PUBLIC REVIEW DRAFT

Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis for a regulatory amendment to incorporate the halibut charter sector into the halibut individual fishing quota program or implement a moratorium on entry into the charter fleet for Pacific halibut in Areas 2C and 3A

(Halibut Charter IFQ or Moratorium Program)

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EXECUTIVE SUMMARY

SUMMARY OF SECTION 1

The enclosed analysis is for a regulatory amendment to revise the regulations that govern the management of the Pacific halibut Individual Fishing Quota (IFQ) program. It assesses the potential economic and social impacts of implementing management measures to include the halibut charter fisheries in International Pacific Halibut Commission (IPHC) Areas 2C (Southeast Alaska) and 3A (Southcentral Alaska) in the current halibut IFQ program (Alternative 2) or to implement a moratorium on entry into the halibut guided sport fleet (Alternative 3) compared with the impacts of the status quo (halibut charter guideline harvest level (GHL)) program. Under Alternative 2, a direct allocation to the halibut charter sector would replace the guideline harvest level (GHL) program approved by the Council in 2000, but not yet implemented. Gulf of Alaska coastal communities are also being considered as initial issuees of halibut charter quota shares. Alternative 3 could be chosen to augment the halibut charter GHL program, currently under Secretarial review. The license limitation elements under Alternative 3 are included within Alternative 2, and therefore both alternatives would not be adopted by the Council at final action.

The North Pacific Fishery Management Council began considering a management plan for the halibut charter fishery in 1993. The Council recognized an expanding charter fleet resulting in an unlimited expansion of charter halibut harvests at the expense of other users as a management problem. In September 1997, the Council took final action on two management actions affecting the halibut charter fishery, culminating more than four years of discussion, debate, public testimony, and analysis:

Recordkeeping and reporting requirements. The Council approved recording and reporting requirements for the halibut charter fishery. To comply with this requirement, the Alaska Department of Fish and Game (ADF&G) Sport Fish Division, under the authority of the Alaska Board of Fisheries (BOF), implemented a Saltwater Sportfishing Charter Vessel Logbook (SCVL) in 1998. It complements additional sportfish data collected through the Statewide Harvest Survey (SWHS), on-site (creel and catch sampling) surveys conducted separately by ADF&G in both Southeast and Southcentral Alaska, and port sampling in Southeast.

Guideline Harvest Levels in IPHC Areas 2C and 3A. The Council adopted GHLs for the halibut charter fishery, but only for Areas 2C and 3A. They were based on the charter sector receiving 125% of its 1995 harvest (12.76% of the combined commercial/charter halibut quota in Area 2C, and 15.61% in Area 3A). The Council stated its intent that the GHLs would not close the fishery, but instead would trigger other management measures in years following attainment of the GHL. The overall intent was to maintain a stable charter season of historic length, using area-specific measures. If end-of-season harvest data indicated that the charter sector likely would reach or exceed its area-specific GHL in the following season, NMFS would implement the pre-approved measures to slow down charter halibut harvest. Given the one-year lag between the end of the fishing season and availability of that year's harvest data, it was anticipated that it would take up to two years for management measures to be implemented.

In December 1997, the NMFS Alaska Regional Administrator informed the Council that the GHL would not be published as a regulation since the Council had not recommended specific management measures to be implemented by NMFS if the GHL were reached. Therefore, no formal decision by the Secretary was required for the GHL and the analysis never was forwarded for Secretarial review. After being notified that the 1997 GHL analysis would not be submitted for Secretarial review, the Council initiated a public process to identify GHL management measures. The Council formed a GHL Committee to recommend management measures for analysis that would constrain charter harvests under the GHL.

In April 1999, the Council identified for analysis: (1) a suite of GHL management measure alternatives; (2) alternatives that would change the GHL as approved in 1997; and (3) area-wide and LAMP moratorium options under all alternatives. The Council designed the implementing management measures to be triggered in subsequent fishing years recognizing that: (1) reliable inseason catch monitoring is not available for the halibut charter fishery; (2) inseason adjustments cannot be made to the commercial longline individual fishing quotas (IFQs); and (3) the Council's stated intent is to not shorten the current charter fishing season.

During initial review in December 1999, the Council added: (1) a change in possession limits to the management measures that it would consider to limit charter halibut harvests under the GHL; (2) an option to apply the GHL as a percentage of the CEY by area after non-guided sport and personal use deductions are made, but prior to deductions for commercial bycatch and wastage; (3) an option to manage the GHL as a 3-year rolling average. Lastly, the Council deleted an option that would close the charter fishery inseason if the GHL was reached or exceeded. The Council further adopted the restructured alternatives as proposed by staff.

During final action in February 2000, the Council adopted the GHL program based on 125% of charter harvest estimates for 1995-99. The 1999 charter harvest estimates were interim projected values. The Council adopted the following as its preferred alternative. The GHL analysis is currently under NMFS review.

1. Area 2C and 3A GHLs are based on 125% of the average of 1995-99 in pounds (1.4 M lb in Area 2C and 3.91 M lb in Area 3A).

2. Implement management measures using the following implementation regime for each IPHC regulatory area. These measures would be removed if harvests fall below the GHL and they are no longer necessary. If the GHL is exceeded, 0-20% reduction measures (e.g., trip limits, prohibiting harvest by skipper and crew) would be implemented in the season following the overage. In years of >20% overage, measures that are projected to achieve 0-20% reduction in charter harvest would be implemented in the following season and measures that are projected to achieve >20% reduction in charter harvest (e.g., annual limits, one fish bag limit in August) would be implemented one year later to allow for verification of charter harvest. The regulations will establish a framework process to review and adjust the management measures in the event of an overage and to evaluate their efficacy to determine if a subsequent regulatory package is necessary.

Area 2C Management Tools

Required Reduction	Management Tool
<10%	Trip Limit
10% - 15%	Trip Limit
	No Harvest by Skipper + Crew
15% - 20%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 7 Fish
20% - 30%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 6 Fish
30% - 40%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 5 Fish
40% - 50%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 4 Fish
>50%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 4 Fish
	One Fish Bag Limit in August

Area 3A Management Tools

Required Reduction	Management Tool
<10%	Trip Limit
10% - 20%	Trip Limit
	No Harvest by Skipper + Crew
20% - 30%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 7 Fish
30% - 40%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 6 Fish
40% - 50%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 5 Fish
>50%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 4 Fish
	One Fish Bag Limit in August

The Council did not adopt the proposed vessel moratorium for the halibut charter fleet. Insufficient data on the number of and harvest by individual operators limited the Council's ability to determine an appropriate preferred alternative at the time.

In December 2000, the Council reviewed a report by ADF&G staff on corrected Sport Fish Division's Statewide Harvest Survey (SWHS) halibut charter estimates for 1996-98. In Area 2C, the corrected charter harvest estimates (in pounds) increased by 27% and 21% above the original estimates for 1996 and 1997, and decreased 10% below the original estimates for 1998. Non-guided harvest estimates followed a similar pattern. In Area 3A, corrected charter harvest estimates decreased below the original estimates for all three years: 2% in 1996, 3% in 1997, and 8% in 1998. Non-guided harvest estimates also decreased in all three years.

These harvest changes do not imply large changes in the resulting GHL percentages for Areas 2C and 3A. The corrected GHL calculation for Area 2C rose less than ½ percentage point from 12.68% to 13.05%. In Area 3A, it dropped less than 1 percent, from 14.94% to 14.11%. These corrected percentages are equal to GHLs of 1.432 M lb net weight in Area 2C and 3.650 M lb net weight in Area 3A.

After being reviewed by the Scientific and Statistical Committee, the Council accepted the corrected estimates. The GHL analysis was resubmitted to NMFS on February 14, 2001 to reflect this change in the poundage associated its preferred alternative. The charter IFQ analysis also uses the corrected GHL percentages.

Along with its action in February 2000 to adopt the corrected GHL and management measure schedule to cap the harvest of halibut by anglers fishing on the charter vessels, the Council also initiated development of an analysis for instituting an IFQ program for this fishery and appointed an industry committee. The Halibut Charter IFQ committee comprised ten charter operators and one guided angler, with five commercial

fishermen and one community representative acting as non-voting technical advisors. It convened twice prior to the April 2000 Council meeting. The Council adopted the committee recommendations with modifications as proposed by the Advisory Panel and the public.

During initial review of the analysis in February 2001, the Council revised its previously adopted **problem statement** from April 2000 for the final analysis.

GUIDED SPORT SECTOR PROBLEM STATEMENT

The Pacific halibut resource is fully utilized. The North Pacific Fishery Management Council recently adopted a GHL to address allocation issues between the guided sport sector and other users of the halibut resource. Upon adoption by the SOC, the GHL is intended to stop the open-ended reallocation between commercial and guided sport sectors and to address a number of other concerns. The Council remains concerned that over time allocation conflicts between sectors may resurface, and that overcapitalization in the guided sport fleet may have a negative impact on both guided sport operators and anglers. The Council is developing a management plan *for the guided sport sector* to address these concerns while:

1. recognizing the unique nature of the guided sport sector;
2. controlling consolidation;
3. providing entry level opportunities for guided sport operators; and
4. encouraging diversity of opportunities for anglers.

In evaluating alternatives, the Council seeks to maintain access opportunities for halibut fishermen, processors and consumers and to assess costs and benefits to anglers.

In October 2000, the Council included an option within the halibut charter IFQ analysis to set aside 1 - 2½ percent of the combined halibut charter and commercial quota in Areas 2C and 3A for Gulf of Alaska coastal communities, hereafter referred to as the community set-aside (CSA) program. In December 2000, the Council expanded the lower end of the range to ½ percent. In February 2001, the Council added the sunset provision and revised its previously adopted problem statement for the CSA program. While the economic and social consequences of a community QS program will be discussed, this analysis addresses only:

(1) *whether* to set-aside quota for Gulf communities;
(2) the *magnitude* of the set-aside;
(3) the *source* of the set-aside quota (charter and/or commercial); and
(4) *whether* to include a sunset provision.

If the Council adopts the community set-aside, the details of the community program would be developed and analyzed as part of a trailing amendment. While the Council may choose to set aside quota for the CSA program at this time, the Council may choose to defer its final decision regarding the CSA program until the full analysis is prepared and presented to the Council for action. In this sense, a Council decision to set aside quota is effectively a decision to *reserve* an amount of quota for a potential CSA program.

The goals of the CSA program are incorporated in the revised **problem statement** as adopted by the Council in February 2001:

COMMUNITY SET-ASIDE PROBLEM STATEMENT

A number of small, coastal communities in Southeast and Southcentral Alaska are struggling to remain economically viable. The charter IFQ program, as with other limited entry programs, will increase the cost of entry to the halibut charter fishery.

A community set-aside of halibut charter IFQs will remove this economic barrier, promoting geographic diversity in the charter industry and sustained economic opportunity in small, remote coastal communities in Southeast and Southcentral Alaska.

The Council also made some **general statements** about its intentions for the design of the proposed charter IFQ program.

- The previously approved GHL program should be submitted for Secretarial review and implemented as soon as possible. The halibut charter IFQ program, when and if adopted by the Council and approved by the Secretary, would replace the GHL.
- The charter IFQ program would be limited to Areas 2C and 3A only and are not transferable across areas.
- The duration of charter IFQ would have no specific ending date.
- An appeal process would be based on
    a) fact; and
    b) hardship, similar to the groundfish and crab license limitation program.
- The charter IFQ program would be subject to cost recovery.
- Staff should analyze impacts of the proposed charter IFQ program on all commercial sectors, including processors.
- ADF&G staff will provide a discussion of the potential migration of QS between ports within an IFQ regulatory area and the best tool for managing such migrations (i.e., LAMPs) for the analysis.

NOTE: The Council directed staff to make a number of revisions to the list of alternatives and options. Those revisions included identifying the underlying basis for the options under Alternative 2, Issue 1 for setting quota share allocations and reexamining the percentages associated with those options. Staff identified an error in the calculations of the percentages under Alternative 2, Issue 1, Option 2. In the initial review draft, Option 2 read, "12.26% in Area 3A and 13.32% in Area 2C of a combined charter and commercial quota." The correct percentages associated with this option are 9.82% in Area 3A and

The alternatives included in this analysis are:

Alternative 1. Status quo.

Alternative 2. Include the halibut charter sector in the existing halibut IFQ program.

Issue 1. Initial QS may be based on:

Option 1. Equal to 125% of corrected average 1995-99 charterboat harvest
(13.05% in Area 2C and 14.11% in Area 3A of a combined charter and commercial quota)

Option 2. Equal to 100% of corrected average 1998-99 charterboat harvest
(10.73% in Area 2C and 9.82% in Area 3A of a combined charter and commercial quota)

Option 3. Equal to 100% of corrected average 1995-99 charter harvest
(10.44% in Area 2C and 11.29% in Area 3A of a combined charter and commercial quota)

Suboption: 0-50% of an individual's QS initial issuance would be fixed and the remainder would float with abundance.

Issue 2. Initial allocation of QS would be issued to U.S. citizens or to U.S. companies on the following basis:
U.S. ownership based on: a) 51% ownership; b) 75% ownership

Option 1. Charter vessel owner - person who owns the charterboat and charterboat business

Option 2. Bare vessel lessee - person that leases a vessel and controls its use as a charterboat for this fishery. May operate the vessel or may hire a captain/skipper. Lessee determines when the vessel sails and by whom captained.

Issue 3. Qualification Criteria

Option 1. Initial issues who carried clients in 1998 and 1999 and who submitted ADF&G logbooks for an active vessel (as received by ADF&G by February 12, 2000)

Option 2. Initial issuees who carried clients in 1998 or 1999 and who submitted ADF&G logbooks for an active vessel (as received by ADF&G by February 12, 2000)

Option 3. Initial issuees who carried clients prior to June 24, 1998 and who submitted at least one ADF&G logbook for an active vessel (as received by ADF&G by February 12, 2000)

Option 4. Initial issuees who carried clients four out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 and 1999

Option 5. Initial issuees who carried clients four out of five years between 1995-1999 as evidenced by IPHC, CFEC and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel for either 1998 or 1999

Option 6. Initial issuees who carried clients three out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 and 1999

Option 7. Initial issuees who carried clients three out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 or 1999

Suboption: Require that initial issuees be currently participating (meeting all legal requirements including filing a logbook) during season prior to final action (currently May- Sept 2000) and claimed trips must have been under the operation of a person holding a U.S. Coast Guard license.

Issue 4. Distribution of QS may be based on:

Option 1. 70% of 1998 and 1999 logbook average with an additional 10% added for each year of operation 1995-97 (longevity reward).

Option 2. Modified Kodiak proposal: 5-30% for A, 33% for B, 37-62% for C

Part A: each individual gets an equal percentage of the qualified pool as identified by the Council's final action.

Part B: each individual's average 98/99 logbook harvest as percentage of overall harvest is multiplied by 33% of the qualified pool.

Part C: one point for each year of participation during 1995-99.

Suboption: Base distribution for the preferred option on both total catch retained and caught and released

Issue 5. Transferability of QS (permanent) and IFQs (on annual basis [leasing])

Option 1. Nature of Charter QS/IFQ:
- a) Leasable
- b) Non-leasable

Suboption: Define leasing as the use of QS/IFQ on vessels on which the owner of the QS/IFQ has less than 20-75% ownership

Option 2. Transfer of QS (permanent) and/or IFQs (leasing):
- a) prohibit transfers between charter and commercial sectors
  Suboption: no QS transfers between sectors for 2-5 years
- b) allow transfers between charter and commercial sectors
  1. 1-yr one way transfer from commercial to charter
  2. 3-yr one way transfer from commercial to charter
  3. two-way (between commercial and charter sectors).

  Suboptions under Options b (1-3):
  - i. Designate QS pool into two classes for transfer from charter to commercial sector: transferable (25%) and non-transferable (75%) pools on an individual's basis
  - ii. Cap the percentage of annual IFQ transfers (de facto leasing) between sectors not to exceed 25% of total IFQs and a range of 0-10% of IFQs per year from charter to commercial.

iii. on percentage of annual QS transfers between sectors not to exceed 25% of total QS and a range of between 0-10% of QS per year from charter to commercial.
iv. A range of 0-10% leasing of Charter IFQ to charter from charter for the first 3 years

Option 3. Block restrictions
a) any initially issued (i.e., unblocked) charter QS once transferred to commercial sector shall be:
1. blocked
2. blocked up to the limits of the commercial sweep-up and block limits
3. unblocked
b) allow splitting of commercial blocks to transfer a smaller piece to the charter sector
c) allow splitting of commercial blocks once transferred to the charter sector

Option 4. Vessel class restrictions
a) from A, B, C, and/or D commercial vessel category sizes to charter sector
1. Leasable
2. Non-leasable
b) from charter to commercial:
1. D category only
2. C and D category only
3. B, C, and D category
c) initial transfer from undesignated charter to a particular commercial vessel category locks in at that commercial category

Option 5. Minimum size of transfer is range of 20-72 fish

Issue 6. To receive halibut QS and IFQ by transfer:

Option 1. For the charter sector, must be either
a) a initial charter issuee or
b) qualified as defined by State of Alaska requirements for registered guides or businesses*
*Suboption: and hold a USCG license.

*this would require a change in the commercial regulations to allow transfer of commercial QS/IFQ to charter operator

c) fulfill all legal obligations of the charter sector

Option 2. For the commercial sector, must have a commercial transfer eligibility certificate.
Suboption: all commercial rules apply to any provision that may permit the use of commercial QS/IFQ for commercial purposes by any entity in the Charter IFQ sector.

Issue 7. Caps

Option 1. No caps - free transferability

Option 2. Caps:
a) use cap for charter QS owners only of ¼, ½, and 1% of combined QS units in Area 2C and 1/4, ½, and 1% of combined QS units in Area 3A (for all entities, individually and collectively) and grandfather initial issues at their initial allocation

b) use cap for charter QS owners only of ¼, ½, and 1% of combined QS units for combined Areas 2C and 3A (for all entities, individually and collectively) and grandfather initial issues at their initial allocation

Issue 8. Miscellaneous provisions

Option 1. Maximum line limit of 12 in Area 3A (remains at 6 lines for Area 2C), grandfather initial issuees

Option 2. 10% underage provision of total IFQs

Option 3. 10% overage provision of IFQs remaining on last trip to be deducted from next year's IFQs

Option 4. A one-year delay between initial issuance of QS and fishing IFQs.

Issue 9. IFQs associated with the charter quota shares may be issued in:

Option 1. Pounds

Option 2. Numbers of fish (based on average weight determined by ADF&G)

Issue 10. Reporting

Option 1. Require operator to report landings at conclusion of trip

Option 2. ADF&G logbook

Option 3. Require a reporting station in every city and charter boat location to accurately weigh every halibut caught.

Option 4. Charter IFQ fish tags

Option 5. Require operator to log the catch at the time the fish is retained.

Issue 11. Community set-aside

Option 1. No community set-aside.

Option 2. Set-aside ½-2 ½ percent of combined commercial charter TAC for Gulf coastal communities

Suboption 1. Source of the set-aside
a) equal pounds from the commercial and charter sectors.
b) proportional amount based on the split between the commercial and charter sectors.
c) 100 percent of the pounds taken out of the charter sector.

Suboption 2. Sunset provision
a) no sunset
b) sunset in 5 years
c) sunset in 10 years

d) persons currently participating in the set-aside program at the time of sunset would be allowed to operate within the guidelines of the program.

Alternative 3. Moratorium

Issue 1. Issuee

Option 1. owner/operator or lessee (the individual who has the license and fills out logbook) of the charter vessel/business that fished during the eligibility period (based on an individual's participation and not the vessel's activity)

Option 2. vessel

Issue 2. Qualification Criteria

Option 1. Initial issues who carried clients in 1998 and 1999 and who submitted ADF&G logbooks for an active vessel (as received by ADF&G by February 12, 2000)

Option 2. Initial issuees who carried clients in 1998 or 1999 and who submitted ADF&G logbooks for an active vessel (as received by ADF&G by February 12, 2000)

Option 3. Initial issuees who carried clients prior to June 24, 1998 and who submitted at least one ADF&G logbook for an active vessel (as received by ADF&G by February 12, 2000)

Option 4. Initial issuees who carried clients four out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 and 1999

Option 5. Initial issuees who carried clients four out of five years between 1995-1999 as evidenced by IPHC, CFEC and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel for either 1998 or 1999

Option 6. Initial issuees who carried clients three out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 and 1999

Option 7. Initial issuees who carried clients three out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 or 1999

Suboption: Require that initial issuees be currently participating (meeting all legal requirements including filing a logbook) during season prior to final action (currently May- Sept 2000) and claimed trips must have been under the operation of a person holding a U.S. Coast Guard license.

Issue 3. Evidence of participation

Option 1. mandatory requirements:
a) IPHC license (for all years)
b) CFEC number (for all years)

c) 1998 logbook

Option 2. supplementary requirements

a) Alaska state business license
b) sportfish business registration
c) insurance for passenger for hire
d) ADFG guide registration
e) enrollment in drug testing program (CFR 46)

Issue 4. Vessel upgrade

Option 1. License designation limited to 6-pack, if currently a 6-pack, and inspected vessel owner limited to current inspected certification (held at number of people, not vessel size)

Option 2:. Allow upgrades in southeast Alaska (certified license can be transferred to similar size vessel)

Issue 5. Transfers

Option 1. Will be allowed

Issue 6. Duration for review

Option 1. Tied to the duration of the GHL

Option 2. 3 years

Option 3. 5 years (3 years, with option to renew for 2 years)

SUMMARY OF SECTION 2

None of the alternatives under consideration would affect the prosecution of the halibut fisheries in a way not previously considered in consultations. None of the alternatives would affect takes of listed species. Therefore, none of the alternatives are expected to have a significant impact or effect on endangered or threatened species.

SUMMARY OF SECTION 3

Section 3 provides the baseline data from the 2000 IPHC halibut stock assessment and summaries of halibut harvest and participation data by fishery sector and area from ADF&G statewide harvest surveys, guide and business registration, port sampling, creel surveys, and saltwater charter vessel logbook program. These data are used in Sections 4 and 5 to prepare the regulatory impact review and draft initial regulatory flexibility analysis. Lastly, halibut biomass and charter fishery projections are discussed.

Biology and total removals of Pacific halibut in Areas 2C and 3A.

The halibut resource is healthy and total removals are at record levels. The 2000 IPHC stock assessment model continues to show a strong 1987 year-class. No strong year-classes are following, indicating that

recruitment and ultimately, biomass, have peaked. Overall, the estimated total setline CEY is approximately 84 M lb in 2000, compared with 63 M lb in 1999, 99 M lb in 1998, and 136 M lb in 1997.

Assessment results for Area 2C.

Survey catch rates have been low for the past three years after two high values in the mid-1990s. Overall the survey results indicate little or no difference in abundance between 1985 and now, but any such conclusion is questionable. Meanwhile the commercial catch rates are very consistent in showing a decline of about one-third between 1985 and now, and this is what the model fit reflects, estimating a variable exploitable biomass of 48 M lb (56 M lb fixed) in 2001. Estimates of recent recruitment in 2C are substantially higher than in 2AB, but this difference will diminish in the future if year-class strengths turn out to be similar in 2AB and 2C, as they have in the past.

Assessment results for Area 3A.

Survey and commercial catch rates agree quite well in 3A, survey values declining 20-25% from the 1985 level of 150 M lb and commercial values by 10-15%. The model estimate of 111 M lb is 25% below the 1985 level. This may be a little low; on the other hand the high survey value in 2000 appears anomalously high, and it is propping up the estimate to some extent. In terms of fixed exploitable biomass, the 2001 estimate is 139 M lb. Adding this year's commercial and survey data increased the estimate of fixed exploitable biomass at the beginning of 2000 from 116 to 144 M lb. This resulted from a general increase in the estimated abundance of younger fish—up to age 13 or so. These are the 1987 and later year-classes. Estimates of recent recruitment in Area 3A are still low but not dismal (near the 1974 level) as in the 1999 assessment.

Harvest levels and projected growth for Area 2C.

Estimated number of fish caught and kept are provided by the SWHS. It provides estimates of both the number of halibut hooked or "caught" and those retained or "harvested." The percentage of fish retained varied with area and year. The 1995-99 average for all areas is 60% retention. For purposes of this analysis, no additional mortality is attributed to the released fish, and consequently, the amount retained or harvested is used throughout this analysis for comparison with commercial harvest and evaluation of impacts.

Charter catch and harvest followed a similar pattern, with the 1998 levels exceeding those in 1995 by 23%. Overall, 1996-98 had similar retention rates (56-58%) compared with years of lower harvests, 61% in 1995, and 69% in 1999. In years of lower catch, fishermen were more likely to retain what fish they did catch.

For specific ports within Area 2C, Sitka and Prince of Wales had the highest charter harvest levels. Sitka ranged from 23% in 1996 to 39% of the Area 2C harvest in 1998. Prince of Wales ranged between 22% in 1997 and 32% in 1996. Ketchikan and Juneau were next in harvest levels at approximately 12% and 10%, followed by Petersburg/Wrangell (8%), Glacier Bay (6%), and Haines/Skagway (5%).

In pounds, harvest peaked in 1998 (1.58 M lb) and declined to 0.94 M lb in 1999, below the 1995 level (0.99 M lb). Sitka, with 41% of average biomass removed for 1995-99, and Prince of Wales, with 22%, led Area 2C ports in harvest biomass. Petersburg/Wrangell, with 14%, was third in poundage removed. Ketchikan and Juneau were next with harvests of approximately 10 and 9% each, followed by Glacier Bay (6%), and Haines/Skagway (<½%).

Area 2C clients fished over 53,000 lines during 57,000 hours of bottomfish fishing in 1998. They retained 64,000 and released 29,000 halibut, retained 26,000 and released 27,000 rockfish, and retained over 11,000

lingcod in over 62,000 fishing days. Additionally, 367 lines were fished by crew, with 451 halibut retained and 14 released. Clients fished over 51,000 lines during 53,000 hours of bottomfish fishing in 1999. They retained 63,000 and released 30,000 halibut, retained nearly 28,000 and released 26,000 rockfish, and retained nearly 10,000 lingcod in nearly 56,000 fishing days.

Harvest levels and projected growth for Area 3A

Much higher levels of catch and lower levels of retention occur in Area 3A compared with Area 2C. Peak Area 3A charter halibut catches occurred in 1997 (316,000 fish), 8% higher than the next highest catch in 1998 (275,000 fish) and 1996 (292,000 fish). As in Area 2C, 1999 with the lowest level of catch (233,000) had the highest retention level (57%). The next four years had roughly a 50% retention rate.

Lower Cook Inlet (43%) and Central Cook Inlet (25%) fisheries accounted for 67% of Area 3A charter halibut harvests for the period 1995-99. North Gulf and Prince William Sound followed with roughly 12% each. Kodiak and Yakutat landed an average 5% and 3%, respectively. Yakutat nearly doubled its percentage of harvest between 1994 and 1998, while biomass increased 250%. Kodiak's percentage dropped by 67%, while its biomass declined by14%. Lower and Central Cook Inlet biomass increased by 12% and 46%, respectively. Less change occurred in the Area 3A halibut charter fishery between 1998 and 1999 than occurred in Area 2C: 1) the number of halibut harvested was approximately the same despite a decrease of 20% in client angler-days; and 2) the average weight of halibut decreased by only 6%.

In pounds, harvest peaked in 1997 (3.4 M lb) and declined to 2.5 M lb in 1999, below the 1995 level (2.8 M lb). Lower Cook Inlet, with 41% of average biomass removed for 1995-99, and Central Cook Inlet, with 25%, led Area 3A ports in harvest biomass. Prince William Sound and North Gulf were next with harvests of approximately 13% each, followed by Kodiak (6%), and Yakutat (4%).

Area 3A clients fished over 90,000 lines during 86,000 hours of bottomfish fishing in 1998. They retained 159,000 and released 147,000 halibut in over 98,000 fishing days. Additionally, 950 lines were fished by crew, with 1,738 halibut retained and 700 released. Clients fished nearly 94,000 lines during 111,000 hours of bottomfish fishing in 1999. They retained 157,000 and released 123,000 halibut in nearly 80,000 fishing days. Crew fished 11,000 lines over 9,000 angler days. They kept 13,000 and released 7,000 halibut. Crew reporting for 1998 are believed to be underestimates due to the introduction of the new logbook form.

Baseline economic data for charter fishery

A literature review and available baseline economic data for the 2C and 3A halibut charter fisheries indicates that relatively little economic data exists for the charter fishery in 2C. The existing data comes primarily from the Statewide Resident Sportfish Survey, Statewide Non-Resident Sportfish Survey, and the Guide Survey conducted by ISER during 1993 and 1994. ISER also completed a report in 1999 that used data from the three surveys to describe the 2C and 3A fisheries. Those surveys and the associated studies provide valuable information, but they are not recent or complete, making it difficult to calculate total guided angler expenses and the contributions of fishing-related expenditures to communities with charter activity. Another study conducted for the Southeast Trollers Association by the McDowell Group does not report data that could be used to estimate expenses associated with the guided halibut fishery in Area 2C. However, it does provide useful information describing the relative importance of fishing for those visitors to Southeast who fished.

Studies by Coughenower, Jones and Stokes, Lee et al, and Herrmann et al, have been conducted that are relevant to the halibut charter fishery in 3A, in addition to the three ISER surveys. The Coughenower study was completed in 1985, and provided a useful description of the Homer halibut charter fleet. This report was

completed prior to the development of the Deep Creek fishery. The most useful specific information in the study was on client expenditures, length of trip, residence, and type of lodging.

The report by Jones and Stokes collected information on expenditures, fishing activity, and attitudes by location. There was no specific information in the survey to allow estimation of the expenditures specifically associated with the halibut charter industry or with the characteristics of the halibut charter industry, either for the clients or for the service providers.

The only relatively recent data collection project known to the authors which allows for separability of halibut charter information comes from a survey compiled by Lee et al. (1999a). The survey, along with an ongoing study by Herrmann et al. (1999) focuses on the marine sport fisheries originating from the Kenai Peninsula. The Herrmann study further reduces the geographic scope to include only the economic impacts to the western Kenai from the marine sport fisheries of lower Cook Inlet. Estimates derived from these studies represent the best available data for approximating expenditures associated with the guided sport halibut fishery. Differences in clientele and trip characteristics such as angler avidity and travel mode render extrapolation of Cook Inlet results inappropriate for Area 2C.

Lee et al. determined that the average daily fishing expenditures for an Alaskan ($141 - the charter itself cost $128 and processing their catch cost $8.15) and non-Alaskan ($208 - the charter itself cost $142 and processing their catch cost $42.84) residents were closer to being equal than overall expenditures. This is because the non-fishing expenditures were much larger for non-Alaskans. Effort information from the 1998 and 1999 ADF&G logbooks were then combined with the daily fish expense information. Combining these two sources of information assumes that effort data from one year can appropriately be applied to expenditures from another year. The resulting values indicate that about $19.3 million were spent as a result of charterboat fishing for halibut in the Cook Inlet off the Kenai Peninsula, during 1998. Of the $19.3 million, $4.6 million (24 percent) were spent by Alaskan residents and $14.7 million (76 percent) by non-Alaskan residents. About 81 percent of the money spent in Alaska was spent within the Kenai Peninsula. Expenditure estimates for 1999 were similar to those for 1998, because effort estimates from the 1999 log books were similar to those in 1998.

Average angler expenditures from the Cook Inlet study were applied to Area 3A as a whole, but required some broad assumptions regarding characteristics of the Area 3A ports. However, overall Lee et al felt it was reasonable to apply Cook Inlet expenses to charter ports in 3A as a whole, since the Cook Inlet ports (and ports similar to the Cook Inlet ports) make up the majority of charter effort in Area 3A. Fishing expenditures in Cook Inlet attributable to halibut charter fishing were reported to be $15.0 million in 1998 (total expenditures were $19.3 million). In Area 3A as a whole, $18.0 million was spent on fishing expenditures attributable to the halibut charter fishery.

Because the information from the Lee et al. and Herrmann et al. studies cannot be applied to 2C, some basic information on the cost of a charter trip is presented. Those data indicate that the price paid for a charter trip are higher in Area 2C than in 3A. Trips in 2C ranged in price from $150-$220, depending on the duration of the out trip and port from which the trip originated.

Commercial fisheries

The description of the halibut commercial fisheries includes material adapted from Dinneford (1999) and NMFS (2000). Since 1977, the total commercial fishery catch in Alaska has ranged from 16 to 61 M lb. Beginning in 1981, catches began to increase annually and peaked in 1988. Catches have since declined, reaching a low of 44 M lb in 1995. The 70 M lb harvest in 1998 represented an 8% increase over 1997.

Bycatch mortality, i.e., the catch of halibut in other groundfish fisheries, is the second largest source of removals from the stock, totaling approximately 13 M lb in 1998.

Background Economic Information on the Commercial Halibut Fishery

Ex-vessel prices for halibut in the commercial fishery increased statewide from 1992-96. The statewide average price per pound of halibut in 1992 was $0.98 and increased to $2.24 in 1996. In 1997, the price dropped slightly to $2.15, then fell sharply to $1.26 in 1998. The large decrease in price for the 1998 fishing year reflected an overall decrease in fish prices that year were at least partially a result of weak Asian economies.

Ex-vessel halibut revenue in Areas 2C and 3A were $12.2 and $52.3 million, respectively, in 1997. Revenues dropped to $12.1 million (2C) and $31.1 million (3A), in 1998. The decrease in revenue was primarily a result of the drop in ex-vessel price, as harvest amounts were fairly stable.

First wholesale prices also decreased from 1997 to 1998. Head and gut products dropped from $2.67 per pound in 1997 to $1.91 in 1998. Overall the average wholesale price per pound across all product forms was $2.77 in 1997 and $2.05 in 1998.

First wholesale revenues were derived from the Commercial Operator Annual Reports. Those data indicate that revenues at the first wholesale level increased from $76 million in 1995 (the first year of the IFQ program), to $130 million in 1997. In 1998, revenues declined to $93 million.

The value of a unit of QS and its standardized value in terms of lb of fish are reported for 1995-98. These data were derived from the RAM transfer files. QS prices increased from 1995-97 and then fell in 1998. This is the same trend that was observed for ex-vessel and first wholesale prices. The mean price of a pound of IFQ in Area 2C was $7.58 in 1995 and $10.14 in 1998. This is a price increase of about 34 percent. In Area3A the price increased from $7.37 in 1995 to $8.55 in 1998, or a 16 percent increase. Therefore the relative IFQ transfer price has increased faster in Area 2C than in 3A.

Commercial fishery costs were estimated for the halibut 1996 halibut fleet using an engineering and key informant approach. The results of that study indicated that a total of 132,160 skates were set in 1996, across IPHC Areas 2C-4E. The cost of fishing that gear was estimated to be $2.2 million in setting/retrieving costs, $0.9 million in fuel, $0.9 million in bait, and $0.4 million in gear replacement costs. Processing and shipping costs were also estimated in that study. The costs varied depending on whether the product was sold fresh or frozen and the port the processing occurred. In general, processing costs were assumed to be $0.30 per pound for fresh halibut and $0.50 for frozen. Shipping costs varied by port, but the cost of shipping halibut fresh was 4 to 5 times as much as shipping frozen product.

Baseline Data for Community Set-Aside

Baseline data for analysis of the community set-aside issue includes information specific to the 37 Gulf of Alaska communities identified for purposes of analysis. The following descriptive information is provided: (a) measures of community participation in commercial, recreational and subsistence fisheries; (b) attributes of communities (among the 37 target communities) with more developed charter businesses; (c) requirements for starting and developing charter businesses, and (d) economic status of communities and available loan programs.

Community Participation in Fisheries

Residents of the 37 communities under consideration for the set-aside participate in various commercial fisheries, including State limited entry, halibut and sablefish fisheries. Based on 1998 ADF&G fish ticket data, target-community residents in Area 2C had gross earnings of $18.5 million, 46% of which was from salmon, 19% from halibut, and the remaining 35% from other fisheries. Residents of target communities in Area 3A had 1998 gross earnings of $8.9 million: 62% from salmon, 10% from halibut and 28% from other fisheries. Since initial issuance, holdings by the 37 community residents of State limited entry permits have declined 21% as of year-end 1998; a similar decline has occurred for all communities categorized as *Alaska Rural Local* by the FEC. Holdings and the number of holders of commercial halibut and sablefish quota shares for residents of the 37 communities have also declined, in part due to consolidation resulting from some quota share recipients receiving very small amounts. Since initial issuance, holdings of halibut quota shares for Area 2C and Area 3A have declined 12.3% and 13.0%, respectively, as of year-end 1998. For sablefish, holdings have declined by 25.8% for Southeast quota shares, declined by 42.1% for West Yakutat quota shares but have risen by 40.2% for Central Gulf quota shares.

For the guided charter fishery, two measures of participation are provided for the 37 communities. First, the number businesses licensed as 'Fishing Guides' are identified for each community based on data from the Alaska DCED. For Area 2C, target communities held 118 'Fishing Guide' licenses (expiring at year-end 2000 or 2001) and for Area 3A, target communities held 41 'Fishing Guide' licenses. Four of the communities in Area 2C (Craig, Wrangell, Gustavus and Pelican) and one in Area 3A (Yakutat) had 10 or more businesses licensed as 'Fishing Guides.' Eleven communities (of the 37) had no licensed charter businesses. The second measure of participation in the charter fishery is provided by ADF&G logbook data for 1998 and 1999. Based on port of landing (i.e., port where clients disembarked), charter trips landing in Area 2C communities numbered 4,685 and 5,348 in 1998 and 1999, respectively, with halibut harvests of 13,459 and 15,136 fish. For Area 3A communities, there were 1,360 and 1,008 charter-trip landings in 1998 and 1999, with halibut harvests of 7,336 and 5,448 fish. Communities with the most halibut charter vessel landings include Craig, Elfin Cove, Gustavus and Klawock in Area 2C and Yakutat, Larsen Bay and Seldovia in Area 3A. Average halibut harvest levels on a per boat or per trip basis are higher for Area 3A than for Area 2C; charterboats in Area 3A harvested on average 5.3-5.7 fish per trip (or 89-93 fish per year), while charterboats in Area 2C harvested on average 2.1-2.2 fish per trip (or 51-53 fish per year).

Almost 60% of the 37 communities have residents that rely on subsistence fishing to some degree. Subsistence fishing species include salmon, halibut, shrimp, crab, clams and other shellfish. For some communities, including Kasaan, Akhiok, Larsen Bay, Old Harbor, Port Graham and Yakutat, the majority of residents participate in subsistence fishing (and hunting) activities. Subsistence fishing does not appear to be of high importance for a few communities that have other sources of employment, including Hollis, Pelican, Wrangell, Port Graham and Seldovia.

Attributes of Communities with Existing Charter Businesses

Several communities among the 37 communities have a number of existing charter businesses (based on license data) while a number lack any appreciable charter operations. Other attributes of the communities, including availability of related services and businesses, geographical location and transportation services may have contributed to the relative development of charter businesses in these communities. For example, examination of license data for other recreational, food and lodging businesses indicates that communities with more developed charter businesses also have a number of other services to support tourism. Geographically, about half of the Area 2C target communities are located on or near Prince of Wales Island and about half of the Area 3A target communities are located on or near Kodiak Island. There is no single common

geographical feature, however, that can explain the relative success of certain communities (e.g., Craig, Wrangell, Gustavus and Yakutat) in terms of charter business development. Finally, the availability of transportation services and infrastructure to support charter operations is considered. Among the 37 communities, Wrangell and Yakutat have the largest variety of transportation services and infrastructure; both have tourism, scheduled jet and/or seaplane services, ferry service, boat launch, small-boat harbor and a deep draft dock. Other communities with existing charter businesses typically have scheduled flights or access to the State ferry system, and a small-boat harbor or docking facilities. Communities that lack charter businesses appear to lack scheduled transportation services (air or water) and/or lack boating facilities.

Client Demand and Start-Up Costs for Charter Businesses

Development of charter businesses in the 37 communities may be limited by other factors, even if the cost of halibut quota shares is reduced by the community set-aside. The ability of a charter business to utilize its halibut quota allocation is governed largely by the ability to attract clients. Additionally, the costs to start and operate a charter business may be prohibitive relative to the financial resources of most residents of the target communities. Thus, descriptive information on the characteristics of charter client demand and estimates of charter business start-up and operating costs are provided.

Characteristics of Charter Client Demand

Some of the general factors affecting a charter company's potential ability to attract clients include the following: source and type of clients; amount clients are willing to pay; and motivation and basis for selecting trip location and charter company. Information on these characteristics of client demand is taken from several sources including the 1998 ADF&G creel census, postal surveys (SWHS), and surveys of anglers conducted by Lee et al. (1999a), ISER (1999) and Coughenower (1986). In addition, anecdotal information has been provided by industry representatives at past Council meetings.

For the factors of interest here, important differences exist between clients of charter services in Area 2C versus Area 3A that may impact the ability of target-community members to start and develop viable charter businesses. In Area 2C, the vast majority of clients are non-residents, arriving on cruise ships, who tend to take more half-day trips that target salmon over halibut. Growth in client demand in Area 2C is likely more closely tied to growth in Alaska's cruise ship sector, which in recent years appears to be consisting of older passengers who may be less inclined to take charter trips. By contrast, a larger percentage of charter clients in Area 3A are residents from Anchorage (and surrounding areas) or non-residents arriving by domestic air travel, who tend to take more full-day trips that specifically target halibut.

Average expenditures also differ between residents and non-residents and between Area 2C and 3A. The average fishing-related expenditures for non-residents (based on survey of clients taking charter trips from Kenai Peninsula) is $190, while average fishing expenditures for residents ranged from $130-$137. Expenditures for non-fishing services (transportation and lodging) averaged $104 per day for non-residents and $76 per day for residents (non-local) for anglers taking trips from the Kenai Peninsula. While the transportation costs are not applicable to Area 3A more generally, it is reasonable to assume that fishing expenditures (including a charter trip) range from $130-$190 for clients taking charter trips in Area 3A. Also, it should be noted that transportation costs are higher the further the client needs to travel to get to the port as evidenced by the higher expenditures for non-residents versus residents. For Area 2C, typical prices for charter trips are based on anecdotal evidence only; prices for full-day trips range from $150-$220 and prices for half-day trips range from $150-$190 (although half-day trips tend to target salmon over halibut).

Surveys conducted to characterize client preferences indicate that the potential to catch fish is an important reason governing the choice of fishing location for both residents and non-residents. Residents also place importance on the location (port of charterboat) being quick and inexpensive to get to and being road accessible. Compared to resident anglers, non-resident anglers placed more importance on the area having exceptional beauty and, although still relevant, road access, travel cost and travel time were relatively less important. Finally, most clients select a charter company based on 'word of mouth' and the charter company's reputation, with advertising and tourist brochures more important for non-residents than for residents.

Start-Up and Operating Costs for Charter Businesses

Information on start-up and operating costs is taken primarily from two surveys, the ISER (1999) guide and charter business survey conducted in 1994 based on 1993 activity, and a survey conducted by Hermann et al. (2000). The data set from the ISER guide survey was refined with assistance from ISER to develop a more representative profile of charterboat operators in Area 2C and 3A.

Based on a sample of 236 guide businesses, 80% (or 192) reported expenditures on boats purchased during the five-year period 1988-1993. The mean boat expenditure was $84,000 and the median boat expenditure was $45,000. Since some businesses owned more than one boat, average boat coats were calculated; the mean expenditure per boat was $56,000 and the median expenditure per boat was $34,000. When other transportation and fishing equipment are included, the mean total equipment expenditure was $105,000 and the median was $55,000.

The ISER (2000) survey also collected information on operating expenses (in 1993 dollars) and the break-down by expense category. Payroll and non-payroll employee expenses accounted for 38% of operating expenses, followed by transportation (30%), administration (9.7%), and advertising and accounting services (9%). The mean total operating expense was just over $100,000 per year; half reported annual operating expenses of $27,400 or lower, and three-fourths reported expenses $76,700 or lower (all statistics in 1993 dollars). Importantly, the majority of these expenses would be incurred even if no client demand materialized. The Herrmann et al. (2000) study provides a similar break-down of operating expenses: payroll and other value-added expenses represented 37% of operating expenses, followed by transportation (28%), administration (12%), taxes (8%), and services including advertising (7%).

Economic Status of Target Communities

Population and economic statistics for the proposed eligible 23 communities, based on data provided by the Alaska DCED from the April 1990 census, indicate that the levels of poverty and unemployment are significant in many of these communities. The average unemployment rate across all proposed eligible Area 2C communities is about 21%, with about 48% of all adults in the workforce. Target communities in Area 3A also report an average unemployment rate of 21%, with an average of 56% of all resident adults not in the labor force. By comparison, the state-wide unemployment rate in April 1990 was 7.3%, with slightly higher rates reported in the Kenai Peninsula Borough (12.5%) and the Skagway-Hoonah-Angoon census area (10.5%).

The estimated number of jobs in these communities is relatively low, as would be expected in communities with very small, and often seasonal, populations. The median household income in the 2C target communities ranges from $10,000 in Port Protection to $49,583 in Whale Pass (in 1990 dollars). The average median household income is $31,450, with an average of 2.7 persons per household. Communities reporting lower median incomes also report higher poverty levels, up to 63.7%. The average poverty level across all target

2C communities is 14.6%. Median household incomes increase in Area 3A target communities, ranging from $11,591 in Tyonek to $68,760 in Halibut Cove. Average median household income in these communities is $35,287, with an average of 3.1 persons per household. Poverty levels also vary widely among Area 3A target communities (0 - 37.1%), with an area average of 12.8%.

Loan Programs

The Council requested an evaluation of the ability of alternative mechanisms, such as existing loan programs, to meet the stated goals of the set aside. Three loan sources provided specifically for the acquisition of limited entry permits or quota shares are: 1) the IFQ North Pacific Loan Program managed by the NMFS Financial Services Branch; 2) the Alaska Division of Investment Commercial Fishing Revolving Loan Fund; and 3) the Alaska Commercial Fishing & Agriculture Bank (CFAB).

The North Pacific Loan Program (NPLP), under the authority of the Magnuson-Stevens Act (Section 304(d)(4)), allows up to 25 percent of any fees collected from an IFQ fishery to assist in financing the purchase of IFQ for use by small vessel owners and entry-level fishermen. It is not clear whether Congress considered and/or intended that the guided sport sector be included in either the collection of fees (cost recovery) or in the application of the NPLP to this sector. An amendment to the Magnuson-Stevens Act would be required before a cost recovery fee could be applied to this sector, which is the original source of the funds for the NPLP.

In FY2000, the NPLP had $5 million in loan authority for IFQ loans for entry-level fishermen who fish from small boats. The program will be financed after 2000, in part, by the cost recovery fee on the ex-vessel value of IFQ harvests. NMFS recently announced that the fee for 2000 would be 1.8% for collection of $3.4 million in FY2000 fees. In 2000, the program committed all the funds for a total of 39 loans, 23 of which were granted to Alaska residents (K. Ott, NMFS, pers. comm.).

The Commercial Fishing Revolving Loan Fund has granted ten loans totaling $911,375 for the purchase of halibut and sablefish QS out of nearly $8.7 million in loans awarded in FY2000. Two loans, one of which was for halibut QS, were awarded to residents of two of the 37 Gulf coastal communities under consideration for the community set-aside. The Commercial Fishing & Agriculture Bank granted 51 loans totaling $8,371,544 for the purchase of 3,795,128 halibut QS since December 31, 1998 (D. Rogers, CFAB, pers. comm.). Three CFAB loans have been issued to residents of the proposed eligible coastal communities (total of $300,000), representing less than 4% of total loan amounts.

SUMMARY OF SECTION 4

A summary of the status quo (Alternative 1), each of the 11 issues pertaining to charter IFQs (Alternative 2) and the moratorium (Alternative 3) in Section 4 are described here. In addition, an overview of the implications of the alternatives for anglers is provided at the end of Section 4. Each of the alternatives are listed and, for the most part, qualitative results are presented.

Alternative 1, Status Quo. The status quo is defined as the fishery operating under all of the regulations adopted by the Council, whether they have been implemented or not. Using this definition the status quo includes the GHL measures that were recently passed by the Council but are not yet approved by the SOC or implemented in regulations.

Status quo regulations are designed to limit the halibut removals by sport fishermen using charter vessels. To constrain their harvests, traditional management measures such as the 2-fish daily bag limit and charter client

limits on a trip basis have been imposed. Passage of the GHL, by the Council, defined how various management measures would be used to constrain harvest of halibut in the charter fishery, and the harvest levels those management measures would go into effect. Under the GHL, bag limit reductions were determined to be the most effective means of limiting sport halibut harvests by clients of the charter fleet. **However, if the status quo management measures are ineffective in constraining harvest in the charter fleet, halibut will be reallocated from the commercial to the charter sector.** Based on 1999 harvest levels and projections of the 2001 combined commercial and charter catch limits, charter vessel clients in Areas 2C and 3A can increase their harvests by 340,000 pounds and 950,000 pounds, respectively, before any additional management measures are imposed as a result of the GHL.

Status quo regulations do not limit entry into the charter fleet. The charter fisheries' harvests will be constrained by implementing more restrictive management measures as their percentage of the combined commercial and charter harvests increase, but there is currently no way to prevent additional charter operators from entering the fishery. New entry may be beneficial to consumers of halibut charter trips, but may be detrimental to the current charter operators. This is especially true if the new entrants erode the amount of halibut existing charter operators' clients can take before more restrictive management measures are imposed.

Estimates of the economic impacts of the halibut charter fishery were made in the GHL analysis (NPFMC 2000), and some of the more relevant findings are brought forward in this amendment package. A total of 40,400 trips were taken by charter clients fishing from 581 vessels in Area 2C during 1998. Ninety-four percent of the trips were taken by non-Alaska residents. In Area 3A, a total of 83,774 charter client trips were taken from 504 vessels during 1998. About 64 percent of the trips were taken by non-Alaska residents. Overall anglers are expected to respond inelastically to changes in per day fishing costs. Alaska residents appear to be more responsive to price changes than non-Alaska residents when determining whether to take a charter trip.

Fishing expenditures to take a halibut charter trip were estimated to be $15 million in Cook Inlet to western Kenai Peninsula region ($18 million in all of Area3A) during 1998. Based on expenditure data collected in the Lee et al. (1999a) survey, input-output (I/O) modeling was performed to gauge the impacts of angler expenditures attributable to the halibut charter fishery on the western Kenai Peninsula. After accounting for the direct, indirect, and induced effects of angler expenditures, the fishery contributes a total of $22,560,637 worth of sales (output), $9,259,417 worth of income, and 738 jobs to the regional economy (western Kenai). Note that these jobs are not full-time equivalents, but include seasonal and part-time positions.

Similar data are not available for Area 2C. However, the cost of charter trips in 2C were between $150 and $220, depending on the location. Many of those trips were for salmon or a combination of salmon and halibut, so it is not possible to derive good estimates of the expenditures on halibut charter trips in 2C.

IFQ Program for the Halibut Charter Fishery Several decisions must be made to develop a complete IFQ program for the halibut charter fishery. The first decision (**Issue 1**) is how much halibut the charter sector will be allocated. The Council is currently considering three options. The first option would allocate 13.05% of the combined commercial and charter quota for IPHC Area 2C to the charter fleet. The second option would allocate 10.73% of the Area 2C combined quota to the charter sector. Based on estimates of the combined quota for 2001, the difference in percentages under those two options would result in a shift of 228,056 pounds between sectors. A third option would allocate 10.44% of the combined quota to the charter sector, representing a shift of 256,563 pounds between sectors when compared to Option 1. In Area 3A, Option 1 would allocate 14.11 percent of the combined quota to charter operators. Option 2 would allocate 9.82 percent of the combined quota to the charter sector. Using the 2001 combined quota, the different

allocations would change the amount of halibut going to the commercial and charter sectors by 1,057,314 pounds. A third option would allocate 11.29% of the combined quota to the charter sector, representing a shift of 695,018 pounds between sectors when compared to Option 1.

A sub-option would fix a percentage (0-50%) of the charter allocation at the poundage level at the time of initial issuance. The remainder of the initial allocation would float with halibut abundance. Implementing this sub-option would increase the allocation to charter operators, relative to the commercial sector, in years of low halibut abundance. In years of higher abundance the commercial sector would be issued a relatively larger allocation. For example in Area 3A, if the initial year's combined quota was 20 million pounds and Option 1 was selected, then the allocation would be 14.11 percent to the charter sector. That equates to 2.82 million pounds to the charter sector and 17.18 million pounds to the commercial sector. If the combined allocation fell to 10 million pounds in a future year, the charter sector would be allocated 2.12 million pounds (21.17 percent) and the commercial sector would be allocated 7.88 million pounds (78.84 percent). Both sectors allocation is reduced, but the charter sector is allocated a much larger percentage of the combined quota. If the combined allocation increased to 30 million pounds, the charter sector would only be issued 11.76 percent of the pounds. However, the resulting pounds of allocation would increase from 2.82 million to 3.53 million. Since their demand for halibut is client driven, they may not be able to utilize that increase, if they are not allowed to harvest it commercially or transfer (lease) it to a member of the commercial sector.

Should the combined quota decrease in future years, this suboption would provide relatively more halibut to charter operators when compared to no fixed allocation. The intent of this suboption is to provide charter operators with a more stable allocation of halibut as the biomass fluctuates. It would help ensure that guided anglers have better access to the halibut resource in years of low abundance. It may also help minimize the need for charter operators to transfer (buy, sell or lease) quota shares as biomass fluctuates.

Issue 2 defines the U.S. ownership requirements and the recipients of initial quota. Real persons are required to be U.S. citizens before they can be allocated or purchase quota. Corporations and the other such entities are also required to be U.S. owned. The U.S. ownership options set out in the analysis are 51 and 75 percent. Regulations for commercial quota ownership require that they were able to legally document a fishing vessel in the U.S. based on the 1988-90 ownership standards. If quota is transferable across the commercial and charter sectors, they Council may wish to have the same ownership requirements in both sectors. That would require that the charter sector standards be based on old U.S. ownership definitions, or the commercial requirements are updated to reflect the 75% U.S. ownership standards implemented under the 1998 American Fisheries Act.

Two options are being considered to determine who will be initially issued halibut charter quota. The first option would allocate quota only to owners of charterboats and charterboat businesses. The second option assumes that the allocation would go to owners unless the vessel was operated by another person through a bare vessel lease. Data limitations preclude the analysts from estimating the number of persons holding bare vessel leases. Therefore the Council must make the decision of whether to include bare vessel lessees in the initial allocation, based on the their feelings regarding the appropriateness of granting that class of persons initial allocation rights, as opposed to the vessel owner. During the application period people would be required to prove they held a bare vessel lease. RAM has indicated that determining whether or not a person held a bare vessel lease was not a substantial problem in the commercial IFQ program.

Issue 3 defines the level of participation a person must meet to qualify for an initial quota allocation. Seven options were selected by the Council for consideration, with each of the options requiring the operator to submit logbook entries in from the 1998 and/or 1999 fisheries. In addition to this requirement some options require participation in at least three or four of the five years from the 1995-99 time period. These are the

options with the strictest qualification criteria. Each of the options under consideration is listed below and the best estimates of the number of vessel owners and the total number of vessels are listed in Table E.1.

The number of persons meeting the criteria listed in the seven options, and therefore the number of persons eligible to receive an allocation at the time of initial issuance, is difficult to determine.

Option 1. Initial issues who carried clients in 1998 and 1999 and who submitted ADF&G logbooks for an active vessel[1] (as received by ADF&G by February 12, 2000)

Option 2. Initial issuees who carried clients in 1998 or 1999 and who submitted ADF&G logbooks for an active vessel (as received by ADF&G by February 12, 2000)

Option 3. Initial issuees who carried clients prior to June 24, 1998 and who submitted at least one ADF&G logbook for an active vessel (as received by ADF&G by February 12, 2000)

Option 4. Initial issuees who carried clients four out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 and 1999

Option 5. Initial issuees who carried clients four out of five years between 1995-1999 as evidenced by IPHC, CFEC and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel for either 1998 or 1999

Option 6. Initial issuees who carried clients three out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 and 1999

Option 7. Initial issuees who carried clients three out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 or 1999

Suboption: Require that initial issuees be currently participating (meeting all legal requirements including filing a logbook) during season prior to final action (currently May- Sept 2000) and claimed trips must have been under the operation of a person holding a U.S. Coast Guard license.

Several factors that make determining the actual number of persons that are eligible to receive quota at the initial allocation very difficult, including tracking people across various data sets. That being said, our best estimates of the number of qualifiers (vessel owners in this case - since no data are available on bare vessel lease holders the numbers reported here do not reflect those persons) will be provided in this section for only the first two options. The other options include qualification requirements in addition to those included in Options 1 and 2. Therefore, the number of potential qualifiers in Options 3 - 7 are less than the related criteria in Options 1 and 2. If the Council adopts one of those options and the SOC approves the amendment package, applicants would need to provide the appropriate documentation to prove their qualification. However, data limitations should not preclude the Council from selecting one of those options should they so desire.

[1]Active vessel is defined as having turned in one ADFG logbook page with positive catch or effort. ADFG Guide and Business registration is required of bare vessel lessees only. Neither CFEC vessel registration nor IPHC licensing would be required of bare vessel lessees.

Appendix II provides a detailed description of the relevant data sources and the problems associated with using those data.

Note that these options also apply to the proposed moratorium on new entry into the halibut charter fishery (Alternative 3). The numbers in Table E.1 would then serve as a proxy for the number of persons or vessels that might qualify.

Table E.1.: Projected number of Owners and Vessels under each qualification option.

Participation Criteria	**Projected Number of Qualifiers**			
	2C - Owners	**2C - Vessels**	**3A - Owners**	**3A - Vessels**
Option 1: 1998 and 1999	–322	–544	–333	–444
Option 2: 1998 or 1999	–539	–765	–568	–674
Option 3:	539 > **x** >367	765> **x** >533	568 > **x** >366	674> **x** > 427
Option 4:	< 322	< 544	< 333	< 444
Option 5:	< 539	< 765	< 568	< 674
Option 6:	< 322	< 544	< 333	< 444
Option 7:	< 539	< 765	< 568	< 674

Source: ADF&G Logbook data

Issue 4 defines the formula that will be used to allocate quota shares among the initial recipients. Because of the problems associated with linking the various data sets together based on the owner or bare vessel lease holder, it is not possible to provide estimates of the amount of quota that would be allocated to each QS holder. Instead, the analysis focuses on the options in a general sense and provides examples of how QS would be distributed given hypothetical participants and catch histories. This method of treating the options also expands the range of allocation percentages that the Council may feel they have adequate information to consider at the time of final action.

Under Option 1, the average of each initial issuee's 1998 and 1999 harvest in numbers of fish will be estimated according to logbook records. Of this amount, each person will be awarded 70% of his average 1998 and 1999 harvest level; (a) an additional 10% of the individual's 1998 and 1999 logbook average will be awarded for each year of proven participation in the fishery for 1995, 1996, and 1997; (b) the resulting harvest award for each issuee will be summed by IPHC area and each individual's harvest award will then be converted to a percentage relative to the sum of all individuals' 1998 and 1999 logbook averages; (c) each issuee's share will then be multiplied by the poundage associated with the Council's preferred option under Issue 1; (d) the resulting poundage (IFQs) will then reflect the amount of allocated quota, and will be issued as pounds or converted to numbers of fish depending on the Council's preferred option under Issue 9.

QS awarded under Option 1will be very heavily dependent on an individual's 1998 and 1999 landings reported under the logbook program. Small recorded landings under the logbook program cannot be made up through the 10% participation bonus awarded for each year fished during the 1995-97 time period. For example, a person fished and completed logbooks only in 1998 (reporting 500 fish), and also fished every year 1995-97. That person would be credited with a catch history of 325 halibut for the four years they fished. Another

person fished in both 1998 and 1999, filling out logbooks for 1,000 fish (500 each year). That person would be credited with a catch history of 500 halibut for fishing two years. So even though both charter operators caught 500 fish a year and first operator fished more years, he gets a smaller allocation because 1998 and 1999 are weighted more heavily than 1995-97.

Option 2 is the modified Kodiak proposal. The steps for calculating allocation amounts under this option are as follows: (a) For Part A, an equal share of 5% - 30% of the initial pool is awarded to each issuee. **This percentage could be increased or decreased at the time of final decision. The larger the percentage under Part A, the more evenly the quota will be distributed among persons qualified to receive an allocation of charter quota. If the percentage were increased to 100%, everyone would receive the same allocation. Changing the allocation percentages in Part A would likely also necessitate changing the percentages in Parts B and C**; (b) For Part B, the individual's 1998 and 1999 average harvest is divided by the total 1998 and 1999 average harvest to calculate each individual's relative percentage of total harvest. This percentage is then multiplied by a percentage of the initial pool (33% was being considered by the Council); (c) Part C is calculated by awarding a point a year to each individual for participation between 1995 and 1999. The ratio of each issuee's points divided by the total number of points is then multiplied by a percentage of the initial pool (62% to 37% were specified by the Council).

Under Option 2, there is a distribution of equal shares at the outset of the allocation under Part A and the award scheme for longevity is not ultimately tied back to the logbook averages as under Option 1. Therefore, only Part B of Option 2's allocation scheme is based on a person's catch history as reported in the logbooks. Because less emphasis is placed on a person's logbook landings, the range of values among issuees under Option 2 will be more tightly clustered around the mean than the range of values under Option 1. That is, there is less variation in the individual allocations because the combination of longevity in the fishery (Part C) and an equal distribution from the initial pool (Part A) play a substantial role at initial issuance for Option 2, whereas Option 1 very heavily weights individuals' logbook averages.

A suboption in this section would base the logbook portion of the allocation on both retained and released halibut. This option was included before the Council developed options for allocating quota among the commercial and charter sectors. So this option may have been included to impact allocation between sectors as opposed to distributing the charter allocation with that sector.

Data from the ADF&G logbooks indicate that some operators reported releasing over 100 halibut on a trip. Over 1,400 trips reported releasing at least 20 halibut. These large numbers of released fish could greatly alter the allocation among charter operators. For example, the person that reported releasing 120 halibut on a trip would be credited with the equivalent of legal catch limits (assuming that 12 halibut were also retained on the trip). If another operator did not release any halibut, they would be put at a substantial disadvantage at the time of allocation, especially under Option 1. Also recall that the practice of releasing fish does not count against a person's allocation. Therefore, a person would be given credit for releasing halibut during the qualifying years, but releasing halibut under an IFQ program would not count against their allocations.

Issue 5 defines the types of transfers that would be allowed under the IFQ program. A paper prepared by Drs. James Wilen and Gardener Brown was used as the basis for this section.

In all of the discussion over quota design for the charter industry, there is considerable tension between economic efficiency-generating design options and restrictions and provisions designed to prevent change that is anticipated to be either too rapid or too radical. For the charter halibut industry, one motive for even considering quotas is to reduce the uncertainty over future allocations to the sector as a whole. If that is the main purpose of introducing quotas, a program design with restrictions that freeze the industry close to the

status quo may satisfy most participants. Nevertheless, the main economic benefit of adopting a quota system in the charter sector could be the incentives it will give charter quota owners to maximize the value of quota held. If there is one single constant across all programs implemented to-date around the world, it is that quotas generate new and generally profound changes in methods of doing business. These changes are the result of abandonment of the wasteful activities associated with the open access race for fish, and the substitution of activities reflecting value-added and stewardship. A quota system adopted by the Alaskan charter industry can be expected to generate substantial and largely unpredictable changes as quota owners search for new ways to maximize the profits associated with quota rights.

The simple way to look at the suite of transfer restrictions proposed under Issue 5 is to consider each a potentially binding (effective) barrier to completely free and unfettered trade. It is a fundamental characteristic of any quota system that the less constrained the system, the more quota will gravitate to higher valued uses and the more overall value will be created by the resource devoted to the sector. Conversely, any restrictions on trade that effectively inhibit some quota from seeking highest and most valued uses will impose a cost. This cost will be borne directly by those who are granted quota in that their quota will not attain a market value that is as high as it might be without restrictions in place. Importantly, the cost is borne mainly by those in "protected" sectors and groups. For example, the cost of blocked transfers in the commercial sector is probably close to 55 million dollars. This is the amount by which quota held by individuals in the small holder, blocked transfer categories is discounted vis a vis what it would sell for in an unblocked market. It also represents the potential value attributable to the halibut resource that is foregone by Alaska and the nation in order to keep a diverse fleet of small holder, part-time fishermen.

In considering potential restrictions on transfers that might be imposed on the charter sector, careful attention needs to be paid to whether the industry and attendant secondary industries wish to forego similar efficiency benefits in order to attain similar objectives that have influenced design of the commercial sector system. For example, is it desirable to inhibit leasing or other short-term transfers of use rights by adding transfer restrictions that make trade costly? It is our sense that the benefits of being able to transfer quota within the charter sector on a short-term basis are particularly significant economically. As we discussed, it is likely that the initial halibut charter quota allocation will be diffused across a large number of grantees, many of whom will choose to exit the industry within a few years of the quota program beginning. Prohibiting leasing clouds the information that might be accumulated by prospective buyers and sellers about a fair price for permanent transfers during the early phases of the program. This is in addition to the important benefits of being able to temporarily adjust quota holdings to meet short-term needs. Over the longer run, participants need the security to invest in value-producing new markets and service provision that permanent transfers promise. The British Columbia model was an interesting compromise that allowed temporary transfers during the first couple of years and then opened up the system to permanent transfers.

With respect to restrictions on transfers between sectors, there is understandably more concern about the implications of completely free transfers. The biggest unknown in all of the policy analysis is what configuration the charter sector will assume in response to quota allocations. The kinds of changes in services, in capacity utilization, and in variable input use in response to secure property are likely to be significant, particularly as the TAC constraints actually become binding. The magnitude of the new values generated will determine the pressure to either sell quota to or buy quota from the commercial sector.

In an important sense, the implications of restrictions on between-sector trade are tied to restrictions in within-sector trade. If the charter sector adopts regulations and restrictions that inhibit the generation of the potential values that are likely to emerge with unfettered quota markets, those restrictions will at the same time enhance the likelihood that quota will be under pressure to flow from the charter to the commercial sector. At the same time, the layers of existing restrictions in the charter sector insulate the charter sector currently

by ensuring that the willingness to pay in that sector is less strong than it might be under free trade. In this system of layers of restrictions on trade in the commercial sector, the design of rules for between sector trade will effectively determine the groups within which trade occurs. The general rule of thumb, however, is that quota will flow to the sectors that have the highest effective willingness to pay. Under current restrictions in the commercial sector, this implies vessel classes C and D generally, and quota flowing into unblocked markets if permitted. It is also another rule of thumb that restrictions will reduce willingness to pay and hence determine the strength of the relative flow of quota. We would suggest caution, however, in giving these qualitative predictions too much focus. We do not expect pressures for large amounts of quota to flow (in either direction) between the sectors because of the nature of the charter industry and because of the countervailing forces that operate to equilibrate quota prices as transfers are made. As stressed above, the industry is essentially trip-demand limited, and having the use rights to harvest more fish probably has limited value at present. At the same time, it is unclear what a reorganization associated with secure property rights might generate, and it is conceivable that the industry might go through modest expansion or contraction. To the extent that it is desirable to capture the values from between-sector trade, consideration might be given to leaving mechanisms for modest amounts of trade open. Similar principles regarding the desirability of leasing hold with respect to between sector trade; it might be important to allow leasing at some scale in order to monitor the nature of the market pressures for long term transfers.

Finally, it should be emphasized that another important benefit of an IFQ system is that it eliminates some of the tension, conflict, and transaction costs associated with allocation decisions. By allowing quota to flow between and among participants in a manner determined by mutually agreeable market trades, fishery managers can remove themselves from some of the contentious allocation disputes that consume so much of their time and energy. The cost of this, of course, is that an initial time, energy, and political investment must be made up-front in getting the initial allocations and rules of the game established. But in the long-term, a well-designed quota system more or less automatically resolves much of the dispute and eliminates the rancor that consumes modern managers faced with using limited micro-management allocation instruments to address conservation, economic efficiency, and distributional concerns simultaneously.

The only decision point under **Issue 6** is whether to require persons wishing to purchase charter QS or IFQ to hold a USCG license in addition to being an initial charter issuee or qualified as defined by State of Alaska requirements for registered guides or businesses. There is not an option included that allows everyone to purchase QS or IFQ. Limiting the number of people that are allowed to purchase quota may decrease the QS value, if those persons excluded from purchasing QS place the highest value on it. However, limiting the people that are allowed to purchase QS also helps to ensure that the fishery remains in the hands of a particular class of people. In making this decision, the Council concluded that the benefits gained from limiting quota ownership outweighed any losses in quota value that may result from allowing anyone to purchase QS.

The Council is also considering a suboption requiring individuals to hold a USCG license in addition to the other requirements before they are allowed to purchase QS or IFQ for the halibut charter fishery. If the regulations are written such that quota can only be fished in the commercial fishery by individuals eligible[2] to purchase commercial quota, this requirement would likely be unnecessary.

[2]Those who wish to receive QS/IFQ by transfer but did not have QS initially awarded to them must submit a Transfer Eligibility Certificate application for approval. Only those who have 150 or more days of experience working as part of a harvesting crew in any U.S. commercial fishery are eligible to receive a Transfer Eligibility Certificate (**TEC**). Work in support of harvesting but not directly related to it is not considered harvesting crew work. For example, experience as an engineer, cook, or preparing a vessel for a fishing trip does not satisfy the requirement.

Issue 7 determines if use caps will be applied to the halibut charter IFQ program. It is difficult to know whether there are economic forces promoting agglomeration at this stage. It is suspected that the part of the industry that serves markets such as the tour boat industry may exhibit economies of scope and perhaps economies of scale. Other areas such as Kenai and Homer that serve more skilled angler markets may be optimal at smaller scales. It is thus difficult to predict the direction of the dominant forces. Capping use of QS at levels below the economic scale necessary to maximize benefits will forego efficiency gains. On the other hand, the agglomeration issue is so politically charged that those benefits may not be worth pursuing in the larger arena. In the end, the cap issue is probably more an income distribution issue than an efficiency question and hence there is little that economic analysis can add to the question.

Should the Council move forward with a cap, the options under consideration establish a specific use cap for charter QS owners, separate from the cap already established in regulation for commercial QS owners. It is understood that should a use cap for charter QS be adopted, any QS being used as IFQ in the halibut charter fishery would be subject to that cap. If QS is being used as IFQ in the commercial halibut fishery, it would subject to the commercial cap.

Issue 8 addresses three miscellaneous issues: whether a maximum line limit of 12 is appropriate in Area 3A, and whether to mirror underage and overage provisions in the proposed charter IFQ program.

Option 1. Line limits were carried over from the GHL analysis *as a potential means to control harvest*. Harvest controls are not explicitly needed under an IFQ program. The intent of such a measure under an IFQ program is not clear, since it appears to address allocation issues *within* the charter sector. The analysis concludes that a 12-line limit or any line limit does not address the problem statement. **If line limits do not address the Council's problem statement (i.e., allocations between charter and commercial sectors), then the Council may wish to withdraw it from the analysis or revise its problem statement.**

If the purpose of line limitations is socio-economic and/or allocative within the charter sector, then the Council should provide such direction to staff so the analysis could address the distributive result of establishing line limits. Other management mechanism to insure against all the QS/IFQ ending up on a very few vessels include ownership/use caps (Issue 7), or including charter vessel length categories (i.e., "D" and "C" as in the commercial program) or designating some QS as usable only on a "6-pack" vessel (i.e., one on which the skipper may not carry more than 6 people for hire) and to designate some for use only on vessels that may carry more than six clients (i.e., "head boats").

It is conceivable that there may be some advantage to adopting **Option 2. 10% rollover provision**, but that advantage may not be worth the associated administrative and enforcement burden. Also, "unused" IFQ (fish) remaining at the end of the charter season could be transferred to a commercial operator or to himself as a commercial operator, so no real underage would need to exist and the charter QS holder could receive some compensation for unused IFQs. Also, how underages would be applied depends on whether the charter IFQ harvest is managed in pounds or numbers of fish. There is no data to analyze whether 10% is an appropriate underage adjustment for this fishery.

Staff notes a correction to **Option 3. 10% overage provision** in the listed option; **the option should read "10% rollover provision of IFQs remaining on last trip" to match the commercial program.** It proposes to incorporate a ten-percent adjustment policy (overage) for the charter sector similar to that in the commercial halibut IFQ program.

Allowing overages and underages in the halibut charter fishery could provide charter operators more flexibility in managing their business, and should result in few negative impacts on the commercial fleet. Overages will allow an operator to meet the needs of end of the year "walk in" clients without procuring quota through transfers. The overage and underage provisions in this case would serve as a mechanism to reduce the need for charter operators to lease quota, since they would be allowed to "borrow" a small amount from their allocation the next year. However, there may be limited need for an overage policy (especially if the permit is enumerated in numbers of fish), as the exact amount of fish can be easily determined and the permit holder will know exactly where s/he stands with respect to the allowable catch. Further, administration and enforcement of an overage policy is complicated and expensive. USCG and NMFS Enforcement concurs that it seems logical that the angler should be allowed to retain any fish taken or possessed within the daily bag and possession limit, and that any IFQ overage penalties should be incurred by the charter operator.

Allowing charter operators to exceed their quota by ten percent in a year would result in the charter fleet increasing their harvesting by, a maximum of, about 1% of the overall quota in 3A and 2C. These overages will have little impact on the quota levels that would be set the following year, and the charter sectors allocation would be reduced that year to account for any overage taken the previous year. The reductions in charter allocation would result in equal increases to the commercial allocation

If an IFQ program for the charter sector is implemented, all QS would be issued in **UNITS**, not pounds or numbers of fish. Under **Issue 9. pounds vs. fish**, the Council is considering issuing halibut IFQs as either pounds of halibut or the number of halibut that can be landed through the operations of charter in a calendar year. The number of QS units initially issued would be converted either to pounds using the standard formula (Option 1) or to pounds and then to numbers of fish using average halibut weights from the charter sector (Option 2). Using pounds reflects the current administration of the commercial halibut IFQ program.

Nearly all recreational fisheries are managed based on numbers, rather than weight, of fish landed. Size limits may be employed in combination with bag and possession limits to limit the harvest of large or small fish, however they are rarely used singularly. Limits on pounds of fish landed are rarely used as a regulatory mechanism in recreational fisheries, because of the higher number of vessel landings and dispersed nature of the fishery. Because sport-caught fish are not bought or sold, it is impractical and expensive to have enforceable weigh stations at all sites of sport landings.

Managing in numbers rather than pounds would have the advantage of linking the limit to the most common management strategy for recreational fisheries, that is bag and possession limits. Changing the unit of measure in the charter fishery from pounds to fish may impact the way the fishery is prosecuted. However, changing the underlying cost structure of the halibut charter fishery may change the attributes of the charter trips that are offered. For example, charter operators could specify the type of trip they offer in the materials they develop to advertise a trip. Some charter operators might state that no halibut over 100 lb could be retained. They may market this approach to conservation minded clients that are interested in protecting the larger female halibut that are the brood stock. Other operators may impose size limits on small fish. They may market trips to the trophy fishermen. Other charter operators may offer trips where there is no additional charge for the first 50 lb (or some other level) of halibut retained. For each pound of halibut over the specified level, the client would be required to pay an additional dollar amount that was specified in the contract. It is not known if these types of trips will be offered. They are presented as examples. It will be up to the individual charter operators to determine the type of trip that works best for them and their business. However from an economic perspective, since the halibut would be a costly input under the IFQ program (and the GHL program as well) it makes financial sense for the charter operators to minimize their costs. Reducing the amount of halibut harvested on their boat, if their halibut allocation is a constraint, is a logical way to reduce costs.

Allocating halibut in numbers of fish, rather than pounds, benefits charter operators that harvest larger halibut, on average. Charter operators that harvest smaller halibut on average, in the future, would be disadvantaged under this system. This is because the number of fish are based on a standard conversion rate of pounds to fish. Therefore, if the average fish over the entire fleet is 20 lb, and an operator catches 40 lb fish on average, he has essentially doubled his allocation. His hope is that other charter operators continue to catch smaller fish and keep the industry average at close to 20 lb.

If fish size depends on the charter operators' ability to run to better fishing grounds further from shore, allocating quota in terms of number of fish would tend to benefit operators with larger faster boats. Charter operators that catch smaller fish that the average (perhaps those with smaller, slower boats fishing closer to the harbor) will receive a smaller allocation if it is based on fish rather than pounds. This may lead to charter operators upgrading their boats to essentially increase their allocation in the short run. If everyone follows this strategy, the average halibut size will increase, reducing the number of fish a charter operator will be allocated based on their QS units held.

One cost of specifying charter IFQs in numbers of fish rather than pounds is that dockside monitoring would have to be done at major charter ports on a consistent basis to obtain an average weight of halibut harvested by charter clients. This would be an expensive program to cover all major charter ports in Areas 2C and 3A.

Making the conversions from pounds to fish on a charter IFQ permit would not be administratively difficult. Conversions between pounds and numbers of fish and IFQ account maintenance is simply a mechanical process for RAM. The issues are not insurmountable, but they should be evaluated in the context of adding additional complexity to a proposed program that is already complex.

RAM staff have proposed three ways to administer charter IFQ accounts:

(6) Numbers. Charter accounts are maintained and managed in numbers of (whole) fish. At the beginning of each year, TAC distributions in pounds are converted to fish. RAM rounds up or down to whole fish, theoretical excess pounds disappear and additional pounds are added as needed to "make up" whole fish. Reporting is in numbers of fish. Conversion between pounds and numbers of fish is necessary for each transfer between charter and commercial sectors, for calculating the following year's permits, and (depending on how they are calculated) to determine when to confiscate as opposed to making an administrative adjustment for overages. If the rounding method is unbiased, on average the TAC is not exceeded, although a person might be advantaged or disadvantaged in any one conversion event. Conversion factors, once calculated and published, would not be subject to debate.

(7) Weight. Charter accounts are maintained in weights, just like commercial accounts. This requires that charter operators report weights. Everyone gets to use the amount of (whole) pounds allocated to him/her. No conversions, no unallocated fractions of fish, no disputes. However, there were 2,807 commercial IFQ landings in Area 3A, while there were 16,643 bottomfish charter trips. The cost to monitor charter landings and weigh fish may be enormous. Many charter ports having no infrastructure for monitoring.

(8) A hybrid. Allocations are made and accounts are maintained in pounds, and as a convenience, charter permits display numbers of whole fish. Reporting is in numbers of fish. RAM may also need to display allocated pounds on charter IFQ permits and on landing receipts. Reporting is in numbers of fish. Allocations, transfers, overage/underage, permit calculations are all straightforward, as are conversions to whole fish.

Accounts entirely in numbers of fish (#1) are much simpler to understand and report, but rounding issues are introduced. Accounts maintained in pounds (#2 & #3) are much simpler to maintain, less prone to error, and

easier to edit. Method #3 provides the advantages of predictability for charter operators, a simple reporting method and insures account accuracy; but, it requires charter IFQ permit holders to consider their IFQ accounts in both fish and pounds to track transfers, inseason overages/underages/confiscations and next year's IFQ adjustments. Tracking transfers may not be an issue. If IFQs are transferred from charter to commercial sectors, the commercial buyer would disregard the numbers of fish. If transferred from commercial to charter sectors, the poundage would be converted to numbers of fish using a recent average weight.

Managing the charter IFQ fishery in numbers of fish may be preferable for several reasons.

- One of the main advantages of implementing an IFQ program for charter operators is to enable operators to "customize" the amount of IFQ they hold to match the harvest needs of their individual business. Charter businesses can probably predict fairly closely how many halibut they need to run their operations through the normal fishing season. They will not be able to predict the weight of the fish their clients may harvest. Basing their annual IFQ permits on pounds of fish will introduce a factor of uncertainty into every charter business that will make it more difficult for them to operate within the IFQ program.

- The average weight of halibut changes from year to year based upon year class strength and other biological characteristics of the stock. An IFQ amount based on weight may work just fine for a charter business one year. However, the same IFQ share may only carry the business through a portion of the fishing season in future years if the average size of halibut increases substantially (but the commercial sector is also affected by changes in halibut abundance and average weight).Likewise, a charter operator may forego income with a significant underage if the average weight of halibut were to decrease in a given year.

- One of the main advantages of implementing an IFQ program for charter operators is to enable operators to "customize" the amount of IFQ they hold to match the harvest needs of their individual business. Charter businesses can probably predict fairly closely how many halibut they need to run their operations through the normal fishing season. They will not be able to predict the weight of the fish their clients may harvest. Basing their annual IFQ permits on pounds of fish will introduce a factor of uncertainty into every charter business that will make it more difficult for them to operate within the IFQ program. Dockside enforcement may be more complex if IFQs are based on pounds of halibut. Charter businesses operate out of a large number of ports and numerous docks, boat launches, etc., within each port. It would be necessary to have certified scales at each landing location, or to require all charter vessels to offload halibut at one central weigh-in location in each port, to record accurate weights of the halibut harvested. Both of these options are expensive and problematic. USCG and NMFS concur that the easiest way to manage the quota at the operator level is by the number of fish

- Many charter operators fillet halibut while the vessel is returning from the fishing grounds to shore to offload their clients and fish. Federal regulations prohibit filleting or mutilating halibut in such manner that would prevent determination of the number of fish on board. An enforcement officer could still determine the number of halibut harvested even if the fish were filleted, but determining the number of pounds harvested would not be possible. Onsite survey data collected in Area 2C during 2000 indicates that nearly 60% (range 11% to 88%) of the halibut landed by charter vessels had already been cleaned at sea. This issue (and that of accurate collection of harvest statistics) would go away if the IPHC simply required landing of fish with meat on and in a condition that allowed measurement of length.

Issue 10. Reporting of landings addresses whether to require trip-based or logbook reporting for monitoring of IFQ accounts. Staff recommends trip-based reporting, but offers an additional option. Because

some charter operators take two "trips" in any given day, **staff suggests Council consideration of another option**: once every day in which a "trip" occurs. NMFS Enforcement has indicated that daily reporting may be acceptable. Staff also recommends continuation of the ADF&G logbook program, as it addresses state management needs beyond federal halibut management.

A third option was added to the analysis during preliminary review. Agency staff suggests it may be unwieldy, intrusive, and probably unnecessary (especially if the charter IFQ permit is issued in numbers of fish). It could require certified scales at every conceivable landing location (including remote lodges and other locations in which the costs could be excessive). It would undoubtedly increase the cost of doing business for a number of charter operators.

If the permits are issued in numbers of fish, simply reporting (electronically, with waivers from that requirement available under certain circumstances) on a daily basis should be adequate to meet the goals of harvest monitoring on a real-time basis and maintaining IFQ account balances.

Possible new option: Fish tag system

USCG staff have suggested consideration of a fish tagging program that is used on the east in recreational fisheries. Each operator is issued a stack of tags based upon their quota/unique ID. The operator tags each fish when caught and the tag (with the QS holder's number) would remain on until the fish is landed. This may be a good option when quota is based on the number of fish and not on weight. Every landed halibut from a charter boat would be tagged. Un-tagged fish would have been landed by an unauthorized participant and they would be in violation. The tags run out when quota runs out. State personnel would note whether or not a tag was on the fish as well. Enforcement would issue a violation later if a charter operator was found to be in violation.

This option would require landing whole fish and not filets. This may require a change in fishing practices, particularly in southeast where charter boat operators are on a tight schedule to get cruise ship passengers in and out quickly, as they filet on the way into port to save time.

Issue 11 considers the option to **set aside** halibut quota for use by qualifying individuals in targeted communities in the Gulf of Alaska for purposes of starting and/or developing charter businesses. The analysis is intended to support a Council decision in April on four decision points: (1) *whether* to set aside quota for Gulf communities; (2) the *magnitude* of the set-aside; (3) the *source* of the set-aside (commercial and/or charter sectors); and (4) whether to include a *sunset* provision. Two options are considered under this issue: under Option 1, the charter IFQ program would be implemented but no quota would be set aside for target communities in Area 2C and 3A; under Option 2, a range of 0.5-2.5% of the combined commercial/charter TAC would be set aside for those Gulf communities.

Estimated Value of Economic Barrier to Entry: Since one of the main purposes of the proposed community set-aside is to reduce an economic barrier to entry into the charter industry for target communities, the value of the potential economic barrier created by the charter IFQ program is estimated. This economic barrier under consideration is that created by implementation of the charter IFQ program since, if the program is implemented, new charter businesses would need to purchase halibut QS to support their operations (assuming no halibut QS units are received via the initial allocation). Based on ADF&G logbook data for 1998 and 1999, halibut resource requirements are estimated for start-up and full-time charter operators for the target communities in Areas 2C and 3A. In Area 2C, an estimated 900 lbs and 3,000 lbs of halibut are required to support start-up and full-time charter operators, respectively. In Area 3A, an estimated 1,000 lbs and 6,000 lbs of halibut are required to support start-up and full-time operators, respectively. These values are

somewhat lower than the halibut resource needs estimated in the Gulf Coastal Communities Coalition (Coalition) proposal of 2,000 lbs and 10,000 lbs for start-up and full-time operators, respectively.

Using mean 1998 commercial halibut QS transfer prices of $10.14 and $8.55 for Areas 2C and 3A, respectively, as an indicator of halibut charter QS prices, the estimated halibut resource requirements may be converted to potential cost of QS for start-up and full-time charter operators. Thus, start-up charter operators may need to purchase $9,000-$19,000 and full-time operators may need to purchase $30,000-$94,000 worth of halibut QS (assuming no halibut QS units are received in the initial allocation). These estimates provide an indication of the potential value of the economic barrier created by the charter IFQ program and potentially removed if the community set-aside is adopted. While the start-up requirements are relatively modest (but not insignificant), the value of halibut quota shares required to support full-time charter operations is significant and comparable to the cost of other major equipment items (e.g., boat).

Other Economic and Non-economic Barriers to Entry: The lack of charter businesses in some of the target communities despite growth in the industry during the 1990's suggests that other significant barriers to entry may exist for these communities. Other potential barriers include economic and non-economic factors. Other potential economic barriers include the cost of a boat and other fishing equipment, cost of property (lodge, dock, land, etc.) and the initial funds to finance operating expenses during the start-up phase. Based on data from the ISER (1999) guide and charter survey and adjusting for inflation, the estimated cost per boat ranges from $40,000-$67,000 and the estimated overall equipment costs range from $66,000 to $125,000.

From the same survey data, annual operating expenses are estimated to range from $29,000 to $106,000 (adjusted for inflation). A break-down of these operating expenses is as follows: 34% for payroll and other employee expenses; 30% for transportation-related expenses including fuel; 10% for administration; and 9% for other services including advertising. Importantly, most of these expenses would be incurred even if no client demand materializes. Financing to support operations during the start-up phase represents another potential barrier to entry.

Other factors that may have limited past development of charter businesses in some of the 37 target communities and may represent significant barriers to entry include the following: (1) remote location of community; (2) lack of road access; (3) lack of scheduled flights or ferry service; (4) lack of boating facilities; (5) lack of other recreational opportunities; (6) lack of food and lodging amenities; (7) lack of tourism; (8) community prefers to limit tourism; (9) not especially scenic; (10) proximity to other port; (11) lack of financial resources; (12) reluctance to take financial risk; (13) lack of business experience and skill; (14) and lack of a USCG license. Of all factors listed, the remoteness of the community is likely the factor most limiting to the development of charter businesses in the 37 target communities. Even if packaged with transportation and lodging, halibut charter fishing from a more remote community would likely appeal to only a small percentage of clients. Thus, development of charter operations in the target communities may be as much limited by lack of demand as by the challenges to start and operate a charter business in a remote community.

Issue 11, Option 1 considers the implications of the charter IFQ program for target Gulf communities if no halibut quota is set aside. Concerns have been expressed that if no quota is set aside, some Gulf communities that are in the early stages of developing halibut charter businesses may have difficulty achieving long-term viability once the halibut charter IFQ program is implemented. The concern revolves around two issues: (1) that certain smaller Gulf communities are likely to receive fewer halibut QS in the initial allocation; and (2) that implementation of a halibut IFQ system for the charter sector creates a new barrier to entry into the industry. Thus, the impacts of the issues and options governing the initial allocation of halibut QS on the 37 target communities are considered.

Implications of Issues 2, 3 and 4 for Target Communities: Issues 2, 3 and 4 define options for determining *who* is eligible to receive QS, the *qualification criteria* and the formula for calculating the *amount* of QS distributed to initial recipients. The general impacts of these issues were discussed earlier. Of interest here are the incremental impacts or implications for the 37 communities targeted by the set-aside. Direct allocations of QS to communities (as opposed to individuals residing in the communities) is not under consideration at this time. For communities (among the 37) that have existing charter businesses, including charter vessel owners and bare vessel lessees as initial recipients of halibut QS does not necessarily disadvantage members of such communities. Potential issuees residing in the target communities are likely more sensitive to the choice of qualification criteria (Issue 3) and formula for determining the size of the distribution (Issue 4). If potential issuees in target communities have below average ADF&G logbook harvests (in 1998 and 1999) and relatively few years of operation, criteria and distributions that place less emphasis on the logbook harvests and longevity may ensure that such issuees receive amounts of QS reflective of their historical market share.

For example, the initial allocations of halibut (in pounds) are estimated for target communities in Areas 2C and 3A based on the qualification criteria under Issue 3, Option 1 (logbook data for 1998 and 1999) and Option 2 (logbook data for 1998 or 1999). For both Areas 2C and 3A, the target communities are likely to receive more halibut QS under Option 2; Area 2C target communities may receive an estimated 221,900 pounds under Option 2 (versus 211,800 pounds under Option 1) and Area 3A communities may receive an estimated 86,100 pounds under Option 2 (versus 85,000 pounds under Option 1). These amounts represent estimated *minimum* amounts since issuees in target communities may receive more if they meet the longevity requirement and since any balance would be redistributed among all participants. There would also be more initial issuees in target communities under Option 2 (1998 or 1999 logbook data) versus Option 1 (1998 and 1999 logbook data); an estimated 66% and 71% more potential issuees may qualify under Option 2 versus Option 1 for Areas 2C and 3A, respectively.

Implications of Issues 5-7 for Target Communities: Issues 5-7 describe options for various restrictions on transferability. In general, retention and acquisition of halibut charter QS would be facilitated by (1) restrictions that prevent individuals from transferring QS permanently out of the communities, and (2) provisions that would make it easier for community members to acquire QS. Restrictions on transfers from individuals in the target communities to recipients outside of these communities are not under consideration at this time. Issue 6 includes a suboption to require the recipient of any QS transfer to hold a USCG license; this requirement may be overly restrictive from the perspective of the 37 communities targeted for the set-aside. Since application for a USCG license requires a written exam (in addition to boating experience), this requirement may delay but not preclude the acquisition of QS by residents in target communities. Finally, caps, considered under Issue 7, may make it easier for smaller charter operators based in the target communities to acquire halibut QS.

Issue 11, Option 2 considers the net benefit implications and distributional effects of the community set-aside on the charter and commercial sectors (depending on source of the set-aside) and implications for communities. The analysis is based on several assumptions and core features of the community set-aside program: (1) set-aside quota are granted to qualifying individuals in eligible communities on a limited right-of-use basis and cannot be sold or leased; (2) set-aside quota are allocated to qualifying individuals on an annual basis subject to individual and community caps; (3) communities, on behalf of qualifying community members, must request an allocation of set-aside quota each year and any quota uncommitted by a certain date is rolled back to the general commercial/charter quota pool for the upcoming season; and (4) set-aside quota are intended to be used for purposes of starting or developing charter businesses by the individual receiving the allocation. In addition to these core features, the Council also requested that a phase-in approach be considered in addition to the preseason roll-back, and that sunset provisions of 5 or 10 years be included

in the analysis. At the February 2001 meeting, the Council added another suboption that would allow participants of the program at the time of the sunset to continue participation under the program's guidelines.

Net Benefit Implications of Set-Aside: The community set-aside has the potential to reduce net benefits to society for two reasons: (1) the set-aside may result in quota remaining unharvested, reducing supply in the charter and/or commercial sectors (depending on source of set-aside); and (2) even if set-aside quota are fully utilized, the set-aside may reduce net benefits due to changes in industry costs. The Coalition proposal includes a combination of features designed to limit the potential for unharvested quota, including a mechanism to "roll back" uncommitted quota prior to the upcoming season and various caps, penalties and limits on individuals to encourage participants to only request allocations that they plan to use. The Coalition proposal, in theory, provides a conceptual mechanism for minimizing the potential for unharvested quota but its efficacy depends on the extent it works in practices. In addition to the pre-season "roll back" feature proposed by the Coalition, the Council requested (December 2000 meeting) that a phase-in approach be considered. By itself, a phase-in may be less effective than the pre-season roll-back in minimizing the potential for unused set-aside quota since the magnitude of the allocation may not be directly tied to the number of requests from eligible communities. The phase-in, however, may help to reduce uncertainty for the charter and/or commercial sectors (depending on the source of the set-aside) associated with the amount that each sector's TAC is reduced each year and serve to stabilize quota share values.

The community set-aside may change costs for the charter sector and give new entrants in eligible communities a competitive advantage over certain other new entrants. Costs for come charter operators in major ports (Homer, Juneau, etc.) may rise if the reduction in the charter sector TAC due to the set-aside requires such operators to lease or purchase additional QS. Cost increases may cause some marginal charter operators to leave the industry, reducing supply and increasing charter trip prices for clients in major ports. If the TAC is taken partially from the commercial sector, a decrease in commercially supplied halibut would result. The supply decreases in the charter and commercial sectors would reduce net benefits to society. These net benefit reductions may be partially offset by an increase in the availability of charter trips from remote communities. Since charter trips from remote communities are highly differentiated products (i.e., offer clients a more unique charter trip experience), and since such trips may not represent good substitutes for charter trips from major ports, increases in the supply of remote-community charter trips may not truly offset reductions in the supply from major ports. Thus, an overall reduction in net benefits may result.

Impact of Removing an Economic Barrier to Entry: The community set-aside would likely remove an economic barrier to entry into the charter industry for participants. By doing so, the set-aside essentially preserves the existing cost structure but does not necessarily create any new opportunities for target community members. As a result, it is unlikely that the number of new charter businesses developed in the target communities would be any higher than would develop naturally if the charter IFQ program is not implemented. By removing an economic barrier for some new entrants, the community set-aside may give participants a competitive advantage over other new entrants in certain situations. This is most likely to occur between two new entrants - one eligible for set-aside quota, the other not eligible - and if both are competing for the same clientele. Thus, if both new entrants are trying to attract clients that prefer charter trips based in remote communities, the new entrant that is not eligible for set-aside quota may be at a competitive disadvantage. This is less of a concern if the new entrant is based in a major port since the relevant sources of competition in this situation are the established charter operators based in the same port. It is possible, however, without clear requirements for residency, the community set-aside may create a loop-hole that allows entrance into the industry by individuals that otherwise would not choose to live in the remote target communities.

Administrative Costs: Administrative costs represent another potential reduction in net benefits since costs would increase even if the utilization of the resource remains the same. Two types of annual transfers of halibut charter quota would occur under the proposed community set-aside program structure, both of which would incur administrative costs: 1) transfer from the RAM Division of NMFS to the designated community management entity, and 2) transfer from the management entity to qualified individuals within those communities. Firstly, the marginal administrative cost of adding communities as potential recipients of halibut charter quota under the existing IFQ program administered by NMFS is expected to be minimal. Secondly, while the cost of maintaining a community management entity could be recovered from individual community quota recipients through a fee-based program, there may be more substantial start-up costs associated with establishing the proposed management structure which would likely be incurred by the community as a whole.

Impact of the Source and Magnitude of the Set-Aside on Charter and Commercial Sectors: Depending on the magnitude and source of the set-aside, the initial allocations under Issue 1 for the charter and commercial sectors may change. The three suboptions regarding the source of the set-aside are: a) equal pounds from the commercial and charter sectors; b) a proportional amount based on the percentage quota split between the commercial and charter sectors; or c) the entire set-aside taken from the charter sector.

A 0.5 -2.5% set-aside would result in an allocation of 49,150 - 245,750 pounds to target communities in Area 2C and 123,230 - 616,150 pounds in Area 3A. These numbers represent the *maximum* annual allocations to communities under the proposed set-aside range, since the amount set aside for each area would ultimately be dependent on the amount requested by each community on an annual basis, subject to a community cap.

The options for the initial allocation to the charter sector are defined under Issue 1, Options 1, 2, and 3. Issue 1, Option 1 (the GHL preferred alternative) would allocate 13.05% and 14.11% of the combined commercial and charter halibut quota to the charter sector in Areas 2C and 3A, respectively. Option 2 would allocate 10.73% in Area 2C and 9.82% in Area 3A to the charter sector. Option 3 would allocate 10.44% in Area 2C and 11.29% in Area 3A. These percentages are applied to the estimated 2001 combined commercial and charter halibut quota of 9.830 million pounds in Area 2C and 24.646 million pounds in Area 3A to determine the initial allocation to the charter sector under each option.

Area 2C: Under the charter allocation proposed under Issue 1, Option 1 (13.05%), the proposed range for the set-aside, and all of the suboptions for the source of the set-aside, the commercial sector's initial allocation could be reduced by a range of 0.3 - 2.5%, and the charter sector's initial allocation could be reduced by a range of 0.5 - 19.2%. Selection of the maximum set-aside amount (2.5%) under Suboption B results in the greatest impact on the commercial sector, potentially reducing that sector's initial allocation by 2.5% or 213,673 pounds. The maximum set-aside amount under Suboption C results in the greatest impact on the charter sector, reducing the allocation to that sector by 19.2% or 245,750 pounds. The charter allocation under this scenario would still be about 10% over 1999 charter harvest levels. Under Issue 1, Option 2, the charter sector's initial allocation decreases to 10.73% of the combined quota, representing a shift of 228,056 pounds between sectors. Thus, compared to Option 1, the impact of the set-aside range on the charter allocation is greater on a percentage basis. Under Issue 1, Option 3, the charter sector's initial allocation decreases to 10.44% of the combined quota, representing a shift of 256,563 pounds between sectors when compared to Option 1. Thus, the impact of the set-aside range on the charter allocation is greatest under Option 3. On a percentage basis, the commercial sector is reduced by about the same amount under each of the options (1-3) proposed in Issue 1.

Area 3A: Under the charter allocation proposed under Issue 1, Option 1 (14.11%), the proposed range for the set-aside and all of the suboptions for the source of the set-aside, the commercial sector's initial allocation could be reduced by a range of 0.3 - 2.5%, and the charter sector's initial allocation could be reduced by a

range of 0.5 - 17.7%. Selection of the maximum set-aside amount (2.5%) under Suboption B results in the greatest impact on the commercial sector, potentially reducing that sector's allocation by up to 2.5% or 529,211 pounds. The maximum set-aside amount under Suboption C results in the greatest reduction to the charter sector's allocation (17.7% or 616,150 pounds). Under Issue 1, Option 2, the existing charter sector's allocation in Area 3A would be 9.82% of the combined quota, representing a shift of 1,057,314 lbs between sectors compared to Option 1. Under Issue 1, Option 3, the charter sector's allocation decreases further to 11.29% of the combined quota, representing a shift of 695,000 pounds compared to Option 1. The reduction to the charter allocation under Options 2 and 3 is reflected in the impact of the set-aside range on the charter sector. The maximum reduction to the charter sector's allocation increases by about 3-8% when compared to Option 1. On a percentage basis, the commercial sector is reduced by about the same amount under each of the allocation options (1-3) proposed in Issue 1.

Implications of Magnitude of Set-Aside on Communities: The magnitude of the set-aside also has implications for the 37 target communities in terms of the amount of halibut quota available to individuals in communities and the extent that the allocations are enough to support start-up or mature charter operations. Using the assumptions developed in this analysis to estimate the halibut quota needs of a start-up or mature charter operation in these 37 communities, the proposed set-aside range could support 2 - 12 start-up or 1 - 4 mature charter operations in each Area 2C target community. Using the same assumptions, the set-aside range could support 9 - 44 start-up or 1 - 7 mature charter businesses in each Area 3A target community. The Coalition proposal estimates greater quota needs for both start-up and mature charter operations based on anecdotal evidence; using these assumptions would necessarily decrease the number of businesses the set-aside range could support in each area.

Sunset Provisions: The long-run implications of the community set-aside depend on whether an explicit sunset provision is included. The Council requested that 5-year and 10-year sunsets be considered. As proposed by the Coalition, participants of the set-aside are expected to eventually purchase halibut QS rather than rely on set-aside allocations indefinitely. Several provisions in the Coalition proposal are designed to encourage this outcome. It is more likely that a stable number of new entrants residing in target communities continue to apply each year based on natural turnover in the industry. If so, the set-aside effectively represents a permanent allocation to the communities. Alternatively, if the program sunsets in 5 or 10 years, the effects of the set-aside would partially reverse, although sector allocations would likely differ from their starting points due to transfers. If the intent of the program is to provide short-run relief to certain communities so that adjustments to the charter IFQ program can be made more gradually, it is possible that an explicit sunset clause would encourage participants to purchase QS rather than rely on set-aside quota long term. The choice between 5 and 10 year sunsets is more of a policy call but a 10-year program may provide more time for the goals of the program to be realized. If and when the program sunsets, participants who joined the program in the last few years of the program may be adversely impacted. If instead participants are allowed to continue under the guidelines of the program (including individual limits on participation), such adverse impacts would be minimized and the community set-aside program would be phased out more gradually.

Impact of Community Set-Aside on QS Values: Finally, the community set-aside may impact halibut QS values and introduce an additional source of instability. If the underlying TAC is reduced each year by the amount of the set-aside, QS prices may decline since each unit represents fewer pounds. This price decline may be partially offset in an increase in IFQ prices (per pound), depending on the elasticity of demand. The preseason roll-back may cause IFQ/QS prices to fluctuate due to uncertainty in the upcoming year's TAC. QS prices are likely to be more stable in the short-run if a phase-in approach is adopted and in the long-run if a sunset provision is included.

Alternative 3, Moratorium. The moratorium alternative uses the same options for qualification as the proposed IFQ program. Therefore the same number of people would be included under either program. However under a moratorium, persons with low catch history would be allowed to increase their catch share without compensating other members of the charter sector.

It is assumed that the moratorium would not replace the GHL as the IFQ program would. Under a moratorium, the fleet would still be limited by the GHL caps so the charter fleet's growth would be constrained, depending on the effectiveness of the GHL.

A moratorium on new vessel entry under a GHL program would likely have minimal impacts on guided anglers, if the program includes operators will relatively small levels of catch history. Guided anglers would be more limited by the GHL in this case than they would by the moratorium, because the number of charter seats available on any given day would most likely be greater than the demand. What could limit a guided anglers willingness to hire a charter captain is the constraints imposed under the GHL.

Issue 1 addresses the issuee that would receive the moratorium license. There are two options: (1) owner/operator or lessee of the charter vessel/business that fished during the eligibility period; and (2) the vessel. When the moratorium alternative was originally developed, the committee's intent was for permits to be issued to persons and not vessels, whereby person is defined as the business owner or lease holder. While this approach may make it more difficult to track persons across different data sets, it reduces problems associated with people using different vessels at various times during the qualifying period.

Issue 2 addresses qualification criteria. As discussed earlier, the moratorium alternative uses the same qualification criteria as the charter IFQ program. Thus, there are seven options under Issue 2 that correspond to the same seven options for the charter IFQ program. The options rely on varying combinations of 1998 and/or 1999 logbook records and evidence of participation either 3 or 4 out of 5 years between 1995-'99. In addition, there is a suboption that requires evidence of recent participation. The potential number of qualifiers (owners are vessel) were shown in Table E.1 and equally apply here. If the Council bases the qualification criteria on the activity of the vessel, the numbers in Table E.1 under the "Vessels" columns would apply. As shown, it is obvious that some owners own more than one vessel. As a result, if the moratorium permit is issued to persons (and not vessels), owners would be issued a permit endorsed for each vessel they own that meets the selected criteria.

Issue 3 addresses evidence of participation. Option 1 governs mandatory requirements (IPHC license, CFEC Number and 1998 logbook) while Option 2 governs supplementary requirements. The appropriate choice of requirements is tied to whether moratorium permits are to be issued to persons or vessels. For example, IPHC licenses vessels and each license application lists the name of the vessel's owner and the name(s) of the captain(s) if they are different. ADFG logbooks provide information on both the vessel and the vessel owner. Basing the moratorium permit on a person's history may minimize conflicts arising from vessel sales. Thus, while there may be problems associated with issuing permits to persons, the problems may be more easily reconciled compared to issuing permits to vessels.

Issue 4 addresses the type of vessel upgrades that would be allowed. Two options are under consideration: (1) limit the license designation to 6-pack (if current vessel is a 6-pack) and limit inspected vessel owner to current inspected certification; and (2) allow upgrades in Southeast Alaska. Vessel upgrades considered by the committee dealt with the number of passengers that could be carried by a vessel. It was the consensus of the committee that permits would be limited to six clients per vessel (except for existing vessels that are licensed for more than 6 passengers). By limiting the number of passengers a charter could carry, upgrade restrictions like those placed on the commercial fisheries may not be needed.

Issue 5 addresses whether transfers would be allowed. Any limited entry program will include allowances for transfers of permits. The Halibut Charter Work Group recommended allowing transfers of vessels with or without the associated moratorium permit. Additionally, two types of transfers in the charter fishery may be needed: (1) transfers from one owner/operator to another; and (2) 'temporary' transfers of the permit from one vessel to another in the event of vessel breakdowns.

Issue 6 addresses the period of duration for review. There are three options: (1) tie the duration to the GHL, (2) 3 years, and (3) 5 years or 3 years with option to renew for another 2 years. A short-term moratorium may be useful in providing a time-window for the Council (and other management agencies) to develop more specific management programs geared toward specific regional concerns. The Halibut Charter Working Group recommended (by consensus) keeping the moratorium in place as long as the GHL remains in effect. If the Council chooses this option, the moratorium and GHL would be permanent and would require further Council action to amend the program before the moratorium would cease. This would also require the Council to take action to keep the moratorium if they decide to drop the GHL in the future.

Overview of Impacts to Guided Anglers: At the February 2001 meeting, the Council requested that the analysis include a section that summarizes the implications of the alternatives for the angler (guided and unguided). Thus, a separate section has been prepared which summarizes the implications of the three alternatives: (1) the GHL management measures (status quo); (2) the charter IFQ program; and (3) moratorium on charter industry participants. Each alternative has the potential to impact stakeholders in the commercial and sport (guided and unguided) fisheries. The alternatives are being considered largely as a result of allocation disputes between the commercial and charter industries that depend on the halibut resource. Growth in the halibut harvest levels by the charter industry has inadvertently reduced the amount available for commercial harvesting which, in turn, represents a cost to the commercial sector. In addition, unconstrained growth in the halibut charter industry has reduced local availability of the resource near some ports, requiring charter operators to travel longer distances.

Impact on Consumer (Angler) and Producer Surplus - The alternatives under consideration have the potential to impact the costs, availability and prices of halibut charter trips. These impacts are discussed in the context of potential changes to the consumer and producer surplus. The potential impacts are discussed qualitatively in terms of the direction of the impacts and how the effects may differ (1) for resident versus non-resident anglers, and (2) in the short- and long-run. No attempt is made to quantify the potential magnitude of the impacts because of the extensive data requirements associated with any reliable estimates.

Impacts of the GHL (Alternative 1): The implications of this alternative for the guided angler depend on whether the GHL is or is not binding. Based on 1999 halibut harvest levels for the charter sector in Areas 2C and 3A, the GHL is not yet binding. Specifically, the halibut charter harvest would need to grow (or the halibut biomass would need to decline) by 36-37% before GHL management measures would be triggered. To the extent that this growth occurs, the halibut charter industry may experience changes in its costs that may impact charter trip prices and the quality of the halibut charter trip experience. For example, if growth in the industry results in more crowding or increases localized depletion of the halibut resource, charter operators may need to travel longer distances to reach suitable fishing grounds.

If growth in the halibut charter sector increases to the point that GHL measures are triggered, participants (guided anglers and charter operators) would be impacted. Because GHL management measures are implemented in the season *after* the overage occurred, the industry adjustment would occur in a step-wise fashion. The management measures include a combination of trip limits, skipper/crew harvest limits, angler harvest limits and a one-fish bag limit in August. Overall, the GHL and associated management measures are likely to increase costs and introduce more variability in the charter industry in years following an overage. While guided anglers would be least impacted by trip limits and crew harvest limits, these measures are also potentially the least effective. Annual harvest limits on anglers and the one-fish bag limit both work to reduce

demand for charter trips. Together, the GHL management measures serve to keep the charter sector harvest below the GHL. As a result of the reduction in supply and higher charter trip prices, benefits to anglers are reduced. To the extent that the GHL management measures fail to keep the charter sector harvest below the GHL, the commercial fishing sector's TAC will be decreased accordingly.

Impacts of the Charter IFQ Program (Alternative 2): The staff has been presented with several divergent views on the potential impacts of an IFQ program. Under one set of assumptions, charter trip prices under an IFQ program would rise in a manner similar to what would occur under the GHL (assuming a binding GHL or TAC) but efficiency gains under an IFQ program would expand profits for charter operators. An alternative view developed by Dr. Wilen (see Appendix V) suggests that charter trip prices are constrained by macro-economic factors and the availability of substitutes for both resident and non-resident anglers. Instead, Wilen suggests that the main effect of an IFQ program is to allow and encourage more efficient charter operations with the resulting cost-savings reflected in the market price of charter quota shares.

The implications of the charter IFQ program are first discussed assuming no transfers between sectors are allowed (although transfers within the charter sector are permitted). The impacts differ depending on whether the initial charter sector TAC is binding or not binding.

Charter Sector TAC is Not Binding: Upon implementation of the charter IFQ program, costs in the charter industry will rise for at least two reasons. First, there is an opportunity cost associated with holding quota shares. Secondly, charter operators are not likely to receive the exact amount of QS needed to support their normal business activity. In the short run, charter trip prices may be relatively sticky. As a result, charter operators may not be able to raise prices sufficiently to offset their higher costs and some charter operators will reduce their supply of charter trips. To the extent that supply decreases, the price of charter trips will rise. The magnitude of the price increase will depend on the price elasticity of demand. Since demand is more inelastic for non-resident than for resident anglers, charter trip prices may rise more for non-resident than for resident anglers (for a given reduction in supply).

In the longer run (i.e., next season), adjustments in the industry are likely. Some marginal charter operators may choose to exit the industry and sell their quota shares, resulting in industry consolidation among the lower-cost charter operators. Anglers are also likely to make adjustments since a rise in charter trip prices may make other substitute recreational activities (for residents and non-residents) relatively more attractive. As a result, demand for charter trips may decline. Compared to the GHL (when the GHL is not binding), benefits to consumers are reduced under an IFQ program if the new equilibrium reflects higher prices and a lower quantity of charter trips. Charter operators, however, capture resource rents reflected in the value of their QS holdings. Finally, if transfers between sectors are not allowed, a portion of the charter sector's TAC would remain unharvested, resulting in a reduction in net economic benefits in the commercial sector.

Charter Sector TAC is Binding: If the charter sector's TAC is binding, the charter sector as a whole has fewer QS than needed to maintain its previous activity. If no transfers between sector's are allowed, the sector's TAC constrains the quantity of QS employed in the charter sector and intra-sector transfer prices are higher. In the short-run, costs rise for each individual firm. Since some operators do not have enough QS to maintain their previous activity and others may reduce supply to avoid operating losses, supply contracts. As a result of the reduction in supply, charter trip prices rise and the quantity of trips supplied is reduced to the amount corresponding to the sector's TAC. In the long run, industry consolidation occurs among the lower-cost charter operators, marginal costs for the industry decline and profits rise. In addition, demand may decline if other substitute recreational activities become relatively affordable compared to charter trips.

Overall, if the TAC is binding and no transfers between sectors are allowed, benefits to anglers will decline (since prices are higher and quantity is constrained by the TAC). Compared to the GHL management measures, however, the IFQ program provides a more efficient mechanism for constraining the charter sector's harvest. In addition, cost savings realized by the charter sector are reflected in the value of quota shares. That is, an IFQ program allows charter operators to capture resource rents that are largely dissipated under the GHL management measures.

Impact of Transfers Between Sectors: Transfer restrictions are likely to have a significant impact on the price of quota shares (both sale and lease prices), which in turn impacts the magnitude of the opportunity cost of holding QS. The higher the quota share price, the higher the opportunity cost of holding QS. Transfers between the charter and commercial sectors will occur to the extent that initial QS prices in each sector differ. If QS prices differ across sectors, transfers will occur until a new equilibrium price is established, reflecting the marginal value of quota shares in both sectors. If charter QS prices are initially higher, quota shares will flow into the charter sector and the sector's TAC will rise. Alternatively, if charter QS prices are initially lower, quota shares will flow out of the charter sector and the sector's TAC will decline.

The price of quota shares will also depend on whether the charter sector's TAC is or is not binding. If the TAC is not binding, restricting transfers between sectors will suppress the value of charter QS. If the TAC is binding, restricting transfers between sectors may result in higher QS prices. This is because the TAC restricts the availability of charter trips, driving up the price of charter trips even though charter operator costs may remain the same or even decline. As a result, profits are higher which, in turn, are reflected in higher charter QS prices. Thus, if the TAC is binding, allowing transfers between sectors may help keep QS prices in the charter sector lower (unless commercial QS prices are even higher).

Implications of Issues 1-11: The implications of the various issues and options under consideration for the charter IFQ program (Alternative 2) depend largely on how the options impact the initial charter sector allocation (i.e., the TAC), quota share prices and industry costs. Several choices would help to mitigate the impact on guided anglers. For example, basing the initial allocation on 125% of the historical harvest (Issue 1, Option 1) would likely result in an initial charter sector TAC that is not binding. A less constraining TAC will reduce the impact of the charter IFQ program (the supply of charter trips is reduced less and charter trip prices rise less). Or, choosing qualification criteria (Issue 3) and a distribution method (Issue 4) that minimize the need for transfers *within* the charter sector would help minimize the impact on charter operator costs. The impacts of the choices for transfer restrictions (Issue 5) are highly dependent on whether the TAC is or is not binding. If the charter sector TAC is not binding, restricting transfers between sectors would help to keep QS prices low. On the other hand, if the charter sector TAC is binding, allowing transfers may help to keep QS prices low. In both cases, lower QS prices would result in lower costs for charter operators. Issue 9, concerning whether IFQs are issued in pounds or fish, does not directly impact charter operator costs but may be important to maintaining the quality of the charter trip experience for the guided angler. Finally, the community set-aside (Issue 11) would have a higher impact on the charter sector if the charter sector's TAC is initially binding. The set-aside, however, may help increase availability of charter trips from the more remote, coastal communities in the Gulf of Alaska.

Impact of the Moratorium (Alternative 3): Under the proposed moratorium, qualifying charter businesses would be eligible to receive a moratorium license which limits the number of vessels they could operate in the charter fishery. The number of licenses (which are transferable) issued in the initial allocation relative to the number actively used in the fishery would determine their value. If the number of licenses issued is in excess than the number required, the value of the license will be lower than if the initial allocation is tightly constrained. Based on the analysis provided in Section 4.3, it appears that the number of vessels likely to qualify under a moratorium would be greater than the number required to harvest the GHL. If so, it is likely that moratorium licenses values will remain relatively low and the cost of entry into the industry will not rise

substantially. In addition, the GHL is likely to become binding before the moratorium would become binding. As a result, the implications of this alternative largely default to the implications of the GHL (Alternative 1). That is, until the GHL is binding, the charter fishery will continue to operate on an open-access basis. Once the GHL becomes binding, management measures are triggered that work to constrain supply and demand for charter trips. To the extent the GHL sufficiently slows the harvest by guided anglers, the charter fishery is not likely to reach the point where the moratorium becomes limiting.

Changes in Angler Utility/Welfare - Changes in angler utility and welfare are the result of changes in the prices and/or attributes of a halibut charter trip. The types of trips that charter operators may offer could include everything from catch and release only trips to trips that try to maximize the pounds of halibut retained. A whole range of trips between the polar opposites that could be offered, including the clients only keeping fish that are under or over a predetermined weight. Whatever the type of trips that are offered, if they are marketed to the clients that value that type of trip, the utility of these clients would be higher than clients valuing another type of experience. Therefore under an IFQ program, charter operators may try to market specific trips to a more narrowly focused clientele or design different types of charter packages at various price levels. The price of the trip could be set to reflect the value of the halibut retained under an IFQ program.

Overall, if the charter operators are able to rationalize their operations they will be able to decrease operating costs. These cost savings will result in increases in consumer surplus and consumer welfare (to the extent the charter sector's TAC is not binding). However the gains will be offset by (an unknown amount) consumer surplus decreases associated with the opportunity cost of the halibut. It is important to note that under a binding GHL the charter sector also realizes an opportunity cost for halibut, but the system does not provide the appropriate mechanism to rationalize their fishery in order to reduce costs. Therefore, net benefits should be greater under an IFQ program relative to a GHL in a competitive market.

Impacts on Unguided Anglers - The impacts of a halibut charter IFQ program on the unguided halibut anglers are expected to be minimal. Implementing an IFQ program for the guided fishery will not limit the total amount of halibut unguided anglers are allowed to harvest. They will still be required to keep only two halibut per day, and that regulation will be in place regardless of whether or not the Council implements an IFQ program. On the other hand, unguided anglers may be impacted indirectly in two ways. First, to the extent that fisherman who normally use guided services instead pursue unguided fishing activities, safety concerns may lead to stricter regulations for the unguided fishing industry. This is as likely to occur under a binding GHL as under an IFQ program since both programs have the potential to increase the price of charter trips. Secondly, a more rationalized charter fishery may reduce the number of charter vessels per day on the halibut grounds. This may occur if charter operators are able to improve planning and extend the length of the charter season. This would also reduce competition for port services between unguided anglers (that rent or own boats) and charter operators. These outcomes would benefit the unguided angler who uses the same fishing areas or port services.

Issuance of Quota Shares to Charter Operators vs. Guided Anglers - Under the proposed charter IFQ program (Alternative 2), quota shares (QS) would be initially allocated to providers of charter services which meet certain qualification criteria. Allocation of quota shares to the guided angler, the actual harvester of the halibut resource, is not under consideration. This appears to be a departure from the commercial IFQ program because quota shares would not be allocated to the harvester of the halibut. Yet, there may be an economic parallel and rationale for allocating quota shares to the charter operator. Like the commercial IFQ program, under the charter IFQ program, the charter operator is responsible for staying within its individual allocation and helps to enforce the allocation for the entire sector. In addition, quota shares provide both an incentive and a reward to the charter operator for providing stewardship services.

SUMMARY OF SECTION 5

Some of the alternatives under consideration could result in a significant impact on a substantial number of small entities. However, the impacts are likely distributional in nature between various groups small entities. In other words, alternatives that benefit one group of small entities will likely come at the expense of another group of small entities. A more definitive assessment will depend on the specific alternatives selected by the Council. A formal IRFA focusing on the preferred alternative(s) will be included in the final regulatory package submitted for Secretarial review.

SUMMARY OF SECTION 6

Section 6 lists the references cited in the analysis.

SUMMARY OF SECTION 7

Section 7 lists those individuals consulted in the preparations of the analysis.

SUMMARY OF SECTION 8

Section 8 lists the preparers of the analysis.

1.0 INTRODUCTION

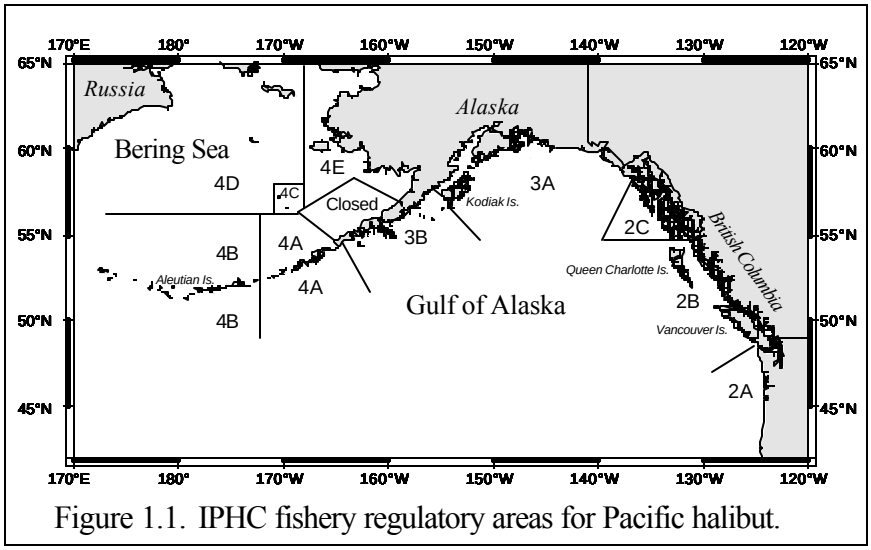

Figure 1.1. IPHC fishery regulatory areas for Pacific halibut.

The enclosed analysis is for a regulatory amendment to revise the regulations that govern the management of the Pacific halibut Individual Fishing Quota (IFQ) program. It assesses the potential economic and social impacts of implementing proposed management measures to either include the Pacific halibut *Hippoglossus stenolepis* charter fisheries in International Pacific Halibut Commission (IPHC) Areas 2C (Southeast Alaska) and 3A (Southcentral Alaska) (Figure 1.1) in the current halibut IFQ program (Alternative 2) or to implement a moratorium on entry into the halibut guided sport fleet (Alternative 3). These impacts are compared with the impacts of taking no action. Under Alternative 2, a direct allocation to the halibut charter sector would replace the guideline harvest level (GHL) program approved by the Council in 2000, but not yet implemented. Gulf of Alaska coastal communities are also being considered as initial issues of halibut charter quota shares. A charter moratorium could be chosen to augment the halibut charter GHL program, currently under Secretarial review. The license limitation elements under the moratorium alternative are included within the IFQ program alternative. Therefore, both alternatives would not be adopted by the Council at final action. This analysis contains approximately 80 options under the three alternatives.

The North Pacific Fishery Management Council (Council) began considering a management plan for the halibut charter fishery in 1993. The Council recognized an expanding charter fleet resulting in an unlimited expansion of charter halibut harvests at the expense of other users as a management problem. The Council has taken a stepwise approach to addressing this problem that is described in detail in Section 1.1[3].

Federal and state agencies share management of Pacific halibut. The domestic fishery is managed by the IPHC as provided by the Convention Between the United States and Canada for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and the Bering Sea (Convention) and the Northern Pacific Halibut Act of 1982 (Halibut Act). The Halibut Act authorizes the National Marine Fisheries Service (NMFS) and Council to:

> "...develop regulations governing the United States portion of Convention waters, including limited access regulations, applicable to nationals or vessels of the United States, or both which are in addition to and not in conflict with regulations adopted by the Commission. Such regulations shall only be implemented with the approval of the Secretary, shall not discriminate between residents of different States, and shall be consistent with the limited entry criteria set forth in Section 303(b)(6)

[3]A chronology of Council actions from prepared analyses, Council and committee meetings and newsletter reports is summarized in Appendix I. Not listed are approximately a dozen Anchorage, Kenai, and Juneau newspaper articles and editorials, dozens of letters to the editor, approximately a dozen radio interviews, perhaps a half dozen television news reports, and certainly hundreds of phone calls taken by staff and Council members between 1993 and the present on the Council's plans for managing the halibut charter fishery.

> of the Magnuson Act. If it becomes necessary to allocate or assign halibut fishing privileges among various United States fishermen, such allocation shall be fair and equitable to all such fishermen, based upon the rights and obligation in existing Federal law, reasonably calculated to promote conservation, and carried in such manner that no particular individual, corporation, or other entity acquires an excessive share of the halibut fishing privileges . . . "

The Convention does not authorize the delegation of management authority to the states; however, states are allowed to promulgate regulations to manage halibut that are not in conflict with federal law. The State of Alaska through the Board of Fisheries (BOF) and its management arm, the Department of Fish and Game (ADF&G) Sportfish Division, implemented three changes to how it manages sport fisheries in 1998. It began a program to register both sportfishing guides and sportfishing service businesses to collect information on participation and harvest by saltwater charter vessel clients. Both ADF&G and IPHC stopped registering charter vessels because the Alaska Commercial Fisheries Entry Commission (CFEC) implemented a licensing program for all sportfishing vessels. And it implemented a mandatory logbook program for saltwater charter vessels statewide. The logbook program was approved to meet several needs: (1) inseason estimates of Southeast sport charter harvest of chinook salmon; (2) individual vessel-based sport charter information; (3) effort and harvest information beyond that obtained through the angler-based statewide sport fish survey and on-site creel surveys; (4) Council needs in managing halibut; and (5) BOF needs in its deliberations of regulatory and local management plan proposals (Dean and Howe 1999).

In general, the language in the Magnuson-Stevens Act, the Halibut Act and the Convention has been interpreted to assign responsibility to the Council on halibut management issues concerning allocations and limited entry. Other applicable law, including Executive Orders 12866 and 12962, National Environmental Policy Act (NEPA), Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), and the Regulatory Flexibility Act (RFA), all mandate that certain issues be examined before a final decision is made. These analytical requirements are addressed in this Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA).

NEPA, E.O. 12866, and the RFA, in particular require a description of the purpose and need for the proposed action as well as a description of alternative actions which may address the problem. This information is included in Section 1. Section 2 contains information on the biological and environmental impacts of the alternatives as required by NEPA. Impacts on endangered species and marine mammals are also addressed in this section. Section 3 provides the baseline biological and economic information on halibut and describes halibut harvests and participation in the charter and commercial fisheries through 1998. Section 4 provides a description of the economic analysis and its application to the proposed alternatives and addresses the impacts of an IFQ program on the charterboat and commercial sectors, guided anglers, and coastal communities. Section 5 contains a draft Initial Regulatory Flexibility Analysis as required by the RFA which specifically addresses the impacts of the proposed action on small businesses to meet the requirements of both E.O. 12866 and the RFA that economic impacts of all the alternatives be considered in the RIR. It also addresses compliance with other applicable. Section 6 presents the summary and conclusions of the analysis. Section 7 contains a list of references and Sections 8 and 9 lists the individuals consulted in the preparation of the document and the preparers.

Relevant information from the halibut GHL analysis (NPFMC 2000a) has been brought forward into this analysis as appropriate (Section 3). Preliminary review of this analysis occurred in October 2000. The Council adopted the staff's recommended restructured alternatives. The Council also revised the time line for initial review and final action to be at the February and April meetings, respectively, partly to accommodate inclusion of ADF&G Sportfish Division's corrected estimates for the Statewide Harvest Survey data for 1996-98 and final 1999 estimates. The extended time line also would allow inclusion of a supplemental economic analysis being conducted by outside sources.

The IFQ regulations specifies that:

IFQ program means the annual catch limit of halibut that may be harvested by a person who is lawfully allocated a harvest privilege for a specific portion of the TAC of halibut.

A person includes an individual, corporation, firm, or association.

A charter vessel means a vessel used for hire in sport fishing for halibut, but not including a vessel without a hired operator.

The MSA defines charter and commercial fishing as follows:

(SEC. 3. DEFINITIONS 16 U.S.C. 1802)

(13) The term "charter fishing" means fishing from a vessel carrying a passenger for hire (as defined in section 2101(21a) of title 46, United States Code) who is engaged in recreational fishing. 104-297

(14) The term "commercial fishing" means fishing in which the fish harvested, either in whole or in part, are intended to enter commerce or enter commerce through sale, barter or trade. 104-297

(21) The term "individual fishing quota" means a Federal permit under a limited access system to harvest a quantity of fish, expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person. Such term does not include community development quotas as described in section 305(i).

Defining whether charter fishing is "commercial" is an issue with which NMFS and others have wrestled (R. Schaefer, pers. commun.). NMFS has no formally established policy on this matter. A charter or party boat captain is somewhat of an anomaly as far as whether or not he/she is a recreational or commercial "fisher." Charter businesses capitalize on the public demand for recreational fishing opportunities; they provide an opportunity to harvest halibut and harvest is not guaranteed (in most cases). There is no question that he/she is commercial, i.e., in it to make a "buck," but the commercial status may not apply to fishing per se. As stated in public testimony, charter captains consider themselves "taxi drivers," in the sense that they are performing a transportation service. They only become recreational fishers if they, themselves, pick up a rod, or commercial fishers, if and when they arrive back at the dock and sell all, or any portion, of the day's catch. This occurs off Hawaii, where most charter boat skippers consider any marlin landed as belonging to the "boat." Upon return to the dock, most of those marlin are sold directly to a fish processing plant. Sale of sport-caught halibut taken on charter boats is illegal under present IPHC and State of Alaska regulations.

1.1 Purpose and Need for the Action

The Council began considering management alternatives for the halibut sport fisheries in September 1993 in response to a proposal from the Alaska Longline Fishermen's Association (ALFA) in Sitka. The proposal cited the "rapid, uncontrolled growth of the guided halibut charter industry" off Alaska. Because the harvest limits for the commercial longline fishery are set after deducting the estimated harvests by sport fishing (and all other harvests), ALFA was concerned that further growth would result in a reallocation of halibut from the traditional directed longline fishery. They were particularly concerned because the resource is fully utilized and CEYs were projected to decline.

Based on Council discussion, public testimony, and evidence citing projected continued growth of the charterboat industry, the Council determined that some type of management program for the halibut charter fishery, including potential limited entry, warranted further consideration. The Council also approved a control

date of September 23, 1993 as a potential cutoff date in the event of a moratorium on further entry into the fishery (this control date was never published in the *Federal Register)*.

The Council established a Halibut Charter Working Group (Work Group) in 1993 comprising staff, three commercial fishery representatives, one non-guided fish representative, and six charter vessel representatives to identify and examine potential management alternatives for the sport fisheries. The Work Group was specifically requested to further develop suitable elements and options for a regional or statewide moratorium on new entry of halibut charter vessels. Although it could not reach agreement on appropriate management alternatives, it did collect extensive information on the fishery for Council consideration relative to various alternative management measures.

The Council deferred further action until 1995 because of other management priorities. In January 1995, the Council again reviewed the Work Group findings, took public testimony, and discussed further development of management alternatives. The Council formulated a problem statement and specific management alternatives. Formal analysis, however, was delayed by: (1) other tasking priorities for staff and (2) the availabilities of funding for outside research contracts to acquire the necessary analytical expertise on the sport fisheries. Toward the end of 1995 and the beginning of 1996, Council funding uncertainties were caught up in the FY 1996 budget delays at the Congressional level. In mid-1996, these were resolved and funding became available for outside research contracts.

1995-2000 HALIBUT CHARTER MANAGEMENT PROBLEM STATEMENT

The recent expansion of the halibut charter industry may make achievement of Magnuson-Stevens Act National Standards more difficult. Of concern is the Council's ability to maintain the stability, economic viability, and diversity of the halibut industry, the quality of the recreational experience, the access of subsistence users, and the socioeconomic well-being of the coastal communities dependent on the halibut resource. Specifically, the Council notes the following areas of concern with respect to the recent growth of halibut charter operations:

1. Pressure by charter operations may be contributing to localized depletion in several areas.
2. The recent growth of charter operations may be contributing to overcrowding of productive grounds and declining harvests for historic sport and subsistence fishermen in some areas.
3. As there is currently no limit on the annual harvest of halibut by charter operations, an open-ended reallocation from the commercial fishery to the charter industry is occurring. This reallocation may increase if the projected growth of the charter industry occurs. The economic and social impact on the commercial fleet of this open-ended reallocation may be substantial and could be magnified by the IFQ program.
4. In some areas, community stability may be affected as traditional sport, subsistence, and commercial fishermen are displaced by charter operators. The uncertainty associated with the present situation and the conflicts that are occurring between the various user groups may also be impacting community stability.
5. Information is lacking on the socioeconomic composition of the current charter industry. Information is needed that tracks: (1) the effort and harvest of individual charter operations; and (2) changes in business patterns.
6. The need for reliable harvest data will increase as the magnitude of harvest expands in the charter sector.

In June 1996, the Council again discussed the halibut charter issue, and narrowed the alternatives for analysis. Specifically, the Council decided to focus management alternatives only on the charterboat fishery (the fastest growing segment based on IPHC and ADF&G reports), thus deleting the non-guided halibut sport fishery from further consideration. The Council also deleted the alternative for a separate IFQ system for the charter fishery, but retained an option to allow the charter industry to purchase or lease IFQ from the existing commercial program, in the event a cap closed the fishery early. Finally, the Council deleted an absolute poundage cap on the charter fleet, but retained an option for a floating cap expressed as a percentage of the overall available quota. After a research solicitation process, and after reviewing several proposals, a contract was awarded in September 1996 to the University of Alaska's Institute for Social and Economic Research (ISER).

During initial review in April 1997, the Council added contemporary control date options of April 15, 1997 and the date of final action in September 1997. In September 1997, based on analyses prepared by the Council and ISER staffs (NPFMC 1997), the Council took final action on two management actions affecting the halibut charter fishery, culminating more than four years of discussion, debate, public testimony, and analysis:

Recordkeeping and reporting requirements. The Council approved recording and reporting requirements for the halibut charter fishery. To address this requirement, the ADF&G Sportfish Division, under the authority of the Alaska Board of Fisheries (BOF), implemented a Saltwater Sportfishing Charter Vessel Logbook (SCVL) in 1998. Information collected under this program includes: number of fish landed and/or released, date of landing, locations of fishing, hours fished, number of clients, residence information, number of lines fished, ownership of the vessel, and the identity of the operator. This logbook information was essential for the analysis of charter moratorium alternatives. It complements additional sportfish data collected by the State of Alaska through the Statewide Harvest Survey (SWHS), conducted annually since 1977, and the on-site (creel and catch sampling) surveys conducted separately by ADF&G in both Southeast and Southcentral Alaska. Sportfish Division staff cautioned against using the logbook data during its first three years, until it can verified with the SWHS. The State of Alaska collects and analyzes data on the average weight and composition of the recreational halibut harvest through on-site creel and catch sampling surveys. ADF&G provides this information to the IPHC and the Council to ensure that management decisions use the best available information. ADF&G has no regulatory responsibility to collect or analyze data from the recreational halibut fishery.

Guideline Harvest Levels in IPHC Areas 2C and 3A. The Council adopted GHLs for the halibut charter fishery, but only for Areas 2C and 3A. The GHLs were based on the charter sector receiving 125% of its 1995 harvest (12.76% of the combined commercial/charter halibut quota in Area 2C and 15.61% in Area 3A). The Council stated its intent that the GHLs would not close the fishery, but instead would trigger other management measures in years following attainment of the GHL. The overall intent was to maintain a stable charter season of historic length, using statewide and zone specific measures. If end-of-season harvest data indicated that the charter sector likely would reach or exceed its area-specific GHL in the following season, NMFS would implement the pre-approved measures to slow down charter halibut harvest. Given the one-year lag between the end of the fishing season and availability of that year's catch data, it was anticipated that it would take up to two years for management measures to be implemented.

Also in September 1997, the Council adopted a framework for developing local area management plans (LAMPs) using the joint Council/Board protocol. LAMPs would be submitted through the BOF proposal cycle, but portions of the plans pertaining to halibut could ultimately require Council approval and NMFS implementation. To date, one LAMP for Sitka Sound has been implemented (final rule published on October 29, 1999). Fourteen LAMP proposals are under development through the BOF committee process.

In December 1997, the NMFS Alaska Regional Administrator informed the Council that the GHL would not be published as a regulation since the Council had not recommended specific management measures to be implemented by NMFS if the GHLs were reached. Therefore, no formal decision by the Secretary was required for the GHL and the analysis was not forwarded for Secretarial review. The Council's intent, however, partially was met by publishing the GHL as a notice in the *Federal Register* on March 10, 1998. It did not constrain the charter fishery, but did formally announce the Council's intent to establish measures to maintain charter harvest at or below the GHL using 1995 as the baseline year. Following a recommendation in April 1998 to set a revised control date for possible limited entry into the halibut charterboat fishery, NMFS published a new control date of June 24, 1998 in the *Federal Register*.

After being notified that the 1997 Council analysis would not be submitted for Secretarial review, the Council initiated a public process to identify GHL management measures to facilitate implementation of the GHL. The Council formed a Halibut GHL Committee in 1998 comprising one Council member representing the charter industry, one BOF member representing the charter industry, two charter industry representatives from Area 2C, two charter industry representatives from Area 3A, one unguided sport representative from Area 3A, and two subsistence/personal use representatives from Area 2C. The Committee's task was to recommend management measures for analysis that would constrain charter harvests under the GHL. It convened in February and April 1998 and January 1999. The two subsistence/personal use committee members voluntarily stepped down from the Committee after the first meeting due to travel costs. The Council discussed and approved with modifications the recommendations of the committee and Advisory Panel for analysis in 1998 and again in early 1999.

In April 1999, the Council identified for analysis: (1) a suite of GHL management measure alternatives; (2) alternatives that would change the GHL as approved in 1997; and (3) area-wide and LAMP moratorium options under all alternatives. The Council designed the implementing management measures to be triggered in subsequent fishing years recognizing that: (1) reliable inseason catch monitoring is not available for the halibut charter fishery; (2) inseason adjustments cannot be made to the commercial longline individual fishing quotas (IFQs); and (3) the Council's stated intent to not shorten the current charter fishing season.

During initial review in December 1999, the Council added: (1) a change in possession limits to the management measures to limit charter halibut harvests under the GHL; (2) an option to apply the GHL as a percentage of the CEY by area after non-guided sport and personal use deductions are made, but prior to deductions for commercial bycatch and wastage; (3) an option to manage the GHL as a 3-year rolling average. Lastly, the Council deleted an option that would close the charter fishery inseason if the GHL was reached or exceeded. The Council further adopted the restructured alternatives as proposed by staff.

At final action in February 2000, the Council adopted guideline harvest levels (GHLs) for halibut harvested from charter vessels in IPHC Areas 2C and 3A. The GHLs were based on 125% of the charter harvest estimates for 1995-99. Preliminary harvest estimates for 1995-98 were from the ADF&G Sport Fish Division's Statewide Harvest Survey (SWHS). The estimates used during the GHL analysis for 1999 charter harvests summarized in these tables were not SWHS estimates, but were interim projected values. The Council adopted the following as its preferred alternative:

I. Area 2C and 3A GHLs are based on 125% of the average of 1995-99 in pounds (1.4 M lb in Area 2C and 3.91 M lb in Area 3A).

II. Implement management measures using the following implementation regime for each IPHC regulatory area. These measures would be removed if harvests fall below the GHL and they are no longer necessary. If the GHL is exceeded, 0-20% reduction measures (e.g., trip limits, prohibiting harvest by skipper and crew) would be implemented in the season following the overage. In years of >20% overage, measures that are projected to achieve 0-20% reduction in charter harvest would be implemented in the

following season and measures that are projected to achieve >20% reduction in charter harvest (e.g., annual limits, one fish bag limit in August) would be implemented one year later to allow for verification of charter harvest. The regulations will establish a framework process to review and adjust the management measures in the event of an overage and to evaluate their efficacy to determine if a subsequent regulatory package is necessary.

Area 2C Management Tools

Required Reduction	Management Tool
<10%	Trip Limit
10% - 15%	Trip Limit
	No Harvest by Skipper + Crew
15% - 20%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 7 Fish
20% - 30%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 6 Fish
30% - 40%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 5 Fish
40% - 50%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 4 Fish
>50%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 4 Fish
	One Fish Bag Limit in August

Area 3A Management Tools

Required Reduction	Management Tool
<10%	Trip Limit
10% - 20%	Trip Limit
	No Harvest by Skipper + Crew
20% - 30%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 7 Fish
30% - 40%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 6 Fish
40% - 50%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 5 Fish
>50%	Trip Limit
	No Harvest by Skipper + Crew
	Annual Limit of 4 Fish
	One Fish Bag Limit in August

In December 2000, the Council reviewed a report by ADF&G staff on corrected Sport Fish Division's Statewide Harvest Survey (SWHS) halibut charter estimates for 1996-98. In Area 2C, the corrected charter harvest estimates (in pounds) increased by 27% and 21% above the original estimates for 1996 and 1997, and decreased 10% below the original estimates for 1998. Non-guided harvest estimates followed a similar pattern. In Area 3A, corrected charter harvest estimates decreased below the original estimates for all three years: 2% in 1996, 3% in 1997, and 8% in 1998. Non-guided harvest estimates also decreased in all three years.

These harvest changes do not imply large changes in the resulting GHL percentages for Areas 2C and 3A. The corrected GHL calculation for Area 2C rose less than ½ percentage point from 12.68% to 13.05%. In Area 3A, it dropped less than 1 percent, from 14.94% to 14.11%. These corrected percentages are equal to GHLs of 1.432 M lb net weight in Area 2C and 3.650 M lb net weight in Area 3A.

After being reviewed by the Scientific and Statistical Committee, the Council accepted the corrected estimates. The GHL analysis was resubmitted to NMFS on February 14, 2001 to reflect this change in the poundage associated with its preferred alternative. This analysis also uses the corrected ADF data and the corresponding GHL percentages.

Charter Vessel Moratorium

Moratorium alternative in the 2000 GHL analysis

Years of participation

Option 1: 1995, 1996, + 1997 IPHC licenses and 1998 logbook
Option 2: 2 of 3 years (1995-97), + 1998 logbook
Option 3: 1 of 3 (1995-97), + 1998 logbook
Option 4: license or logbook in any one year (1995-98)

Owner vs Vessel

Option 1: owner/operator or lessee of the charter vessel/business that fished during the eligibility period
Option 2: vessel

At final action in 2000, the Council did not adopt the proposed vessel moratorium for the halibut charter fleet (see box at right). Insufficient data on the number of and harvest by individual operators limited the Council's ability to determine an appropriate preferred alternative at the time. The decision of whether to base a moratorium on vessels or operators is among the most critical, in terms of granting permits to the appropriate recipients and minimizing disruption to the charter fleet in the initial allocation of permits. In many cases the current owner of a particular qualifying vessel may not be the individual owner associated with the vessel's qualifying catch history. The analysis also concluded that the 1998 licensed charter fleet had a harvest capacity well above the current harvest level, and even the currently active fleet is probably not operating at its maximum capacity.

Instead, it approved the halibut charter GHL described above and the following motion:

> ". . . *the Halibut Charter IFQ Committee* (will) *develop elements and options for Council review in October 2000 and final action scheduled for February 2001, and that staff also provide an analysis at that time for a possible moratorium for Areas 2C and 3A.*"

During initial review in February 2001, the Council formally included a new management alternative to examine a potential moratorium in the halibut charter sector in Areas 2C and 3A. It included the previously analyzed options under Alternative 2, Issue 1 for moratorium eligibility requirements (vessel or owner) and Alternative 2, Issue 3 for moratorium qualification criteria (7 options and 1 suboption).

Individual Fishing Quota Program for the Halibut Charter Sector

At final action in February 2000, the Council also initiated development of an analysis for instituting an IFQ program for the halibut charter fishery and appointed an industry committee. The Halibut Charter IFQ committee convened twice prior to the April 2000 Council meeting. The committee comprised ten charter operators and one guided angler, with five commercial fishermen and one community representative acting as non-voting technical advisors. The Council adopted the committee recommendations with modifications as proposed by the Advisory Panel and the public.

Cost Recovery

Lastly, the Magnuson-Stevens Act reads:

> Section 304(d) ESTABLISHMENT OF FEES.--
>
> (2) (A) Notwithstanding paragraph (1), the Secretary is authorized and shall collect a fee to recover the actual costs directly related to the management and enforcement of any–
> (i) individual fishing quota program; and . . .
> (B) Such fee shall not exceed 3 percent of the ex-vessel value of fish harvested under any such program, and shall be collected at either the time of the landing, filing of a landing report, or sale of such fish during a fishing season or in the last quarter of the calendar year in which the fish is harvested.
> (C) (i) Fees collected under this paragraph shall be in addition to any other fees charged under this Act and shall be deposited in the Limited Access System Administration Fund established under section 305(h)(5)(B), except that the portion of any such fees reserved under section 303(d)(4)(A) shall be deposited in the Treasury and available, subject to annual appropriations, to cover the costs of new direct loan obligations and new loan guarantee commitments as required by section 504(b)(1) of the Federal Credit Reform Act (2 U.S.C. 661c(b)(1)).

A regulatory amendment to the IFQ program was approved and published in the Federal Register on March 15, 2000. The rule change requires that all IFQ permit holders who land IFQ halibut or sablefish must pay fees totaling up to 3 percent of the ex-vessel value of their IFQ landings. NMFS determined the suite of standard prices for the 2000 commercial IFQ fishing season by gathering information from IFQ Registered Buyers that received IFQ halibut or sablefish as shoreside processors. From these standard prices, NMFS calculated a total value of the year 2000 halibut and sablefish IFQ fishery (Federal Register Vol. 65, No. 54 on March 20, 2000). The total costs incurred for managing and enforcing the IFQ program were divided by this total IFQ fishery value to derive the fee percentage (1.8 percent) to be applied to year 2000 IFQ landings.

Upon implementation of this regulatory amendment, it is assumed that the charter sector automatically will be subject to cost recovery under the authority of the MSA. It requires that fees must not exceed 3 percent of the *ex-vessel value* of fish harvested under any such program. Due to the difficulty of determining the ex-vessel value of sport-caught fish, NMFS would need to determine an appropriate cost recovery fee under a regulatory action (either this analysis or a trailing regulatory amendment) or suggest a statutory change to Congress.

Problem Statement

Separate management actions previously described addressed different parts of the original 1995 problem statement. The Sitka local area management plan addressed:

1. Pressure by charter operations may be contributing to localized depletion in several areas.
2. The recent growth of charter operations may be contributing to overcrowding of productive grounds and declining harvests for historic sport and subsistence fishermen in some areas.
4. In some areas, community stability may be affected as traditional sport, subsistence, and commercial fishermen are displaced by charter operators. The uncertainty associated with the present situation and the conflicts that are occurring between the various user groups may also be impacting community stability.

The recordkeeping and reporting requirements in the 1997 GHL action addressed:

5. Information is lacking on the socioeconomic composition of the current charter industry. Information is needed that tracks: (1) the effort and harvest of individual charter operations; and (2) changes in business patterns.
6. The need for reliable harvest data will increase as the magnitude of harvest expands in the charter sector.

The GHL adopted in the 1997 GHL action and the revised GHL and accompanying management measures adopted in the 2000 GHL action addressed:

3. As there is currently no limit on the annual harvest of halibut by charter operations, an open-ended reallocation from the commercial fishery to the charter industry is occurring. This reallocation may increase if the projected growth of the charter industry occurs. The economic and social impact on the commercial fleet of this open-ended reallocation may be substantial and could be magnified by the IFQ program.

During initial review of the analysis in February 2001, the Council revised its previously adopted **problem statement** from April 2000 for the final analysis as listed below. The Council also adopted a separate problem statement for the CSA at that time (discussed in the next section).

GUIDED SPORT SECTOR PROBLEM STATEMENT

The Pacific halibut resource is fully utilized. The North Pacific Fishery Management Council recently adopted a GHL to address allocation issues between the guided sport sector and other users of the halibut resource. Upon adoption by the Secretary of Commerce, the GHL is intended to stop the open-ended reallocation between commercial and guided sport sectors and to address a number of other concerns. The Council remains concerned that over time allocation conflicts between sectors may resurface, and that overcapitalization in the guided sport fleet may have a negative impact on both guided sport operators and anglers. The Council is developing a management plan *for the guided sport sector* to address these concerns while:

1. recognizing the unique nature of the guided sport sector
2. controlling consolidation;
3. providing entry level opportunities for guided sport operators, and
4. encouraging diversity of opportunities for anglers.

In evaluating alternatives, the Council seeks to maintain access opportunities for halibut fishermen, processors and consumers and to assess costs and benefits to anglers.

The Council also made some **general statements** about its intentions for the design of the proposed charter IFQ program.

- The previously approved GHL program should be submitted for Secretarial review and implemented as soon as possible. The halibut charter IFQ program, when and if adopted by the Council and approved by the Secretary, would replace the GHL.

- The charter IFQ program would be limited to Areas 2C and 3A only and are not transferable across areas.

- The duration of charter IFQ would have no specific ending date.

- An appeal process would be based on
    a) fact; and
    b) hardship, similar to the groundfish and crab license limitation program.

- The charter IFQ program would be subject to cost recovery.

- Staff should analyze impacts of the proposed charter IFQ program on all commercial sectors, including processors.

- ADF&G staff will provide a discussion of the potential migration of QS between ports within an IFQ regulatory area and the best tool for managing such migrations (i.e., LAMPs) for the analysis.

Community Set-aside Program

The concept of a community set-aside of halibut charter IFQ was introduced by the Gulf of Alaska Coastal Communities Coalition (Coalition) prior to the April 2000 Council meeting. The Council discussed the concept and requested that the Coalition further flesh out the issues and options surrounding a set-aside for inclusion in the alternatives for the overall charter IFQ analysis. The Coalition developed and presented a discussion paper at the June 2000 Council meeting.

The Coalition proposal states that the main goal of a community set-aside is to "remove an economic barrier for residents of underdeveloped communities to participate in the halibut charter industry." In this context, "underdeveloped" refers to the extent to which communities have developed halibut charter operations, as opposed to the overall level of economic development of such communities. The National Research Council (NRC) report *Sharing the Fish: Toward a National Policy on Individual Fishing Quotas* (1999a) states that communities may also be entitled to initial quota allocations, even if they do not have "catch history" in the specific fishery. It further states that community quotas could contribute to community sustainability in areas that are heavily dependent on fishing for social, cultural, and economic values and/or are lacking in alternative economic opportunities. The Coalition proposal stems from this idea, asserting that smaller Gulf communities that are considered fisheries dependent but do not have a history in halibut charter fishing should not be excluded from the criteria considered for halibut charter IFQs. Note that it does not state that communities should *necessarily* be included in the development of an IFQ program, but that their role and the social context of fisheries should at least *be considered*. In this sense, the community set-aside is considered a social or stakeholder issue, with the purpose of achieving a socially optimal level and distribution of resource use, as opposed to an economic efficiency issue.

There has been some confusion regarding the legality of developing a CDQ-type program in the Gulf of Alaska. According to NOAA General Counsel, halibut is not regulated under the Magnuson-Stevens Act. The Council is therefore not prohibited by the Magnuson-Stevens Act from developing a CDQ-type program for halibut charters in the Gulf of Alaska. The Magnuson-Stevens Act only prohibits Gulf of Alaska communities from participating in the existing multi-species groundfish CDQ program for western Alaska. The community set-aside program will be referenced as the **"CSA" program** to differentiate it from the western Alaska multi-species CDQ program.

The current proposal for a CSA is distinctly different from a CDQ program in two ways. One fundamental difference between the proposed CSA and the multi-species CDQ program is that the profits generated from the latter are currently limited to fisheries-related projects in those communities. A key feature of the Coalition's proposal is that profits generated from the CSA are not similarly restricted.

A second distinct feature of the program is the theoretical concept of "use" versus "ownership" of community quota shares. The Council specified that qualified individuals within eligible communities would have limited, annual rights to use set-aside quota. The Coalition proposal includes a provision that would require eligible communities to create or identify an entity to manage the community fishing quota for use by qualified individual community members. The proposal identifies non-profit, economic development, or fishermen's organizations as probable management options. Qualified individuals would apply to the entity for a portion of the CSA quota on an annual basis, and the management entity may subsequently submit a transfer request to NMFS for the appropriate amount of quota (subject to a community cap). The proposal specifies that community quota shares are set-aside specifically for community use but do not provide ownership privileges to the individual community member or the community management entity.

The proposal assumes that the ownership of the quota shares is retained by the government in trust for eligible communities. Thus, a set-aside would not represent a long-term allocation of quota share that could be leased or used to secure a loan. This is in direct contrast to the existing CDQ program. A Western Alaska CDQ group holding CDQ quota shares has ownership privileges; the group can decide to harvest the quota or lease/transfer the quota to another group who could harvest the quota, thus minimizing a net loss to the fishery represented by "unharvested" quota. By contrast, the Coalition proposal explicitly states that communities are not granted ownership privileges, and thus could not lease or transfer quota share. Without the ability to lease or transfer quota shares, it is more difficult to ensure that there is no reduction in net benefits to society should the community members be unable to harvest their quota that particular year. This would likely be a more significant issue in the first few years of the program, as individuals within eligible communities start up new charter businesses. In addition, the economic viability of such a program may be closely tied to the issue of use versus ownership, as a community's ability to sell, lease, or collateralize its quota share may be key to overcoming other significant economic barriers to entering (i.e., purchase or lease of a vessel) the halibut charter business. These issues will be discussed further in Section 4.

The concept that community quota share is allocated on a temporary, annual basis, and does not represent a permanent, long-term allocation, is an important structural element of the set-aside proposal. The long-term goal of the set-aside is "to enable a portion of interested individuals in underdeveloped communities to establish successful halibut charter operations and then go on to purchase individual quota." The proposal argues that the set-aside would lower the economic barrier to entry, allowing individual charter operators to establish themselves, and eventually purchase available quota share for charter use from the existing IFQ program. Individuals would be required to apply and re-qualify for quota each year; thus, an effective program would mean that as new charter operators become capable of buying into the existing IFQ program, the number of "qualifying" individuals would eventually decrease. The realization of this trend, however, depends greatly on the individual qualification criteria. Such criteria have not been specified in the Coalition proposal and would likely be determined by the administrative entity on a community by community basis, a point that would be addressed in a trailing amendment.

Development of meaningful individual qualification criteria (for example, ownership of a boat, need for additional charter IFQ to start a business, etc.) is critical to the idea that only "qualified" individuals would receive community quota, and that at some point, as charter operators become well established, fewer individuals would qualify for the CSA program. By contrast, if the set-aside is viewed as a permanent allocation, it is unlikely that community quota would ever be relinquished by those communities or individuals that did create a viable halibut charter base. Therefore, the Council emphasized that one of the core features

of the program is that ownership privileges of community quota are retained by the government, and that individuals within qualifying communities could not lease or transfer community quota share to others.

A third key feature is that any set-aside quota not obligated by a certain date would "roll-back" into the general commercial/charter quota pool for the upcoming season. The Council notes the importance of the CSA not becoming a deduction from possible commercial or charter IFQs without benefit. Inclusion of a mechanism by which uncommitted and/or unused quota share can be put back into the general commercial/charter IFQ pool is key to the economic and political viability of a CSA program. A deadline for individual application of community quota share would be established so that any portion of the set-aside that is not committed to communities *before* the halibut season starts can be rolled into the general allocation pool for distribution to the commercial and charter halibut sectors. Discussions with the RAM Division indicate that this type of roll-over is administratively feasible as long as individuals and communities apply for the set-aside quota sufficiently in advance of the annual calculations for the commercial/charter halibut IFQs. This would allow the uncommitted quota to be put back into the commercial/charter halibut IFQs at the beginning of the season, incorporating only a slight element of uncertainty into charter businesses which are dependent on client bookings in advance. This program detail would be evaluated in a trailing amendment.

In October 2000, the Council included an option within the halibut charter IFQ analysis to set aside 1 - 2½ percent of the combined halibut charter and commercial quota in Areas 2C and 3A for Gulf of Alaska coastal communities. In December 2000, the Council expanded the lower end of the range to ½ percent, and the sunset provision was added during initial review in February 2001. While the economic and social consequences of a community QS program will be discussed, this analysis addresses only:

(1) *whether* to set-aside quota for Gulf communities;
(2) the *magnitude* of the set-aside;
(3) the *source* of the set-aside quota (charter and/or commercial); and
(4) *whether* to include a sunset provision.

The first three decision points directly affect the initial charter allocation and bear greatly on the Council's decision on the overall charter IFQ program. Section 4 will address the social and economic consequences of creating community-based quota shares for the proposed eligible communities. A separate, more detailed analysis of which communities to include and how the quota shares will be allocated and administered would be initiated separately as a trailing amendment should the Council choose to create a set-aside. The entire program including the list of eligible communities and administrative details of the CSA program could be implemented simultaneously with the overall charter IFQ program, pending approval by the Council and Secretary of Commerce. It is also assumed that the Council could choose to reserve a percentage of the combined commercial and charter halibut quota for coastal communities during final decision on the overall IFQ program in April 2001, but could reject the CSA program in entirety upon review of the trailing amendment containing the details of the program.

The Council further refined some of the core features of the program for analysis. It requested that staff analyze a phase-in of the set-aside in addition to consideration of the roll-back. A phase-in approach is intended to accomplish the same goal as the roll-back (reducing the potential for unharvested quota share) but with fewer administrative efforts. This phase-in approach, by which communities would start with a smaller allocation of the set-aside, and upon harvesting the full amount, become eligible for a larger percentage in the following year, could potentially replace or supplement a roll-over provision with a similar effect. The magnitude and timing of phasing in the set-aside could be made dependent on community progress toward establishing new charter businesses, reducing the potential for unharvested community quota.

In addition to modifying the option and adopting a problem statement specific to community concerns, the Council made some general statements about its intentions for the design of the proposed CSA program in December 2000. Although the structural and administrative details of a community program would be part of a trailing amendment, there are several design features that would have a substantial effect on the goals of the program, the number of eligible communities, and thus, the rationale for selecting the magnitude of the set-aside. While the details and structure of a community program are not part of the Council's decision in this analysis, some of the core features of the program are analyzed in Section 4 to guide the Council in its decision of whether to adopt a set-aside, and on its source and magnitude. Thus, the analysis will necessarily refer to the Coalition's proposal and the core program features as clarified by the Council.

The following are statements that the Council made with regard to the overall concept of a CSA program of halibut charter IFQ:

- Individuals within communities would have limited, annual rights to use set-aside quota.

- Individuals within qualifying communities could not lease or transfer the community quota share, as the ownership of the quota shares is retained by the government in trust for eligible communities.

- Any set-aside quota not obligated by a certain date would "roll-back" into the general commercial/charter quota pool for the upcoming season.

- Staff should analyze a phase-in of the set-aside in addition to consideration of the roll-back.

- Staff should evaluate the ability of alternative mechanisms, such as existing loan programs, to meet the stated program goals

With the exception of the last two elements, these assumptions are consistent with the proposal developed by the Coalition. What is meant by a community set-aside depends greatly on the features of a specific community program, and has different implications in the context of the Coalition proposal, versus, for example, a program modeled after the multi-species CDQ program currently in place for western Alaska.

The long-term goal of the set-aside is to enable a portion of interested individuals in underdeveloped communities to establish successful halibut charter operations and then go on to purchase individual quota. This would allow underdeveloped communities to build a halibut charter base that would provide a source of initial capital for additional charter IFQ purchases. Note that this goal is related to fostering overall economic development in these communities, but is specific to the individual's need to overcome economic barriers to entry into the halibut charter business. Economic development is explicitly identified as a goal of the set-aside and is implicit in the criteria developed for individual eligible communities. Without economic development as a goal, a program designed to achieve the other, non-economic goals arguably should include other communities, individuals, or potential stakeholders that could benefit from reduced economic barriers to entry into the halibut IFQ program, and not just the thirty-seven Gulf communities identified by the Coalition.

The goals of the CSA program are incorporated in a separate **problem statement** as adopted by the Council in December 2000 and revised in February 2001:

REVISED SET-ASIDE PROBLEM STATEMENT

A number of small, coastal communities in Southeast and Southcentral Alaska are struggling to remain economically viable. The charter IFQ program, as with other limited entry programs, will increase the cost of entry to the halibut charter fishery.

A community set-aside of halibut charter IFQs will remove this economic barrier, promoting geographic diversity in the charter industry and sustained economic opportunity in small remote coastal communities in Southeast and Southcentral Alaska.

1.1.1 Background

1.1.1.1 General Description of the Commercial IFQ Program

The following is excerpted from the 2000 Report to the Fleet (NMFS 2000). In December 1991, the Council proposed an IFQ program as the best alternative to address problems associated with excess harvesting capacity in the commercial Pacific halibut and sablefish longline fisheries off Alaska. The decision to propose an IFQ program resulted from years of discussion and debate about the best way to address the problems created by overcapitalization in the fisheries (sometimes expressed as "too many boats chasing too few fish"). These problems included short "derby" openings (in most areas, seasons lasted less than a week), lost gear (and resulting "ghost fishing"), gear conflicts, safety concerns, poor product quality, low ex-vessel prices, and a host of other issues.

The IFQ approach was chosen to provide fishermen with the authority to decide how much and what types of investment they wished to make to harvest the resource. By guaranteeing a certain amount of catch at the beginning of the season, and by extending the season over a period of eight months, those who held the IFQ could determine where and when to fish, how much gear to deploy, and how much overall investment in harvesting they would make. One way to achieve the advantages of such a program was to insure the transferability of quota from one person to another. But concerns were expressed about allowing quota to be freely transferred.

To address the fear that most of the quota could eventually be concentrated into very few hands (thus undermining the economies of fishery-dependent communities), and could be held by persons who do not fish (thus establishing a "landlord" class of quota holders), the Council designed a number of constraints to unrestricted transferability. This was done to ensure that the characteristics of the fleet that existed prior to the IFQ program (an essentially "owner-operator" fleet of catcher vessels of various lengths) would not be fundamentally changed by the program. Following further refinement, the Council's IFQ proposal was approved by the Secretary of Commerce and finally published in the Federal Register in November of 1993. The program was implemented in 1995.

Under the commercial halibut IFQ program, eligible persons were issued QS based on halibut landings made aboard vessels that they owned or leased during the late 1980's and in 1990. Applications for initial issuance of QS were received and processed by the Restricted Access Management Division of NMFS. The application deadline was July 1994, and most applications were received in 1994. Issuance of QS to eligible applicants began in November of 1994.

To determine how many pounds of fish a QS holder may harvest during each year's fishing season (i.e., the person's annual IFQ), RAM first establishes the Quota Share Pool (QSP) for both species and each of eight halibut regulatory areas. The QSP is the sum of all the QS units that have been issued in a given area for each

species. The QSP is calculated annually (on January 31) and varies slightly from year to year due to administrative adjustments.

After fisheries managers determine what the annual Total Allowable Catch (TAC) will be, each QS holder's QS for the area is divided by that area's QSP and the resulting fraction is then multiplied by the TAC. This equation yields the number of pounds of IFQ that a QS holder may harvest that year, before adjustments for the previous year's fishing activity. Put simply, the above explanation can be expressed as follows:

QS÷QSP x TAC = IFQ

Note that although a person's QS remains the same, and the QSP may vary by a slight amount from year to year, the TAC may change significantly on an annual basis, depending on the condition of the stocks. As the TAC rises, so does each person's IFQ; as it declines, each person's IFQ likewise decreases.

In this manner, the total annual TAC is divided up; those to whom IFQ permits have been issued may then harvest their share at any time during the eight-month IFQ halibut season. Those who do not hold QS are generally excluded from the fisheries, although some very limited provisions for "leasing" freezer vessel IFQ exist.

As noted above, the Council took steps to insure that QS would not eventually be consolidated into a very few hands. To accomplish this goal, strict limits on how much QS can be held by any one person are imposed on QS holders (persons who received more than the "cap" by initial issuance were "grandfathered" in; however, they may not receive more QS by transfer). In addition to the caps, the Council has provided for QS blocking provisions. Under this program element, QS that originally yielded less than 20,000 pounds of IFQ (using the 1994 QSPs and TACs) was issued as a block, and such blocks may not be subdivided upon transfer. Further, no person may hold more than two blocks of QS for the same species in any regulatory area (or one block and unblocked QS up to the cap). In this way, smaller amounts (blocks) of QS will always be available for those who wish to enter the fishery by obtaining QS by transfer.

To meet the goal of an owner-operated fleet, catcher vessel QS may only be transferred to individuals, and those individuals must be aboard the vessel when the fish are harvested and landed. In recognition of historical fishing practices, initial issuees may (with some exceptions) hire skippers to fish their annual IFQ. Currently, the QS holder must demonstrate the s/he holds at least a 20 percent ownership interest in the vessel upon which the IFQ is to be fished.

Quota share, and the annual IFQ it yields, are classified by species, vessel, and regulatory area. A variety of restrictions regarding harvesting and landing IFQ fish also exist. Although these are not discussed here in detail, more information about program restrictions can be found in the IFQ regulations or by contacting RAM. Appendix I contains additional detail on the current halibut and sablefish IFQ program features.

1.1.1.2 National Research Council Recommendations on IFQs

Four U.S. fisheries are managed under an IFQ program (Alaskan halibut and sablefish, wreckfish, and surf clams/ocean quahogs), and programs were about to be implemented in two other fisheries when Congress intervened. The SFA established a moratorium on new programs through October 2000. As part of that action, Congress requested the National Academy of Sciences to provide: (1) a review of IFQs at a national level to specifically address the social, economic, and biologic effects of IFQs and other limited entry systems and (2) recommendations about existing and future IFQ programs (NRC 1999a).

In Section 303(d)(5) Congress further required:

> In submitting and approving any new individual fishing quota program on or after October 1, 2000, the Councils and the Secretary shall consider the report of the National Academy of Sciences required under section 108(f) of the Sustainable Fisheries Act, and any recommendations contained in such report, and shall ensure that any such program--
> (A) establishes procedures and requirements for the review and revision of the terms of any such program (including any revisions that may be necessary once a national policy with respect to individual fishing quota programs is implemented), and, if appropriate, for the renewal, reallocation, or reissuance of individual fishing quotas;
> (B) provides for the effective enforcement and management of any such program, including adequate observer coverage, and for fees under section 304(d)(2) to recover actual costs directly related to such enforcement and management; and
> (C) provides for a fair and equitable initial allocation of individual fishing quotas, prevents any person from acquiring an excessive share of the individual fishing quotas issued, and considers the allocation of a portion of the annual harvest in the fishery for entry-level fishermen, small vessel owners, and crew members who do not hold or qualify for individual fishing quotas.

The following contains excerpts from NRC (1999a); page numbers denote the end of excerpts. **Please note that many of the comments and recommendations may apply more to commercial IFQ programs, since the four IFQ plans studied are for commercial fisheries**. The current analysis addresses a plan for the only known IFQ program proposed for a recreational fishery. Having made that statement, it should be further noted that the proposed IFQ plan is for the charter sector of the recreational halibut fishery. NMFS recognizes charter fisheries as "commercial." However, rather than issuing QS to the actual harvester, i.e., the recreational angler (charter client), the Council is considering issuing QS to charter operators.

Lastly, while neither the MSA nor the National Standards contained therein address management of Pacific halibut, the Council has regularly met the requirements of the National Standards in its adoption of other halibut regulatory actions.

Prior Biologic, Economic, and Social Conditions in the Fishery

> Prior to the implementation of IFQ programs in the evaluated fisheries, TACs typically had been established, and these catch limits had led to shortened fishing seasons, intensified competition and conflict, changes in historic distributions of costs and benefits from the fishery, and other effects such as increased dangers from fishing in bad weather due to restricted season openings. These factors were in almost all cases exacerbated by an excess of fishing capital, participation, and effort with respect to the available amount of fish under the quota. Many of the subject fish stocks either were overutilized or showed some signs that the populations were being harvested at a greater level than would be sustainable in the long term.

Problems and Issues That Led to Consideration of an IFQ Program

> The most common problem cited in IFQ fisheries prior to the adoption of the IFQ program is an excess of capital, participation, and/or effort with respect to the available amount of fish, often resulting in shortened seasons . . . This had led variously to increased competition and conflict, undesirable price and market effects, increased physical danger to fishermen, administrative and enforcement problems, and potential for undesirable biological impacts through changes in fishing effort patterns. IFQ programs have sometimes been considered for situations in which administration or enforcement of an existing system was costly or difficult under traditional management

mechanisms (e.g., surf clams/ocean quahogs). In many cases, some historical participants in the fishery requested the management entity to implement IFQs or some other form of limited entry to address biological, social, or economic issues in the fishery (e.g., halibut, sablefish, wreckfish).

Objectives of IFQ Programs

Despite the claims by some that IFQs have the sole purpose of economic allocation or are a tool for social engineering, a mix of objectives has most often governed the use of IFQs: some biologic (effective implementation of a TAC); some economic (reducing overcapitalization, increasing overall economic efficiency of the fishery); some social (preserving traditional fishing patterns, allocating benefits among individuals, avoiding conflict); and some administrative (more cost-efficient administration, reduction in gear conflicts, better enforcement). The specific objectives of the programs, however, have not always been clear or adequately communicated. (Page 95)

Individual Fishing Quota

For most fisheries, the most effective mechanisms to ensure that a fish stock can continue to be productive are limits on the amount of fish that is harvested and removed from the breeding population and protection of critical habitat. Two general types of techniques can be used to control the level of harvest: input and output controls.

Input controls attempt to limit catch indirectly through limits on the amount of labor or capital that can be applied to a fishery, for example, by limiting the amount of time fish can be harvested or the amount or design characteristics of gear that can be used. Output controls attempt to directly limit the number or weight of fish that can be harvested. Output controls usually establish a total allowable catch (TAC) for a given fish species and close the fishery once this level is reached. IFQs are a form of output control. Frequently, combinations of input and output controls are used to manage the amount of fishery harvests, the timing of the harvest, and the distribution of harvest activities.

IFQs are allocations of fish harvesting quotas to individuals or firms, specifying that a certain amount of fish or shellfish of a certain species may be caught in a specific area within a given time frame (usually a year, although not necessarily a calendar year). IFQs are not necessarily a replacement for other management tools and are actually complementary to other management measures. IFQs are best suited to fisheries managed by setting a TAC. Indeed, IFQs are usually expressed as shares of the TAC, so that the amount of fish that can be harvested for a given share of quota fluctuates with changes in the level of the TAC.

The magnitude of a TAC is usually derived on an annual basis by applying a target exploitation rate to an estimate of the current stock size. Determining the target exploitation rate and measuring the stock size are both subject to considerable uncertainty, because of large variability in the relationship between stock size and the generation of subsequent offspring and to general difficulty of accurately counting and measuring fish in the wild (NRC, 1998a).

IFQs are defined in the Magnuson-Stevens Act as limited access permits to harvest quantities of fish. They represent quasi-privatization of the fisheries, in that permittees hold exclusive privileges with some of the attributes of private property—such as the privilege to decide when and how to use the quota shares—but not others, including ownership of the resource itself and the ability to decide how much of the resource can be harvested. The latter remains the domain of state and federal governments, which have public trust responsibilities to manage fishery resources for the public. (*Page 20*)

General Rationales and Issues for Implementing Individual Fishing Quotas

The reasons for using IFQs can vary widely. The most general reason is to counteract negative consequences of open or limited access management systems, particularly where TACs are used. A TAC without any limitation on fishing by the individual fisherman provides incentives for all participants in the fishery to harvest the TAC as quickly as possible before the fishery is closed. This typically leads to excessive fleet capacity and fishing effort and increasingly shorter fishing seasons . . . A central objective of many fisheries managed by IFQs is to avoid the undesirable consequences of this race for fish.

Three more specific rationales that have been offered for implementing IFQs are (1) improving economic efficiency by providing incentives to reduce any excess harvesting and processing capacity; (2) improving conservation by creating incentives to reduce bycatch and lost gear and engaging in other activities that conserve the resource; and (3) improving safety by reducing incentives to fish in dangerous conditions. Although many of the benefits and costs derived from IFQ management might be based on economic principles, the potential social effects are also likely to be central concerns in the design of any IFQ program. A wide variety of motives may influence the development of any specific IFQ program. The following discussion of the three principal rationales for implementing IFQ management provides an overview of the potential benefits and costs of using this form of management.

Economic Efficiency

In terms of the national standards contained in the Magnuson-Stevens Act, IFQs could be used as part of a strategy to satisfy the requirement that "conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose" (National Standard 5, Sec. 301[a][5]). By dividing the TAC into shares that are allocated to individuals who can then determine when and how to use them, economic efficiency can be increased, particularly if the quotas are allowed to be transferred, as discussed in later chapters.

The race for fish described above has serious economic consequences. It can lead to more intensive fishing, more gear being deployed, and increased capital expenditures to catch the same TAC. This amounts to wasting productive resources, because the fish could otherwise be taken at a lower cost, and perhaps transformed into a more valuable product, if the landings were spread over a longer period of time and fishermen had more time to handle fish more carefully. In a number of IFQ fisheries that the committee reviewed, improved product yield and/or value of the product have occurred. The race for fish also leads to costly (and otherwise unnecessary) modifications of fishing vessels to make them more effective in catching fish as quickly as possible (e.g., more powerful engines, expensive fish-finding equipment, larger size). Growth in fish-processing capacity both stimulates and is stimulated by the race for fish as processors expand their facilities and develop distribution chains to handle large pulses of fish and compete with each other to attract landings. These pulses also directly affect the price and quality (fresh versus frozen) of fish available to consumers. TAC-based management alone will not promote efficiency if more boats and people enter the fishery without controls. All of these developments make the race for fish more acute over time. IFQ management promotes efficiency by eliminating incentives for fishermen to apply excessive capital and labor inputs to a fishery.

Nevertheless, improving economic efficiency can dramatically alter the characteristics of a fishery and can have significant social implications. If harvesting and processing capacity is removed from

the fishery, communities that were once dependent on the race for fish can lose employment and revenues that were generated formerly. (However, such communities will eventually lose employment and revenues anyway if the race for fish is not controlled.) Testimony received by the committee indicated that these changes have reduced employment in regions with limited opportunities. In particular, two features of IFQ program management are controversial and can result in profound socioeconomic changes in a fishery: (1) the initial allocation of quota and (2) the transferability of quota (see Chapter 5). The IFQ programs evaluated by the committee vary with respect to these features.

A confounding factor complicates the economic efficiency arguments: not all components of fishing industries operate according to a common economic logic of firms. Abundant empirical evidence exists to demonstrate that these assumptions are not always true. In their study of fisheries in the U.S. Northeast, Doeringer et al. (1986) differentiate between what they call a kinship sector and a capitalist sector and indicate that the kinship sector thrives and expands under conditions that are detrimental to the capitalist sector. Apostle and Barrett (1992) make a similar distinction not only between fishing operations but processors as well in Atlantic Canada, and Durrenberger (1996) found the same to be true in the U.S. Gulf Coast. The existence of the kinship sector means that features of fisheries management that assume that individuals will make decisions on strictly economic grounds may be invalid and that management measures such as IFQs and other limited entry systems may have economic effects different from those that might be predicted on purely theoretical grounds. Thus, fishery managers should take into account the kinship sector in designing new management schemes, particularly in fisheries and areas characterized by small-boat fisheries with a long history.

Conservation

Another rationale given for implementing an IFQ program is the promotion of conservation. IFQs may promote conservation by keeping the catch within the TAC by making fishing more orderly, limiting the race for fish, and if properly monitored and enforced, creating a penalty for individuals who exceed their individual portion of the TAC. In fact, most IFQ-managed fisheries are successful in maintaining the cumulative catch for the fishery (at least the recorded part) below the TAC, whereas the same fishery managed without IFQs often exceed their TACs. Under IFQs, fishing time and area can be chosen more carefully by fishermen and less gear may be set (and lost), reducing both ghost fishing and reducing the potential damage that lost gear may cause to the marine environment. The added time available to the IFQ fisherman may also reduce the bycatch of non-target species since operations can be moved to target more favorable harvesting conditions, or it might allow the opportunity to develop practices that could reduce bycatch. Because IFQs allow more time to harvest and process fish, the amount of product recovered from the individual fish can be higher, reducing discarded product.

Additionally, the holder of the quota has an incentive to ensure that the fishery continues to be productive and that the quota continues to be valuable. It is argued by some that this incentive will encourage behavior to conserve the resource, conduct needed research, and assist the enforcement and monitoring of the fishery so that the health of the stock and the future value of the quota are preserved (Neher et al., 1989). Similar assumptions are implicit in much discussion of fisheries management and were explicit in testimony to the committee. Much of the political support for IFQs is similarly driven by faith in the assumption that privatization will foster ecological sensibility. This argument is based on the premise that the community of IFQ holders will behave in a manner analogous to the sole owner, as described in, for example, Gordon (1954) and Scott (1955). Another aspect of this argument is that an IFQ program that limits access to the resource will accumulate

value that becomes capitalized in the value of the individual quota. The better the fishery is managed, the higher will be the value of the individual quota share.

However, quota shares are not rights to particular fish. Consequently, quota holders have no assurance that other quota holders will refrain from practices that prevent the sustainable use of fish stocks. Some argue that precisely because IFQ management provides an opportunity to conduct fisheries more slowly, selective harvesting of higher-value fish (*highgrading*) may occur. Highgrading is most likely to occur when catch rates are high and there is a significant price advantage to fish of a particular size, gender, or spawning condition. The incentive to highgrade is also increased when the TAC is expressed in the total number of fish rather than their total weight. Some also believe that because monitoring and enforcing harvests is difficult, the incentive to misreport catches, also known as *quota busting*, is sufficiently high to outweigh the potential risk of being caught. Individuals practicing stewardship may incur the full marginal cost of forgone catches and receive only the average of the increased future benefits. This illustrates the phenomenon of *externalities*, situations in which the costs or benefits are not fully borne by the individual user. Therefore, IFQ holders may have an incentive to conserve at less than the socially optimal level, especially when there are large numbers of them (and hence a smaller average benefit). This rationale demonstrates that IFQ fisheries require effective monitoring, enforcement, and penalties to achieve their benefits.

The net effect of IFQs on conservation will depend on the relative strength of the stewardship effect balanced with the incentives for each individual quota holder to cheat. Sorting and discarding fish to highgrade costs money and will occur only if the expected benefits exceed the cost of sorting and the cost of catching replacement fish (including the opportunity cost of time and the expected cost of penalties and sanctions). The general conclusion of a 1990 workshop on the effects of different fishery management schemes on bycatch, "joint catch," and discards was that IFQ programs are no better or worse than other fisheries management in relation to these factors (Dewees and Ueber, 1990). Beyond the theories, few data exist regarding the positive or negative stewardship effects of IFQs, although there are some estimates of the effects in the Pacific halibut fishery (Gilroy et al., 1996).

Safety

The third rationale for implementing an IFQ program is to improve safety in a fishery, a goal of the new National Standard 10 (Sec. 301[a][10]). It is argued that because an IFQ program allows greater freedom for the individual to choose when to fish, weather conditions, the condition of the vessel, or other safety factors can be considered and hazardous conditions can be avoided. Although empirical evidence suggests that safety has improved in some IFQ-managed fisheries, it is not clear that safety has improved in all fisheries managed using IFQs.

Other Rationales

A variety of other rationales have been used to justify the development and implementation of IFQs. For example, the surf clam/ocean quahog IFQ program was developed (in part) to reduce administrative and enforcement burdens. The wreckfish IFQ program was developed to try to prevent overcapacity from developing when the fishery was new and seemed to be in the midst of unchecked expansion. (*Pages 33-37*)

Recreational Sector

Recreational fisheries have received inadequate consideration in IFQ programs. The allocation of quota to recreational anglers may serve as a way to let the market help solve the often contentious conflicts between the recreational and commercial sectors of a fishery (Squires et al., 1995). Initial allocation methods and increased enforcement needs undoubtedly would be major issues during implementation of IFQs for recreational fisheries.

Recreational fisheries are as diverse as their commercial counterparts in the types of gear involved and their levels of investment, ranging from shore-based anglers to for-hire operators. Cumulatively, recreational fisheries represent a large and growing potential to harvest fish, particularly in near-coastal waters, and there is a tendency for fisheries to evolve from commercial into recreational as coastal populations grow (Smith, 1986). Specification of a harvest quota in the form of a TAC allows fish to be taken by noncommercial interests, including recreational fishermen, but often does not specify how the allowance is to be made. In the United States, the proportion of TAC that goes to the recreational sector is left to the discretion of the regional councils but usually is based on historic use patterns within the fishery. Recreational allocations can also change with growth in the sector, but only through reductions in the commercial share. In some fisheries, the allocation of TAC to the recreational sector already is substantial (e.g., about 70% of the king mackerel TAC in the South Atlantic and Gulf of Mexico regions is allocated to the recreational fishery).

Inherent difficulties are associated with monitoring and enforcement of recreational fisheries because of their wide geographic range, multiple landing locations, and large numbers of fishermen. Consequently, recreational fishery-dependent data generally are of poor quality, especially with respect to the magnitude of recreational catch, effort, and the value of recreational fisheries to regional economies. Data problems are compounded by the commercial sale of fish caught by anglers and by individual fishermen from the for-hire sectors that fish commercially in recreational vessels when not operating for hire.

Recreational fisheries traditionally have been managed on the basis of fishing seasons, gear restrictions, and size and bag limits, and there is widespread resistance by recreational anglers to limited access or licensing. Clear differences between the recreational and commercial sectors can often be observed in the preferred sizes of fish, with recreational fishermen often preferring larger "trophy" fish. Consequently, the optimal stock size for recreational fisheries may be larger due to preference for higher catch rates and larger fish.

Currently, there is little precedent (in the United States or elsewhere) for integration of a recreational fishery into IFQ or other quota management systems (e.g., Arnason, 1996). In some cases (e.g., New Zealand), recreational fisheries are virtually unregulated in harvest, with the estimated recreational catch subtracted from the TAC before the remainder is allotted to IFQ shareholders. However, unrestricted harvest by many noncommercial interests, while fisheries are managed for holders of IFQs, presents major management problems that potentially undermine the integrity of any IFQ program (Ackroyd et al., 1990), particularly when the recreational sector is growing in size. In New Zealand, where the preservation of a satisfactory recreational fishery is an objective of the IFQ program for commercial fisheries, several studies have addressed the problem of recreational fishery management. Ackroyd et al. (1990) identify significant problems presented by recreational fisheries and recommend that the recreational sector be placed under a quota, with trusts established to hold and manage the quota (e.g., similar to the "hunting club" or Ducks Unlimited approach).

Pearse (1991) recommends allocating the recreational sector an explicit quota to be held on behalf of recreational fisherman by local government or by organizations modeled after the regional councils. The New Zealand Fisheries Task Force (1992) also recommends that recreational fishermen be allocated a share of TACs, with establishment of organizations to hold and manage the quota. These studies suggest that IFQ programs for only the commercial sector may benefit and strengthen commercial claims on fishery resources, leaving the recreational sector with no grounds to protect its rights. Conversely, the opposite may be true. One of the greatest challenges to commercial fishing is the growing interest in recreational fisheries worldwide. By sheer numbers alone the recreational fishing community is powerful, and the political clout of recreational anglers is growing (De Alessi, 1998). Consequently, commercial fishermen are concerned that the wealth and power that reside in the recreational sector ultimately will result in its majority ownership of many fisheries if no limits on quota ownership and transferability are in place to protect commercial interests.

In the discussion of IFQs for the recreational sector, a distinction should be made between individual recreational anglers (for whom IFQs are probably not practical; see below) and the for-hire sector that concentrates units of individual anglers and may be practical for inclusion in IFQ programs. Individual quotas for recreational fisheries could be analogous to IFQs in the commercial sector. If feasible, recreational quotas could achieve at least partial integration of recreational fishing into a quota system.

Are quotas for individual anglers feasible? Public testimony indicates that the establishment and implementation of IFQs for recreational fishermen face a formidable problem with respect to equitable initial allocation of quotas among users because catch histories do not exist for most individual recreational fishermen. Thus, the most common basis for initial allocation in commercial fisheries cannot be used in recreational fisheries. Other initial allocation mechanisms, such as lotteries, auctions, charging some predetermined fee, basing quota share on the magnitude of the investment in recreational fishing (vessel, gear), or equal shares for all, also are problematic. Lotteries have been used to allocate big game and waterfowl hunting privileges and could be acceptable for some recreational fisheries. Recreational fishermen generally are great in number, cross many economic classes, and thus vary greatly with respect to economic investment in fishing. They also tend to be spread over a wide geographic area and land their catches at a variety of locations, potentially making quota monitoring a formidable problem. Recreational fishermen have fought strenuously against saltwater fishing licenses in many states. It is likely that recreational IFQs would face similar opposition. (*Pages 159-160*)

<u>Social, Economic, and Management Issues</u>

- IFQs have had different effects in different fisheries. Within the broad category of "limited entry or access," IFQs are directed toward different objectives and have different effects from other limited entry or access approaches. For example, under IFQs the number of fishing units or participants may vary; under a license limitation program there are generally a fixed number of licenses (if licenses are not transferable). Neither IFQs nor limited entry directly controls fishing effort, although they may create incentives for changes in the amount or distribution of fishing effort.

- Control dates[4] should be set early in the development of an IFQ program and be strictly adhered to throughout the development of the program, with a minimum amount of time between the control dates and the initial allocation of quota.

- Councils should demonstrate that a wide range of initial allocation criteria and allocation mechanisms has been considered in the design of IFQ programs. Councils could avoid some of the allocation controversies encountered in the past by giving more consideration to (1) who should receive initial allocation, including crew members, skippers, communities, and other stakeholders; (2) how much they should receive; and (3) how much the potential recipients should be required to pay for the initial receipt of quota (e.g., auctions, windfall taxes).

- Councils should avoid taking for granted the "gifting" of quota shares to the present participants in a fishery, just as they should avoid taking for granted that vessel owners should be the only recipients of quota and historical participation should be the only measure for determining initial allocations.

- When designing IFQ programs, councils should be allowed to allocate quota shares to communities or other groups, as distinct from vessel owners or fishermen. For existing IFQ programs, councils should be permitted to authorize the purchase, holding, management, and sale of IFQs by communities. Such quota shares could be used for community development purposes, treated as a resource allowing local fishermen to fish, or reallocated to member fishermen by a variety of means, including loans.

- Leasing of quota shares should generally be permitted but, if necessary, with restrictions to avoid creation of an absentee owner class. Making shares freely transferable is generally desirable to accomplish the economic goals of an IFQ program. However, if it is desired to promote an owner-operated fishery or to preserve geographic or other structural features of the industry, it may be necessary to restrict long-term transfers of quota shares to bona fide fishermen or to prohibit transfers away from certain regions or among different vessel categories.

- Issues such as shifting distributions of quota share holdings among firms or communities can be addressed through setting upper limits on accumulation of quota shares. If important objectives include maintaining owner-operated fisheries and fishery-dependent coastal communities, greater attention may have to be given to equity considerations in setting upper limits on ownership, limiting transfer of quota shares outside communities, and similar measures.

- In any fishery for which an IFQ program is being considered, attention should be given to the implications of recreational participation in the fishery and, where appropriate, to potential application of the IFQ program to both commercial and recreational sectors.

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4 The date established for defining the pool of potential participants in a given management program. For example, in preparing to establish a limited entry program, a council might decide to establish a date that would serve as a cutoff for eligibility. With such a control date established, the council could proceed to assess alternative limited entry systems and other program design characteristics without the fear of stimulating speculative entry into the fishery. Unfortunately, because councils may be influenced by industry or required by NMFS to change the control date, there is often some speculative entry even when the control date is widely publicized. In the case of the Alaskan halibut and sablefish IFQ programs, delays in program implementation led to speculative entry by a sizable group that actively participated in the fishery between 1990 and 1994 but was left out of the initial allocation of quota shares.

- Councils should design IFQ programs in such a way as to enhance enforcement by (1) ensuring the fairness of program design and (2) using design principles to reduce the incentives to cheat. Programs that are considered fair and desirable by participants are most likely to be respected. Such programs produce higher compliance rates with less necessity for increased enforcement. IFQ programs are more likely to be perceived as fair and desirable if affected stakeholders participate in their creation.

- Councils should proceed cautiously in changing existing programs. Many individuals have made substantial investments in IFQ programs, even if they received little or no quota initially. Changes should be designed in a way that maintains the positive benefits of IFQs that result from their stability and predictability.

- Councils should explore the use of individual and pooled bycatch quotas to control overall bycatch and encourage fishermen to minimize their bycatch rates. (*Page 9*)

Conclusion

Fisheries within federal waters are held in public trust for the people of the United States. Public trust principles are thus applicable to any allocation of fishing rights. The government has an affirmative duty to take the public trust into account in conferring IFQs. Such allocations cannot be irrevocable, but remain subject to the government's continuing supervisory responsibility over them, to hold and manage them on behalf of the people. Although fishing privileges can be granted, they remain subject to modification in light of current knowledge and current needs. (*Page 45*)

1.1.1.3 National Research Council Recommendations on Communities in IFQ Programs

Consideration of communities in the context of the halibut charter IFQ decision is motivated by several provisions in the MSA and emphasized in NRC (1999a and b). The MSA defines "fishing community" as a community that is substantially dependent on or substantially engaged in the harvest and processing of fishery resources to meet its social and economic needs; vessel owners, operators, crew members, and processors based in such a community are included (Sec.3 [16]). One definition is that of specific, contiguous geographic locations where fishermen or those associated with the fishing industry live and work. The NRC report (1999a) relates that the existence of such a community of interest is important in the discussion of co-management and involvement of stakeholders in the management process, and that the fishing community is relevant to the potential achievement of objectives or assessment of impacts for specific fishery management programs. In addition, the NRC report points out that the policy goals of the MSA have evolved over time, as the fishery has moved from a foreign-dominated to a fully Americanized fishery. One of the salient features of the SFA is the mandate to consider fishing communities (Sec. 301[a][8], 303 [a][9]). The CSA is based on this definition of fishing community and the principle that management programs must take account of the social context of fisheries, especially the role of communities and the importance of fishing as both a tradition and profession.

In addition to the importance of considering communities as stakeholders in IFQ or other fishery management programs, it is also important to consider the timing of measures taken to address impacts to communities. The NRC report entitled *The Community Development Program in Alaska* (1999b) suggests that once the TAC is completely assigned via an IFQ program, there is little opportunity for subsequent adoption of a community program since it would require a reallocation of quota away from existing quota share holders. The NRC partially credits the success of Alaska's existing CDQ program on the fact that the CDQ allocation was introduced either prior to or contemporaneous with the establishment of the IFQ program for the various

fisheries. This point is crucial because of the strong expectations associated with an IFQ program and the political difficulty in a subsequent reallocation of the TAC to another new entity of IFQ holders.

1.2 Legal clarifications of IFQ programs

The Council requested legal clarification of two issues regarding federal administration of IFQ programs. The questions followed by NOAA GC response are detailed below.

1. **Would it be legal to require that quota share revert back to public ownership -- the State, Federal government or regulating agency -- rather than be owned and sold by quota share holders?**

   The answer from a legal standpoint is "yes." The Council can recommend, and the Secretary can approve, quota shares that are nontransferable as long as they articulate a rational connection between their objectives and choosing to make quota shares nontransferable. Quota shares that might revert to public ownership, however, would be held by the Federal government, not by the State.

2. **Can we require that if quota share holders are able to sell their QS that a percentage of the sale goes to the public via the state, federal government or regulating agency?**

   Any cost recovery/fee assessment program for a halibut charter IFQ program should be consistent with the requirements of section 304(d)(2)(A) of the Magnuson-Stevens Act. Section 304(d)(2)(A) requires the Secretary to collect a fee to recover the actual costs directly related to the management and enforcement of ANY IFQ program. We have interpreted that section to authorize fees for IFQ programs whether they are developed under the Magnuson-Stevens Act or the Halibut Act. The language is not expressly limited to fees authorized by FMPs (as in section 304(d)(1)) of the Magnuson-Stevens Act, and Congress obviously meant to include halibut IFQ programs since halibut and sablefish were identified as the only two fisheries for which IFQ fees could be collected until 2000. Consequently, any fee shall not exceed 3% of the ex-vessel value of fish harvested under any such program, and shall be collected at either the time of landing, filing of a landing report, or sale of such fish during a fishing season or in the last quarter of the calendar year in which the fish is harvested.

1.3 Description of the Alternatives

The following alternatives were developed by the Halibut IFQ Committee, Advisory Panel, and Council. The committee comprises ten charter operators and one guided angler, with five commercial fishermen and one community representative acting as non-voting technical advisors. It convened twice prior to the April 2000 Council meeting and met on October 2 to review the preliminary analysis. The Council adopted the committee recommendations in April 2000 with modifications as proposed by the Advisory Panel and the public for the current suite of alternatives. The committee reconvened on February 5, 2001, to review this draft analysis. The (commercial) IFQ Industry Implementation Team comprising nine halibut and sablefish commercial fishing and processing representatives also met on February 4, 2001, to review this analysis.

As can be seen, the Council's choices for the charter IFQ system would incorporate the charter sector into the existing commercial IFQ program. The current prohibition on the creation of new IFQ programs (which expired on October 1, 2000) would therefore not apply to the proposed changes. More than 60 options listed under the 11 management issues result in a complex decision making matrix. The options are not exclusive choices in all cases, that is, multiple options may be chosen under some issues.

NOTE: The Council directed staff to make a number of revisions to the list of alternatives and options. One of those revisions was to specifically identify the underlying basis for the options under Alternative 2, Issue 1 for setting quota share allocations. The AP and Council also requested staff to reexamine the percentages associated with the options. Staff identified an error in the calculations of the percentages under Alternative 2, Issue 1, Option 2. In the initial review draft, Option 2 read, "12.26% in Area 3A and 13.32% in Area 2C of a combined charter and commercial quota." The correct percentages associated with this option are 9.82% in Area 3A and 10.73% in Area 2C.

Alternative 1. Status quo.

Alternative 2. Include the halibut charter sector in the existing halibut IFQ program.

Issue 1. Initial QS may be based on:

Option 1. Equal to 125% of corrected average 1995-99 charterboat harvest
(13.05% in Area 2C and 14.11% in Area 3A of a combined charter and commercial quota)

Option 2. Equal to 100% of corrected average 1998-99 charterboat harvest
(10.73% in Area 2C and 9.82% in Area 3A of a combined charter and commercial quota)

Option 3. Equal to 100% of corrected average 1995-99 charter harvest
(10.44% in Area 2C and 11.29% in Area 3A of a combined charter and commercial quota)

Suboption: 0-50% of an individual's QS initial issuance would be fixed and the remainder would float with abundance.

Issue 2. Initial allocation of QS would be issued to U.S. citizens or to U.S. companies on the following basis:
U.S. ownership based on: a) 51% ownership; b) 75% ownership

Option 1. Charter vessel owner - person who owns the charterboat and charterboat business

Option 2. Bare vessel lessee - person that leases a vessel and controls its use as a charterboat for this fishery. May operate the vessel or may hire a captain/skipper. Lessee determines when the vessel sails and by whom captained.

Issue 3. Qualification Criteria

Option 1. Initial issues who carried clients in 1998 and 1999 and who submitted ADF&G logbooks for an active vessel (as received by ADF&G by February 12, 2000)

Option 2. Initial issuees who carried clients in 1998 or 1999 and who submitted ADF&G logbooks for an active vessel (as received by ADF&G by February 12, 2000)

Option 3. Initial issuees who carried clients prior to June 24, 1998 and who submitted at least one ADF&G logbook for an active vessel (as received by ADF&G by February 12, 2000)

Option 4. Initial issuees who carried clients four out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 and 1999

Option 5. Initial issuees who carried clients four out of five years between 1995-1999 as evidenced by IPHC, CFEC and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel for either 1998 or 1999

Option 6. Initial issuees who carried clients three out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 and 1999

Option 7. Initial issuees who carried clients three out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 or 1999

Suboption: Require that initial issuees be currently participating (meeting all legal requirements including filing a logbook) during season prior to final action (currently May- Sept 2000) and claimed trips must have been under the operation of a person holding a U.S. Coast Guard license.

Issue 4. Distribution of QS may be based on:

Option 1. 70% of 1998 and 1999 logbook average with an additional 10% added for each year of operation 1995-97 (longevity reward).

Option 2. Modified Kodiak proposal: 5-30% for A, 33% for B, 37-62% for C

Part A: each individual gets an equal percentage of the qualified pool as identified by the Council's final action.

Part B: each individual's average 98/99 logbook harvest as percentage of overall harvest is multiplied by 33% of the qualified pool.

Part C: one point for each year of participation during 1995-99.

Suboption: Base distribution for the preferred option on both total catch retained and caught and released

Issue 5. Transferability of QS (permanent) and IFQs (on annual basis [leasing])

Option 1. Nature of Charter QS/IFQ:

a) Leasable
b) Non-leasable

Suboption: Define leasing as the use of QS/IFQ on vessels on which the owner of the QS/IFQ has less than 20-75% ownership

Option 2. Transfer of QS (permanent) and/or IFQs (leasing):

a) prohibit transfers between charter and commercial sectors
   Suboption: no QS transfers between sectors for 2-5 years
b) allow transfers between charter and commercial sectors
   1. 1-yr one way transfer from commercial to charter
   2. 3-yr one way transfer from commercial to charter
   3. two-way (between commercial and charter sectors).

Suboptions under Options b (1-3):

i. Designate QS pool into two classes for transfer from charter to commercial sector: transferable (25%) and non-transferable (75%) pools on an individual's basis.
ii. Cap the percentage of annual IFQ transfers (de facto leasing) between sectors not to exceed 25% of total IFQs and a range of 0-10% of IFQs per year from charter to commercial.
iii. On percentage of annual QS transfers between sectors not to exceed 25% of total QS and a range of between 0-10% of QS per year from charter to commercial.
iv. A range of 0-10% leasing of Charter IFQ to charter from charter for the first 3 years

Option 3. Block restrictions

a) any initially issued (i.e., unblocked) charter QS once transferred to commercial sector shall be:
   1. blocked
   2. blocked up to the limits of the commercial sweep-up and block limits
   3. unblocked
b) allow splitting of commercial blocks to transfer a smaller piece to the charter sector.
c) allow splitting of commercial blocks once transferred to the charter sector

Option 4. Vessel class restrictions

a) from A, B, C, and/or D commercial vessel category sizes to charter sector
   1. Leasable
   2. Non-leasable
b) from charter to commercial:
   1. D category only
   2. C and D category only
   3. B, C, and D category
c) initial transfer from undesignated charter to a particular commercial vessel category locks in at that commercial category

Option 5. Minimum size of transfer is range of 20-72 fish

Issue 6. To receive halibut QS and IFQ by transfer:

Option 1. For the charter sector, must be either

a) a initial charter issuee or
b) qualified as defined by State of Alaska requirements for registered guides or businesses*
   *Suboption: and hold a USCG license.
c) fulfill all legal obligations of the charter sector

*this would require a change in the commercial regulations to allow transfer of commercial QS/IFQ to charter operator

Option 2. For the commercial sector, must have a commercial transfer eligibility certificate.

Suboption: All commercial rules apply to any provision that may permit the use of commercial QS/IFQ for commercial purposes by any entity in the Charter IFQ sector.

Issue 7. Caps

Option 1. No caps - free transferability

Option 2. Caps:
a) use cap for charter QS owners only of ¼, ½, and 1% of combined QS units in Area 2C and 1/4, ½, and 1% of combined QS units in Area 3A (for all entities, individually and collectively) and grandfather initial issues at their initial allocation
b) use cap for charter QS owners only of ¼, ½, and 1% of combined QS units for combined Areas 2C and 3A (for all entities, individually and collectively) and grandfather initial issues at their initial allocation

Issue 8. Miscellaneous provisions

Option 1. Maximum line limit of 12 in Area 3A (remains at 6 lines for Area 2C), grandfather initial issuees

Option 2. 10% underage provision of total IFQs

Option 3. 10% overage provision of IFQs remaining on last trip to be deducted from next year's IFQs

Option 4. A one-year delay between initial issuance of QS and fishing IFQs.

Issue 9. IFQs associated with the charter quota shares may be issued in:

Option 1. Pounds

Option 2. Numbers of fish (based on average weight determined by ADF&G)

Issue 10. Reporting:

Option 1. Require operator to report landings at conclusion of trip

Option 2. ADF&G logbook

Option 3. Require a reporting station in every city and charter boat location to accurately weigh every halibut caught.

Option 4. Charter IFQ fish tags

Option 5. Require operator to log the catch at the time the fish is retained.

Issue 11. Community set-aside

Option 1. No community set-aside.

Option 2. Set-aside ½-2 ½ percent of combined commercial charter TAC for Gulf coastal communities
Suboption 1. Source of the set-aside
a) equal pounds from the commercial and charter sectors.
b) proportional amount based on the split between the commercial and charter sectors.
c) 100 percent of the pounds taken out of the charter sector.

Suboption 2. Sunset provision

a) no sunset
b) sunset in 5 years
c) sunset in 10 years
d) persons currently participating in the set-aside program at the time of sunset would be allowed to operate within the guidelines of the program.

Alternative 3. Moratorium

Issue 1. Issuee

Option 1. owner/operator or lessee (the individual who has the license and fills out logbook) of the charter vessel/business that fished during the eligibility period (based on an individual's participation and not the vessel's activity)

Option 2. vessel

Issue 2. Qualification Criteria

Option 1. Initial issues who carried clients in 1998 and 1999 and who submitted ADF&G logbooks for an active vessel (as received by ADF&G by February 12, 2000)

Option 2. Initial issuees who carried clients in 1998 or 1999 and who submitted ADF&G logbooks for an active vessel (as received by ADF&G by February 12, 2000)

Option 3. Initial issuees who carried clients prior to June 24, 1998 and who submitted at least one ADF&G logbook for an active vessel (as received by ADF&G by February 12, 2000)

Option 4. Initial issuees who carried clients four out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 and 1999

Option 5. Initial issuees who carried clients four out of five years between 1995-1999 as evidenced by IPHC, CFEC and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel for either 1998 or 1999

Option 6. Initial issuees who carried clients three out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 and 1999

Option 7. Initial issuees who carried clients three out of five years between 1995-1999 as evidenced by IPHC, CFEC , and ADF&G business and guide documentation for 1995-99 and submitted logbooks for an active vessel in 1998 or 1999

Suboption: Require that initial issuees be currently participating (meeting all legal requirements including filing a logbook) during season prior to final action (currently May- Sept 2000) and claimed trips must have been under the operation of a person holding a U.S. Coast Guard license.

Issue 3. Evidence of participation

Option 1. mandatory requirements:
a) IPHC license (for all years)
b) CFEC number (for all years)
c) 1998 logbook

Option 2. supplementary requirements
a) Alaska state business license
b) sportfish business registration
c) insurance for passenger for hire
d) ADFG guide registration
e) enrollment in drug testing program (CFR 46)

Issue 4. Vessel upgrade

Option 1. License designation limited to 6-pack, if currently a 6-pack, and inspected vessel owner limited to current inspected certification (held at number of people, not vessel size)

Option 2:. Allow upgrades in southeast Alaska (certified license can be transferred to similar size vessel)

Issue 5. Transfers

Option 1. Will be allowed

Issue 6. Duration for review

Option 1. Tied to the duration of the GHL

Option 2. 3 years

Option 3. 5 years (3 years, with option to renew for 2 years)

2.0 NEPA REQUIREMENTS: ENVIRONMENTAL IMPACTS OF THE ALTERNATIVES

An environmental assessment (EA) is required by the National Environmental Policy Act of 1969 (NEPA) to determine whether the action considered will result in significant impact on the human environment. If the action is determined not to be significant based on an analysis of relevant considerations, the EA and resulting finding of no significant impact (FONSI) would be the final environmental documents required by NEPA. An environmental impact statement (EIS) must be prepared for major Federal actions significantly affecting the human environment.

The environmental impacts generally associated with fishery management actions are effects resulting from (1) harvest of fish stocks, which may result in changes in food availability to predators and scavengers, changes in the population structure of target fish stocks, and changes in the marine ecosystem community structure; (2) changes in the physical and biological structure of the marine environment as a result of fishing practices (e.g., effects of gear use and fish processing discards); and (3) entanglement/entrapment of non-target organisms in active or inactive fishing gear. None of the preferred alternatives would have such impacts on the environment.

This action would have no significant impact on the environment. There currently is no limit on the annual harvest of halibut by charter operations, lodges, and outfitters. This results in an open-ended reallocation from the commercial fishery to the recreational charter fishery as the latter increases over time. A previous decision to allocate Pacific halibut between the charter and commercial sectors is under review by the Secretary of Commerce. If that action is implemented, the Council will consider whether to replace the implementing management measures of the GHL with an IFQ program. The main consequence of the proposed alternatives is to control halibut charterboat fisheries in IPHC Areas 2C and 3A. The economic effects of the proposed IFQ program are detailed in Section 5.0.

Based on current information, it is reasonable to assume that the effect on the halibut resource of allocating halibut between user groups is negligible. The proposed charter IFQ program may reallocate halibut between commercial and charter fisheries depending on the level of quota share (QS) and IFQ transferability. It is the intent of the proposed program that QS and IFQs may flow between sectors, with some limitations, according to market demand.

The IPHC has determined that resource conservation is not a factor in such allocative decisions. If there was a resource conservation concern, the IPHC would be the responsible management body, however, since this is an allocative issue, the management responsibility is delegated to the Council. It has notified the Council that halibut stocks are at historically high levels and the GHL currently may not represent a constraint on the charter sector. However, as the total halibut CEY declines with natural stock fluctuations, so will the GHL, until it does become limiting.

The IPHC considers the halibut resource to be a single population. Egg and larval drift and subsequent counter migration by young halibut cause significant mixing within the halibut population. The IPHC sets halibut harvest in regulatory areas in proportion to abundance. This harvest philosophy protects against over harvest of what may be separate, but unknown, genetic populations, and spreads fishing effort over the entire range to prevent regional depletion. At this time, the IPHC has no genetic evidence suggesting separate reproductive units for the halibut stock. Small scale local depletion does not have a significant biological effect for the resource as a whole. Ultimately, counter migration and local movement tend to fill in areas with low halibut density, although continued high exploitation will maintain local depletion. However, estimates of biomass and fine-scale local movement are not available and are arguably not appropriate for managing small areas because the biomass in those areas is not the basis for production in those areas (G. Williams, pers. commun.).

It is perhaps useful to think about the effects of local depletion to the halibut resource by asking whether closing a depleted area would affect overall stock abundance. The answer is probably not. The depletion of a small, local area occurs because halibut are being removed at a faster rate through fishing than the rate at which fish can fill in or replenish the area. Closing a locally depleted area to fishing provides the opportunity for halibut to move back into the area more quickly than would otherwise occur. This assumes, however, that the conditions that may affect the rate of replenishment remain static. Many factors may affect the ability of halibut to replenish an area, including prey types and abundance in the area, size of fish, changes in the environment, and fishing pressure in the surrounding area. It is possible that an area closure may produce little or no recovery in an area if conditions unfavorable to replenishment are present. It is also worth noting that closing an area may increase fishing pressure at the boundaries of the closed area - the so-called boundary effect - that may in turn negatively affect the replenishment rate into the closed area (G. Williams, pers. commun.).

An option to manage local areas is included in the suite of alternatives, although no specific LAMP proposal is examined. Local areas with high fishing pressure fall within two extremes: little or no restrictions that lead to maximum fishing opportunity, but low abundance and low catch; or severe restrictions with reduced seasons, bag limits, quotas, and participation that lead to high abundance and high catch rates for those allowed to fish (R. Trumble, pers. commun.).

The 2000 Pacific halibut fishery regulations at 65 FR 14909 and corrected at 65 FR 17805 regulate the halibut fishery. The IPHC is responsible for managing halibut bycatch and accounts for halibut bycatch in determining the halibut GHLs. This proposed action does not affect halibut bycatch. The halibut population assessment is prepared annually by the International Pacific Halibut Commission (IPHC 2000) and is incorporated here by reference. Total halibut setline CEY (constant exploitation yield at a harvest rate of 20%) for Alaska is still estimated to be very high, at more than 83 million pounds for 2001, compared with just under 63 million pounds in 2000, and 100 million pounds in 1999.

The alternatives in this document solely address resource allocation and management issues. Regardless of the percentage of the halibut quota taken by each sector, no adverse impacts to the halibut resource or the benthic environment would be expected. In summary, none of the alternatives would be expected to have a significant impact on the environment, warranting a Finding of No Significant Impact (FONSI).

2.1 Endangered Species Act

The Endangered Species Act of 1973 as amended (16 U.S.C. 1531 *et seq.*; ESA), provides for the conservation of endangered and threatened species of fish, wildlife, and plants. The program is administered jointly by NMFS for most marine mammal species, marine and anadromous fish species, and marine plants species and by USFWS for bird species, and terrestrial and freshwater wildlife and plant species.

The designation of an ESA listed species is based on the biological health of that species. The status determination is either threatened or endangered. Threatened species are those likely to become endangered in the foreseeable future [16 U.S.C. § 1532(20)]. Endangered species are those in danger of becoming extinct throughout all or a significant portion of their range [16 U.S.C. § 1532(20)]. Species can be listed as endangered without first being listed as threatened. The Secretary of Commerce, acting through NMFS, is authorized to list marine fish, plants, and mammals (except for a walrus and sea otter) and anadromous fish species. The Secretary of the Interior, acting through USFWS, is authorized to list a walrus and sea otter, seabirds, terrestrial plants and wildlife, and freshwater fish and plant species.

In addition to listing species under the ESA, the critical habitat of a newly listed species must be designated concurrent with its listing to the "maximum extent prudent and determinable" [16 U.S.C. § 1533(b)(1)(A)].

The ESA defines critical habitat as those specific areas that are essential to the conservation of a listed species and that may be in need of special consideration. Federal agencies are prohibited from undertaking actions that destroy or adversely modify designated critical habitat. Some species, primarily the cetaceans, which were listed in 1969 under the Endangered Species Conservation Act and carried forward as endangered under the ESA, have not received critical habitat designations.

2.2 Impacts on Endangered or Threatened Species

Endangered and threatened species under the ESA that may be present in the Gulf of Alaska include the following:

ESA Listed Species

Species currently listed as endangered or threatened under the ESA and occurring in the GOA and/or BSAI groundfish management areas.

Common Name	Scientific Name	ESA Status
Northern Right Whale	*Balaena glacialis*	Endangered
Bowhead Whale [1]	*Balaena mysticetus*	Endangered
Sei Whale	*Balaenoptera borealis*	Endangered
Blue Whale	*Balaenoptera musculus*	Endangered
Fin Whale	*Balaenoptera physalus*	Endangered
Humpback Whale	*Megaptera novaeangliae*	Endangered
Sperm Whale	*Physeter macrocephalus*	Endangered
Snake River Sockeye Salmon	*Oncorhynchus nerka*	Endangered
Short-tailed Albatross	*Diomedia albatrus*	Endangered
Steller Sea Lion	*Eumetopias jubatus*	Endangered and Threatened [2]
Snake River Fall Chinook Salmon	*Oncorhynchus tshawytscha*	Threatened
Snake River Spring/Summer Chinook Salmon	*Oncorhynchus tshawytscha*	Threatened
Spectacled Eider	*Somateria fishcheri*	Threatened
Steller Eider	*Polysticta stelleri*	Threatened

[1] The bowhead whale is present in the Bering Sea area only.
[2] Steller sea lions are listed as endangered west of Cape Suckling and threatened east of Cape Suckling.

Section 7 Consultations. Because halibut fisheries are federally regulated activities, any negative affects of the fisheries on listed species or critical habitat and any takings[5] that may occur are subject to ESA section 7 consultation. NMFS initiates the consultation and the resulting biological opinions are issued to NMFS. The Council may be invited to participate in the compilation, review, and analysis of data used in the consultations. The determination of whether the action "is likely to jeopardize the continued existence of" endangered or threatened species or to result in the destruction or modification of critical habitat is the responsibility of the appropriate agency (NMFS or USFWS). If the action is determined to result in jeopardy, the opinion includes reasonable and prudent measures that are necessary to alter the action so that jeopardy is avoided. If an incidental take of a listed species is expected to occur under normal promulgation of the action, an incidental take statement is appended to the biological opinion.

[5] the term "take" under the ESA means "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct" (16 U.S.C. ' 1538(a)(1)(B).

None of the alternatives under consideration would affect the prosecution of the halibut fisheries in a way not previously considered in consultations. None of the alternatives would affect takes of listed species. Therefore, none of the alternatives are expected to have a significant impact on endangered or threatened species. None of the management alternatives is expected to have an effect on endangered or threatened species for the same reasons cited above.

Short-tailed albatross: In 1997, NMFS initiated a section 7 consultation with USFWS on the effects of the Pacific halibut fishery off Alaska on the short-tailed albatross. USFWS issued a Biological Opinion in 1998 that concluded that the Pacific halibut fishery off Alaska was not likely to jeopardize the continued existence of the short-tailed albatross (USFWS 1998). USFWS also issued an Incidental Take Statement of two short-tailed albatross in two years (1998 and 1999), reflecting what the agency anticipated the incidental take could be from the fishery action. Under the authority of ESA, USFWS identified non-discretionary reasonable and prudent measures that NMFS must implement to minimize the impacts of any incidental take.

Spectacled Eider. Spectacled Eider (*Somateria fischeri*), a threatened seaduck, feed on benthic mollusks and crustaceans taken in shallow marine waters or on pelagic crustaceans. Since 1994, NMFS has consulted with the USFWS annually on the crab FMP pursuant to Section 7 of the ESA. In the past, Section 7 consultations on the crab fishery have been formal because it was perceived that the fishery was likely to adversely affect spectacled eiders. Beginning in 1995, observers aboard crabbing vessels received training in bird identification and reporting and were instructed to report all sightings of spectacled eiders to the USFWS either directly or through ADF&G. To date, no take of spectacled eiders associated with the crab fishery or the groundfish or halibut fisheries has been reported. A Section 7 consultation has not been conducted on the effects of the Pacific halibut fishery on spectacled eiders, as there is no likely adverse effect.

Steller's Eider. Three breeding populations of Steller's eider (*Polysticta Steller*) are recognized, two in Arctic Russia and one in Alaska. Steller's eiders that nest in Alaska are listed as threatened under the ESA. The Steller's eider, once considered a common breeder in the intertidal Yukon-Kuskokwim Delta in the early 1900s (Murie et al. 1924), declined rapidly and was extremely rare in that location by the 1970s. Only six nests have been found in the 1990s. Today, Steller's eiders breed primarily on the North Slope of Alaska and in extremely low numbers on the Y-K Delta. Similar to the spectacled eider, the ESA concern is that crab fisheries may have an adverse effect on the Steller's eider due to a lack of knowledge concerning the at-sea range and migration path of Steller's eiders, and a lack of knowledge of the species of eiders that have struck, or were likely to strike, crabbing vessels.

In addition to listing species under the ESA, the critical habitat of a newly listed species must be designated concurrent with its listing to the "maximum extent prudent and determinable" (16 U.S.C. Section 1533 (b)(1)(A). The USFWS is currently in the process of designating critical habitat for the Alaska-breeding population of the Steller's eider and the spectacled eider. The proposed rules were published February 8, 2000 (65 FR 6114) and March 13, 2000 (65 FR 13262) for the spectacled eider and Steller's eider, respectively, with the public comment periods extended through June 30, 2000. The USFWS is also considering whether or not a proposed designation is prudent for critical habitat for the short-tailed albatross.

2.3 Marine Mammal Protection Act

Under the Marine Mammal Protection Act, commercial fisheries are classified according to current and historical data on whether or not the fishery interacts with marine mammals. Two groups, takers and non-takers, are initially identified. For takers, further classification then proceeds on the basis of which marine mammal stocks interact with a given fishery. Fisheries that interact with a strategic stock at a level of take, which has a potentially significant impact on that stock would be placed in Category I. Fisheries that interact

with a strategic stock and whose level of take has an insignificant impact on that stock, or interacts with a non-strategic stock at a level of take, which has a significant impact on that stock, are placed in Category II. A fishery that interacts only with non-strategic stocks and whose level of take has an insignificant impact on the stocks is placed in Category III.

Species listed under the Endangered Species Act present in the management area were listed in section 2.2. Marine mammals not listed under the ESA that may be present in waters around Sitka include cetaceans, [minke whale (*Balaenoptera acutorostrata*), killer whale (*Orcinus orca*), Dall's porpoise *(Phocoenoides dalli*), harbor porpoise (*Phocoena phocoena*), Pacific white-sided dolphin (*Lagenorhynchus obliquidens*), and the beaked whales (e.g., *Berardius bairdii* and *Mesoplodon spp*.)] as well as pinniped, Pacific harbor seal (*Phoca vitulina*), and the sea otter (*Enhydra lutris*).

The above listed marine mammals are not normally taken on either sport rod and reel or commercial longline or jig gear. The halibut charter boat fishery is not restricted under the biological opinion on Steller Sea lions (NMFS 2000b). It is classified as a category III fishery under the MMPA. The commercial halibut longline/set line fisheries in State and Federal waters are classified as Category III. Steller sea lions were the only species recorded as taken incidentally in these fisheries according to records dating back to 1990 (Hill et al 1997.)

Under the MMPA, recreational fisheries need a permit to take any marine mammal. The 3 mile closures around Steller sea lion rookeries established when the species was listed apply to all commercial and recreational fisheries. NMFS has published guidelines for water-based viewing of marine mammals (http://www.fakr.noaa.gov/protectedresources/mmviewingguide.html). NMFS proposes to regulate approaches for one endangered species. It published a proposed rule on June 26, 2000 (65 FR 39336) on regulations governing the approach to humpback whales in Alaska which proposes to prohibit the approach within 200 yards (182.8 m) of a humpback whale in waters within 200 nmi of the coast of Alaska. Under these regulations, it would be unlawful for a person to approach, by any means, within 200 yards (182.8 m) of a humpback whale to minimize disturbance to humpback whales in waters off Alaska. It is intended to promote conservation and recovery of humpback whales.

2.4 Coastal Zone Management Act

Implementation of each of the alternatives would be conducted in a manner consistent, to the maximum extent practicable, with the Alaska Coastal Management Program within the meaning of § 30(c)(1) of the Coastal Zone Management Act of 1972 and its implementing regulations.

2.5 Conclusions or Finding of No Significant Impact

In view of the analysis presented in this document, I have determined that the proposed actions to manage the Pacific halibut charter fisheries in Area 2C and 3A would not significantly affect the quality of the human environment. Based on this determination, the preparation of an environmental impact statement for the proposed action is not required by section 102(2)(C) of the National Environmental Policy Act or its implementing regulations.

_____ _____

Assistant Administrator for Fisheries, NOAA Date