

ALASKA LEGISLATURE COMMITTEE FILES 1985 - 1986 8672
4222.34 RES SUBSISTENCE: PUBLICATIONS (file 2)

Option #4. Subsistence preference provided by a combination of subsistence hunting areas, a controlled use area, methods and means, residency in a Subsistence Hunting Area, and differential season lengths.

Additional eligibility criteria used in this option:

Residency with the Subsistence Hunting Area.

All existing regulations retained except that seasons and bag limits would be changed. Subsistence Hunting Areas and a Controlled Use Area would be established.

Section 5AAC---- Subsistence caribou hunting areas.

The following areas are closed to the taking of caribou by hunters residing outside of the area: That area within (five) miles of the town center (U.W. Post Office Building) of the following communities in Game Management Unit 23; Bucklnad, Selawik, Shungnak, Kobuk, Ambler, Kiana, Noorvik, Kotzebue, Noatak, Kivalina, and Point Hope; Game Management Unit 26: Barrow, Pt. Lay, Wainwright, Atkasook, Nuiqsut and Anaktuvuk Pass.

Section 5AAC 81.23__ Western Arctic Controlled Use Area.

Those portions of the Game Management Units 23 and 26 which lies with (five miles) of either side of the following main river channels of rivers in BMU 23: Buckland River, Selawik River, Dobuk River to its confluence with the Pah River, Noatak River to its confluence with the Nimiuktuk River and the Wulik River to its confluence with the Ikulukrok Creek and in Game Management Unit 26 the Irisaruk River, Ketik River, Nigisaktuvik River, Meade River, Colville River to its confluence with the Chandler River are closed during any open caribou hunting season, to the use of airplanes in any manner for hunting caribou, including transportation of caribou into or within the Western Arctic Controlled Use Area, and/or the transportation of caribou or any parts of caribou, either to or from this Controlled Use Area; provided that this section does not apply to the the transportation of caribou hunters, or caribou, or parts of caribou, by regularly scheduled flights made to and between villages of carriers that normally provide scheduled services to this Controlled Use Area.

Section 5AAC__ Subsistence Hunting: Seasons and Bag Limits.

Unit 22, that portion draining into Norton Sound and the Bering Sea north of Cape Denbigh, Units 23, 24 and that portion of Unit 25 draining into the Yukon River from and including the drainage of the Tozitna River to and including the drainage of the Hodzana River, 26(A), and 26(b). (See subsistence zones, controlled use areas and eligibility criteria).	Aug. 10-Oct. 15 Feb. 15-Apr. 15	Two bulls***by permit provided that not more than one bull may be taken from Aug.10-Oct.15 (season will be closed by Emergency Order if the total harvest exceeds 5,000 bulls).
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Section 5AAC 81.320 Non-subsistence users: Seasons and Bag Limits.

Unit 22, that portion draining into Norton Sound and the Bering Sea north of Cape Denbigh, Units 23, 24 and that portion of Unit 25 draining into the Yukon River from and including the drainage of the Tozitna River to and including the drainage of the Hodzana River; 26(A), and 26(B).	Sep. 1-Oct. 15	One bull by permit (season closed by Emergency Order if the total harvest exceeds 5,000 bulls)
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Impact of regulations:

1. Local hunters would have exclusive use of the area immediately surrounding their village but subsistence hunters not from a specific Subsistence Hunting Area could not hunt in that Subsistence Area. This zoning would reduce the number of hunters near a given village thus reducing harassment to the herd which may result in the herd remaining near a given village longer.
2. The conflict between boat and airplane hunters would be greatly reduced.
3. The regulation allows a limited harvest for those hunters residing outside of these Game Management Units plus a chance for local non-subsistence hunters to take a few animals without unduly competing with subsistence hunters.

SPECIES: Moose

<u>GMD</u>	<u>SUBSISTENCE</u>	<u>COMMERCIAL</u>	<u>RECREATIONAL</u>	<u>COMMENTS</u>
18	3**	2	2*	I
19A	3**	2	2*	I
19B	1**	3	3*	
19C	1**	3	3*	
19D	3**	1	2*	I
20A	0*	1	1**	
20B	1*	0	1**	
20C	1*	0	1**	
20D	1*	0	1**	
20E	0*	0	0**	
21	3**	1	2*	I
22	2**	1	3*	I
23	3**	1	2*	I
24 (northern)	1**	3	3*	I
(southern)	3**	1	2*	
25	2**	1	2*	I
25A	1**	1	2*	
25B	1**	1	1*	I
25C	1**	1	1*	

MOOSE PROBLEMS

I. Local vs. non-local use of moose

A. Scope: Problem is in competition for a limited resource between subsistence and commercial/recreational users. Conflicts arise because of:

1. Dissimilar transportation modes (e.g. aircraft vs. boat).
2. User residences differ (e.g. lower river hunters vs. upper river hunters).
3. Assumed unequal opportunity (e.g. high country users kill most of the moose before they can later migrate to the lowlands).
4. Differing use of the resource (e.g. trophy vs. meat gathering).

B. Regulatory Options:

1. Hunting by permit only, permits to be available locally and in larger communities.
2. Surface transportation only in high use areas with overlapping recreational-subsistence food uses.
3. Subsistence zone or hunting area for moose only. Local residents only.
4. Provide subsistence users longer, earlier, or later season than for non-subsistence users.
5. Short season for all users, except long seasons for residents of a specific problem area (same as 4 except excludes non-locals in longer season).
6. Establish a quota for either local or non-local use.

C. Problem Areas:

1. Unit 18
2. Unit 19A
3. Unit 19D
4. Unit 21
5. Unit 22
6. Unit 23
7. Unit 24
8. Unit 25
9. Unit 26 A&B

Kalskag Controlled Use Area, Game Management Unit 18

1) Present Use:

The purpose of this Controlled Use Area is to favor moose hunting by restricting aircraft access. This area is presently used by local residents of 10 lower Kuskokwim villages, 10 lower Yukon villages, alien and non-resident hunters, and Alaska resident hunters from Bethel and Anchorage that formerly used mainly aircraft access.

2) Conflicts/Problems:

Competition for the available moose in the Kalskag Management Area has aggravated conflicts between local residents and other hunters in this area, particularly regarding the mode of transportation used. Local hunters, who mostly use surface transportation, feel that the use of airplanes provides an unfair advantage for the more affluent moose hunter. Airplane hunters have felt that the illegal use of snowmachines in hunting has had a much greater impact on the moose population than the use of aircraft. Lack of compliance with the existing season and bag limits by some local residents has added to the conflict with other resident hunters.

3) Allocations:

Subsistence users will receive preference for moose hunting in the Kalskag Management Area.

4) General options for minimizing conflicts between user groups in this area include:

- a) Leave the controlled use area as is and more closely enforce the existing restrictions.
- b) Create a Subsistence Hunting Area under terms of SL 151.
- c) Create a Subsistence Hunting Area that would be restricted to the local residents of the management area.
- d) Limit methods of transportation for all hunting activities in this area.
- e) Establish a shorter moose hunting season for non-subsistence hunters.
- f) Establish a Subsistence Hunting Area, prohibit use of mechanized vehicles and firearms, and provide for no closed season and no bag limits.
- g) Restrict the use of the area for moose hunting to those who qualify under a combination of subsistence eligibility criteria.

5) Four specific regulatory examples

Two subsistence use eligibility criteria apply to all four examples.

- 1) Fish and Game utilization for direct consumption or barter.
- 2) The hunter shall have been involved in taking moose during the last (5, 10) years in (GMU 18, State of Alaska). (numbers or characteristics in parentheses represent options).

Kalskag Controlled Use Area, Game Management Unit 18

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2) Conflicts/Problems:

Competition for the available moose in the Kalskag Management Area has aggravated conflicts between local residents and other hunters in this area, particularly regarding the mode of transportation used. Local hunters, who mostly use surface transportation, feel that the use of airplanes provides an unfair advantage for the more affluent moose hunter. Airplane hunters have felt that the illegal use of snowmachines in hunting has had a much greater impact on the moose population than the use of aircraft. Lack of compliance with the existing season and bag limits by some local residents has added to the conflict with other resident hunters.

3) Allocations:

Subsistence users will receive preference for moose hunting in the Kalskag Management Area.

Option #1

Change the Kalskag Controlled Use Area to the Kalskag Subsistence Hunting Area

- a) By definition AS 16.05.257 (h)(1) and (2) as amended only state residents who qualify as subsistence users may hunt in a subsistence hunting area.
- b) All existing for the regulations would be retained, however 5 AAC 81.233 is redesignated as a Subsistence Hunting Area.

That portion of Game Management Unit 18 between the village of Kalskag on the Kuskokwim to a point west and north near the village of Russian Mission on the Yukon River, and east along the course of the Yukon River to the old village site of Piamute that border Game Management Units 19 and 21, is closed during any open moose hunting season, to the use of airplanes in any manner for hunting moose, including transportation of moose hunters into or within the Kalskag Subsistence Hunting Area and/or the transportation of moose, or any parts of moose, either to or from this subsistence hunting area; provided that this section does not apply to the transportation of moose hunters, or moose, or parts of moose, by regularly scheduled flights made to and between villages by carriers that normally provide scheduled services to this subsistence hunting area.

c) Impacts

- 1) Alien and non-resident hunters would be unable to hunt in this area.
- 2) Only Alaska residents who qualify as subsistence users would be permitted to hunt moose in this area.
- 3) Non-subsistence users wishing to take other species with the use of aircraft would be allowed. This has caused concern among local people in the past because of possible abuses involving moose hunting, and could be addressed by limiting methods and means for all hunting during open moose season in either a Subsistence Hunting Area or Controlled Use Area.
- 4) Only Alaskan residents that have taken moose during the last (5, 10) years would be eligible to hunt moose in this area.
- 5) Many village hunters have not used harvest tickets in the past and it will be very difficult to establish proof of having taken a moose during the last (5, 10) years in (Game Management Unit 18, State of Alaska). This problem is applicable for each of the options discussed since it refers to one of the general eligibility requirements.

Option #2 Establish a Kalskag Subsistence Hunting Area restricting hunting to residents of this Area.

- a) Additional Eligibility Criteria used in this option
 - 1) Residency in the Kalskag Area for the last 12 consecutive months
- b) All other existing regulations retained, except that 5AAC 81.233 is redesignated the Kalskag Subsistence Hunting Area.

That portion of Game Management Unit 18 between the village of Kalskag on the Kuskokwim to a point west and north near the village of Russian Mission on the Yukon River, and east along the course of the Yukon River to the old village site of Piamute that border Game Management Units 19 and 21, is closed during any open moose hunting season, to the use of airplanes in any manner for hunting moose, including transportation of moose hunters into or within the Kalskag Subsistence Hunting Area and/or the transportation of moose, or any parts of moose, either to or from this subsistence hunting area; provided that this section does not apply to the transportation of moose hunters, or moose, or parts of moose, by regularly scheduled flights made to and between villages by carriers that normally provide scheduled services to this subsistence hunting area.

c) Impacts

- 1) Only Alaskan residents that have lived in the villages of Lower Kalskag, Russian Mission or areas contained within the defined boundaries of the Kalskag Subsistence Hunting Area would be eligible to hunt moose in this area.
- 2) The present season, bag limits, and methods and means would remain the same.
- 3) It will be difficult to establish proof of having taken a moose during the last 5, 10 years in Alaska, GMU 18, Kalskag area, since many village hunters have not used harvest tickets in the past.

Option #3 Establish a Kalskag Subsistence Hunting Area and limit method and means.

- a) Additional Eligibility Criteria used in this option.
 - 1) (90%) Subsistence Dependence - (90%) of the diet of the household is made up of subsistence foods.
- b) Most existing regulations retained except 81.233 is redesignated a Kalskag Subsistence Hunting Area and more restrictive method and means are adopted while providing liberal seasons and bag limits.

That portion of Game Management Unit 18 between the village of Kalskag on the Kuskokwim to a point west and north near the village of Russian Mission on the Yukon River, and east along the course of the Yukon River to the old village site of Piamute that border Game Management Units 19 and 21, is closed to the use of any mechanized vehicle for hunting moose, including transportation of hunters into or within the Kalskag Subsistence Hunting Area and/or the transportation of moose, or any parts of moose either to or from this management area.

c) Big Game

The illegal methods and means of taking big game, in addition to the prohibitions listed in sec. 120 of this chapter are:
(8) with the use of firearms in the Kalskag Subsistence Hunting Area.

d) Big Game Hunting

(9) Moose

Unit 18, Kalskag Subsistence Area No closed season no limit

e) Impact

- 1) Will provide for Alaskan residents to enter a subsistence lifestyle without previous experience.
- 2) This option allows for unlimited harvest and unrestricted seasons by strictly controlling the methods and means used local and non-local hunters alike will find this severely limiting.
- 3) It will be difficult to establish what percent of the diet of the family is made up of subsistence foods.

Option #4 Establish a Kalskag Subsistence Hunting Area which combines several eligibility criteria.

- a) Additional Eligibility Criteria used in this option.
 - 1) Residency in a moose hunting oriented community for the last (six) consecutive months.
 - 2) The hunter lives in a community with a population of (2000) or smaller.
 - 3) The regional adjusted per capita cash income for the region the hunters reside in is not more than _____.
 - 4) Stores in the hunters community have less than a (\$20,000) inventory of processed food.
- b) Retain existing regulations except redesignate 81.233 as the Kalskag Subsistence Hunting Area

That portion of Game Management Unit 18 between the village of Kalskag on the Kuskokwim to a point west and north near the village of Russian Mission on the Yukon River, and east along the course of the Yukon River to the old village site of Piamute that border Game Management Units 19 and 21, is closed during any open moose hunting season, to the use of airplanes in any manner for hunting moose, including transportation of moose hunters into or within the Kalskag Subsistence Hunting Area and/or the transportation of moose, or any parts of moose, either to or from this subsistence hunting area; provided that this section does not apply to the transportation of moose hunters, or moose, or parts of moose, by regularly scheduled flights made to and between villages by carriers that normally provide scheduled services to this subsistence hunting area.

- c) Impacts
 - 1) With the additional eligibility criteria used fewer subsistence hunters will be eligible to hunt in this area. Of the four options discussed, this option will provide the most restrictive hunting regulations for subsistence users.
 - 2) Examples of subsistence users that would not qualify are:
 - a) All Alaskan residents living in communities larger than (2,000) would not be eligible to hunt in this area.
 - b) Hunters living in subsistence communities outside of the moose hunting communities would not be eligible to hunt in the Kalskag Management Area.

- c) Residents in communities with stores that have processed food inventory of (\$20,000) or more would not be eligible to hunt in this area.
- d) Residents of regions with an adjusted cash income of _____ or more would not be able to hunt in this area.

SPECIES: Muskoxen

<u>GMI</u>	<u>SUBSISTENCE</u>	<u>COMMERCIAL</u>	<u>RECREATIONAL</u>	<u>COMMENTS</u>
13-Nunivak	0*	3**	2*	I
Nelson.	0**	0*	0*	I
22	0**	0	0*	
23	0**	0	0*	
26	0**	0	0*	

MUSKOXEN PROBLEMS

I. Local vs. non-local use of muskoxen

A. Scope: Existing problems are confined to Nunivak and Nelson Islands where the largest populations exist. In both places there is interest in subsistence use of muskox, although it is much higher on Nelson Island. Nunivak residents are successfully guiding muskox hunters and appear to want to continue to do so; Nelson Island residents have little interest in guiding.

B. Regulatory Options:

1. Encourage legislature to reduce tag fees charged island residents or for hunting female muskoxen.
2. Adopt permit season; permits to be available at Toksook, Tununak, Nightmute and Bethel. Surface transport only.
3. Adopt subsistence muskoxen zone (Nelson Island only), possibly in combination with alternatives 1 or 2.

C. Problem Areas:

1. Unit 18

SPECIES: Polar Bear

<u>GMU</u>	<u>SUBSISTENCE</u>	<u>COMMERCIAL</u>	<u>RECREATION</u>	<u>COMMENTS</u>
1-17	0	0	0	Under Federal Regulation
18	0*	0**	0**	
22	2*	0**	0**	
23	2*	0**	0**	
26	2*	0**	0**	

SPECIES: Ringed seal

1-16	0	0	0
17	3**	0*	0*
18	3**	0*	0*
22	3**	0*	0*
23	2**	0*	0*
26	3**	0*	0*

SPECIES: Ribbon seal

1-16	0	0	0
17	1*	0**	0*
18	1*	0**	0*
22	1*	0**	0*
23	1*	0**	0*
26	1*	0**	0*

SPECIES: Bearded seal

1-16	0	0	0
17	1**	0*	0*
18	2**	0*	0*
22	2**	0*	0*
23	2**	0*	0*
26	2**	0*	0*

SPECIES: Dall Sheep

<u>GMU</u>	<u>SUBSISTENCE</u>	<u>COMMERCIAL</u>	<u>RECREATIONAL</u>	<u>COMMENTS</u>
19C	1*	3	3**	1
20A	0*	1	1**	
20C	0*	0	1**	
20D	0*	0	2**	
20E	0*	0	1**	
13	1*	1	2**	
24	1*	3	3**	
25	1*	1	2**	
26A	1*	2	3**	
26B	1*	2	3**	
26C	2**	2	3*	1

SHEEP PROBLEMS

I. Subsistence users want winter sheep seasons

A. Scope: Traditional use formerly involved extensive summer-fall hunting trips afoot. Subsequently, early and late winter hunting became more expedient. More recently, changing circumstances precluded the need or the opportunity to hunt sheep in most parts of the state. Current open seasons are in early fall.

B. Regulatory Options:

1. Add new permit season allowing ground transportation only.
2. Add new, short winter season for area residents only.
3. Allocate a quota to local use or to non-local use.

C. Problem Areas:

1. Unit 19C
2. Unit 26B
3. Unit 26C

SPECIES: Small Mammals

<u>GMU</u>	<u>SUBSISTENCE</u>	<u>COMMERCIAL</u>	<u>RECREATIONAL</u>	<u>COMMENTS</u>
18	3**	0	3*	
19	2**	0	1*	
20	2**	0	2*	
21	2**	0	1*	
22	2**	0	1*	
23	2**	0	2*	
24	2**	0	1*	
25	2**	0	1*	
26	2**	0	1*	

SPECIES: Furbearers

<u>GMU</u>	<u>SUBSISTENCE/COMMERCIAL</u>	<u>RECREATIONAL</u>	<u>COMMENTS</u>
18	3**	1*	
19A	3**	1*	
19B	2**	1*	
19C	2**	1*	
19D	3**	1*	
20A	2**	3*	
20B	1*	3**	
20C	2**	2*	I
20D	1*	2**	
20E	2**	2*	
21	2**	1*	
22	2**	1*	I
23	3**	3*	I
24	2**	1*	
25	2**	1*	
26	3**	3*	I (26B)

FURBEARER PROBLEMS

- I. Airborne hunters/trappers competing with subsistence users employing ground transportation.
 - A. Scope: Airborne land-and-shoot trappers/hunters can take many more of certain furbearer species than can those using ground transport.
 - B. Regulatory Options: Where airborne fur takers are causing a reduction in available furbearers the following options may be useful:
 1. Limit methods and means of taking furbearers in certain areas to ground transport only.
 2. Provide a short season during which any transportation means may be used and a longer season for ground transport only.
 - C. Problem Areas:
 1. Unit 22
 2. Unit 26B

FURBEARER (Continued)

II. Recreational trappers vs. subsistence trappers

- A. Scope: In areas used by both urban-based recreational trappers and rural subsistence (commercial) trappers there is competition for available furbearers.
- B. Regulatory Options:
 - 1. Adopt trapping-by-permit-only seasons in areas where conflicts are serious.
 - 2. Adopt short seasons for all licensed trappers, except longer season for residents of a given conflict area.
 - 3. Include trapping among uses provided for in subsistence zones.
 - 4. Legislatively establish registered traplines.
- C. Potential or Existing Problem Areas:
 - 1. Unit 20B
 - 2. Unit 20C

SPECIES: Belukha whale

<u>GMU</u>	<u>SUBSISTENCE</u>	<u>COMMERCIAL</u>	<u>RECREATION</u>	<u>COMMENTS</u>
1-8	0	0	0	
9	1**	0	0	
10	0	0	0	
15	1**	0	0	
16	1**	0	0	
17	1**	0	0	
18	1**	0	0	
22	3**	0	0	
23	2**	0	0	
26	2**	0	0	

SPECIES: Sea otter

1-8	0	0	0	
9	0	0**	0	
10	0	0**	0	
15	0	0	0	
16	0	0	0	

SPECIES: Bowhead whale

1-2	0		0	
24-25	0		0	
22, 23, 26	2**		0	Baleen used for handicrafts.

SPECIES: Elephant seal

1-10	0	0	0	
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SPECIES: Ribbon seal

<u>GMU</u>	<u>SUBSISTENCE</u>	<u>COMMERCIAL</u>	<u>RECREATION</u>	<u>COMMENTS</u>
13	1*	0**	0*	
22	1*	0**	0*	
23	1*	0**	0*	
26	1*	0**	0*	

SPECIES: Polar Bear

18	0*	0**	0**	
22	2*	0**	0**	
23	2*	0**	0**	
26	2*	0**	0**	

SPECIES: Belukha whale

18	1**	0	0	
22	2**	0	0	
23	3**	0	0	
26	2**	0	0	

SPECIES: Sea lion

18	0	0**	0	
22	0	0**	0	
23	0	0**	0	
26	0	0**	0	

SPECIES: Sea otter

9	0	0**	0	
10	0	0**	0	

SPECIES: Walrus

<u>GMU</u>	<u>SUBSISTENCE</u>	<u>COMMERCIAL</u>	<u>RECREATION</u>	<u>COMMENTS</u>
1-8	0	0	0	
9	0	1**	0	I
10	0	0	0	
14	0	0	0	
15	0	0	0	
16	0	0	0	
17	1**	1*	0	I
18	2**	2*	1*	I
22	2**	2*	2*	I
23	1**	1*	1*	I
26	1**	1*	1*	I

SPECIES: Sea lion

1-5	1*	0**	0*
6	1*	1**	0*
7	1*	1**	0*
8	1*	1**	0*
9	1*	1**	0*
10	1**	1*	0*
15	0	0**	0*
16	0	0**	0*
17	1**	0*	0*
18	0	0**	0
22	0	0**	0
23	0	0**	0
26	0	0**	0

SPECIES: Spotted seal

1-5	1*	0**	0*
6	1*	2**	0*
7	1*	1**	0*
8	1*	0**	1*
9	1*	0**	1*
10	1*	0**	1*
15	1*	0**	0*
16	1*	0**	0*
17	2*	0**	0*
13	2*	0**	0*
22	2*	0**	0*
23	2*	0**	0*
26	1*	0**	0*

Walrus Problems - All Areas

I. Subsistence vs. commercial use

- A. Scope: The needs for cash income in remote villages has expanded greatly so that most walrus are taken primarily for their ivory. Competition within village quotas between subsistence and commercial users has intensified so that not all of the subsistence meat needs are met while a considerable amount of meat is unsalvaged by commercial hunters.

Presently there is no distinction between commercial and subsistence users and often times they are the same individuals. There is no breakdown of maximum area harvest quotas to individuals and when walrus are available and the weather is favorable the maximum harvest quotas can be reached in 3 or 4 days. Consequently the hunting pressure is intensified as each individual recognizes that the season may be closed on short notice. Some subsistence users may not obtain sufficient meat to meet their needs.

There are several misconceptions regarding the allocation of the total statewide allowable harvest between commercial/ subsistence and recreational users. Presently up to 100 permits to take walrus are allocated to recreational users out of a total annual statewide allowable harvest of 3,000 walrus.

B. Regulatory Options:

- a) Establish commercial walrus hunting regulations.
- b) Breakdown statewide and area quotas for:
 - 1) subsistence users
 - 2) commercial users
 - 3) recreational users
- c) Allow subsistence users to obtain their quota prior to opening of the commercial season.
- d) Include walrus as a wild food animal in the "Waste of Wild Food Animals" provision Sec. 16.30.010.
- e) Develop markets for excess meat.

C. Problem Areas:

- 1. Unit 17
- 2. Unit 18
- 3. Units 22, 23 and 26.

Bering and Chukchi Sea Walrus Management Area: GMU 18, 22, 23 and 26

1. Present Use:

Coastal residents of Alaska who have traditionally depended upon walrus for food and other by-products take over 95% of the annual harvest. During the 10 year period from 1966 through 1976 the average walrus harvest was about 1700 per year; since then the harvest has averaged nearly 2500 annually. This increase in the kill is directly related to the need for more cash by local residents to meet the rising cost of living. The sale of raw ivory and ivory carvings is often a principal source of income for many coastal residents. Currently 80% or more of the walrus killed are taken primarily for their ivory. The predominate use of the resource is commercial.

2. Conflicts/Problems:

Annual area harvest quotas were established in the spring of 1977 to allocate the maximum allowable harvest permitted by federal constraints to all communities that are dependent on the resource. All communities that were assigned quotas expressed displeasure with the system because they contended they were unable to harvest sufficient walrus to meet their cash requirements. Most local hunters contend they are still following a subsistence life style even though they are harvesting walrus primarily for the sale of their raw ivory. A majority of the annual harvest is taken during the spring when walrus habitually rest upon the pack ice during their northward migration. The success ratio is relatively high because the animals can be approached closely and the pods are generally large. Once walrus reach water the success ratio declines and loss rates are several times higher. True subsistence hunters (those few who are principally after meat and hides) have complained that commercial and recreational hunters regularly frighten walrus into the water. In some areas competition from these groups has made it difficult to obtain walrus close to the village. Consequently hunters have begun to abandon traditional methods and means, e.g., skin boats with large cohesive crews, in favor of speed boats with small, unsupervised crews. The result is higher annual harvests and a much lower percentage of retrieved meat. Subsistence hunting patterns are evolving into commercial hunting patterns.

3. Allocation:

Non wasteful subsistence use is given priority; however, it is recognized that the majority of the present and future use will be for commercial purposes.

4. General Options:

- a. Retain present regulations which give coastal residents traditionally dependent on walrus a multiple bag limit.

- b. No restrictions of any kind for subsistence users.
- c. Establish quotas for subsistence, recreational and commercial users based on cash requirements and ability of local residents to utilize the resource.
- d. Establish a Subsistence Hunting Area.
- e. Limit method and means, with the most restrictive methods applied only to recreational and commercial uses.

5. Specific regulatory examples:

Subsistence use could be given preference by one of the following four options.

Subsistence eligibility criteria used in options 2, 3, and 4 are:

- a) Members of the family have taken walrus for food during the last (2) years.
- b) Hunter lives in a fishing, hunting and gathering oriented community.
- c) At least (80%) of the meat from walrus taken is used for direct consumption or barter.
- d) At least (75%) of the diet of the family is made up of subsistence foods.

Numbers or characteristics in parentheses are options.

Option #1 Retain the existing regulations

Under the existing regulations subsistence users are given preference to the resource as follows:

- a) Residents of coastal units traditionally dependent upon walrus for sustenance may take multiple bag limits ranging from unlimited numbers of bulls to 5 walrus. All other residents and non-residents are limited to one bull per regulatory year, and only 100 permits are available for these users.
- b) In Game Management Units 18, 22, 23 and 26 the hunting season is open all year unless closed by emergency order.
- c) In areas where the harvest may become excessive maximum yearly quotas have been established. The largest quotas were established in those locations which have a traditional dependency on walrus meat and walrus by-products such as ivory. Quota sizes were based on records of previous use.

Option #2 No regulations on non-wasteful subsistence users, all other users regulated.

Specific regulatory scheme

5 AAC 81.350 Marine Mammal Hunting

(4) Walrus Subsistence Hunting

Open season

Bag Limit

GMU 18, 22, 23
and 26

No closed season

No bag limit; provided however, that the edible portions of all walrus must be salvaged for human consumption.

Non-subsistence Hunting

GMU 18, 22, 23
and 26

No closed season

one walrus; by permit only

Impact of Regulation:

1. Residents dependent upon walrus for food could take an unlimited number of animals at any time during the year provided most of the edible meat is salvaged for consumption. It is estimated that this subsistence harvest would be no more than 800 walrus per year and probably considerably less.
2. The remainder of the allowable harvest under the quota established within the terms of Federal law (approximately 1500 animals) would be available for recreational hunters by permit only. However, the recreational demand is currently low, and it is estimated that less than 200 walrus a year would be taken by recreational hunters.
3. Commercial hunting (taking walrus principally for ivory) would not be allowed.
4. The total annual harvest would probably be less than 1000 walrus per year.

Option #3 Sport and commercial harvest would be regulated. The nutritional requirements of subsistence hunters would be accommodated.

Specific regulatory scheme

5 AAC 81.350 marine mammal hunting

(4) Walrus Subsistence Hunting

GMU 18, 22, 23 and 26	<u>Open Seasons</u>	<u>Bag Limits</u>
	No closed season	No bag limit; provided however, that the edible portion of all walrus must be salvaged for consumption.

Non-subsistence Hunting

GMU 18, 22, 23 and 26	No closed season	one walrus, by permit only
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Commercial Hunting

Unit 1 thru 18 23 and 26	No open season
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Unit 22	1 April - 30 June	The following area quotas apply
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Gambell	250
Savoonga	250
Nome-King Island	- 100
Wales	100
Shishmaref	100
Diomede	250

Note: It is the intent of the State of Alaska to limit the annual take of walruses to less than 2,300 per year. Commercial hunting will be closed in all areas if the annual take exceeds 2500 walrus.

Impact of Regulation:

1. This scheme would be adopted only in those areas where a majority of the local residents favor commercial use.
2. The nutritional requirements of subsistence users would be provided for.

Option #4 Subsistence use would be given preference by establishing a walrus subsistence hunting area.

a) Additional eligibility criteria used in this option.

1) Residency in the GMU.

b) Regulations adopted for this option.

Section 5 AAC _____ SUBSISTENCE WALRUS HUNTING AREA

An area within a 15 mile radius of the following villages is open to walrus hunting only by subsistence users living in each village: Gambell, Savoonga, Nome, Teller, Brevig Mission, Wales, Diomede, Shishmaref, Unalakleet, Stebb^{ns}, St. Michaels, Elim, Koyuk and Shaktoolik.

5 AAC 81.350 MARINE MAMMAL HUNTING

(4) Walrus Subsistence Hunting

	<u>Open Seasons</u>	<u>Bag Limits</u>
GMU 22	No closed season	No bag limit; provided however, that the edible portion of all walrus must be salvaged for consumption.

Non-subsistence Hunting

GMU 22 No closed season The following area quotas apply:

Gambell	250
Savoonga	250
Nome-King Island	100
Wales	100
Shishmaref	100
Diomede	250

c) Impact of Regulation

- 1) Only subsistence hunters could take walrus within a 15 mile radius of the coastal villages. All edible meat must be salvaged within this area.
- 2) Walrus could be taken outside the subsistence area only by recreational and commercial users who are residents of GMU 22.
- 3) It would be illegal for commercial and recreational hunters to molest, drive, take or attempt to take walrus within a subsistence walrus hunting area.
- 4) If the quotas outside the subsistence area was reached a season for commercial hunting would be closed by emergency announcement.

Option #4 Subsistence use would be given preference by establishing a walrus subsistence hunting area.

- a) Additional eligibility criteria used in this option.
 - 1) Residency in the GMU.
- b) Regulations adopted for this option.

Section 5 AAC _____ SUBSISTENCE WALRUS HUNTING AREA

An area within a 15 mile radius of the following villages is open to walrus hunting only by subsistence users living in each village: Gambell, Savoonga, Nome, Teller, Brevig Mission, Wales, Diomedea, Shishmaref, Unalakleet, Stebbins, St. Michaels, Elim, Koyuk and Shaktoolik.

5 AAC 81.350 MARINE MAMMAL HUNTING

(4) Walrus Subsistence Hunting

	<u>Open Seasons</u>	<u>Bag Limits</u>
GMU 22	No closed season	No bag limit; provided however, that the edible portion of all walrus must be salvaged for consumption.

Non-subsistence Hunting

GMU 22	No closed season	The following area quotas apply:
		Gambell 250
		Savoonga 250
		Nome-King Island 100
		Wales 100
		Shishmaref 100
		Diomedea 250

c) Impact of Regulation

- 1) Only subsistence hunters could take walrus within a 15 mile radius of the coastal villages. All edible meat must be salvaged within this area.

All Other Marine Mammals - Problems

- A. The Marine Mammal Protection Act prohibits the taking of marine mammals (except walrus) by anyone other than Alaskan Natives, who may take them without limit for subsistence or to make handicraft items. Bowhead and gray whales are protected by international treaty rather than the MMPA.

The sale of raw seal pelts and polar bear hides were important sources of income prior to prohibition by the Marine Mammal Protection Act. The subsistence use of some species is low and they would have greater demand for commercial use if allowed by law.

- B. Regulatory Options: The state of Alaska does not have regulatory authority for these species and until a waiver of the Marine Mammal Protection Act is granted which provides for state management there are no regulatory options. The waiver would not apply to bowhead and gray whales.

SPECIES: Upland Game Birds

<u>GMU</u>	<u>SUBSISTENCE</u>	<u>RECREATIONAL</u>	<u>COMMENTS</u>
18	3**	3*	
19	2**	1*	
20A	0**	1*	
20B	0**	3*	
20C	2**	3*	
20D	1**	3*	
20E	1**	3*	
21	2**	1*	
22	2A**	2A*	
23	2**	1*	
24	2**	1*	
25	2**	1*	
26	2**	1*	

SPECIES: Waterfowl

<u>GME</u>	<u>SUBSISTENCE</u>	<u>COMMERCIAL</u>	<u>RECREATIONAL</u>	<u>COMMENTS</u>
18	3**	1	3*	
19	1**	0	1*	
20A	0*	0	1**	
20B	1*	0	3**	I
20C	1**	0	1*	I
20D	0*	0	2**	
20E	0**	0	0*	
21	2**	0	1*	
22	3**	1	1*	I
23	3**	0	1*	
24	2**	0	1*	
25	1**	0	1*	
26	3**	0	1*	

WATERFOWL PROBLEMS

I. Local vs. non-local use of waterfowl

- A. Scope: Non-local users of waterfowl compete with local residents of some areas for available waterfowl.
- B. Regulatory Options: Where reductions in waterfowl numbers available to subsistence users are caused by non-local hunters, the following types of regulations may be used to reduce conflicts:
 - 1. Allow surface transportation only in conflict areas.
 - 2. Adopt a short season for all licensed hunters, but have a longer season for local residents only.
- C. Problem Areas:
 - 1. Unit 12
 - 2. Unit 20B
 - 3. Unit 20C
 - 4. Unit 22

Species: Chinook Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	3**	3*	1*	All are same fishermen.
Lower Yukon	2**	3*	1*	High commercial use.
Upper Yukon	3**	2*	1*	
Norton Sound	3**	3*	2*	Taken mainly Shaktoolik and Unalakleet.
Port Clarence	1**	0	1*	Low abundance, commercial prohibited.
Kotzebue	0	0	0	Low abundance.
Northern	1**	0	0	
Bristol Bay	3**	3*	3*	
Cook Inlet	0	1*	2*	Commercial catch is incidental.
Prince William Sound	2*	3**	2	Copper River dip net.
Alaska Peninsula	1*	1**	1*	Low use except Nelson Lagoon and Port Heiden.
Chignik	1*	1*	1**	Commercial harvest incidental.

CORRECTION

**THIS DOCUMENT
HAS BEEN REPHOTOGRAPHED
TO ASSURE LEGIBILITY**

Species: Chinook Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	3**	3*	1*	All are same fishermen.
Lower Yukon	2**	3*	1*	High commercial use.
Upper Yukon	3**	2*	1*	
Norton Sound	3**	3*	2*	Taken mainly Shaktoolik and Unalakleet.
Port Clarence	1**	0	1*	Low abundance, commercial prohibited.
Kotzebue	0	0	0	Low abundance.
Northern	1**	0	0	
Bristol Bay	3**	3*	3*	
Cook Inlet	0	1*	2*	Commercial catch is incidental.
Prince William Sound	2*	3**	2	Copper River dip net.
Alaska Peninsula	1*	1**	1*	Low use except Nelson Lagoon and Port Heiden.
Chignik	1*	1*	1**	Commercial harvest incidental.

Continued - Chinook Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
Kodiak	1*	1*	1**	Some subsistence in Karluk River.
Yakutat	1*	2**	1*	Subsistence take before commercial season.
Southeastern	0	3*	3**	Stocks low; valuable sport species. Subsistence prohibited.

SPECIES: Chinook Salmon

1. Present Use:

Chinook salmon are intensively utilized for commercial and subsistence purposes within the A-Y-K and Bristol Bay Areas, while they are used primarily for commercial or recreational purposes in other areas. Within the subsistence fishery, this salmon species is primarily used for consumption by humans, as opposed to their additional use for dog food as are other salmon species.

2. Conflicts/Problems:

Few conflicts arise between commercial and subsistence fishermen within the A-Y-K and Bristol Bay Areas, since both user groups are generally composed of the same individuals or family units. Potential problems are further minimized by current management or regulatory policies. Subsistence catches in other areas are small, which precludes conflicts; however, chinooks are used at moderate use levels in the Copper River subsistence fishery within the Prince William Sound Area. Consequently, subsistence use of chinooks may not be the highest priority use of the resource in all areas of the State.

3. Allocation:

Subsistence is the highest priority use of the resource in the intensive subsistence use areas of the state, such as within the A-Y-K Area. In other areas subsistence utilization of this species may be small, while other user groups may use this species extensively. Consequently, subsistence may not be designated as the highest priority use of the resource in these areas. However, due to the relative abundance of fisheries resources within the state, subsistence fishermen are able to meet their requirements through use of other fish species or retention of a portion of their commercial or recreational harvests.

4. Options:

Current regulations and management policies have been effective in providing for subsistence requirements and should be maintained.

SPECIES: Chinook Salmon (Kodiak Area)

- I. Increased incidental harvest of chinook salmon by commercial fishermen; increasing sport fishing effort affecting subsistence catch.

A. Scope:

The Karluk River has chinook runs of up to 10,000 fish, while the Red River contains up to 5,000 chinooks. These runs appear to be stable; however, commercial and sport effort and catches are increasing.

The sockeye run is rebuilding and a future commercial fishery targeting early run sockeye can be anticipated. This will result in an increased incidental commercial harvest of chinook salmon and decreased catches for recreational anglers. Sport effort at Karluk Lagoon is increasing, but subsistence effort is stable. Conflicts between recreational chinook fishermen and subsistence fishermen seining in local areas is becoming increasingly common.

B. Options:

1. Zone areas of the Karluk River system for subsistence and sport fishing.
2. Impose a subsistence harvest limit of 500 chinook for the village of Karluk.
3. Allow subsistence and sport fishing in the Karluk River system only when the Department weir counts indicate a surplus of fish.
4. Restrict the harvest of salmon in the Karluk River to non-chinook species.
5. Close the Karluk Lagoon to sport fishing.
6. Provide for release of chinooks taken incidental to commercial operations.

Species: Chum Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	3**	3**	1*	
Lower Yukon	2**	3**	0-1*	High commercial use.
Upper Yukon	3**	3*	1*	High commercial use.
Norton Sound	3**	3*	1*	Commercial target species.
Port Clarence	3**	0	1*	Commercial prohibited.
Kotzebue	2**	3*	1*	Subsistence on Kobuk and Noatak rivers.
Northern	1**	0	0	Low abundance.
Bristol Bay	3**	3*	1*	Subsistence now incidental in many areas.
Cook Inlet	1*	3**	1*	Limited subsistence catch west side.
Prince William Sound	0	3**	1*	Important commercial.
Alaska Peninsula	1*	3**	0	
Chignik	1*	3**	0	

Continued - Chum Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
Kodiak	2*	3**	1*	High commercial use.
Yakutat	1*	1**	1*	Low subsistence effort.
Southeastern	1*	3**	1*	Low subsistence effort.

SPECIES: Chum Salmon

1. Present Use:

Chum salmon are extensively used for commercial and subsistence purposes within the A-Y-K and Bristol Bay Areas. They are used little for subsistence or recreational purposes in other areas, but are heavily exploited for commercial operations. This species is consumed by humans for subsistence purposes, but is also fed to dogs in large quantities.

2. Conflicts/Problems:

Few conflicts occur between user groups within high use subsistence areas, since the groups are generally composed of the same individuals or family units. Potential conflicts are further minimized by current management or regulatory policies; however, specific problems have been discussed in attachments. No major conflicts are present in most areas of the state, except as described in the attached major problem section.

3. Allocation:

Subsistence is the highest priority use of the resource in intensive subsistence use areas. The lack of subsistence fisheries and the presence of other user groups may preclude subsistence from being designated as the highest priority use of the resource in all fisheries; however, the abundance of alternative fishery resources insures subsistence requirements may be met in all fisheries. In addition, fish may be retained from commercial or sport fishery catches for personal use.

4. Options:

Current management policies and regulations should be maintained, since they adequately provide for subsistence requirements.

Salmon (Nome subdistrict of the Norton Sound Area)

1. Present Use:

Local salmon populations are currently highly utilized for subsistence purposes. Commercial fishermen target chum salmon almost to the exclusion of pink salmon.

2. Conflicts/Problems:

Access to local salmon streams has increased in recent years, which has resulted in increased fishing pressure upon resident stocks. Improved access has resulted in:

a. An expansion of fishing effort into non-traditional or previously little utilized fishing areas.

b. Conflicts between subsistence users. Due to the increased fishing pressure and the limited nature of local stocks, restrictions have been placed upon various user groups. Subsistence permit systems have been enacted in some areas to allow needed subsistence catch data to be collected and, in the some cases, to restrict the harvest and ensure adequate escapements. In some locations additional restrictions placed upon subsistence harvests may result in an inadequate harvest by some users.

c. Conflicts between commercial and subsistence users. Expansion of the subsistence fishery has meant the commercial fishery has been stabilized at conservative harvest levels to ensure adequate fish escapements for the subsistence fishery. In Nome, additional restrictions in the commercial harvest level may result in a non-viable commercial fishery.

3. Allocations:

Subsistence has been designated the highest priority use of the resource.

4. Options:

a. Close or further restrict fishing activities in various streams: those on the Nome-Teller Road.

b. Limit subsistence catches by reducing the number of fish allowed to be taken on each permit. Currently, smaller individual harvests are allowed in streams closest to Nome, while increased harvests are allowed in outlying areas.

- c. Further restrict the commercial fishery by:
 - (i) reducing the harvest guidelines
 - (ii) close the commercial fishery.
- d. Restrict the subsistence fishery:
 - (i) provide for all fishing along the road system to be managed under sport fishing regulations and bag limits
 - (ii) reduce the amount of gear or fishing time
 - (iii) employ subsistence criteria.

5. Eligibility Criteria:

a. Customary and traditional use: Many local residents, caucasian and native alike, have only resided within the area during the last 25 years or so. For example, one of the largest subsistence groups, the King Island residents, have lived in the area for a relatively short time. Consequently, it would be difficult to utilize this criteria in a meaningful fashion.

b. Customary and traditional direct dependence: Fishery resources are used to varying degrees by many local residents; however, they are used as a supplement to other forms of cash or food. To accurately utilize this criteria, the percent dependence upon the resource by permit applicants must be determined. The information would have to be gathered on an individual basis rather than a community basis, if legitimate applicants are not to be excluded. This criteria could be a key in determining subsistence users.

c. Availability of alternative resources: About 200 walrus and 150 moose were harvested by Nome's residents during the fall of 1977 and spring of 1978. This take exceeded the usable protein harvest of subsistence fishermen several fold. Those users able to harvest these game animals may not have as much need for fisheries resources as others who do not. In addition to alternative natural resources, many Nome residents are able to obtain food from stores, so once again the "percent dependence upon natural resources" may be important.

d. Residency: Virtually all subsistence users near Nome live in the community or close by. This criteria would be invalid here.

e. Summary: As a "service center" for Norton Sound communities, Nome provides opportunities for employment and for people to obtain food at several stores. While fishery resources supplement subsistence requirements, game animals provide an abundant source of alternative resources for many. It appears that the two criteria which would be most useful in issuing subsistence fishing permits would be: 1) percent dependence upon the resource; 2) availability of alternative resources.

Species: Coho Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K Area:				
Kuskokwim	2**	3*	2*	High commercial use on Kuskokwim River.
Lower Yukon	1*	2**	0-1	Low abundance.
Upper Yukon	2**	2*	1*	Low abundance.
Norton Sound	1**	2*	1*	Taken mainly Shaktoolik to Unalakleet.
Port Clarence	1**	0	1*	Commercial prohibited.
Kotzebue	0	0	0	Low abundance.
Northern	1**	0	0	Low abundance.
Bristol Bay	2**	3*	3*	High subsistence use in some villages.
Cook Inlet	2*	2*	3**	Major species available during subsistence season.
Prince William Sound	0*	3**	2*	Important commercial, frequent species.
Alaska Peninsula	1*	2**	1*	
Chignik	1*	3**	1*	

Continued - Coho Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
Kodiak	1*	3*	2**	Important recreational and commercial species.
Yakutat	1*	3**	2**	Important commercial and recreational.
Southeastern	0	3*	3**	Subsistence prohibited important recreational species.

SPECIES: Coho Salmon

1. Present Use

Cohos are used at moderate use levels for subsistence purposes within the A-Y-K, Bristol Bay and Cook Inlet areas, while they are used for commercial or recreational purposes in other areas.

2. Conflicts/Problems:

Few conflicts are present; however, a recent conflict has arisen in Cook Inlet where recreational fishermen feel the late coho runs to the Kenai River should be reserved for sport fishermen. A similar problem has surfaced in the Karluk Lagoon drainage of the Kodiak area. However, there are no major conflicts between user groups in most areas.

3. Allocation:

In areas of intensive subsistence use, cohos are designated as being primarily for subsistence use; however, subsistence has been designated a lower priority in areas of low subsistence effort or catches. Subsistence requirements in these areas are made from alternate fishery resources or from retention of portions of commercial or sport harvests.

4. Options:

Current management and regulatory policies have adequately provided for subsistence requirements and should be maintained.

Species: Pink Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	1*	1**	2*	Taken mainly Quinhagak Goodnews.
Lower Yukon	1**	1*		Low abundance.
Upper Yukon	0	0	0	
Norton Sound	3**	3*	1*	Not a commercial target.
Port Clarence	3**	0	0-1*	Commercial prohibited.
Kotzebue	0**	0	0*	Low abundance.
Northern	1**	0	0	Low abundance.
Bristol Bay	2**	3*	1*	Even years only; incidental harvest.
Cook Inlet	1*	3**	2*	High commercial, frequent use.
Prince William Sound	0	3**	1*	Important commercial species.
Alaska Peninsula	1*	3**	1*	
Chignik	1*	3**	1*	
Kodiak	2**	3**	3*	Very abundant.

Continued - Pink Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
Yakutat	1*	2**	2*	
Southeastern	1*	3**	3*	Becoming important recreational fish.

SPECIES: Pink Salmon

1. Present Use:

Pink salmon are not important subsistence species except within the Port Clarence, Norton Sound, and Bristol Bay areas; however, this is a very important commercial and recreational fish in some areas; e.g. Kodiak and Southeastern.

2. Conflicts/Problems:

None.

3. Allocation:

Pink salmon are not commercial target species in any area of intensive subsistence use, such as Norton Sound. In Bristol Bay they are taken incidentally to other fisheries. Consequently, subsistence is the highest priority use of the resource in these areas. In other areas of the state where subsistence catches of pink salmon are small in comparison to utilization by other user groups, subsistence may not be the highest priority use. However, subsistence requirements may be met through the use of other fishing resources or the retention of fish from commercial or recreational harvests.

4. Options:

Maintain current management and migratory policies which adequately provide for subsistence requirements.

Species: Sockeye Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	3**	3*	2*	Taken mainly Goodnews and Kanektok.
Lower Yukon	0	0	0	Low abundance.
Upper Yukon	0	0	0	Low abundance.
Norton Sound	0	0	0	Low abundance.
Port Clarence	3**	0	0-1*	Commercial prohibited.
Kotzebue	0	0	0	Low abundance.
Northern	1**	0	0	Low abundance.
Bristol Bay	3**	3*	2*	Same people in subsistence and commercial.
Cook Inlet	1*	3**	2*	Major commercial species.
Prince William Sound	2**	3*	1*	Copper River dip net is major subsistence.
Chignik	1*	3**	0*	
Alaska Peninsula	1*	3**	0*	

SPECIES: Sockeye Salmon

1. Present Use:

Sockeyes are used for subsistence purposes in significant amounts within the A-Y-K, Bristol Bay and Prince William Sound (including the Copper River drainage) areas. In most areas of the state they are used primarily for commercial purposes and only moderately for recreation.

2. Conflicts/Problems:

Few conflicts occur pertaining to subsistence use of this species; however, a problem is present within the Copper River drainage of the Prince William Sound area. This fishery is discussed in greater depth in the attached problem analysis.

3. Allocation:

In areas where sockeye salmon are important to subsistence fisheries, subsistence has been designated as the highest priority use of the resource. In areas where subsistence utilization is low other uses have been assigned a higher priority. Subsistence fishermen are still able to meet subsistence requirements through the use of alternate fishery resources and/or the retention of fish from commercial or recreational harvests.

4. Options:

Maintain current regulatory and management policies, which have adequately provided for subsistence requirements.

Continued - Sockeye Salmon

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
Kodiak	2**	3*	1*	
Yakutat	1*	3**	1*	Low subsistence effort.
Southeastern	1*	3**	1*	Low recreational use; low subsistence effort.

Copper River Salmon Fisheries

1. Present Use: Although commercial fishing is prohibited in the Copper River proper, high use of these stocks is made in a large commercial fishery located offshore from the river mouth.

Moderate to high subsistence use is made upriver, but the total harvest resulting from this fishery is much smaller than the commercial catch. There are two subsistence user groups. One small group consists mainly of watershed residents with long standing high dependency on these resources, who utilize fishwheels as capture gear. The other larger group consists mainly of urban residents who utilize dip nets, and fishwheels to a lesser extent.

Sport fishing use is low except in a relatively few streams including the Gulkana River.

2. Conflicts/Problems:

- a. Allocation of catches between user groups during periods of low salmon abundance. Commercial fishermen feel threatened by potential increases in urban subsistence participants, resultant harvests, and the political clout they represent. Subsistence fishermen claim overharvesting by the commercial fishery and in addition, watershed residents resent sharing their traditional fishery with increasing numbers of urban residents.
- b. Many people question the need or right of urban residents to take salmon in this area under liberal subsistence regulations.
- c. Run strength cannot be adequately determined until a few weeks into the commercial fishery located at the river mouth. During years of small runs the upriver subsistence fishery may require more restrictions proportionately than the commercial fishery to provide for adequate brood stocks.

3. Allocation: Subsistence use is given preference, but should be stabilized at current levels. Subsistence harvests for individuals or households should be allocated on the basis of direct dependence on Copper River drainage fish and game resources. It is recognized that the commercial fishery will be the major user of the salmon resources, but must be managed in a manner to allow an upriver escapement sufficient for spawning and subsistence fishing requirements.

4. Options:

- a. Place all dipnetting activities under sport fishing regulations, retaining similar seasons, open fishing periods and areas, bag limits, etc. Urban and high income users would continue to have access to this fishery.

- b. Continue existing subsistence regulations (permit required, fishing seasons and periods, open and closed areas, etc.) and establish a subsistence catch quota for sockeye salmon, the primary species in conflict, based on a previous 5 or 10 year average catch. Watershed residents having greater subsistence dependencies would be allocated the largest harvests based on the attached allocation formula.
- c. Allocate subsistence harvests of sockeye salmon to individuals or heads of household based on direct resource dependancy according to the attached formula.
- d. Regulations and policies implementing allocation of harvests between all user groups should be examined by the Board of Fisheries at least every three years, taking into account any interim changes in run status and user group need.
- e. Develop regulations, strategies, and techniques to manage the commercial fishery so as to insure that the subsistence catch quota can be taken without impairing spawning requirements, even during years of low salmon abundance.
 - 1) Salmon enhancement programs are currently underway and, if successful, salmon that are surplus to spawning and hatchery needs could be given to subsistence users.
 - 2) An expanded sonar program will be implemented and should improve in-season run assessment, if a small run is indicated, a reduction in commercial fishing time must be accomplished prior to the completion of the early sockeye run which constitutes upriver spawning stocks important to the subsistence fishery.
- f. Prohibit subsistence fishing along any new access points (road, trail, airport) if such use is not already in existence.

Allocation of salmon by income and family size for the Copper River
Subsistence Fishery

Salmon per permit issued to:	More than: but less than:	Income Increments				
		0 \$6,000	\$6,000 \$10,000	\$10,000 \$14,000	\$14,000 \$20,000	\$20,000
An individual		100	30	20	15	10
A family		200	60	40	30	25
For each additional child in a family		20	5	5	5	0
Total allowed for additional children in a family		100	20	20	10	0
Maximum permit allocation		300	80	60	40	25

NOTE: This allocation formula was submitted in the form of a regulatory proposal by the Copper River Advisory Board to the Board of Fisheries in December, 1977.

Species: Arctic Char / Dolly Varden

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	2**	0	3*	Important local use recreational fishery; limited subsistence use.
Yukon	2*	0	1**	Limited abundance; important recreational fish.
Norton Sound	2*	1*	3**	Important recreational species.
Port Clarence	1*	0	2**	Important recreational species.
Kotzebue	3**	1	1*	Important subsistence and recreational species.
Northern	2*	0	3**	Important recreational species.
Bristol Bay:				
Kvichak - Naknek	1*	0	2**	In Kvichak drainage recommended for subsistence.
Togiak	2**	1	2*	
Nushagak - Mulchatna	2**	0	2*	
Prince William Sound	0	0	1**	
Cook Inlet:				
West Side (Susitna to Cape Douglas)	0	0	2	

Continued - Arctic Char / Dolly Varden

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
East Side (Susitna to Portage)	0	0	3**	
Anchor Point to Cape Fairfield	0	0	3**	
Alaska Peninsula	1*	0	1**	Small population available not accessible for subsistence.
Kodiak:				
Kodiak Island, West of Hidden Basin to Kekur Point.	1**	1	1*	
Afognak - Raspberry Island; Kodiak Island Hidden Bay to Kekur Point.	0*	0	3**	Abundant.
Southeastern	1*	0	3**	Important recreational fishery.

Arctic Char/Dolly Varden:

I. Conflict of subsistence and recreational fishermen.

Increase in recreational fishing pressure may interfere with subsistence harvests.

A. Scope

In many cases (Kivalina, Noatak, Kuskokwim drainage, Bristol Bay) subsistence and recreational fishermen are the same person. Recreational harvest in most cases only a small percentage char are important subsistence and recreational species in the state with a few small commercial fisheries operating.

B. Regulatory Options

1. Allow subsistence fishing by permit.
2. Zone areas where subsistence fishing only and where recreational fishing only.
3. Prohibit use of airplanes for subsistence fishing.
4. Separate regulations for anadromous char as opposed to resident char.

C. Potential Problem Areas

1. Kuskokwim district.
2. Norton Sound district.
3. Northern district.

Species: Burbot

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	3**	0	1*	
Yukon	3**	0	2*	
Norton Sound	1**	0	1*	
Port Clarence	1**	0	0*	
Kotzebue	3**	0	1*	
Northern	1**	0	1*	
Bristol Bay:				
Kvichak - Naknek	1**	0	1*	
Togiak	1**	0	0*	
Nushagak - Mulchatna	1**	0	0*	
Prince William Sound	0	0	3**	
Cook Inlet:				
West Side (Susitna to Cape Douglas)	0**	0	1*	
East Side (Susitna to Portage)				absent

Continued - Burbot

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
Anchor Point to Cape Fairfield				absent
Alaska Peninsula	1**	0	0*	
Kodiak				absent
Southeastern				absent

Species: Grayling

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	1*	0	3**	Important recreational species.
Yukon	1*	0	3**	Important recreational species.
Norton Sound	1*	0	3**	Important recreational species.
Port Clarence	1*	0	3**	Important recreational species.
Kotzebue	1*	0	3**	Important recreational species.
Northern	1*	0	3**	Important recreational species.
Bristol Bay:				
Kvichak - Naknek	1*	0	2**	
Togiak	1	0	1**	Important recreational fishery
Nushagak - Mulchatna	1*	0	2**	Near villages, subsistence preference recommended.
Prince William Sound	0	0	3**	
Cook Inlet:				
West side (Susitna to Cape Douglas)	0	0	2**	
East side (Susitna to Portage)	0	0	3**	

Continued - Grayling

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
Anchor Point to Cape Fairfield				absent
Alaska Peninsula	1*	0	2**	Alternate resources available.
Kodiak:				
Kodiak Island West of Hidden Basin Kekur Point				absent
Afognak - Raspberry Island Kodiak Island Hidden Basin to Kekur Point.	0	0	2**	Stocked lakes.
Southeastern Alaska	0	0	3**	High recreational use.

Species: Northern Pike

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	3**	0	1*	Locally important recreational fisheries.
Yukon	3**	0	2*	See "Problems".
Norton Sound	1*	0	3**	
Port Clarence	1**	0	1*	
Kotzebue	3**	0	1*	
Northern	1*	0	3**	Very limited distribution and abundance.
Bristol Bay:				
Kvichak - Naknek	1**	0	1*	
Togiak	1**	0	1*	
Nushagak - Mulchatna	1*	0	2**	Subsistence recommended in Wood River system.
Prince William Sound				absent
Cook Inlet:				
West side (Suistna to Cape Douglas)	0**	0	1*	

Continued - Northern Pike

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
East Side (Susitna to Portage)				absent
Anchor Point to Cape Fairfield				absent
Alaska Peninsula	1**	0	1*	
Kodiak				absent
Southeastern	0	0	1*	Very low abundance.

Northern Pike:

- I. Subsistence fishermen in Minto Flats net northern pike which are highly desired by recreational fishermen.

- A. Scope

The village of Minto relocated from the Tanana River to the Tolovana River. This has resulted in increased harvest of pike in the vicinity of the village. Recreational fishermen have also used the area for years. Conflicts will result with increased harvest by either user groups. Most subsistence fishing is done with nets and often whitefish are the target species but pike are still caught incidentally.

- B. Regulatory Options

1. Subsistence fishing by permit.
 2. Close certain areas to recreational fishing.
 3. Allow no expansion of subsistence fishery.
 4. Lower sport bag limit.
 5. Adopt subsistence harvest methods that protect pike.

- C. Problem Area

Yukon district.

Species: Sheefish

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	3**	0	2*	Important subsistence locally important recreational fishery.
Yukon	3**	1*	2*	See "Problems."
Norton Sound	2*	0	1**	Low abundance.
Port Clarence				absent
Kotzebue	3**	2	1*	See "Problems".
Northern				absent
Bristol Bay				absent
Cook Inlet				absent
Prince William Sound				absent
Chignik				absent
Alaska Peninsula				absent
Kodiak				absent
Yakutat				absent
Southeastern				absent

POTENTIAL PROBLEM AREAS

Sheefish:

- I. Heavy urban subsistence netting in Tanana River near Fairbanks may be incidentally capturing local sheefish population.

A. Scope

Subsistence salmon netting in Tanana River has been increasing and incidental harvest of sheefish could wipe out this small, but expanding sheefish population. This is one of few areas where sheefish are available to urban recreational fishermen.

B. Regulatory Options

1. Abolish or reduce urban subsistence fishery.
2. Subsistence fishing by permit but more restrictive than present.
3. Zone subsistence fishing areas.
4. Partial closed season.

C. Problem Areas

Yukon District

- II. Commercial and subsistence gill net fisheries may be reducing sheefish population in Kuskokwim River.

A. Scope

The increased gill net fishery mainly for salmon is incidentally harvesting large numbers of sheefish. The anadromous sheefish are taken by gill net from breakup until freezeup. They are important for subsistence especially early in summer before the king salmon run. Important recreational fisheries (mainly local residents) exist in the Aniak and Sleetmute areas. Incidental harvest of sheefish needs to be determined.

B. Regulatory Options

1. Subsistence fishing by permit only.
2. Closed season on spawning grounds.
3. Lower sport bag limit entire drainage.
4. Close commercial fisheries in areas of high sheefish concentrations.

III. Kotzebue area commercial fishery conflicts with Kobuk River subsistence harvest.

A. Scope

Upriver residents feel that Kotzebue area commercial fishery is taking their fish. The commercial fishery has a limit of 25,000 pounds. There is a large upriver subsistence fishery plus the Kotzebue area and Selawik winter and summer subsistence fishery. A small recreational fishery (mainly local residents) occurs in the Kotzebue, Kobuk River and Selawik areas.

B. Regulatory Options

1. Prohibit commercial fishing for sheefish.
2. Lower sport bag limit.
3. Subsistence fishing by permit and possibly quota.

C. Problem Areas

Kotzebue district.

Species: Steelhead

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K				absent
Bristol Bay				absent
Prince William Sound	1*	0	1**	
Cook Inlet	1*	0	3**	Subsistence catch composed of incidental catch August thru September.
Kodiak	2*	0	3**	Alternate resources available.
Southeastern	1*	0	3**	Important recreational fish moderate abundance.

SPECIES: Steelhead (Kodiak Area)

- I. Increased sport fishery effort conflicts with the subsistence fishery; a commercial coho salmon fishery incidentally harvests steelhead.

A. Scope:

The Karluk River has a run of about 5,000 steelhead and 10,000-20,000 coho salmon. Karluk villagers take steelhead for subsistence purposes, while recreational fishermen utilize this species also. A commercial fishery is conducted for coho salmon.

Sport fishing effort within the Karluk River system is increasing, which is impacting the subsistence fishery. Commercial fishermen are required to release incidentally caught steelhead; however, the results of this procedure have not been measured.

B. Options:

1. Zone areas of the Karluk system for subsistence and sport fishing.
2. Impose a subsistence limit of 500 steelhead for the village of Karluk.
3. Allow subsistence and sport fishing in the Karluk System only when weir counts indicate a surplus of fish.
4. Restrict the harvest of salmon in the Karluk area to species other than steelhead.
5. Make it illegal for steelhead to be possessed by canneries or tenders in the Karluk District.
6. Steelhead killed incidental to commercial fishing at Karluk Lagoon become the property of the State.

Species: Cutthroat Trout

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K				absent
Bristol Bay				absent
Prince William Sound	0	0	2*	
Cook Inlet				absent
Kodiak				absent
Southeastern	0	0	3**	High recreational value.

Species: Lake Trout

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	1*	0	3**	Important recreational species low subsistence use.
Yukon	1*	0	3**	Important recreational species low subsistence use.
Norton Sound				absent
Port Clarence				absent
Kotzebue	0	0	3**	Important recreational species low subsistence use.
Northern	1*	0	3**	Important recreational species low subsistence use.
Bristol Bay:				
Kvichak - Naknek	2*	0	1**	Important recreational fish alternate resources.
Togiak	0*	0	1**	Not readily accessable.
Nushagak - Mu chatna	0*	0	1**	Low abundance.
Prince William Sound	0	0	3**	
Cook Inlet:				
West Side (Susitna to Cape Douglas)	0	0	1**	

Continued - Lake Trout

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
East Side (Susitna to Portage)	0	0	3**	
Anchor Point to Cape Fairfield				absent
Alaska Peninsula	0*	0	1**	Not readily accessible to subsistence fishermen.
Kodiak:				
Kodiak Island West of Hidden Basin to Kekur Point.				absent
Afognak - Raspberry Island; Island Hidden Basin to Kekur Point.				absent
Southeastern				absent.

Lake Trout

- I. Increased use by airplane subsistence fishermen may impact lake trout populations.

- A. Scope

Presently nearly all lake trout lakes in the A-Y-K area are open to subsistence fishermen without permit, limit or gear restrictions. The lake trout, because of its remoteness, is generally unavailable to traditional subsistence fishermen. It is one of the most important recreational fish in Interior Alaska. Harvest is low but lake trout populations in Interior and Arctic Alaska will never be able to sustain large harvests. With the possible tightening of subsistence fishing opportunities close to the urban areas (Fairbanks, Nome), the urban 'subsistence' fishermen, using an airplane could legally gill net lake trout in most of the lakes.

- B. Regulatory Options

1. Close all lakes to subsistence fishing.
 2. Subsistence fishing for lake trout by permit only.
 3. Subsistence fishing for lake trout by hook and line only.
 4. Closed season during May and September thru October when lake trout are more vulnerable to harvest.

Species: Rainbow Trout

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	2*	0	3**	See "Problems".
Yukon	0	0	3**	Stocked lakes only.
Norton Sound				absent
Port Clarence				absent
Kotzebue				absent
Northern				absent
Bristol Bay:				
Naknek	1*	0	3**	I (see narrative).
Togiak	1*	0	2**	Alternate resources available.
Nushagak - Mulchatna	1	0	2**	Low abundance.
Prince William Sound	0	0	2*	
Cook Inlet:				
West Side (Susitna to Cape Douglas)	0	0	2**	
East Side (Susitna to Portage)	0	0	3**	Area now closed to commercial and subsistence fishing.

Continued - Rainbow Trout

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
Anchor Point to Cape Fairfield	0	0	1**	Isolated lake populations.
Alaska Peninsula	0	0	1**	Low abundance.
Kodiak:				
Kodiak Island West of Hidden Basin to Kekur Point.	0	0	2**	Low abundance; alternate resources.
Afognak - Raspberry Island Kodiak Island Hidden Basin to Kekur Point.	0	0	2**	Low abundance; alternate resources available.
Southeastern Alaska	0	0	3**	Stocked in lake systems.

Rainbow Trout:

I. Late winter recreational subsistence fishermen may be impacting rainbow trout populations.

A. Scope

A local use rainbow trout fishery has been operating in the Aniak River and other streams of the lower Kuskokwim. This late winter fishery uses hook and line as the capture method. By legal definition this could be called either a recreational fishery or a subsistence fishery. Most participants are local residents, although some Bethel residents land via airplane in the middle Aniak River to fish for trout. The harvest has probably been increasing due to increased access via snow machine to the Aniak River.

B. Regulatory Options:

1. Partial stream closure to all users in late winter.
2. Rainbow trout legal gear - hook and line only.
3. Rainbow trout subsistence fishery by permit only.
4. Lower sport bag limit.
5. Prohibit use of airplane for winter rainbow subsistence fishery.
6. Re-define gear and administer under sport fishing regulations.

C. Potential Problem Area

Kuskokwim district.

Species: Whitefish

AREA/DISTRICT	SUBSISTENCE	COMMERCIAL	RECREATIONAL	COMMENTS
A-Y-K:				
Kuskokwim	3**	1*	0*	Important subsistence fish small recreational fishery.
Yukon	3**	1*	2*	Important subsistence fish.
Norton Sound	3**	1*	1*	Important subsistence fish.
Port Clarence	3**	0	0	Important subsistence fish.
Kotzebue Sound	3**	0	1*	Important subsistence fish.
Northern	3**	2*	1	Important subsistence fish.
Bristol Bay:				
Kvichak - Naknek	3**	0	1*	Important subsistence.
Togiak	2**	0	0*	Important subsistence.
Nushagak - Mulchatna	1**	0	0*	Important subsistence.
Prince William Sound	1**	1	2*	
Cook Inlet:				
West side (Susitna to Cape Douglas)	0**	0	1*	
East side (Susitna to Portage)				absent