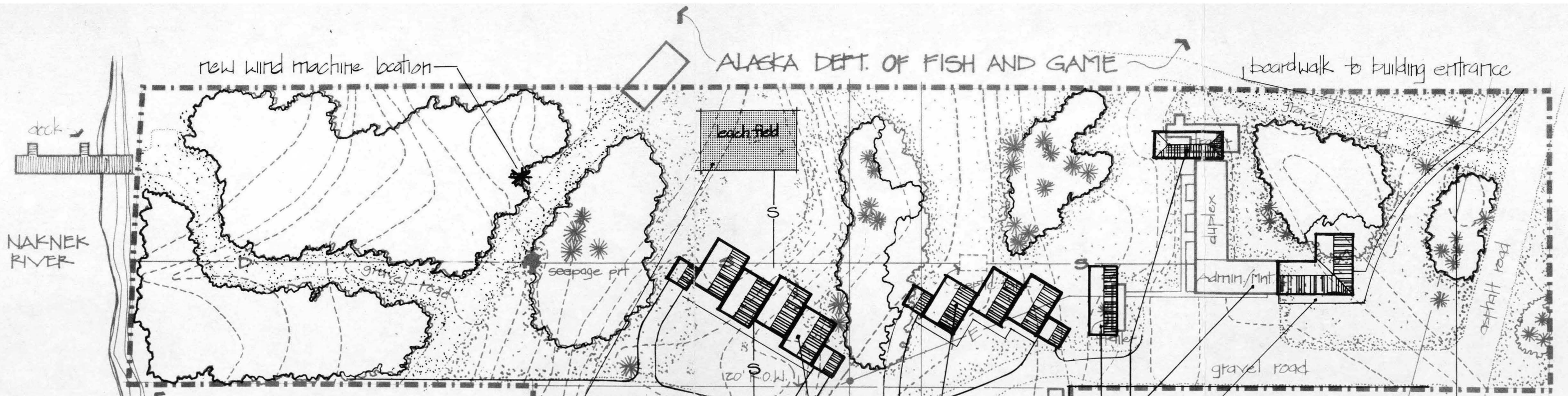
It is also recommended that the proposed buildings carry out the architectural design themes illustrated by the Bristol Bay Telephone Company building or the housing units of the National Marine Fisheries Service not far from the headquarters site (see illustrations). The existing buildings on the site should receive facade treatments so that when new construction was completed, the entire King Salmon development would appear visually as a unit.

The finish floor elevation of the housing units would be somewhat higher than the surrounding land to afford better views to the southeast and minimize the amount of excavation necessary for basement construction. In addition, each block of units would be connected by boardwalks to avoid the hazardous ice coating on ground surfaces and provide a safe walking surface in the winter.

The opportunity may exist in the future to gain access to the headquarters site across land now owned by the Alaska Department of Fish and Game. If this were to occur, proper signing would be provided, making it easier to locate the headquarters from the Wien Airline terminal, where most visitors arrive.

The wastewater treatment system would be upgraded by abandoning the existing 36-inch-diameter seepage pit and constructing a new leachfield to dispose of effluent (no change in the septic tank would be required). The leachfield would include 800 linear feet (7 rows, each 115 feet long) of 4-inch-diameter perforated pipe. It would be laid 6 feet deep, well below the frost line. The seepage pit would be retained and used as an overflow for the leachfield.

The glycol line would continue to be used around the sewer line from the buildings to the septic tank to keep the line from freezing. The septic tank might be insulated for energy conservation. A ground temperature sensing system would be installed at the absorption trench, at the distribution box, and in the septic tank to monitor the sewage temperature. Gauges for this system would be installed in the main maintenance building.



leach field for existing wastewater treatment system - scheduled for summer '83
 new septic tank and leach field for new units

four new housing units for permanent staff with attached carports.
 three new housing units for permanent staff (attached carports).

obliterate existing gravel road
 new administration and park operations office
 convert existing park operations/maintenance office to maintenance
 new duplex for seasonal staff
 new seasonal staff duplex
 new maintenance facility with outdoor storage

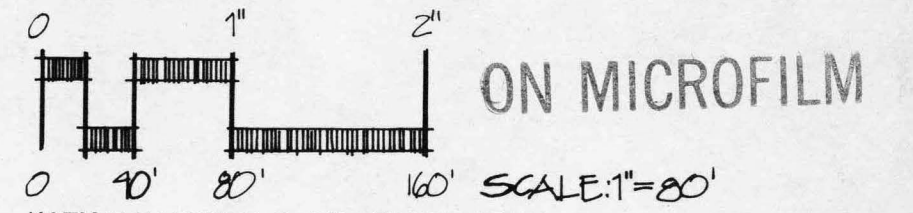
legend

- buildings
- property line
- tree vegetation - primarily spruce
- shrub vegetation
- grass and other assorted groundcovers
- roadway
- sewer emergency overflow
- sewer line
- electric supply line (underground)
- existing contours
- overhead powerline

obliterate existing tent frames and small admin. bldg.

127 40041A
 DSE DEC. 82

KING SALMON
 PREFERRED ALTERNATIVE/ALT. B



KATMAI NATIONAL PARK AND PRESERVE
 UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



National Marine Fisheries Service housing units

Either of the architectural design themes illustrated by these buildings would be appropriate for the proposed headquarters buildings and would complement the built environment of King Salmon.

Bristol Bay Telephone Company, King Salmon



The northern housing cluster would be served by the existing septic tank and the proposed leachfield west of the sewerline. When the southern cluster was built, a new septic tank and leachfield would be installed east of the housing to service these units.

An archeological survey conducted June 8, 1982 (see appendix B), cleared the site unconditionally for construction. If archeological resources were encountered during proposed construction, all necessary steps would be taken to protect them, and the regional archeologist would be notified immediately.

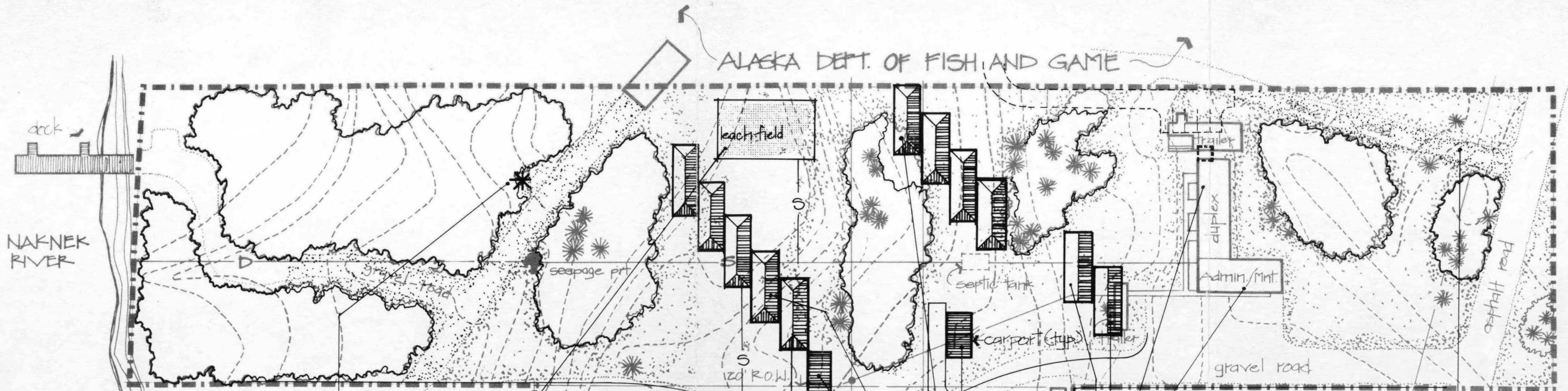
ALTERNATIVE C

This alternative varies from the proposed action primarily in regard to the location of housing and administration buildings. Most other actions would be similar. The facility manager's, administrative technician's, and butler-type storage buildings would be removed from the site. The existing gravel road at the southern end of the site would be obliterated, and the salvaged material used for construction of an access road and a small parking area for the dock. All utility connections would be handled similarly, with a utilidor running through the basements of all buildings. The wastewater treatment work would be the same as under alternative B.

Maintenance facilities would be the same as under alternative B; a new maintenance facility would be constructed, and the existing administration/maintenance building would be converted for maintenance functions only. The seasonal housing would be somewhat different; in alternative C, the two seasonal units would be connected and located south of the existing administration/maintenance building.

Under alternative C the existing duplex would be converted into an administration/operations office with a small entrance "foyer" added on the west end of the building to protect against heat loss and provide a more formal entrance to the facility for visitors. The administrative offices would provide a visitor contact area, office space for five employees, a superintendent's office, a conference room, and library with file space.

To make up for the loss of the existing duplex, this alternative calls for a total of nine new housing units for permanent staff. They would be a mix of two- and three-bedroom units ranging from 1,100 to 1,300 square feet and would be sited to take advantage of the southern view and provide protection against the wind. Carports would be provided, but they would not be attached to the housing units. The units would be clustered to create heat pockets and sheltered areas for outdoor recreation.



new wind machine location

leach field for existing wastewater treatment system. scheduled for summer '83

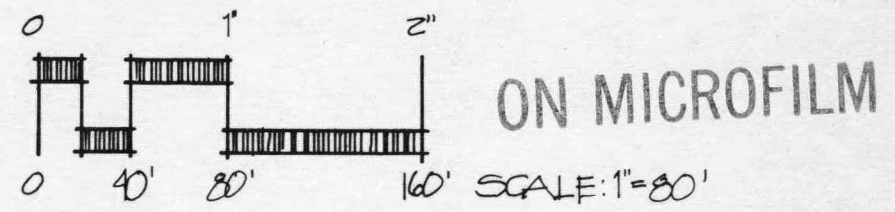
new septic tank and leach field for new units

new housing units with shared carports for permanent staff

legend

- buildings
- property line
- tree vegetation - primarily spruce
- shrub vegetation
- grass and other assorted groundcovers
- roadway
- sewer emergency overflow
- sewer line
- electric supply line (underground)
- existing contours
- overhead powerline

KING SALMON
ALTERNATIVE C



127140042A
DEC. DEC. '82

ENVIRONMENTAL CONSEQUENCES

ALTERNATIVE A - NO ACTION

Only the effects of reconstructing the wastewater treatment system are analyzed in this section. Other actions that the park staff may undertake in the future will be assessed in separate compliance documents.

Effects on Natural Resources

An area of up to 100 feet by 140 feet by 6 feet deep (less than 1/3 acre) would be disturbed by the construction of the new leachfield. No trees or shrubs would be removed because the location for the field has no trees. The existing seepage pit would be retained for emergency overflow use only, eliminating the problem of surfacing effluent.

Effects on the Cultural Resources

There would be no known impacts on cultural resources (see archeological clearance in appendix B).

Effects on Park Management

Housing, offices, maintenance, storage, and visitor contact facilities would continue to be inadequate. Management would continue to have a problem finding housing in King Salmon and perhaps even filling vacant positions because of the lack of housing. Productivity in the office would be reduced because of cramped and noisy conditions. Lack of adequate storage space would cause inefficient use of the maintenance area.

ALTERNATIVE B - PROPOSED ACTION

Effects on the Natural Resources

As under alternative A, a maximum of 100 feet by 140 feet by 6 feet deep (less than 1/3 acre) would be disturbed during the construction of the first leachfield. Subsequent use of the leachfield would eliminate the effluent flowing from the nonfunctioning seepage pit. As housing increased, it would be necessary to construct a second septic tank and leachfield identical to the first, impacting another 1/3 acre.

Construction of nine new housing units (7 houses and 2 duplexes) and carports would disturb approximately 2 acres of land. The new maintenance area east of this housing and the administrative building addition would disturb another 1/2 acre. Short-term impacts caused by construction equipment moving around the site might affect another acre. No spruce trees would be removed as all structures would be located in areas where only sparse grasses are growing. The construction season and the high rain season overlap; therefore, if soils were disturbed

during construction and if a heavy, continuous rainstorm followed, the runoff would carry more sediment than normal. However, such sediment loads would be temporary and insignificant relative to the size of the drainage basin.

Removal of the road across the southern portion of the site (about 1/2 acre) would permit restoration of more natural contours. Construction of a shorter road along the southern edge (using fill from the existing road) would disturb about 1/3 acre.

Overall construction of new facilities would impact 4-1/2 acres and restore 1/2 acre. Wildlife in the area would probably not be disturbed by construction activities or by development and use on the 4-1/2 acres; there would be no impacts on endangered or threatened species (see "Affected Environment"). Although the floodplain has not been mapped at the headquarters site, the proposed development appears to be well above any recent flood levels.

Effects on Cultural Resources

There would be no known impacts on cultural resources (see archeological clearance in appendix B).

Effects on Park Management and the Region

The effects on the staff's well-being would be significant because quality work and nonwork environments would be provided. Adequate office, maintenance, and storage space would be included, and housing would be designed to minimize the impacts of harsh winds and provide views from living spaces. Indoor recreational space would enhance living conditions. The site of the new administration building would increase its visibility for visitors arriving at the airport, thus providing better service.

Since prefabricated units would likely be purchased and delivered to the site, only minimal benefits would accrue to the local economy from construction of the basements and necessary site and utility preparation.

ALTERNATIVE C

Effects on Natural Resources

The effects of alternative C would be almost identical to those of alternative B, except that the acreage affected would be slightly larger (5 acres, including temporary construction impacts). No trees (only shrubs) would be removed, and the wildlife would not be affected. No endangered species would be impacted.

Effects on Cultural Resources

There would be no impacts to cultural resources (see archeological clearance).

Effects on Park Management

The size and type of facilities would be the same under alternative C as under alternative B, so the impacts would generally be the same. However, the orientation of the housing units would be such that views would be blocked by shrubs.

SUMMARY OF ENVIRONMENTAL CONSEQUENCES

	<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C</u>
New acreage affected	1/3 acre	4-1/2 acres (1/2 acre restored)	5 acres (1/2 acre restored)
Number of trees removed	0	0	0
Water quality-- discharge into Naknek River	excellent	excellent	excellent
Permanent employee housing	2 units	9 units	9 units
Seasonal housing	0	2 duplexes	2 duplexes
Recreational space	0	3,000 sq. ft.	3,000 sq. ft.

APPENDIXES

A: COST ESTIMATES AND IMPLEMENTATION PRIORITIES

Alternative A

Construct leachfield	
Connect to existing sewer	\$ 120,000

Alternative A - Total Net Construction Cost	\$ 120,000
---	------------

Alternative B

Construct gravel access road	\$ 15,000
Construct gravel parking area	4,000

Obliterate existing gravel roads and restore area	6,000
---	-------

Construct leachfield and connect to existing sewer	76,000
--	--------

Construct leachfield	120,000
----------------------	---------

Install new septic tank	24,000
-------------------------	--------

Install sewer line	36,000
--------------------	--------

Construct administration/park operations building	400,000
---	---------

Provide seven new employee housing units with attached carports	875,000
---	---------

Convert existing building to maintenance	75,000
--	--------

Construct two duplexes (4 units total)	280,000
--	---------

Construct new maintenance facilities (indoor)	450,000
---	---------

(outdoor gravel storage)	8,000
--------------------------	-------

Provide electricity	2,000
---------------------	-------

Construct boardwalks	9,000
----------------------	-------

Install water line to residences and duplexes	24,000
---	--------

Provide electricity	12,000
---------------------	--------

Miscellaneous site development (15%)	<u>364,000</u>
--------------------------------------	----------------

Alternative B - Total Net Construction Cost	\$2,780,000
---	-------------

Alternative C

Same as above except:

Construct carports (6) as separate buildings	\$ 0
Build two additional residences (total 9)	250,000
Convert existing duplex to park offices	10,000
Miscellaneous site development (15%)	44,000
Water, sewer, electric	<u>32,000</u>
Construction Cost in Addition to Alternative B Costs	\$ 336,000
Alternative C - Total Net Construction Cost	\$3,116,000

Implementation Priorities
Proposed Action (Alternative B)

1. Improve existing wastewater treatment (septic) system
2. Provide permanent staff housing (4 units)
3. Provide new maintenance facility
4. Provide new administration facility
5. Provide new seasonal housing duplexes
6. Provide permanent staff housing (3 units)

In the event that monies were unavailable to cover the construction cost of the whole headquarters development, the above list would be useful in establishing funding priorities.

B: ARCHEOLOGICAL CLEARANCE SURVEY FORM (Katmai - King Salmon)

1. Project: Headquarters Expansion
2. Package No. KATM 140 Clearance No. 001-82-KATM
3. Project Description: A number of new buildings will be constructed to accommodate additional personnel, maintenance, and storage. This includes two new duplexes, an office addition, two leachfields and septic tanks, six new three-bedroom units, and a new maintenance shop with storage area. Trenches for the appropriate utilities will also be a part of the project.
4. Project Location: King Salmon, AK, within the NPS land area. See map.
5. Survey Area Boundaries: From the project area on the south, with leachfields and housing as borders, to the paved road on the north; and from the Fish and Game lands at the west edge of the property to as far east as a line from the back edge at the proposed leachfield and maintenance shop. The boat dock area was also examined.
6. Date(s) of Survey: 6/8/82
7. Surveyor: Harvey Shields
8. Number of Person-days in Survey: 3
9. Description of Area Surveyed: A large portion of the area was disturbed. The only areas that appear fairly pristine are those indicated on the map, and covered with shrubs. These areas are quite hummocky and damp and covered with moist tundra and alder; spruce occur rarely. Other areas have been bulldozed clear and/or covered with gravel for roads, or used as a building base or for parking areas.

In general this is a typical riverbank area. Terrance remnants are noticeable with small stream runoffs dissecting them in spots. There are no other prominent geomorphological features.
10. Survey Procedure: The proposed project area was visually covered in 10 m swaths with a zig-zag walking pattern. Two shovel probes were excavated, one in each leachfield area where major excavation would take place. Only clean sand was found. The westernmost test hit water at 70 cm, the easternmost hit frost at 65 cm.
11. Description of Cultural Resources Located: N/A
12. Evaluation of Cultural Resources Located: N/A
13. National Register Status: N/A

14. Effect of Project on Resources: None
15. Recommendations:
Unconditional Clearance Recommended*
16. Attachments:
Project Design Data:
USGS Map: N/A
Project Map Scale: 1" = 80' (attached)
Site Records: N/A
17. Native American Consultation: N/A

*All clearances are conditional in that if concealed archeological resources are encountered during construction, all necessary steps will be taken to protect them and to notify the regional archeologist, Alaska Regional Office, immediately.

BIBLIOGRAPHY

TRYCK, NYMAN, AND HAYES

1977 "King Salmon Sewer Service District Facilities Plan."
Prepared for the National Park Service, Anchorage, Alaska.

YOUNG, S.B., AND C. H. RACINE,

1978 Ecosystems of the Proposed Katmai Western Extension, Bristol Bay Lowlands, Alaska. Wolcott, Vermont: Center for Northern Studies.

PREPARERS/CONSULTANTS

PREPARERS

Joe Crystal, Landscape Architect and Team Captain, Denver Service Center

Betty Janes, Sociologist, Denver Service Center

Tom Lew, Engineer, Denver Service Center

Dave Morris, Superintendent, Katmai National Park and Preserve

CONSULTANTS

Andy Barton, Architect, Denver Service Center

Michael Amaral, Endangered Species Coordinator, U.S. Fish and Wildlife Service, Anchorage, Alaska

John Ochsner, Landscape Architect, Denver Service Center

Ed Stoddall, Engineer, Alaska Regional Office

Harvey Shields, Archeologist, Alaska Regional Office

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Publication services were provided by the graphics staff of the Denver Service Center. NPS 2000

B: ARCHEOLOGICAL CLEARANCE SURVEY FORM (Katmai - King Salmon)

1. Project: Headquarters Expansion
2. Package No. KATM 140 Clearance No. 001-82-KATM
3. Project Description: A number of new buildings will be constructed to accommodate additional personnel, maintenance, and storage. This includes two new duplexes, an office addition, two leachfields and septic tanks, six new three-bedroom units, and a new maintenance shop with storage area. Trenches for the appropriate utilities will also be a part of the project.
4. Project Location: King Salmon, AK, within the NPS land area. See map.
5. Survey Area Boundaries: From the project area on the south, with leachfields and housing as borders, to the paved road on the north; and from the Fish and Game lands at the west edge of the property to as far east as a line from the back edge at the proposed leachfield and maintenance shop. The boat dock area was also examined.
6. Date(s) of Survey: 6/8/82
7. Surveyor: Harvey Shields
8. Number of Person-days in Survey: 3
9. Description of Area Surveyed: A large portion of the area was disturbed. The only areas that appear fairly pristine are those indicated on the map, and covered with shrubs. These areas are quite hummocky and damp and covered with moist tundra and alder; spruce occur rarely. Other areas have been bulldozed clear and/or covered with gravel for roads, or used as a building base or for parking areas.

In general this is a typical riverbank area. Terrance remnants are noticeable with small stream runoffs dissecting them in spots. There are no other prominent geomorphological features.
10. Survey Procedure: The proposed project area was visually covered in 10 m swaths with a zig-zag walking pattern. Two shovel probes were excavated, one in each leachfield area where major excavation would take place. Only clean sand was found. The westernmost test hit water at 70 cm, the easternmost hit frost at 65 cm.
11. Description of Cultural Resources Located: N/A
12. Evaluation of Cultural Resources Located: N/A
13. National Register Status: N/A

14. Effect of Project on Resources: None
15. Recommendations:
 Unconditional Clearance Recommended*
16. Attachments:
 Project Design Data:
 USGS Map: N/A
 Project Map Scale: 1" = 80' (attached)
 Site Records: N/A
17. Native American Consultation: N/A

*All clearances are conditional in that if concealed archeological resources are encountered during construction, all necessary steps will be taken to protect them and to notify the regional archeologist, Alaska Regional Office, immediately.

BIBLIOGRAPHY

TRYCK, NYMAN, AND HAYES

1977 "King Salmon Sewer Service District Facilities Plan."
Prepared for the National Park Service, Anchorage, Alaska.

YOUNG, S.B., AND C. H. RACINE,

1978 Ecosystems of the Proposed Katmai Western Extension, Bristol Bay Lowlands, Alaska. Wolcott, Vermont: Center for Northern Studies.

PREPARERS/CONSULTANTS

PREPARERS

Joe Crystal, Landscape Architect and Team Captain, Denver Service Center
Betty Janes, Sociologist, Denver Service Center
Tom Lew, Engineer, Denver Service Center
Dave Morris, Superintendent, Katmai National Park and Preserve

CONSULTANTS

Andy Barton, Architect, Denver Service Center
Michael Amaral, Endangered Species Coordinator, U.S. Fish and Wildlife Service, Anchorage, Alaska
John Ochsner, Landscape Architect, Denver Service Center
Ed Stondall, Engineer, Alaska Regional Office
Harvey Shields, Archeologist, Alaska Regional Office

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Publication services were provided by the graphics staff of the Denver Service Center. NPS 2000