

3.5.11 Issue 11 - Community Set-Aside

This section considers the economic and socioeconomic implications of setting aside halibut quota for Gulf communities, including net benefit and distributional effects. The analysis is intended to provide sufficient information to assist the Council in its decision regarding four issues: (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 or not to include a *sunset* provision. The options under consideration are as follows:

Option 1. No community set-aside.

Option 2. Set aside 0.5% to 2.5% of the combined commercial/charter TAC for Gulf communities.

Suboption 1. Source of set-aside

- A. equal pounds from commercial and charter sectors
- B. proportional amount based on split between commercial and charter sectors
- C. 100% of pounds taken out of charter sector

Suboption 2. Sunset provision

- A. no sunset provision
- B. sunset in 5 years
- C. sunset in 10 years
- D. persons participating in the set-aside program at the time of its sunset would be allowed to operate within the guidelines of the program.

As a backdrop for the community set-aside issue, it may be useful to consider some of the findings and recommendations noted in the NRC (1999a) study specific to communities. In addition, since the primary purpose of the set-aside is to remove an economic barrier to entry into the charter industry for underdeveloped Gulf communities, it may be helpful to consider the potential value of the economic barrier created by the charter IFQ program. Concerns have been raised, however, that removal of the economic barrier associated with the need to purchase enough halibut to start and operate a charter business may not be sufficient to allow for significantly more development of charter businesses (versus the level of development if the charter IFQ program is not implemented) in communities targeted for the set-aside. Thus, other potential barriers to entry into the charter industry are also discussed here for context.

NRC (1999a) Study Comments on Community Issues

Initial Allocation: As a starting point, it may be useful to consider some of the issues raised in the NRC (1999a) study with respect to the initial allocation of QS. The NRC (p. 202) found that, “[the] initial allocation of quota share is the most controversial aspect of the implementation phase of IFQ programs. Controversy focuses on who should be eligible for initial allocations and the criteria that should be used to allocate shares. Furthermore, initial allocation of quota can result in windfall gains to the recipients if the QS are transferable and measures are not taken to address this issue.” The NRC study (p. 203) also found that “catch history has been used as the primary factor for determining the initial allocation of quota among participants in the U.S. IFQ fisheries [since] catch history is perceived by fishermen as a reasonable and fair measure of participation in a fishery.” With respect to potential allocations to communities, the NRC study (p. 206) found that “catch history, as a measure of participation in a fishery, reflects the participation not only of individuals and occupational groups, but also of fishing communities. From this perspective, communities may be entitled to initial quota allocations.” As a potential outcome to this approach, the NRC study (p. 206) points out that “[community fishing 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.”

With respect to allocations to communities, the NRC (1999a) study makes the following recommendation (p. 206): “The committee recommends that Councils consider including fishing communities in the initial allocation of IFQs, where appropriate, and that the Secretary of Commerce interpret the language in the

Magnuson-Stevens Act pertaining to fishing communities (Sec. 303[b][6][E] and National Standard 8) to support this approach to limited access management.” In setting criteria for which communities may hold quota, the NRC study suggests (p.206) “a range of factors, such as proximity to the resource, dependence on the resource, contribution of fishing to the community's economic and social well-being, and historic participation in the fishery ...” be considered.

Creation of Barrier to Entry: Extension of the IFQ program to the charter sector creates a new economic barrier to entry into the charter industry in two ways. First, after the initial allocation, QS have value and would need to be purchased or leased by any new entrant into the industry that did not receive shares in the initial allocation. Second, since QS have value and to the extent QS are granted or “gifted” to the initial recipients, initial recipients receive an economic windfall. This windfall was noted in the NRC (1999a) study as one of the more controversial aspects of the initial allocation. As discussed in the NRC study (p. 142), “[the] recipients of initial allocations of QS reap a windfall profit when they sell their shares, which is not available to subsequent holders of the QS who must purchase them.” In addition, the NRC study noted (p. 202) that the windfall profit may give initial recipients a competitive advantage by “enabling initial recipients to obtain loans to buy additional quota, resulting in significant shifts in the power of quota holders versus others in the fishery and changes in the composition of stakeholders involved in managing the fishery.”

The issues surrounding the barrier to entry and windfall profit resulting from the charter IFQ program are issues for any potential new entrant into the charter industry, not just for individuals living in one of the 37 target communities. With respect to this issue, the NRC study notes the following (p. 158):

“The Magnuson-Stevens Act currently requires that the regional councils and the Secretary of Commerce, in submitting and approving any new IFQ program after the expiration of the moratorium, address the issue of new entry. Specifically, they are required to have considered allocating 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 IFQs (Sec. 303[d][5]). The issue of new entrants is related to the issue of transferability, because market prices for QS can be significant barriers to new entrants, and without transferability, new entry can be difficult. A related issue is the availability of loans for the purchase of quota. The North Pacific loan program was created to make loans more available for quota purchases. ... The committee received the suggestion that new entry could be facilitated by setting aside a certain part of the TAC each year for new entrants.”

Transferability: With respect to transferability of QS, the NRC (1999a) study notes that (p. 167) “[transferability] is one of the most contentious issues in IFQ management. ... Transfer of QS can lead to a concentration in the ownership of quota, which may have undesirable side effects.” With respect to impacts among communities, the NRC study notes (p. 170) “generally, one may expect communities with a large share of quota to gain more because of more infrastructure and better access to capital, [while] some smaller communities dependent on fisheries and without alternative means of support are likely to suffer severe unemployment and related social and economic problems.” Finally, it comments on the potential impact of transferability on ‘marginal’ participants, including Native groups and women, saying (p. 171) “[as] quotas tend to be concentrated and rights to the resource are removed from the communal frameworks to which fishing has been subjected, they tend to freeze or exaggerate existing patterns of occupational participation, making it more difficult for marginal participants to advance.”

On the issue of transferability, the NRC (1999a) study makes the following recommendations (p. 206): “[councils] should be permitted to authorize communities to purchase, hold, manage, and sell IFQs. These communities could use their quota share for community development purposes, as a resource for preserving access for local fishermen, or for reallocation to member fishermen by a variety of means, including loans. If the communities chose to allocate the rights to individual, they could be constrained by covenants or other restrictions to be nontransferable.”

Estimated Halibut Resource Requirements for Charter Operators in Target Communities

The size of the economic barrier created by the charter IFQ program (and potentially removed by the community set-aside) may be estimated from (1) the amount of halibut required for typical charter businesses operating in Areas 2C and 3A, and (2) average QS transfer prices. Halibut resource requirements for charter operators are estimated first.

Several studies based on angler surveys indicate that one of the most important factors governing the choice of fishing trip location is the potential to catch fish. Typically, the number, size, type and variety of targeted species all contribute to the value of the charter experience, although the extent that each contributes is difficult to quantify. While more may be preferred to less if only one species is targeted, charter trips that offer clients the chance to catch fewer numbers of two or more species may be preferred (or have similar value) to single-species trips. Thus, the amount of halibut required by a charter operator will depend, in part, on whether or not halibut is the primary target species. In addition, the amount of halibut required also depends on trip duration (half-day or full-day trip), clients per trip, utilization rate (full-time or part-time), and phase of development (start-up, developing, mature).

Two alternative approaches can be taken to determine the halibut resource requirements for new and growing charter operators. The first would be to develop demand and supply functions by surveying anglers and existing charter operators. From the angler's perspective, the amount of halibut is an attribute of the charter trip that enters into the angler's decision to participate. From the charter operator's perspective, the amount of halibut is an input required to provide charter services to anglers. This first approach would require a significant amount of data and modeling. Instead, a second approach is taken whereby halibut resource usage rates are calculated for existing charter businesses among the 37 target communities in Areas 2C and 3A using ADF&G logbook data for 1998 and 1999.

Table 3.8 shows average number of trips, average halibut harvest (in numbers of fish) and average harvest per trip for charter vessels *landing* in target communities in Areas 2C and 3A for 1998 and 1999. For each area, the vessel level data (as opposed to community level data) was ranked by the maximum number of trips made by the vessel in 1998 or 1999. The ranked data was then segmented into quartiles as a way to distinguish subgroups within each population of vessels. Thus, for Area 2C, a total of 280 vessels made at least one trip in 1998 or 1999 and landed in one of the target communities in Area 2C. Dividing these data into quartiles (based on trip ranking) resulted in 70 observations for each quartile. Similarly, 80 vessels made at least one trip in 1998 or 1999 and landed in an Area 3A target community, resulting in 20 observations per quartile for Area 3A. Scatter plots of vessel trips versus harvest level are shown in Figure 3.6 for Area 2C (top) and Area 3A (bottom).

Table 3.8 Quartile Averages for Vessel Trips, Harvest and Harvest per Trip for Areas 2C and 3A

Quartile	Area	Sample Size	# Yrs.	Trips		Harvest		Harvest per Trip	
				1998	1999	1998	1999	1998	1999
First	2C	70	1.8	54	58	170	171	3.2	3.0
Second	2C	70	1.7	22	21	51	58	2.3	2.6
Third	2C	70	1.3	6	6	13	10	2.7	2.1
Fourth	2C	70	1.1	2	2	3	2	3.0	2.3
First	3A	20	1.7	59	50	340	280	5.3	5.0
Second	3A	20	1.6	15	9	64	41	4.1	4.5
Third	3A	20	1.2	5	4	17	18	4.1	5.8
Fourth	3A	20	1.0	2	1	5	5	5.4	4.6

*Vessel data ranked by maximum number of trips in 1998 or 1999, then divided into quartiles.

Source: ADF&G logbook data for 1998 and 1999.

The process of ranking the vessel data by the maximum number of trips in 1998 or 1999 and segmenting the data into quartiles is used as a proxy for identifying subgroups within each pool. The number of trips serves as a proxy for utilization rate (full-time or part-time) and degree of maturity, since vessels with a high number of trips in both 1998 and 1999 are likely representative of full-time operators of more established businesses. Thus, statistics for the first quartile may be representative of full-time operators of relatively mature charter businesses. Vessels in the second quartile averaged fewer trips (and lower harvest levels) in both years and statistics for this segment may be representative of either part-time operators or full-time operators of less established businesses (i.e., start-up businesses). Vessels in the third and fourth quartiles reported trips in only one of the years (1998 or 1999) and averaged even fewer trips and lower harvest levels than vessels in the second quartile. Thus, statistics for the third and fourth quartile may be representative of start-up operators that subsequently failed, charterboats that targeted other species (e.g., salmon) or offered other services (e.g., bird/mammal sightseeing), and/or charterboats that ‘land’ in the target communities infrequently.

The results for the first and second quartiles will be used to estimate halibut resource needs for charter operators in target communities in Areas 2C and 3A. This approach, however, may not reflect the full range of quota share needs for charter businesses operating in the target communities. By ignoring the third and fourth quartiles, the estimates for halibut resource needs may be too high. On the other hand, by using harvest data only for vessels landing in the ‘underdeveloped’ target communities, the estimates may be too low. Compared to charter businesses based in the major ports (e.g., Homer, Sitka, Juneau, etc.), charter businesses based in remote coastal communities may offer a broader range of charter trip experiences and may have a broader range of halibut resource needs. Nevertheless, the harvest statistics for the first and second quartiles will be used to provide an indication of the typical halibut resource needs of full-time and start-up charter operators so that the size of the purported economic barrier to entry, created by the charter IFQ program, may be estimated.

In Area 2C, vessels in the first quartile averaged 54 trips in 1998, and 58 trips in 1999, and harvested an average of 170 fish in 1998, and 171 in 1999. The average harvest per trip was 3.2 in 1998, and 3.0 in 1999. While these statistics reflect the average for the group, several vessels in the group made more than 90 trips and harvested nearly 300 fish.

Vessels in the second quartile averaged 22 trips in 1998, and 21 trips in 1999, and harvested 51 fish and 58 fish in 1998, and 1999, respectively. Most of the vessels in this group reported trips in both 1998 and 1999. The maximum number of trips reported in this group was 44 and the highest harvest level was 244 fish. Statistics for the second quartile are assumed to reflect charter operators that are either part-time or start-up operators that are still developing their client base.

In Area 3A, vessels in the first quartile averaged 59 trips in 1998, and 50 trips in 1999, and harvested an average of 340 fish in 1998, and 280 in 1999. The average harvest per trip was 5.3 in 1998, and 5.0 in 1999. The largest number of trips reported was

125 and the highest harvest level was 785 fish. While the average number of trips for vessels in the first quartile is similar for Areas 2C and 3A, the harvest levels in Area 3A are nearly twice the harvest levels in Area 2C. As discussed previously, this may be because charter services in Area 2C target salmon, in addition to halibut and may make more half-day trips. Vessels in the second quartile averaged 15 trips in 1998, and

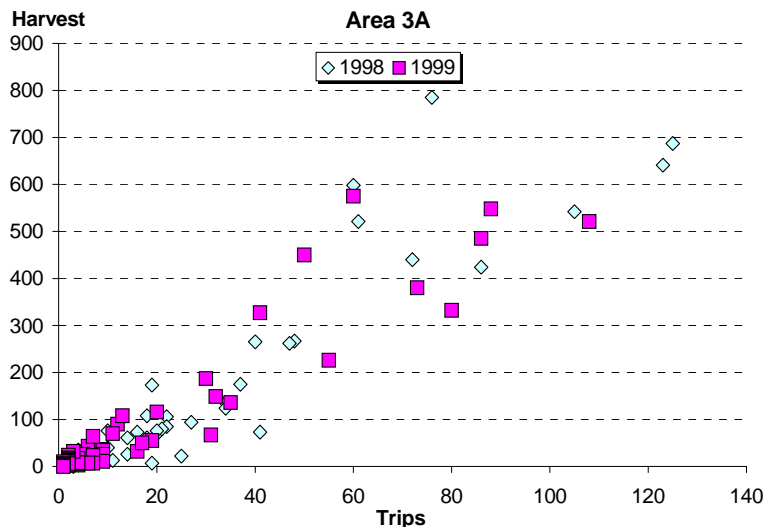


Figure 3.6 Vessel trips versus halibut harvest (in numbers of fish) for Area 2C (top) and Area 3A (bottom).

9 trips in 1999, and harvested on average 64 fish and 41 fish in 1998, and 1999, respectively. The maximum number of trips reported in this group was 22 and the highest harvest level was 173 fish.

For each area, the average harvest (per boat) for 1998 and 1999, for the first quartile may be used as an estimate of the halibut requirements for a full-time or mature charter operator. The average harvest per boat for 1998 and 1999, for the second quartile serves as an estimate for part-time or start-up charter operators. Thus, start-up or part-time charter businesses require an estimated 50 fish (per boat per year) in both Areas 2C and 3A (Table 3.9). Full-time or mature charter businesses require about 170 fish (per boat per year) in Area 2C and 310 fish in Area 3A. These figures may be converted into pounds of halibut using the 1999 average weights for Areas 2C and 3A of 18.0 lb/fish and 19.2 lb/fish, respectively. Thus, based on these assumptions, start-up operators in Areas 2C and 3A need an estimated 900 lbs and 1,000 lbs of halibut per boat per year, respectively. Full-time or mature operators need an estimated 3,000 lbs in Area 2C and 6,000 lbs in Area 3A. These estimates are somewhat lower than the estimates presented in the Coalition discussion paper on the community set-aside. The Coalition proposal suggests that set-aside allocations to individuals be limited to 2,000 pounds in the first year and that allocations be increased by 2,000 pounds per year up to an individual cap of 10,000 pounds (inclusive of all charter halibut QS held). These higher allocations may make sense, however, if an individual operation has a client base that allows it to operate above the first quartile's average harvest per vessel.

Table 3.9 Estimated Number, Pounds and Cost of Halibut for Start-Up and Mature Charter Operators

		# Fish	Pounds ¹	Cost ² (\$)
2C	Start-up	50	900	9,100
	Mature	170	3,000	30,400
3A	Start-up	50	1,000	8,600
	Mature	310	6,000	51,300
Gulf	Start-up		2,000	18,700
Coalition	Mature		10,000	93,500

1. Based on average 1999 weights of 18.0 lb/fish and 19.2 lb/fish for Areas 2C and 3A, respectively.
2. Based on mean 1998 halibut QS price in \$/IFQ of \$10.14 and \$8.55 for Areas 2C and 3A, respectively.

Estimated Size of the New Economic Barrier to Entry

The costs of acquiring halibut quota, assuming the proposed charter IFQ program is implemented, may be estimated by multiplying the pounds of halibut purchased, by an average quota price. Absent a rigorous model for predicting how QS prices will be impacted by changes in the IFQ program, historical prices of commercial halibut QS may be used as an indicator of future prices. Historical commercial halibut QS transfer prices as reported by the CFEC were presented in Table 3.51 (Appendix 2 in NPFMC 2003); the mean transfer price in 1998 dollars per pound of IFQ was \$10.14 and \$8.55 for Areas 2C and 3A, respectively. Using these mean transfer prices, the estimated average cost to obtain the QS required by charter businesses based in target communities in Areas 2C and 3A are shown in Table 3.9.

It is possible that the transfer prices for the commercial Class D shares (catcher vessels less than 35') may be more reflective of charter quota share prices, although there is no way to determine this with any confidence until after the charter IFQ program goes into effect. If this turns out to be true, the potential costs for halibut QS for a start-up or full-time charter operator may be less than those estimated in Table 3.9 as charter operators would want to purchase the lower priced "D" shares from the commercial fishery. For example, using the mean 1998 transfer price for category D halibut QS of \$8.46 in Area 2C, estimated costs for halibut would range from \$7,600 to \$25,400. Similarly, using the mean 1998 transfer price of \$6.43 for Category D shares in Area 3A, estimated halibut quota share costs would range from \$6,400 to \$38,600. These cost estimates are 16.5% and 24.8% lower for Areas 2C and 3A, respectively, than the estimated costs using the

mean prices for all commercial halibut quota share categories. However, as charter operators entered the market for “D” shares the increased demand would be expected to result in higher prices for class “D” shares, since the quantity of “D” shares is fixed.

If the charter fleet does purchase class “D” shares from the commercial fishery, the expected increased price and scarcity of those shares would come at a cost to the members of the commercial sector that would have historically used them. Class “D” shares were designed in the commercial IFQ program to allow for new entrants into the commercial fishery, by providing access to relatively inexpensive QS. A major concern when developing that program was the ability of crew members to buy into the fishery. Allowing the charter fleet to buy class “D” QS would tend to reduce the benefits the entry level fishermen have enjoyed under the commercial IFQ program.

After the initial allocation, new entrants into the charter industry may need to invest an estimated \$8,600-\$18,700 in halibut QS, to reserve access to the resource for their clients. As these new charter businesses or pre-existing charter businesses grow, additional purchases of halibut QS would likely be required. The estimated value of halibut QS needed to support a full-time, mature charter business is \$30,400 for Area 2C, \$51,300 for Area 3A and \$93,500 using the Coalition estimate of 10,000 pounds (and an average price of \$9.35 - the mean of the reported 2C and 3A prices). While the start-up cost for part-time operation is not extraordinary, neither is it insignificant. The potential cost for QS for a full-time operator is substantial, however, and comparable to the cost of other major input items (e.g., a boat).

In either case, whether the new charter business planned to operate on a part-time or full-time basis, the potential cost of acquiring halibut quota represents a potential barrier to entry into the industry that does not now exist. This barrier would make it more difficult for *any* potential new entrant (not just those based in the target communities) to start a charter business. It would also make it more costly for existing charter businesses that need additional halibut quota to maintain or expand their activity. On the other hand, to the extent that existing charter business owners receive halibut QS in the initial allocation, additional purchases may be facilitated by their ability to use such QS as collateral to secure a loan. The ability to use QS received in the initial allocation as collateral is part of the windfall gain to initial recipients.

The possibility that the charter IFQ program creates a new economic barrier to entry is an issue for any new entrant, not just for potential new entrants in the 37 target communities. It is possible, however, that this new economic barrier poses a disproportionate hardship on would-be new entrants in the 37 target communities, because of other challenges associated with starting a charter business in these small, remote communities. These other factors represent potentially more significant barriers to entry for the 37 communities than the need to purchase halibut QS, and may be the primary reason why many of the 37 target communities have few, if any charter businesses now. The proposed set-aside can have very little impact on resolving these remaining (perhaps more fundamental) barriers. That is, access to the halibut resource is not now and has not been a factor preventing development of charter businesses in the 37 communities. The lack of charter businesses in some communities, especially in light of the growth of the industry during the 1990s, suggests that other significant impediments to entry may exist and warrant consideration in order to place the potential impact of the charter IFQ program into context.

Barriers to Entry

Potential barriers to entry in the halibut charter business include the cost of a boat and related equipment, the cost of property, and funding needs to cover operating expenses, during the start-up phase. Estimated start-up costs and operating expenses for charter businesses are provided in Appendix 2 (NPFMC 2003) based on the ISER guide and charter business survey conducted in 1994 (Haley et al., 1999). It also contains a detailed discussion of the methodology used to conduct the survey. The following bullets summarize the information in Appendix 2 and Appendix 3:

- *The median and average cost of a boat and other equipment is \$66,000 and \$125,000, respectively.*
- *Estimates of QS costs for a full-time operators are \$30,000 to \$94,000.*
- *Property expenses were \$64,000 on average, based on 1993 dollar values.*

- *Operating expenses are estimated to range from \$29,000 to \$106,000 annually.*
- *Non-economic barriers to entry in the halibut charter business in these communities include the availability of fishing-related services and businesses supporting tourism, geographic location, availability of transportation services, and infrastructure supporting charter fishing operations (e.g., docks, boat launch, small-boat harbor, etc.).*

It appears that there may be several unique issues facing the 37 communities that may make it difficult for them to develop charter businesses, with or without the existence of the proposed charter IFQ program. By definition, the 37 communities under consideration are small (population less than 2,500), coastal, fishing dependent, lacking road access and transportation services, boat facilities, and other services to support tourism.

Based on the survey results discussed in Appendix 2 (NPFMC 2003), it seems less likely that Alaska residents primarily interested in catching fish would spend the additional money or time to travel to these more remote locations. These conclusions require more discussion since they only hold for certain segments of the population. For example, in Area 3A many Alaska residents travel to Seward and Homer for the purpose of taking a halibut charter trip. These persons are often interested in catching halibut to put meat in the freezer. It is assumed that many of these clients are from places like Anchorage and Fairbanks and are looking for a place they can drive to for their charter trip. These clients are less likely to want to take a trip to a remote community that may require more travel time and cost more. Some individuals fishing in Area 3A are looking for a more unique experience and are willing to incur the greater expense and time commitment to travel to a remote location. In Area 2C, many of the clients are taking half-day trips as part of their cruise experience. These individuals do not have the time required to travel to a remote community and then take a charter. The persons fishing in 2C that take trips to remote lodges for a more “wilderness” fishing experience are the clients in 2C that would be potential clients at the remote communities. These clients are often not residents of Alaska. The target communities for the set-aside would need to compete against the established remote lodges for these clients. It is not known how effectively those communities would be able to compete in the future. However, they will likely need to upgrade the amenities they offer clients paying a premium price for a trip, before they will be able to attract substantial numbers of clients, given they have not developed a client base prior to implementation of any limits on guided halibut harvests.

3.5.11.1 Option 1. No community set-aside

The halibut charter IFQ program would be implemented, but no halibut quota would be set aside for use by individuals in targeted Gulf communities for purposes of developing halibut charter businesses (although some target community members may qualify to receive QS via the initial allocation and all others have an equal opportunity to purchase QS). Concerns have been expressed, however, 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.

This section examines the potential impacts of the proposed halibut charter IFQ program (Issues 2-7) from the perspective of the 37 Gulf communities targeted for the set-aside.

3.5.11.1.1 Issues 2-4: Impact of Initial Allocation on Targeted Communities

Issue 2 addressed *who* is eligible to receive QS, Issue 3 outlined various options for *qualification criteria*, and Issue 4 considered the formula for calculating the *amount* of QS to be allocated to qualified individuals.

Issue 2: Who is Eligible for Halibut Charter QS

Initial allocation of QS would be issued to U.S. citizens or U.S. companies (with U.S. ownership based on a 51% or 75% ownership criteria). Two types of individuals are being considered for eligibility: (1) charter vessel owner, and (2) bare vessel lessee. The bare vessel lessee is the person that leases a vessel and controls its use as a charterboat for the halibut charter fishery; the lessee may operate the vessel or hire a captain or

skipper.

Including charter vessel owners and bare vessel lessees as initial recipients of halibut charter QS would not necessarily disadvantage the 37 communities targeted for the set-aside. As previously shown in Table 3.60, a number of the 37 targeted communities have businesses licensed as ‘Fishing Guides.’ These businesses may operate vessels owned by the business or may lease vessels. The number of businesses licensed as ‘Fishing Guides’ in the 37 targeted communities may be reflective of how well each community would fair in the initial allocation. In Area 2C, targeted communities with at least 10 businesses licensed as ‘Fishing Guides’ include Craig (with 26 licensed businesses), Wrangell (15), Gustavus (13) and Pelican (10). An additional five target communities in Area 2C have at least five businesses licensed as ‘Fishing Guides,’ including Hoonah, Elfin Cove, Hydaburg, Thorne Bay, and Klawock. In Area 3A, Yakutat has 19 businesses licensed as ‘Fishing Guides’ and Port Lions and Ouzinkie each have five.

The business license data are reasonably consistent with the halibut harvest data for charterboats that *landed* in one of the 37 target communities in 1998, or 1999 (see Table 3.61). In Area 2C, targeted communities with 10 or more businesses licensed as ‘Fishing Guides’ also have a relatively large number of unique charterboats that harvested halibut in 1998 and 1999, including Craig, Gustavus and Wrangell. Pelican, which had 10 licensed fishing guide businesses, had relatively low charter halibut harvests in 1998 and 1999. It is possible, however, that charterboats operating out of Pelican did not target halibut exclusively. The number of charterboats and reported halibut harvests in Elfin Cove greatly exceeded the number of businesses licensed as ‘Fishing Guides.’ It had seven businesses licensed as ‘Fishing Guides’ but 27 to 29 unique charterboats landing there that reported halibut harvests in 1998 and 1999. This may be due to either some of the businesses owning a large number of boats or some of the charterboats landing in Elfin Cove being licensed elsewhere. A few communities had no businesses licensed as ‘Fishing Guides’, but reported halibut charterboats landing in the community and harvests in 1998 and 1999, including Whale Pass and Port Protection. Again, this may be due to the occasional landing in these communities of charterboats that are licensed elsewhere. Finally, several of the target communities in Area 2C, including Edna Bay, Kasaan, and Meyers Chuck, had no businesses licensed as ‘Fishing Guides’ and no reported halibut charter harvests in 1998 and 1999.

In Area 3A, Yakutat had both a relatively large number of businesses licensed as ‘Fishing Guides’ and unique charterboats landing in Yakutat and reporting halibut harvests in 1998 and 1999. Larsen Bay and Seldovia both reported relatively large halibut charter harvests in 1998 and 1999, despite each having few businesses licensed as ‘Fishing Guides.’ In both cases, this may be due to vessels being licensed in nearby communities (e.g., Seldovia is near Homer and Larsen Bay is near Kodiak). Four target communities in Area 3A had businesses licensed as ‘Fishing Guides’, but no reported halibut harvests in 1998 and 1999, including Akhiok, Karluk, Ouzinkie, and Tatitlek. It may be possible that these are new businesses in these communities or that these businesses are not targeting halibut. Finally, several targeted communities had no fishing guide businesses and no reported halibut charter harvests in 1998 and 1999, including Nanwalek, Port Graham, and Tyonek.

A potential issue is whether limiting the initial allocation to charter vessel owners or bare vessel lessees could result in some targeted communities residents receiving relatively few QS, compared to their historical participation in the fishery. This is not likely to be the case for communities that have both relatively large numbers of businesses licensed as ‘Fishing Guides’ and relatively high halibut harvests in 1998 and 1999. Several communities, however, reported relatively high halibut harvests in 1998 and 1999 (based on port of landing) but had relatively few licensed businesses, including Elfin Cove in Area 2C and Larsen Bay and Seldovia in Area 3A. For these communities, the actual recipients of the QS may be residents elsewhere, or may own businesses that are licensed outside these communities. As a result, the amount of QS received by residents of these communities may not be reflective of the participation of these communities in the halibut charter fishery as measured by the amount of halibut harvested by charterboats landing in these communities. Using the port of landing may be a poor indicator of the target community’s dependence on the halibut charter fishery, so it is not possible to determine the impacts on communities of issuing QS to vessel owners and persons with bare vessel leases. However, to the extent that owners and bare vessel lease holders are also the

operators of the vessel the impacts would be minimal.

Another potential issue is whether excluding hired skippers and crew from the initial allocation would limit the amount of quota share allocated to residents of the 37 target communities. Without information on the residence of the skippers and crew associated with qualifying catch history it is not possible to estimate the impacts. However, it is expected that the impacts are minimal. Typically allocations considered for skippers and crew are a relatively small percentage of the overall allocation. Excluding skipper and crew allocations could only have a substantial impact if significant amount of the harvests were made by skippers and crew members that reside in one of the 37 communities. It is doubtful that is the case.

Finally, initial allocation directly to the community or appropriate community entity (versus allocation to individuals in the community) as suggested by the NRC (1999a) study is not under consideration at this time. As mentioned earlier, the NRC study suggests several types of criteria for establishing which communities may hold quota, including proximity to resource, dependence on resource, contribution of fishing to the community's economic and social well-being, and historic participation in the fishery. Of these suggested criteria, a requirement that communities demonstrate 'historic participation in the fishery' and a 'dependence on the resource' may limit the eligibility of many of the 37 communities being considered for the set-aside. Namely, community eligibility, based largely on historical participation in and dependence on the fishery, is by definition going to favor communities with well-developed charter businesses, over communities with few or no charter businesses. Thus, while direct allocation of QS to the communities is not under consideration at this time, it may represent an alternative approach to addressing the concerns and needs of the smaller Gulf communities, although not on the basis of the foregoing set of criteria.

In summary, including only charter vessel owners and bare vessel lessees as initial recipients of halibut charter QS would not, in and of itself, necessarily disadvantage the 37 communities targeted for the set-aside.

Issue 3: Qualification Criteria

The options for qualification criteria were presented and discussed under Issue 3 (Section 3.5.3). In general, initial allocations will be based on an individual's participation and not the vessel's activity. Five options are being considered for qualification criteria, based on different measures of participation in the charter fishery. Participation during 1998 and 1999, is mainly measured by catch history documented in ADF&G logbooks for those years. In addition, longevity in the halibut charter industry is based on evidence provided by IPHC, CFEC, and ADF&G business and guide documentation for the years 1995-99. The reader is referred back to Section 3.5.3 for the exact wording of the five options under consideration.

Of the five options being considered, two (Option 1 and Option 2) rely only on 1998 and/or 1999 ADF&G logbook data. Option 1 requires data for both 1998 and 1999, while Option 2 requires data only for one of the years (1998 or 1999). The other options (Options 3-5) require evidence of prior participation in the fishery, in addition to ADF&G logbook data. As discussed under Issue 3, it is only possible to estimate the number of initial recipient for Options 1 and 2. Since a numerical estimate of how many individuals will qualify for initial allocations under Options 3-5 cannot be provided, the implications for the 37 target communities of adopting one of these options are discussed qualitatively.

In general, the more inclusive the qualification criteria, the better the 37 target communities are likely to fair. Thus, Option 2, which requires ADF&G logbook data for 1998 or 1999, is the most inclusive, while Option 4, which requires logbook data for 1998 and 1999, and evidence of participation four out of five years between 1995-1999, is the least inclusive. While this is true for all participants in the charter fishery, it may be even more so for the 37 communities being considered for the set-aside. That is, these communities are being targeted for the set-aside primarily because they are relatively 'underdeveloped' with respect to having mature charter businesses. Thus, qualification criteria based on measures of historical participation in the fishery have the potential to allocate fewer QS to individuals in communities that are in the early phases of developing charter operations.

Table 3.10 shows the estimated pounds of halibut that may be allocated to individuals in targeted communities in Area 2C, under Options 1 and 2. Halibut harvests for 1998 and 1999 are attributed to each community if an individual indicated the community as their place of *residence*, or the *home port* for the vessel. This differs from the charter halibut harvest totals attributed to each community, based on where the vessel *landed*, as shown in Table 3.61. *Landings* in a community were used as a measure of the community's participation in the fishery, since the community is more likely to receive direct benefits from charter businesses that operate out of that community. In terms of estimating how much quota may be allocated to residents of each community, *residence* (or *home port*, as noted above) of initial recipients is a better measure. In most cases, there is little difference in the charter halibut harvest totals attributed to a community when place of *landing* is used versus when *residence* or *home port* is used. There are a few cases in which the differences between the two methods are significant. For example, when community harvest is based on port of landing, the 1998 harvest for Angoon was 664 fish. When harvest is based on residence or home port, however, the 1998 harvest for Angoon was 1,158 fish. Thus, it appears that in 1998, some vessels owned by residents of Angoon (or home ported in Angoon) operated part of the time from another port.

For target communities in Area 2C, the 1998 and 1999 harvests were 15,781 and 17,185 fish, respectively, representing 24.4% and 26.3% of the Area 2C charter harvests. Under Option 1, the amounts of the 1998 and 1999 harvests that would be counted are 12,835 and 15,259 fish, respectively. This represents 21.2% and 26% of the 1998 and 1999 Area 2C harvests counted under this option (or an average of 23.6%). This average is multiplied by a factor of 70% based on the formula for distributing QS described under Issue 4, Option 1, reducing the communities' collective share of the initial allocation to 16.5%. Since it is not possible to determine whether qualifying community members would meet the longevity requirement, this represents the minimum allocation to Area 2C target communities under this option. Since some qualifying residents may be awarded additional QS based on longevity, and since the balance would be distributed to all qualifying participants, the actual allocation to Area 2C communities could be higher. Finally, each community's allocation is converted into pounds of halibut, based on the estimated charter sector allocation of 1,283,083 pounds for Area 2C (Issue 1, Option 1). Based on these calculations, QS representing an estimated 211,776 pounds or more would be initially allocated to target communities in Area 2C.

Similarly, under Issue 3, Option 2 (1998 or 1999 logbook data), the amounts of the 1998 and 1999 harvests that would be counted are 15,117 and 16,684 fish, respectively. This represents 23.4% and 26% of the 1998 and 1999 Area 2C harvests counted under this option (or an average of 24.7%). This average is reduced to

Table 3.10 Estimated Initial Allocation of Halibut (in pounds) to Individuals in Communities in Area 2C for Issue 3, Options 1 and 2.

Area 2C	Total Harvest (# of fish)		Option 1 (# of fish)						Option 2 (# of fish)					
	1998	1999				% of 2C	x 70%	2C lbs*				% of 2C	x 70%	2C lbs*
			1998	1999	Avg				1998	1999	Avg			
Angoon	1,158	1,598	1,146	1,418	1,282	2.2%	1.5%	19,328	1,158	1,598	1,378	2.1%	1.5%	19,230
Coffman Cove	299	482	299	472	386	0.6%	0.5%	5,812	299	482	391	0.6%	0.4%	5,449
Craig	6,302	7,496	5,575	7,111	6,343	10.6%	7.5%	95,628	6,302	7,496	6,899	10.7%	7.5%	96,276
Edna Bay	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elfin Cove	1,870	1,714	720	1,018	869	1.5%	1.0%	13,101	1,206	1,213	1,210	1.9%	1.3%	16,879
Gustavus	1,912	1,773	1,083	1,206	1,145	1.9%	1.3%	17,255	1,912	1,773	1,843	2.9%	2.0%	25,712
Hollis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoonah	581	642	572	642	607	1.0%	0.7%	9,151	581	642	612	1.0%	0.7%	8,533
Hydaburg	-	5	-	-	-	-	-	-	-	5	3	0.0%	0.0%	35
Hyder	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kake	227	45	227	45	136	0.2%	0.2%	2,050	227	45	136	0.2%	0.1%	1,898
Kassan	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Klawock	1,426	1,450	1,350	1,450	1,400	2.3%	1.6%	21,107	1,426	1,450	1,438	2.2%	1.6%	20,067
Metlakatla	-	5	-	5	3	0.0%	0.0%	38	-	5	3	0.0%	0.0%	35
Meyers Chuck	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pelican	139	52	17	38	28	0.0%	0.0%	415	139	52	96	0.1%	0.1%	1,333
Point Baker	47	74	47	74	61	0.1%	0.1%	912	47	74	61	0.1%	0.1%	844
Port Alexander	97	380	97	363	230	0.4%	0.3%	3,468	97	380	239	0.4%	0.3%	3,328
Port Protection	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tenakee Springs	74	56	74	56	65	0.1%	0.1%	980	74	56	65	0.1%	0.1%	907
Thorne Bay	281	256	281	256	269	0.5%	0.3%	4,048	281	256	269	0.4%	0.3%	3,747
Whale Pass	279	233	279	186	233	0.4%	0.3%	3,505	279	233	256	0.4%	0.3%	3,572
Wrangell	1,089	924	1,068	919	994	1.7%	1.2%	14,978	1,089	924	1,007	1.6%	1.1%	14,046
Subtotal	15,781	17,185	12,835	15,259				211,776	15,117	16,684				221,892
% of Total	24.4%	26.3%	21.2%	26.0%		23.6%	16.5%	16.5%	23.4%	26.0%		24.7%	17.3%	17.3%

*Based on Area 2C charter sector allocation of 13.05% (Issue 1, Option 1) or 1,283,083 pounds.

Table 3.11 Estimated Initial Allocation of Halibut (in pounds) to Individuals in Communities in Area 3A for Issue 3, Options 1 and 2

Area 3A	Total Harvest (# of fish)		Option 1						Option 2					
	1998	1999	(# of fish)		Avg	% of 3A	x 70%	3A lbs	(# of fish)		Avg	% of 3A	x 70%	3A lbs
Akhiok														
Chenega														
Halibut Cove														
Karluk														
Larsen Bay	746	451	591	294	443	0.3%	0.2%	7,443	746	451	599	0.4%	0.3%	9,166
Nanwalek														
Old Harbor	7	173	7	103	55	0.0%	0.0%	925	7	173	90	0.1%	0.0%	1,378
Ouzinkie	12	-							12	-	6	0.0%	0.0%	92
Port Graham														
Port Lions	370	332	370	284	327	0.2%	0.2%	5,501	370	332	351	0.2%	0.2%	5,376
Seldovia	1,403	1,289	1,403	1,287	1,345	0.9%	0.7%	22,625	1,403	1,289	1,346	0.8%	0.6%	20,614
Tatitlek														
Tyonek														
Yakutat	3,703	2,756	3,017	2,756	2,887	2.0%	1.4%	48,555	3,703	2,756	3,230	2.0%	1.4%	49,460
Subtotal	6,241	5,001	5,388	4,724				85,048	6,241	5,001				86,086
% of Total	3.9%	3.0%	3.6%	3.4%		3.5%	2.4%	2.4%	3.9%	3.2%		3.5%	2.5%	2.5%

*Based on Area 3A charter sector allocation of 14.11% (Issue 1, Option 1) or 3,477,551 pounds.

17.3% after multiplying by the 70% factor and is equivalent to 221,892 pounds of halibut (using the Issue 1, Option 1 Area 2C charter sector allocation of 1,283,083 pounds). As anticipated, communities are estimated to receive more QS under the Option 2 qualification criteria than under Option 1 (221,892 versus 211,776 pounds or more).

Table 3.11 shows the estimated amount of halibut (in pounds) that may be allocated to individuals in targeted communities in Area 3A under Issue 3, Options 1 and 2 for the qualification criteria. As was done for the Area 2C calculations, halibut harvests in 1998 and 1999 are attributed to each community based on *residence* or *home port* and not on port of *landing*. This mainly affects the harvest attributed to Larsen Bay. When port of landing is used, Larsen Bay’s harvest in 1998 and 1999 is 1,797 and 985 fish, respectively. When residence or home port is used, Larsen Bay’s harvest in 1998 and 1999 is 746 and 451 fish, respectively. This indicates that more than half of the charter harvest reported in Larsen Bay was landed is by vessels either home ported or owned by individuals living elsewhere.

As was the case for Area 2C, target communities in Area 3A would potentially receive more QS under Option 2 than under Option 1, although the difference is small. This is because the target communities in 3A that indicated any charter harvest at all reported harvests for both 1998 and 1999 and, thus, are impacted less by the more stringent Option 1 criteria (requiring logbook data for 1998 and 1999).

Another approach to quantifying the difference between Issue 3, Options 1 and 2, for the target communities is to calculate the potential number of qualifying individuals under each option. This is shown in Table 3.12. The number of qualifying individuals (and vessels) under Options 1 or 2 are shown for Areas 2C and 3A for ‘All’ qualifying individuals, and just for those residing in the target communities. For Area 2C target communities, the number of qualifying individuals under Options 1 and 2 are 84 and 139, respectively. Thus, 65.5% more individuals qualify under Option 2 versus Option 1 (i.e., the ratio of owners under Option 2 versus Option 1 is 1.655). By comparison, when ‘All’ qualifying individuals are considered, the difference between Option 2 and Option 1 is 67.4%. Thus, the difference between the options is somewhat smaller for the communities, than for Area 2C overall, although Option 2 is clearly more inclusive for everyone.

Similarly, for the Area 3A communities, the estimated numbers of qualifying individuals under Options 1 and 2 are 21 and 36, respectively. The difference between the two options is 71.4% for the communities, which is only slightly higher than the overall difference of 70.6%. Again, Option 2 is more inclusive than Option 1. These calculations indicate that difference between Options 1 and 2 are similar for the communities in comparison to the overall differences for Areas 2C and 3A, based on the number of qualifying individuals (but not necessarily in terms of amount of QS awarded).

Table 3.12 Estimated Ratio of Owners Under Issue 3, Option 2 versus Option 1 for All Participants and for Communities in Areas 2C and 3A.

	Area 2C				Area 3A			
	All		Communities		All		Communities	
	Owners	Vessels	Owners	Vessels	Owners	Vessels	Owners	Vessels
Option 1	322	544	84	264	333	444	21	57
Option 2	539	765	139	333	568	674	36	74
Ratio 2:1	1.674		1.655		1.706		1.714	

Option 1: Submitted logbooks in 1998 and 1999

Option 2: Submitted logbooks in 1998 or 1999

Issue 4: Amount of QS Distributed

The options for the formula to be used to calculate the initial distribution of QS among qualified individuals were presented under Section 3.5.4. Two options are being considered. Under Issue 4, Option 1, qualifying

individuals would receive 70% of their proportion of the 1998 and 1999 logbook average, plus an additional 10% for each year of operation during 1995-97 (longevity reward). The balance could then be re-issued to the whole group of participants (equally, proportionally, or some combination). Under Option 2, the modified Kodiak proposal, qualifying individuals would receive 33% of their proportion of the 1998 and 1999 logbook average (Part B), plus a range of 5% to 30% that would be equally distributed (Part A), plus the balance (37% to 62%) based on their relative participation during 1995-99. (See Section 3.5.4 for a more complete description of the options under this issue.)

The two options under Issue 4 place varying degrees of emphasis on an individual's ADF&G logbook records, years of operation (longevity) and the remaining portion of the QS pool that is not assigned using logbook catch history or years of operation in the fishery. The remaining portion of the QS pool could be distributed across the qualifying individuals equally or proportionally. The magnitude of the unassigned QS pool, under Issue 4, that would need to be reassigned depends on the option selected. Under Option 1 the amount of unassigned QS depends on the number of qualifying individuals that meet the longevity requirement. The size of this QS pool that is not allocated to specific participants would be subsequently redistributed using the longevity allocations formula¹. Under Option 2, QS that is not assigned to a person would be redistributed among those persons with a historic participation in the fishery. The amount of the QS that would be redistributed would be based on a value chosen by the Council within a 5% to 30% range of the total QS pool.

Under Issue 4, Option 1, the more recipients residing in target communities that meet the longevity requirement, the more closely the proportion of QS awarded to a participant is likely to reflect his market-share, based on his average 1998 and 1999 logbook harvests. At the extreme, if no recipients in target communities meet the longevity requirement, the target communities would receive only 70% of their share (based on the pool of qualifying individuals and not including any additional QS received as a result of redistribution of the unallocated balance). At the other extreme, if all recipients in target communities meet the longevity requirement, they would receive 100% of their share, plus any additional amount from the redistribution of the unallocated balance. The magnitude of the balance depends largely on whether longevity was also included in the qualification criteria. That is, if the qualification criteria under Issue 3, Options 4 or 5 are chosen, which require evidence of operation four out of five years for 1995-1999, the balance is likely to be small, since individuals lacking such documentation would be excluded from the pool of initial recipients. On the other hand, the balance may be quite large if Issue 3, Options 1 or 2 are chosen, since more individuals may qualify to receive QS who cannot meet the longevity requirement.

The relevant question here is, under what scenarios might recipients in the 37 target communities fair worse than recipients in other communities in the same IPHC area? The likely situation where target communities may fair worse is when the proportion of recipients that cannot meet the longevity requirement is higher among potential recipients in the target communities compared to other communities. No data exist with which to determine the extent that this occurs. It is possible, however, given the fact that communities are being targeted by the set-aside because they are relatively 'underdeveloped' with respect to charter industry participation, that potential recipients in target communities have fewer years of operation, compared to individuals running charter operations from a major port (Homer, Ketchikan, Juneau, etc.). If this were true, it is possible that recipients in target communities could be more severely impacted by the longevity requirement than recipients in other communities.

Similar arguments can be made regarding the potential impact of Issue 4, Option 2, the modified Kodiak proposal for distributing QS among initial recipients. Distributions under Option 2 are calculated in three

¹The portion of QS not assigned, is equal to the amount of the 30 percent longevity bonus that charter operators do not qualify to receive. For example, if a person only participated in two of the three years used to determine the longevity bonus they would receive 20 percent of their average harvests as a longevity bonus (i.e., 10 percent per year). The remaining 10 percent of their maximum possible allocation would be placed in an "unassigned" pool. The sum of the forgone longevity bonuses placed in the "unassigned" pool by all qualified charter operators equals the amount of QS that is available to be reassigned to the qualified fleet.

parts: A, B, and C. Under Part B of this option, recipients would receive 33% of their share of the 1998 and 1999 logbook average. Under Part A, 5% to 30% of the allocation would be equally divided among all participants (the Council may select any value within the 5%-30% range). The balance (Part C), which ranges from 37% to 62%, is distributed using a point system that awards recipients one point per year of operation during 1995-1999. Illustrative examples of how this method of distribution would work were described in Section 3.5.4. The examples can be used to determine the relative advantages of each option for recipients with low/high logbook harvests and with low/high longevity. These comparisons are summarized qualitatively in Table 3.13.

Table 3.13 Distribution Method (Issue 4, Options 1 or 2, Part A = 5% or 30%) Favorable to Recipients Based on Logbook Harvest and Longevity

Logbook Harvest	Longevity	
	Low	High
Low	Option 2 w/ A=30%	Option 2 w/ A=5%
High	Option 1 or Option 2 w/ A=30%	Option 1 or Option 2 w/ A=5%

Thus, recipients with low logbook harvests would receive a more favorable allocation under Option 2, since less emphasis is placed on the logbook harvest in the calculation. Recipients with relatively few years of operation would receive a more favorable allocation if Part A of Option 2 (which determines the amount that is equally distributed among all recipients) is set at a high level (e.g., A = 30%). Recipients with relatively high logbook harvests and high longevity, would receive a more favorable allocation under Option 1, or under Option 2 with Part A set at a low level (e.g., A = 5%).

Thus, the implication of Issue 4 for potential recipients in the 37 target communities depends on (1) their share of the 1998 and 1999 logbook harvest, and (2) the proportion that qualify for the longevity award. If the potential recipients in the 37 communities have relatively *low logbook* harvests and *few years* of operation (compared to potential recipients in other communities), they would likely receive a more favorable allocation under Option 2 with Part A set at a high level.

In summary, insufficient data at the community level are available to quantitatively examine under which options the 37 target communities would most benefit. If members of target communities, on average, have low logbook harvests and few years of operation, a method of distribution that places less emphasis on logbook history and longevity may ensure that residents of target communities would be allocated an amount of QS that is greater than they traditionally harvested, over the life of the set-aside.

3.5.11.1.2 Issues 5-7: Implications of Transferability for Target Communities

Issues 5-7 consider options for transferability of halibut charter QS. These issues are analyzed for the overall charter IFQ program in Sections 3.5.5 through 3.5.7. Of relevance here is whether any of these transferability issues have an incremental impact on the 37 target communities. 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 communities to acquire QS. Comments on Issues 5-7 specific to the 37 communities are provided in this section.

As a backdrop to this issue, it may be relevant to consider how transfers of commercial QS have impacted the 37 communities since the time of initial issuance. For the commercial sablefish and halibut IFQ programs, net reductions of QS holdings among residents of the 37 target communities have occurred (see Tables 3.57 and 3.58). The reductions are a result of a combination of net transfers of QS units and migration of QS holders out of the 37 communities. As of year-end 1998, holdings by residents of the 37 communities of commercial halibut QS units for Area 2C represented 19.1% of the total QS units for the area, down from

21.8% at the time of initial issuance. Similarly, individuals in the 37 target communities held 4.1% of the QS units for Area 3A, down from 4.7% at initial issuance. The 37 communities also experienced a net loss in commercial sablefish QS holdings among residents for all management areas, except the Central Gulf, between initial issuance and year-end 1998. Holdings of sablefish QS units for the Central Gulf increased, however, along with the percentage held by the 37 communities (although 97% of the sablefish QS units held by residents of the 37 communities are held by residents in Seldovia and Pelican).

Issue 5: Transferability of QS

Six options for transferability are under consideration specifying whether charter QS are leasable, transferable between the charter and commercial sectors, blocked, subject to vessel class restrictions, and have limits on the frequency and size of transfers. Overall, these options do not have specific implications for the 37 communities. Of note is the absence of any restrictions on transfers from individuals in specific communities to recipients outside of the communities. For example, restrictions on the frequency or amount that may be transferred out of specific communities could help the retention of QS in such communities, but it would impose upon one subclass of QS recipients direct costs and structural inequities, as compared to other participants in the program. For example, this restriction would likely diminish the transfer value of such shares, since freely transferable QS would almost certainly command a higher transfer price than QS with restrictions. In effect, the asset value of QS issued to residents of the 37 target communities would be lower than QS issued to others. From the point of view of the individual recipient residing in one of these communities, this provision would result in a net welfare loss.

From the “community’s” stand point, this result could represent a two-edged sword. On the one hand, depressed QS prices may make it easier for another member in the community to acquire the shares, facilitating the retention of the shares in the community. On the other hand, depressed QS prices may reduce the value of such QS as collateral, which could disadvantage owners of QS in the 37 communities, relative to QS owners outside of these communities, when QS prices are high. However, if they rely on QS value to obtain loans for additional QS purchases, the lower QS prices will be offset any reduction in collateral value.

Issue 6: To Whom May QS be Transferred

For the charter sector (Option 1), individuals must be either (A) an initial recipients, or (B) “qualified,” as defined by State of Alaska requirements for registered guides or businesses. In addition, a suboption to require the recipient to hold a USCG license is under consideration. To obtain a USCG license, an applicant must have a specified amount of boating experience and pass a written examination on navigation, safety, etc. It is reasonable to assume that individuals living in the 37 communities have boating experience, given the location and coastal nature of the communities under consideration. Since the license requires a written exam and some preparation for the exam (prep-course, etc.), requiring transfer recipients to hold a USCG license may delay (but not necessarily preclude) their participation in the charter fishery. It is reasonable to assume that persons in a rural community could obtain a USCG license and meet this requirement without an undo amount of hardship. Requiring that they obtain a USCG license may help to ensure that the charter operations are run in a safe and professional manner.

Finally, it should be noted that transfers directly to communities (as opposed to individuals residing in the communities) were not under considered in this analysis.

Issue 7: Caps

Two options are being considered for caps: (1) no caps, and (2) ownership caps of 0.25%, 0.5%, and 1% of combined QS for each area (including a grandfather provision for initial recipients). To the extent that caps limit consolidation of QS among participants, potential concentration of economic power would also be limited. This may help to keep QS prices down (by promoting availability) and ensure a healthy level of competition in the industry. Both results would benefit smaller charter operators, including those based in the 37 target communities.

3.5.11.2 Option 2. Set Aside 0.5-2.5% of Combined Commercial/Charter TAC for Gulf Communities

Under this option, halibut charter quota would be set aside for use by certain Gulf of Alaska communities for purposes of developing community-based halibut charter businesses. While the details of the community program (e.g., qualification criteria, eligible communities, administration) will be developed by the Council pending Council adoption of the set-aside, the Council specified at the December 2000 meeting several core features of the program for purposes of analysis. These core features include the following: (1) set-aside quota is granted to qualifying individuals in eligible communities on a limited right-of-use basis and cannot be sold or leased; (2) set-aside quota is 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 to be rolled back to the general commercial/charter quota pool for the upcoming season; and (4) set-aside quota is intended to be used for purposes of starting or developing charter businesses by the individual receiving the allocation. Based on these core features, the analysis assumes that any set-aside quota allocated to qualifying individuals in eligible communities is not transferable, is intended for use to operate a charter business, and cannot be used by the individual in the commercial fishery. In addition to these core features, the Council also requested that a phase-in approach be considered in addition to the preseason roll-back proposed by the Coalition and that sunset provisions of 5 or 10 years be included in the analysis.

As outlined in the problem statement for this issue, one of the main purposes of the community set-aside is to avoid creating an additional economic barrier to entry into the charter industry for Gulf communities with relatively underdeveloped charter businesses. Other important purposes of the set-aside include: (1) provide an opportunity for future sustained participation of Gulf communities in the charter fishery, if they are able to develop a market given the current barriers to entry they face, (2) provide a mechanism that maintains the current economic opportunities, and (3) reduce the potential for localized depletion (if charter operations expand in to area with little charter effort) and increase geographical diversity of the charter trip experience. Some community advocates have argued, as discussed under Option 1 for this issue, that if no halibut charter quota is set aside for the target Gulf communities, development of community-based charter operations may be hindered by the fact that (1) community members may receive relatively few halibut quota shares in the initial allocation, depending on the choice of qualification criteria and formula for calculating the size of the distribution, and (2) the charter IFQ program would require new entrants to purchase QS and this creates a new economic barrier to entry into the charter industry that does not now exist for entrants into the fishery. Since access to the halibut resource has not been a limiting factor in the past, the community set aside may serve to preserve existing opportunities. Others have argued that without additional infrastructure to generate client demand it may not be feasible to develop charter operations in some of these communities. Proponents of the program also argue that the set-aside may help to mitigate some of the “perceived” distributional effects of the charter IFQ program, as well as the social implications associated with transferability and the asset windfall bestowed upon initial recipients of the halibut charter QS.

This section is organized into seven subsections. Section 3.5.11.2.1 provides an overview of the net benefit and distributional effects of the community set-aside. Section 3.5.11.2.2 discusses the net-benefit implications of set-aside quota remaining unharvested and the two proposed mechanisms for addressing this issue (i.e., the roll-back mechanism proposed by the Coalition and the phase-in approach). Section 3.5.11.2.3 discusses other changes in charter industry structure and/or costs that may result from the community set-aside. This section includes a discussion of the alternative’s goal of not creating an additional economic barrier to entry that might be perceived to result from the charter ITQ program and the alternative’s potential administrative costs. Section 3.5.11.2.4 provides analysis of suboption 1, the source and magnitude of the set-aside, including the impact to the charter and/or commercial sectors (depending on the source of the set-aside) and implications for the 37 target communities. Section 3.5.11.2.5 discusses various sunset provisions (suboption 2) and other long-run effects of the set-aside. Section 3.5.11.2.6 provides a break-even analysis of charter businesses operating in Areas 2C and 3A. Finally, Section 3.5.11.2.7 discusses potential impacts of the community set-aside on halibut quota-share values for the commercial and charter sectors.

3.5.11.2.1 Overview of Net Benefit and Distributional Impacts

Extension of the commercial halibut IFQ system to the charter sector has the potential to allow for movement towards an optimal allocation of the Pacific halibut resource. A pronouncement of “optimality,” however, involves a difficult assessment of the tradeoffs involved between relatively easy-to-measure monetary impacts on the various stakeholders involved, and the more-difficult-to-quantify distributional and social objectives. The complexity, yet necessity, of trying to compare what are often, in effect, incomparable forms of benefits and costs is emphasized in E.O. 12866. While distributional issues, such as equity, are frequently treated as ‘transfers’ within the net benefit context, regional social and economic ramifications can be substantial. Depending upon the (subjective) weighting criteria employed in the decision process, an action may warrant inclusion of re-distributive (mitigation) provisions, at the expense of what might appear to be purely “economic efficiency” consideration.

Extension of the halibut IFQ system to the halibut charter sector creates a new economic barrier to entry into the charter sector that does not currently exist. The initial allocation of quota shares (QS) necessarily identifies the universe of “qualifying” stakeholders and, by definition, excludes those that do not meet the qualifying criteria. That is, after all, the essence of the western philosophy of “property-rights” and the basis of its institutions. Fundamentally, the issue here is, “What are the contextually appropriate allocation criteria?” The fact that, post allocation, QS will have economic value and any new entrant into the industry will be required to purchase QS (or lease IFQ) from an existing holder, is not fundamentally different from any other private property transaction, as society has chosen to structure it.

The proposed community set-aside, one option for addressing perceived distributional inequities and to limit barriers to entry for a select group, may result in reduced net economic benefits to society, when viewed as a whole. The potential reduction in net economic benefits, however, does not in itself suggest that the community set-aside option should be rejected, since the Council may consider such a reduction as more than compensated for by other forms of benefits (e.g., opportunities being offered to/preserved for targeted communities). In essence, the Council is faced with the responsibility to define the scope of “benefits” and “costs” to be considered in evaluating the suite of options that have been proposed.

From a strict economic efficiency perspective, a community set-aside could result in a reduction in net economic benefits. For example, if any of the set-aside quota remained unharvested, the aggregate quantity of goods and services produced (utility gained by consumers of halibut charter trips, or fish delivered to market by the commercial sector) would be reduced, resulting in decreases in both the associated consumer and producer surpluses. A community set-aside, specifically ‘ear-marked’ for small, rural, Gulf coastal communities, could increase costs, in aggregate, by potentially: (a) shifting some production to charter operators with higher marginal costs (e.g., lack of infrastructure), (b) increasing costs for existing charter operators that need to purchase or lease more quota shares to support their normal level of demand for services, (c) increasing costs to consumers of charter services, because of the remote location of certain communities, and (d) increasing program administrative costs. In addition, changes in the “quality” of the charter trip experience could change net economic benefits, although the direction and magnitude of the change would be difficult to predict, since it would require an understanding of each individual consumer’s preferences.

For example, some consumers (likely in the minority) may view the availability of charter trips from a more remote community as an enhancement, since it offers a more diverse experience (e.g., less crowded, higher potential catch rates, rustic adventure, etc.). These users would presumably have a higher willingness-to-pay for what undoubtedly would be these more costly “amenities”. Others (likely the majority, given the high proportion of charter clientele from cruise ships) may view these attributes as an inconvenience, or even as affective barriers to access to services (financial and/or time). If demand exceeds available supply of charter services in a major port because QS is set-aside for remote community use (but the “cost” of accessing the remote services exceeds the time and/or willingness-to-pay of those seeking, but not finding, charter service in their port of choice), then there is a net welfare loss to society. The consumer, whose demand for a halibut charter experience is unfulfilled, suffers a welfare loss; the charter operator in the major port, where demand

exceeds available charter QS supply, suffers a loss (e.g., potential revenue), and the remote charter operator (who may, in effect, be “priced” out of the primary market by simple logistics) suffers a loss (e.g., unutilized QS, which he/she must hold, in the event demand for services materializes, the cost of unutilized capital equipment such as a boat, fishing gear, the cost of ‘operating capital’, if borrowed, or the opportunity cost of money if self-financed, etc.).

Excess capacity in the charter sector may also indicate that the community set-aside will tend to reduce net benefits (see Section 3.6 for more discussion of excess capacity). Problems associated with excess capacity would be most pronounced under an IFQ program. The status quo and moratorium programs do not allocate quota to individuals, but are based on qualified individuals harvesting from a “regulated open access” pool of fish. Therefore, the community set-aside would only be necessary if the entire charter quota is harvested and the fishery was closed. Since neither the moratorium or the GHL would close the fishery when the harvest goal is reached, the community set-aside would achieve nothing under either program.

There are two components of the community set-aside program, as proposed for implementation in conjunction with the charter IFQ program, that could impact excess capacity. The first is whether there is an adequate “supply” of halibut and charter services available to support both the traditional halibut charter sector and “new” entrants in the communities that seek to participate in the community set-aside program. The second is the level of “demand” for halibut charter trips in the communities that are a part of the set-aside program.

The excess supply of charter vessels and halibut, available in an IFQ program, is likely to be reduced in the long run as charter operators rationalize their fishing operations. Adequate capacity will remain in the fishery to meet client demand for charter trips in these ports. Limitations on quota transfers between the commercial and charter sectors could potentially result in excess halibut being stranded in the charter sector. If the excess halibut cannot be transferred out of the charter sector, the charter fleet may not be able to completely rationalize their operations. Assuming that transfer limits allow the charter sector to reach an equilibrium in the long run, all of the trips demanded in the traditional ports will be supplied with very little halibut quota left unharvested.

Remote communities will need to differentiate their product from that offered by the traditional fleet. Product differentiation would, it is hoped, create separate markets for the two types of trips, supporting the difference in trip prices. It is likely that the cost of taking a halibut charter in one of the set-aside communities will be substantially higher than in the traditional charter communities. This would be expected owing to the higher operating costs in the remote communities, and the travel time and expense associated with getting to and from a “set-aside” community. Consider that, for a significant portion of the current consumers in this market (i.e., those visiting aboard cruise ships), inflexible ship arrival and departure schedules may create an insurmountable barrier to patronizing charters in remote areas, since any travel delay (for example, bad weather) potentially imposes the very high cost associated with missing a sailing.

If representatives of the communities are unsuccessful in differentiating their product, it is likely that charter clients will choose to take trips from the established (i.e., lower cost) ports. However, if the potential clients feel that trips offered in the set-aside communities are not close substitutes for trips in the established charter communities, the remotely sited operations may be able to market their product and capture that higher willingness to pay.

To differentiate their product from those offered in the established charter communities, representatives from the remote communities will likely need to effectively advertise the desirable attributes of their community or the remote charter experience. It is likely that those attributes will vary by remote community. Some communities may offer other recreational or cultural activities that the client could not find elsewhere. For example, wildlife viewing, sightseeing, indigenous cultural activities, or other unique fishing opportunities could be used to entice clients to spend the extra money and time to travel to their community. Given the eclectic nature of the attributes that might be offered by each of the remote communities is not certain whether they all will be successful in marketing their “unique” product. It is possible that they would not be

successful, in which case the community set-aside would be less beneficial than desired. In that case, the supply of trips would exceed demand and some of the quota allocated to the set-aside program could be left unharvested. The unharvested quota would reduce net benefits to the Nation, because that quota could have been utilized either in the traditional charter sector or the commercial fishery.

Currently, “demand” for charter halibut trips appears to be well below the “supply” that could be offered by the existing charter sector, given (1) the number of vessels that are believed to have a recent history of participation in the fishery, and (2) the Council’s preferred allocation alternative which provides for 125% of the charter sector’s historic average catch. Section 3.4 of this analysis shows estimates of charter catch data through 2002. Those data indicate that estimates of charter harvests in 2C and 3A are below the amount of halibut that would be allocated under the GHL program. The same formula for determining the overall allocation to the traditional charter sector would be used for the IFQ program proposed by the Council (less funding for set-aside program). Because there is excess halibut in the charter sector (given current conditions and before any quota sales take place), clients would have the choice of taking a charter in an established community or going to one of the set-aside communities. Because they have the opportunity to select where their trip would originate, the clients will weigh the costs of taking a trip (both in terms of dollars and time) versus the benefits they expect to receive from taking the trips. If the two trips are felt to generate similar benefits to the charter client, the client is likely to select the trip with the lower cost.

To date, the demand for charter trips in the remote communities, that potentially could be part of the set-aside program, has not been evident. If that latent demand does exist, it is not possible to determine its magnitude with the information currently available.

Unless they are able to differentiate their product from the traditional ports, the set-aside communities are likely to be at a disadvantage relative to other communities, because they are isolated and in many cases lack the infrastructure to accommodate a substantial tourist base. Developing those support services is likely to be costly and time consuming, and may not be fully developed over the life of the set-aside program. The issue of infrastructure needs in the set-aside communities is discussed in more detail in later in this section.

Another problem set-aside communities face is that they do not have an established client base. Word-of-mouth advertising and returning clients are important to the success of many charter operations. Charter clients often refer friends to a charter operator that provided them with a good experience or return to that charter operator for their next trip. The start-up operations in the remote communities will not be able to take advantage of that “free” advertising. Charter operators in the remote communities will likely need to be in business for a few years to realize those benefits, but maintaining the business until it is established is difficult in many cases. Until they have established a strong reputation, remote charter operators will likely have higher advertising costs than those firms that can rely on either a strong client base or walk-up clients. It is unlikely that the set-aside communities will have many walk-up clients, given their lack of a tourist industry.

Features of the community program have a direct bearing on the net benefit analysis of the set-aside option, and therefore bear on the first order decision of whether to adopt a set-aside. For example, certain design features of the community program, such as an effective ‘roll-back’ mechanism, could minimize the potential for unharvested community quota, thereby mitigating any expected reduction in net economic benefits from this source. This analysis considers mechanisms proposed by the Coalition for ensuring set-aside quota is utilized to the fullest possible extent, including a pre-season roll-back of set-aside quota that was not sought by and assigned to eligible communities, as well as limits and penalties on individual participants. Also, the analysis considers a phase-in of the community set-aside. This provision was designed to help ensure that only a useable amount of quota is allocated to the set-aside program.

With respect to the potential reduction in net economic benefits due to an increase in industry costs, staff considers it impractical to attempt to quantify the magnitude of the reduction due to lack of cost data for the charter industry and the fact that changes in cost (except for administrative costs) would be very difficult to predict. Instead, the analysis qualitatively addresses the economic implications and potential market

distortions resulting from a community set-aside. Specifically, the set-aside is intended to avoid adding an economic barrier to entry into the halibut charter industry for certain individuals in targeted Gulf communities but may, in itself, place other new entrants at a competitive disadvantage. Here, the attempt to “avoid adding a barrier to entry” effectively results in creating a market distorting “subsidy”. These issues are discussed in more detail in Section 3.5.11.2.3.

The community set-aside would also result in distributional effects, within the halibut charter and/or commercial sectors (depending on the source and magnitude of the set-aside). Namely, rents from harvesting halibut may be redistributed from the existing charter and/or commercial sectors, to the communities, depending on the extent that communities utilize set-aside quota to develop charter operations. This redistribution, in turn, may have secondary effects on the regional economies. The impact of the community set-aside to user groups in the primary markets for the commercial and charter sectors will be quantified in Section 3.5.11.2.4 of this analysis. The impact to community members that receive set-aside quota, versus those not eligible to receive set-aside quota, will also be discussed with respect to any competitive advantages or disadvantages resulting from the community set-aside. Analysis of any secondary effects on regional economies, however, will be deferred to the detailed analysis of the community program.

3.5.11.2.2 Implications of Set-Aside Quota Remaining Unharvested

If portions of the set-aside quota remain unharvested, the quantity of product (fish for the commercial sector and charter trips for the charter sector) produced and consumed is effectively reduced. This would reduce both consumer and producer surpluses and reduce net economic benefits to society as a result of the lost opportunity represented by the unused resource. The Coalition proposal acknowledges the importance of set-aside quota being fully harvested, and incorporated several features to address this issue, including: (1) a pre-season roll-back of uncommitted set-aside quota to the general commercial and/or charter allocation pool, (2) a provision that set-aside quota is available for community use, but ownership is retained by the American public, represented by the Federal government, and (3) individual caps, penalties, and limits imposed on qualifying individuals (from qualifying communities) to encourage full utilization of allocated quota. This section provides a qualitative assessment of the approach proposed by the Coalition, although the impact on net economic benefits depends ultimately on its effectiveness in practice. The implications of phasing in the set-aside quota are also addressed.

Coalition Proposal

In the Coalition proposal, quota is set aside on an annual basis for community use, but full ownership privileges are *not* granted to communities (individual community members or community management entities). The set-aside grants communities with a ‘limited right of use on a seasonal basis’, but would not constitute a lienable interest that can be leased, transferred, or used as collateral. The Coalition proposal 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 groups, economic development entities, or fishermen’s organizations as probable management options. Qualified individuals would apply to the management entity for a portion of the community set-aside 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 recommends a deadline for individual application of community quota shares, 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/or charter halibut sectors (depending on the source of the set-aside). This “pre-season” roll-back should be distinguished from an “in-season” roll-back; the Coalition proposal does *not* provide a mechanism for reallocating *committed, but unused* quota share back to the commercial and charter sectors later in the season, if the community quota shares are left unharvested. Both types of roll-backs are important to the net-benefit implications of a community set-aside.

Discussions with the RAM Division indicate that the pre-season roll-back 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 included in the commercial/charter halibut IFQ calculations at the beginning of the season, incorporating only a slight element of uncertainty into charter businesses that are dependent on advance client bookings. On the other hand, while the details and feasibility of administering an in-season roll-over have not been fleshed out, staff discussions with the RAM Division indicate that an in-season roll-over would likely be administratively *infeasible* and would negate one of the original goals of the IFQ program, that is to instill certainty in the amount of quota allocated to individual halibut fishermen (Phil Smith, pers comm, 11/17/00). Based on this information, this analysis excludes further consideration of the in-season roll-back concept.

The Coalition proposal also includes limits and penalties on qualifying individuals, designed to encourage full utilization of allocated community quota. This feature of the Coalition proposal was described in public testimony during the October 2000 meeting as follows:

“As proposed, qualifying individuals ... would initially be entitled to no more than 2,000 lbs of halibut charter IFQ’s each (approximately 91 fish). Additional halibut can be requested in subsequent seasons when the full initial entitlement is used. However, increases are limited to 2,000# annual increments with a maximum individual cap of 10,000# – inclusive of any halibut charter IFQs owned by the individual. Further, if more than 10% of the requested quota is not utilized, the unused portion will be deducted from subsequent allocations.”

When considered together, these core features of the Coalition proposal, in theory, provide a conceptual mechanism for minimizing the potential for set-aside quota remaining unharvested, that, in turn, would also minimize the potential reduction in net economic benefits due to unharvested quota. That is, the amount of set-aside quota allocated annually to each qualifying community depends on the amount requested by qualifying individuals within each community (subject to a community cap). Qualifying individuals, in turn, face limits on the amount of quota they are eligible to receive the first year, limits on the size of subsequent annual increments (up to the individual cap), and, if more than 10% of any individual’s requested amount is not utilized, the unused portion is deducted from subsequent allocations. Finally, set-aside quota that is unobligated by a certain date is returned to the general allocation pool for purposes of the IFQ calculation for the upcoming season. While the Coalition proposal does not include an in-season roll-back to allow unharvested community quota to be harvested by other communities or sectors, it provides a disincentive for qualifying individuals to request more quota than will be used. This disincentive (i.e., unused portions are deducted from subsequent allocations, if more than 10% of individual’s requested allocation) would *not*, however, eliminate the potential for committed quota remaining unharvested in the year of the allocation.

Thus, the potential reduction in net economic benefits due to unharvested community quota ultimately depends on the effectiveness of the program in practice. In particular, it is important, (1) for the annual portion of set-aside quota requested by each community to accurately reflect the amount of QS qualifying individuals in the community will fully utilize, and (2) for uncommitted set-aside quota to be rolled back into the general allocation pool for inclusion in the IFQ calculations for the upcoming season. As discussed earlier, the RAM Division has indicated that the pre-season roll-back of uncommitted quota would be administratively feasible. Thus, the effectiveness of the program largely depends on the ability of each community (via an appropriate management entity) to identify qualified individuals within the community, monitor utilization, and implement the provision that unused portions (if more than 10% of the requested allocation) be deducted from the respective individual’s subsequent allocation. In addition, in-season monitoring and enforcement of community charter operators would also be required but could likely be addressed using whatever approach is used for the overall charter IFQ program.

While the details of how the community program will be administered will be considered more fully in the trailing amendment (should the Council adopt the set-aside), it is clear that the effectiveness of the proposed measures to minimize the potential for unharvested quota depends on the program’s administrative feasibility. Regardless of how the program is administered, the community set-aside would increase administrative costs, which, in turn, represent a reduction in net economic benefits even if partially financed from profits earned by community charter operators.

Finally, it should be noted that the community set-aside as proposed by the Coalition is structurally distinct from the existing CDQ program with respect to its core features. One of the more significant differences pertains to the concept that set-aside quota is available for community use, but ownership is retained by the government in trust for eligible communities. Thus, a community set-aside under the proposed program does not represent a long-term allocation (to the community management entity or qualified individual community members) of quota shares that can be transferred, leased, or used to secure a loan. Without the ability to lease or transfer quota shares, qualified individuals that receive set-aside quota are required to utilize the resource themselves. Importantly, one of the main goals of the program as proposed by the Coalition is to reduce an economic barrier to entry, to allow underdeveloped communities to develop charter operations. This is in direct contrast to the current CDQ program that grants certain ownership privileges to the CDQ group holding CDQ shares; the group can decide to harvest the quota or lease the quota to another group or sector (e.g., commercial harvesters) that could harvest the quota. The ability of CDQ groups to lease their quota shares to commercial harvesters serves as an important mechanism for minimizing any net loss to the fishery represented by “unharvested” quota. In addition, leasing of quota shares by CDQ groups provides an important source of revenue for financing fishery-related community development programs.

By contrast, under the Coalition proposal, set-aside quota are intended for use by individual community members for starting and developing charter operations. The inability to lease or use set-aside quota as collateral has important implications: (1) communities cannot use leasing as a mechanism for ensuring their allocated quota are fully harvested, (2) communities may have difficulty overcoming other significant economic barriers to entering the halibut charter business (i.e. purchase or lease of a vessel, access to commercial capital and operating loans), (3) communities would not likely be able to directly finance other fishery-related community development programs (although secondary effects associated with developing successful charter businesses would indirectly contribute to the economic development of the community), and (4) users of the set-aside that develop a charter business will be required to purchase/lease adequate QS to operate their business after the program sun-sets.

If these start-up businesses are successful they will need to compete in the QS market with all other charter businesses after the program sun-sets. At that point the total number of QS available in the market will not increase, since the harvest rights assigned to the set-aside were not based on catch history. Instead the halibut that was assigned to the set-aside will be left in the harvest pool available to the IFQ program. This will result in higher QS prices for the persons participating in the set-aside for two reasons. The first reason is that, all other things held constant, the number of halibut assigned as IFQ from a QS unit will increase (the number of fish available is greater by the amount of the set-aside). The second reason is that demand for the available QS should increase when the new businesses developed under the set-aside enter the QS market. Since the number of QS is stable and the demand increases, it is expected that the QS prices would be driven up.

Phase-In Approach

At the December 2000 meeting, the Council requested that a phase-in approach be considered, in addition to the pre-season roll-back mechanism proposed by the Coalition. Under this approach, the full set-aside amount would be phased in gradually, starting with an amount more reflective of the estimated start-up needs for halibut by the target communities, and incrementally increased until the full set-aside allocation is achieved. The timing and magnitude of the step-ups could be made contingent on community demonstration of progress towards developing charter businesses and the ability to utilize the resource.

There are several rationales for this approach. First, since set-aside quota is intended for use by individuals in communities that either lack or are in the early phases of developing charter businesses, relatively few individuals (and, therefore, communities) may qualify for set-aside quota in the first few years. Second, the start-up halibut resource requirements tend to be lower than resource needs of mature businesses, since utilization of the resource requires development of a client-base. Third, the phase-in may allow more time for the remaining charter sector and/or commercial sector (depending on the source of the set-aside) to adjust to the community set-aside and the effective reduction in their respective halibut allocations. Finally, the phase-in may help to reduce uncertainty associated with the amount that each sector’s TAC is reduced each

year, by the set-aside (depending on the source of the set-aside) . This will serve to stabilize quota share value, an important goal of any IFQ program, since it enhances the long-term asset value of the quota shares. QS market stability also enhances their potential use as collateral for securing loans. This section discusses the net-benefit implications of the phase-in approach, as well as other potential advantages of a phase in.

By itself, a phase-in is not likely to be as effective as the pre-season roll-back in minimizing the potential that set-aside quota is incompletely utilized. Under the roll-back, any uncommitted set-aside quota is returned to the general allocation pool for the upcoming season. A phase-in would set aside some fraction of the full community allocation but the resulting amount of quota would not necessarily be tied to the amount qualifying community members request and expect to utilize. Consequently, the amount requested by communities (on behalf of qualifying members) may be less than the initial community set-aside allocation, potentially leaving some set-aside quota unallocated and therefore unharvested, especially if there is no mechanism for rolling back uncommitted quota to the general allocation pool "in-season." This problem could potentially be minimized (even eliminated) if the initial allocation to the community set-aside is conservative, relative to the potential amount requested by qualifying community members. Also, if subsequent incremental increases made contingent on community utilization of the prior year's allocation, the residual amount that is uncommitted each year may be small.

For example, suppose the Council decides to set aside a maximum of 2% of the combined commercial/charter TAC for target communities in Area 3A and decides to phase in the full set-aside starting with an initial community allocation of 1%, with maximum increments of 0.5% per year. If, in the first year, the amount requested by communities is only 0.5% of the combined Area 3A TAC, then the balance would remain unharvested, resulting in a reduction in net economic benefits. If, on the other hand, the amount requested by communities in the first year is closer to 1.0% of the combined Area 3A TAC, the full amount of the first year's set-aside would likely be allocated. Thus, to the extent that the first year's allocation to the community set-aside matches or is slightly less than the amount communities request, the less likely it is that quota set aside for communities would go unutilized.

The potential for set-aside quota that is not allocated to communities to go unused can be reduced by the phase-in in conjunction with the roll-back mechanism. That is, if early on communities are likely to request smaller amounts of halibut (because few individuals qualify and because start-up businesses are likely to book fewer clients), then the phase-in may serve to more closely match the set-aside quota to the actual amount requested by communities. This, in turn, would help minimize uncertainty for the established charter and/or commercial sectors (depending on source of set-aside) since the amount allocated to communities each year can be predicted with greater certainty. Predictability enhances (i.e., benefits) sound business planning.

There are, however, some disadvantages to the phase-in approach. First, it may be difficult to determine an appropriate starting point for the set-aside, since it depends on the potential number of qualifying individuals that are likely to make requests in the first year of the program. However, the roll-back should reduce the negative impacts. Second, the starting allocation for the phase-in may be set too conservatively, unnecessarily hampering community efforts to establish charter operations. Third, the timing and magnitude of the set-aside incremental increases may be overly restrictive, especially if community participants meet with early success in attracting clients. Given the financial stakes in starting a charter business, it would be better if participants were not overly constrained in the amount of halibut they can obtain from the program. In this sense, the phase-in may be too conservative and inflexible and unnecessarily hamper the efforts of the participants.

3.5.11.2.3 Potential Changes in Industry Structure and Costs

Even if halibut allocated to communities is fully utilized, the set-aside may reduce net economic benefits to society if the allocation to communities reduces the surplus to consumers or producers in another fashion. The set-aside may reduce the producer surplus if charter operator costs across the industry rise. Increased costs may occur if community-based charter businesses are able to enter the industry, even though their costs are higher relative to new entrants elsewhere (owing to the effective subsidy represented by the set-aside) and if existing businesses need to purchase QS, or lease IFQs, to satisfy their normal customer demand. The

surplus to consumers may decline if the supply of charter services is reduced or the composition of available charter services changes by including more highly priced charter services (e.g., based in more isolated, and therefore more costly to access) communities targeted by the set-aside. These potential changes in net economic benefits result from the effective reallocation of halibut from the charter and/or commercial sectors to charter businesses based in the target communities.

In addition to the impacts of the reallocation, not imposing this particular barrier to entry may change the competitive structure of the charter industry. Namely, the barrier to entry (potentially created by the charter IFQ program) is removed for qualifying individuals in certain communities under this action, but is not removed for other potential new entrants. This will give charter businesses that receive quota from the set-aside a competitive advantage, versus other potential new entrants who must purchase QS in the marketplace at the prevailing price, assuming it can be found. Finally, there will be a cost associated with the administration of the community set-aside that represents a new cost that otherwise would not exist. Any increase in administrative costs would reduce net economic benefits to society. These issues are discussed in more detail in this section.

Implications of Reallocation of Halibut Quota to Target Communities

Three suboptions are under consideration for the source of the set-aside, including (a) equal pounds from the commercial and charter sectors, (b) proportional amount based on allocation split between the commercial and charter sectors, and (c) 100% out of the charter sector. The potential impacts of these suboptions are quantified in Section 3.5.11.2.4.

For the charter sector, the reallocation may result in a change in net economic benefits because of differences in the type of charter services offered in the small, remote Gulf communities, versus major ports like Homer, Juneau, Ketchikan, etc. That is, charter services based in the target communities are potentially differentiated from charter services based in major ports, at the very least, in terms of the “cost” (i.e., time and transportation) to access them. As a result, such remote community-based charter services likely appeal to a different clientele. For example, charter trips from Homer are consumed more by residents of Alaska who place relatively high importance on catching fish and tend to be less willing to spend the money or time to take a charter trip from a small community on Kodiak Island. By contrast, some non-residents may be willing to pay for a more unique experience that includes transportation to a more remote location, an overnight stay in a lodge, and a charter trip in a scenic place.

In this sense, it may be useful to treat the two types of charter-trip experiences as two different sectors of the charter industry: (1) the major-port charter sector, and (2) the remote-community charter sector. The major-port sector may be characterized by a relatively homogeneous product and a market structure that is highly competitive and relatively mature. The remote-community sector may be characterized as a highly differentiated product and a ‘monopolistically competitive’ market structure; the unique nature of the charter trip experience from remote communities allows them to be priced differently (i.e., higher) than charter trips based in major ports. Thus, the community set-aside may be treated as a reallocation of halibut quota from the major-port charter sector (and/or commercial fishing sector) to the remote-community sector.

First consider the impact of this reallocation on the major-port charter and the commercial sectors, to the extent that set-aside is partially funded from both. The reduction in the halibut allocation to the major-port charter sector has the potential to require some charter businesses to purchase more halibut QS or lease additional IFQs to satisfy client demand. These operators will have to bid to purchase QS (or to lease IFQ) in the market and, because supply is effectively “fixed,” the increased demand will drive QS (and IFQ lease) prices higher. (It is possible, however, that a number of charter businesses will receive more than adequate amounts of QS in the initial allocation and would not need to purchase or lease any quota.)

Since halibut is an input to production in the charter sector, the need to purchase or lease additional quota increases costs for such charter businesses. If the charter sector market is highly competitive, prices for fishing trips are not likely to change in the short run. As a result, some charter businesses that under the status quo are marginally profitable may experience economic losses. At the margin, this may force some charter

service providers out of business, reducing the supply for charter services in major ports. In other words, the supply curve for charter services in major ports shifts inward. Over time, as supply shifts inward, market prices rise until the charter market reaches a new equilibrium point, at a lower quantity and higher price. This inward shift of the supply curve reduces both consumer and producer surpluses. Some operators may be able to mitigate portions of these losses by target salmon (or another species) instead of halibut and avoid the need to purchase or lease additional QS. This may be more true, however, for charter operators in Area 2C than in Area 3A. Nonetheless, one may reasonably conclude these charter operators (and their clients) will incur a net welfare “loss,” attributable to being compelled to adopt this alternative strategy, otherwise one would have observed them voluntarily prosecuting this fishing pattern, under the status quo.

The portion of the allocation taken from the commercial sector will result a similar reduction in supply, although the mechanism is different. For the commercial sector, a reduction in its allocation effectively reduces the sector’s TAC, which in turn reduces the quantity of fish supplied to the marketplace. The reduction in the commercial sector’s TAC, however, may also reduce commercial halibut QS values, since each unit would represent a smaller amount of fish, in pounds. Such a reduction in QS values may adversely impact current QS holders in the commercial sector, some of whom may have previously purchased a large portion of the QS they now hold, based upon expectations of a “pre-set aside” commercial TAC. The potential impact of the community set-aside on halibut QS values is discussed in Section 3.5.11.2.7.

Reductions in net economic benefits due to supply decreases in the major-port charter sector and/or commercial sector (depending on source of set-aside) may, in theory, be partially off-set by hypothesized increases in net economic benefits due to supply increases in the remote-community sector. This remains an empirical question, however, given no such growth has taken place under the status quo.

Should surplus gains materialize in the target communities, given the lack of homogeneity in the product offered across these sectors, it may not be appropriate to sum these effects to conclude that no change in net economic benefits has occurred. Furthermore, given the forced nature of the reallocation, it is not clear whether this reallocation of the halibut resource would occur naturally. That is, the community set-aside is not necessarily like an unrestricted transfer of quota that promotes movement of the resource to a more highly-valued use. The community set-aside may help preserve the existing cost structure of the remote-community charter sector in the short run, which the Council may consider a worthy cause for non-economic reasons. It should be noted, however, that whether or not the set-aside results in a net increase in the supply of charter services in remote communities depends largely on the industry’s stage of development. If market demand develops and sufficient incentives exist to attract new entrants, supply of charter services in remote communities is likely to expand. If market demand for trips is low, due to a variety of economic conditions in the community and the markets, the set-aside alone is not likely to result in more charter services.

To the extent that the goals of the community set-aside are realized, other social and economic benefits may flow to the participating communities. Communities that are able to establish stable charter operations may experience growth in employment directly and indirectly tied to the charter operations. Expenditures in the community may enhance the overall economic well-being of the community. In addition, other social benefits may be realized that are difficult to quantify. Finally, charter businesses may provide opportunities for residents to gain business experience and training as fishing guides.

Competitive Issues Within an Eligible Community: Within the same target community, some individuals may qualify for set-aside quota, while others may not. The main limiting factor is the amount of QS received in the initial allocation. As proposed by the Coalition, individuals that receive 10,000 pounds of quota in the initial allocation would not be qualified to receive any set-aside quota. Yet, such a business may be in a good position to expand by adding another vessel, for example. On the other hand, any owner that receives QS in the initial allocation benefits from that windfall gain and can use the QS as collateral to facilitate the purchase of additional quota shares, as needed. Those that receive no QS in the initial allocation (or an amount below the individual cap of 10,000 lbs) may be qualified to receive quota from the set-aside, but such quota cannot be leased, sold, or used as collateral. As a result, those that receive set-aside quota do not share in the windfall

gain granted to those that receive QS in the initial allocation. Instead, the set-aside quota helps recipients to start or grow their charter businesses without the additional financial burden of having to purchase QS (although, eventually such businesses would be expected to purchase QS, since the set-aside is not a permanent allocation). In this sense, it is not likely that set-aside quota gives recipients a significant competitive edge over others in the community that receive sufficient QS units from the initial allocation. Some fairness issues may, however, arise as a result of how the community's allocation of set-aside quota is distributed among qualified community members, especially if many members qualify and request allocations. If the amount of set-aside quota available to a community is enough for only one or a very few individuals, it is possible that other "would-be" new entrants in the same community could be placed at a competitive disadvantage, relative to those that receive set-aside quota. (Section 3.5.11.2.4 considers the amount of quota each community may receive, depending on the size of the set-aside.)

Competitive Issues *Between Eligible Communities*: Fairness issues may arise between different communities eligible for the set-aside. The amount of set-aside quota each community receives depends on the number of eligible communities that request quota, and the number of qualified individuals in each community. The amount received by a community is subject to a community cap that includes any QS owned by community members, whether purchased or received in the initial allocation. It is possible, if the amount of quota requested from all eligible communities exceeds the amount available, that the set-aside quota would be distributed equally across all communities, even though some communities have more qualified individuals than others. While the manner of distribution of the set-aside would be considered in a trailing amendment, such distributional issues may inadvertently create competitive advantages for some, but not others. Distribution of set-aside quota among eligible communities and among qualified individuals may need to be based on other criteria that also reflect some measure of likelihood of success. Just as business loans are made, in part, on an evaluation of the applicant's business plan, a similar procedure may be needed to address fairness issues surrounding the distribution of set-aside quota.

Remote Communities Not Eligible for Set-Aside Quota: Some remote communities that compete for the same clientele may not be eligible to participate in the community set-aside. This may include communities that exceed the community cap, as a result of residents having received QS in the initial allocation. For example, the Coalition proposes that communities with 50,000 pounds of aggregate charter QS should not be eligible to receive set-aside quota. There may be other communities that are clearly not major ports, but do not meet this community eligibility requirements. For example, the 37 communities under consideration for the set-aside are remote (lack road access), small (population under 2,500), fishery dependent, and coastal. There may be a community that is accessible by road, but meets all the other criteria and is far enough from a major port that it essentially competes for the same clientele as the target communities. If such communities are excluded from participation in the set-aside, they may be at a competitive disadvantage relative to participating communities. New entrants located in such communities would need to purchase or lease halibut quota to start or grow their businesses. They would be faced with higher costs (start-up and marginal costs) and, as a result, may not be able to compete with charter businesses based in the target communities. This may suggest a need for the community set-aside program to be as inclusive as possible, with respect to communities in the remote-community charter sector, unless the Council explicitly intends to narrow eligibility to the originally identified list of 37.

New Entrants Based in Major Ports: The community set-aside may give new entrants based in the target communities a competitive advantage over new entrants based in major ports. New entrants located in a major port, like Homer or Juneau, would not qualify for any set-aside quota, and would need to purchase or lease quota shares to start their business (assuming that no QS units are received in the initial allocation). Thus, new entrants located in major ports face higher start-up costs, as a result of the charter IFQ program, than new entrants located in communities eligible to receive set-aside quota. Yet, new entrants in major ports are likely to face substantially lower barriers to entry; major ports have better infrastructure, more services, more tourists, lower transportation costs, etc. Such new entrants are more likely to view other mature charter operators based in the same port as important competitors, since they would be competing for the same clients. Since charter businesses based in target-communities are assumed to appeal to an entirely different clientele, it is not clear that the community set-aside grants much of any competitive advantage over new

entrants based in major ports.

Potential Program Loop-Hole: It is possible that some “new entrants” may relocate to, and establish residency in, one of the eligible communities in order to qualify for access to set-aside quota. The individual may use set-aside quota to establish a charter business (in the community) and develop a clientele, but subsequently leave the community. To the extent that clients choose a charter company based on its reputation, the charter company may be able to take its clientele to its new location. If so, such an individual would have been able to take advantage of the community set-aside program, but the community may not retain the longer-term economic benefits (even though the community may benefit economically while such charter businesses are being developed). This situation may not be consistent with the overall intent and goals of the program. Thus, the individual qualification criteria (to be developed in the trailing amendment should the Council adopt the community set-aside) may need to include conditions of residency designed to discourage this practice. However, since the communities determine who receives an allocation within their community, it is incumbent upon the community’s program managers to ensure that benefits accrue to their community.

Administrative Costs

The CSA problem statement adopted by the Council in December 2000, addresses the need to provide for economic development opportunities in fisheries-dependent, coastal communities whose residents receive insufficient initial quota share. The proposed set-aside is intended to encourage the development of halibut charter businesses in these communities without creating a long-term entitlement to the resource. To address the ownership issue, the Coalition specifically structured the proposal to establish an allocated quota, owned and held in trust by a government authority, for distribution by a community management entity to residents of eligible communities. The Council and the Advisory Panel requested that staff address the potential administrative costs associated with this structure, to the extent possible, in this analysis, in order to compare the potential economic benefits of the set-aside with the cost of administering the program. Details on the program structure and administrative costs would be included in the action implementing the set-aside.

Under the Coalition’s proposal, two types of annual transfers of halibut charter quota could occur, both of which would impose some administrative costs. The first would involve transfer of QS from the RAM Division of NMFS, the administering agency, to the designated community management entity. The second would involve transfer of QS from the management entity to qualified individuals within those communities. The proposal is that the community management entity would submit an annual transfer request to NMFS for a specific amount of halibut quota (subject to a cap), based on the amount of quota applied for by qualified community residents. The community halibut quota would then be transferred to the management entity for further distribution to individuals based upon its own internal decision making process. Any amount of the set-aside not requested by and committed to communities would roll-back to the general IFQ pool. The administrative costs associated with each of these transactions, while not quantifiable at this time, will be discussed briefly in the remainder of this section.

First, there would be some cost to the RAM Division for collecting, verifying, and processing community quota requests. Preliminary discussions with RAM have indicated that, while an additional administrative burden would exist, the marginal cost associated with this task would be fairly small. The internal structure for processing and distributing halibut IFQ already exists for the commercial program. Thus, should the Council decide to expand this program to the halibut charter sector, the existing structure will simply be extended. Allowing communities to receive charter IFQ is not expected to increase the administrative costs of distributing charter quota significantly.

Up until 2000, NMFS incurred the costs of managing and enforcing the commercial IFQ program as described above. However, a recent regulatory amendment to the IFQ program (65 CFR 54, 3/20/00) 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. The total costs incurred for managing and enforcing the IFQ program are divided by the total value of the halibut and sablefish IFQ fishery to derive the fee percentage

to be applied to that year's IFQ landings (1.8 percent for year 2000). If the Council recommends and the Secretary implements the inclusion of the charter sector within the halibut IFQ program, the charter sector automatically is subject to cost recovery under the Magnuson-Stevens Act (Section 304(d)(2)(A)) which requires the Secretary to "collect a fee to recover the actual costs directly related to the management and enforcement of any individual fishing quota program." While it is difficult to assess the ex-vessel value of sport-caught fish, NMFS would need to determine an appropriate method to recover costs from the charter sector once the fee collection portion of this program is implemented in a following action. Should the Council and Secretary also choose to set-aside charter IFQ for communities, individuals using community charter quota may also be subject to a cost-recovery fee. Thus, communities would receive charter quota at no cost, but would still be required to pay a fee to help maintain the program. Under the cost recovery program, the minimal costs described above would be incurred by the industry, as opposed to the RAM Division.

The second quota transaction is from the community management entity to qualified individuals within those communities. Each community management entity would need to set clear standards to determine qualification for and distribution of community quota to residents. While many communities may have an appropriate existing governing structure, such as a municipality or tribal council, many communities would likely need to establish or modify such an entity to form a non-profit or economic development organization capable of managing charter quota. Thus, there would be the initial administrative cost of creating a community non-profit and applying for non-profit status, in order to participate in this program.

Setting up a management entity may entail several organizational tasks, including establishing a decision-making structure and executive leadership, establishing financial oversight capability, and creating working ties to the RAM Division. This action will necessarily represent an initial cost to the community. To some extent, the Western Alaska CDQ program model may help guide the structure of the management entity, although there may be substantial variability in the management structures due to the varying levels of infrastructure and experience among communities. In addition, the CDQ program differs in that the community governing body retains the ultimate control over the underlying allocation, while the ownership of the set-aside quota is explicitly retained by the government. Note also that under the CDQ program the allocation is made to the CDQ group, and that group captures the fishery resource benefits, just like other corporate entities under the IFQ program, albeit with a specific connection to communities (NRC 1999). Under the proposed set-aside, the allocation is initially made to communities, but only for redistribution to individual residents.

The second layer of administrative responsibility assigned to the management entity would entail soliciting and processing individual requests for community quota and submitting a comprehensive quota request to NMFS. Similar to the existing IFQ program, the cost associated with this transaction would be borne by industry, albeit limited to individual recipients of community charter quota. The Coalition proposal recommends that the entity recover administrative costs by instituting an administrative fee based on a specific percentage of the ex-vessel value of the IFQ. This administrative fee for recovering the cost of leasing IFQ is not a cost-recovery fee as that term is used under the Magnuson-Stevens Act. While the appropriate administrative leasing fee is yet to be determined, the proposal suggests limiting the percentage to 10 percent of ex-vessel value. Thus, only those individuals using the community quota must incur the costs of administering that quota within the community.

The structure described above appears to create a very specific role for the community, and yet begs the question of whether that role is necessary to derive the individual benefits of the community set-aside. The goals of the community set-aside—economic development and sustained charter businesses in underdeveloped communities—may not be compromised by allowing NMFS to transfer community quota directly to qualified individuals in the communities eligible for the set-aside. NMFS already has the internal structure necessary to transfer quota share, and by doing so would lessen the financial and administrative burden on communities. Because the direct benefits of the quota are captured by individual residents, with the intent that sustained charter operations provide indirect benefits that filter through the community as a whole, there is little distinction in this program between communities and the individual. Thus, while there is a tie back to the

community through the imposed program structure, the actual community role of transferring quota may be more perfunctory. The community role of establishing individual qualification criteria and processing applicants may be the more significant one, especially as individual businesses grow and the entity must distribute a limited amount of charter quota to a larger number of individual applicants. Another essential role for the community entity may be to help promote development of related businesses and services to support a halibut charter base.

In sum, industry will bear minimal administrative costs in adding communities as potential recipients of halibut charter quota under the existing IFQ program administered by NMFS. Greater costs will likely be borne by the individual community quota recipients and the eligible communities themselves in creating a management entity that can process individual applications and distribute community quota. While the cost of maintaining a community management entity could be recovered 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. Increases in costs resulting from the community set-aside tend to reduce the overall net benefits from this amendment. As a result, society as whole is subsidizing any extra costs that result from the set-aside.

3.5.11.2.4 Suboption 1: Source and Magnitude of the Set-Aside

This section provides an overview of how the initial allocations of commercial and charter halibut quota (under Issue 1) would be affected by the proposed community set-aside, depending on its source and magnitude. The proposed magnitude of the set-aside (Issue 11, Option 2) to Gulf communities is 0.5-2.5 percent of the annual combined halibut charter and commercial quota in Area 2C and the combined quota in area 3A. A separate decision point is from which sector(s) would that actual poundage be taken. The Council has considered three suboptions regarding the source of the 0.5-2.5 percent set-aside:

- 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 from the charter sector.

Community provisions in original IFQ program

As a backdrop for the community set-aside issue, specifically with regard to the decision on the *source* of the set-aside, it may be useful to provide the context for allocations made to western Alaska communities under the original IFQ program in 1995. The original halibut IFQ program included provisions to set aside part or all of the TAC in Areas 4B, 4C, 4D, and 4E for community development quotas (CDQs) in western Alaska. When part or all of the TAC was set aside for CDQs, individuals who received QS in these areas were faced with reduced harvest limits². The IFQ plan contained provisions designed to compensate QS holders for this reduction. The goal of the plan was to spread the burden of the compensation equally among all persons who initially received halibut QS. Compensation was provided by giving commercial fishermen from the CDQ areas in western Alaska (Areas 4B, 4C, 4D, and 4E) additional QS in each of the management areas in which CDQs were not allocated (Areas 2C, 3A, 3B, and 4A). This additional QS was termed “compensation quota share.”

Upon implementation of the commercial IFQ program, CDQ compensation QS was issued in Areas 2C through 4A and represented about 2.1% of the total QS in each of these areas. Thus, while the existing western Alaska CDQ program does not extend into the Gulf of Alaska, the commercial sector in each of these areas in the Gulf gave up the equivalent of 2.1% of their total QS as part of a compensation plan for the displaced commercial halibut sector in Areas 4B through 4E. The CSA program proposed in this analysis only relates to Areas 2C and 3A, and could potentially further reduce the commercial halibut quota in each of these two areas, depending on the source of the set-aside selected.

² The CDQ regulations are contained in 50 CFR 679.30 and 50 CFR 679.31(b) and(c). The provisions for CDQ compensation are contained in 50 CFR 679.41(j).

2004 Combined Commercial and Charter Halibut quota

The most recent data available for assessing the potential impacts of this program are based on 2004 data. Combined, the 2004 commercial and charter quota is estimated to be 11.91 million pounds in Area 2C and 28.44 million pounds in Area 3A. The IPHC staff adopted a 2004 commercial halibut quota of 10.50 million and 25.06 million pounds for Areas 2C and 3A, respectively. The 2004 charter harvest projection is based on ADF&G preliminary estimates of 2003 sport harvest biomass for Areas 2C and 3A. Approximately 1.41 million pounds is estimated to be attributable to charter boats in Area 2C, and about 3.38 million pounds in Area 3A. Mean weight estimates for 2004, are based on samples from each area, and the number of fish harvested was projected from past years' data (2003), the best available data. In Area 2C, the projected number of fish harvested was based on a linear relationship between the final SWHS estimate and the respective combined in-season creel survey estimates for Juneau, Ketchikan, and Sitka in a given year. In Area 3A, the number of fish harvested was based on a linear projection of the 1995-1999 estimated harvest by each user group in each subarea.

Under Issue 1 of the overall halibut charter IFQ analysis, there are three options for calculating the initial quota share for the charter sector. Option 1 would allocate 13.05% in Area 2C and 14.11% in Area 3A of the combined commercial and charter halibut quota to the charter sector. 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 to the charter sector. These three options are presented separately for each area in the following section. Note that all of the calculations in this section are based on the 2004 combined halibut quota, and that the amount of halibut (in pounds) corresponding to the percentages discussed would necessarily change with a fluctuating halibut TAC.

3.5.11.2.4.1 Impact on Initial Allocations under Issue 1, Option 1

2004 Data

Halibut charter GHLS³ of 13.05% and 14.11% for Areas 2C and 3A, respectively, were applied to the 2004 combined commercial and charter quota to determine the initial allocation to the charter sector, under option 1. The suboptions for the range and source of the community set-aside were then applied to determine the potential impact on the initial allocations to the commercial and charter sectors in each area. In Area 2C, using a 2004 combined charter and commercial harvest estimate of 11.91 M pounds, a 0.5 - 2.5 percent community set-aside would result in an allocation of 59,550-297,500 pounds to target communities. In Area 3A, using a 2004 combined charter and commercial harvest estimate of 28.44 M lbs, a 0.5 - 2.5 percent set-aside would result in an allocation of 142,200 - 711,000 pounds to target communities. Because the amount set aside for each area in a given year would depend on the amount requested by each community subject to a cap, these numbers represent the maximum annual allocation to communities under the proposed set-aside range. Recall that a key design feature of the proposed set-aside is that any amount not committed to communities in a given season would roll back to the general area IFQ pool prior to the start of the season.

Note also that the set-aside quota is determined by calculating 0.5 - 2.5 percent of the combined halibut charter and commercial quota for 2C (the same procedure is followed for 3A) –that component does not change under these suboptions. The options for the source of the set-aside determine how much of that 0.5 - 2.5 percent (2C and 3A are treated as unique allocations) will come from the commercial and charter sectors, respectively. The Council may select a set-aside anywhere within the 0.5 - 2.5 percent range evaluated in this analysis. The effects of the upper and lower bounds, as well as several point estimates within the range, are presented in this section.

2001 Data and the Community set-aside provisions

³ ADF&G Statewide Harvest Survey estimates were corrected for the 1996, 1997, 1998, and 1999 halibut charter seasons. These corrections alter the resulting GHL percentages (based on the average 1995-1999 estimated charter harvests) for Areas 2C and 3A from 12.68% and 14.94%, respectively, to 13.05% and 14.11%.

Area 2C

Table 3.14 shows the effects of allocating the community set-aside in Area 2C, using each of the proposed suboptions based on the 2001 season. These data are shown because these data were previously examined during the Council deliberation. These data are shown here because they provide an indication of the trends in stock size over the past four years. Additionally, the set-aside provision was not recommended for implementation by the Council at this time. The 2001 data, therefore, provide an historic view of the information that was before the Council during its discussions on this issue. If the Council were to recommend proceeding with a community set-aside in a future action, these data would need to be updated in an accompanying analysis. Note that this section refers only Option 1 to Issue 1, in which the charter sector's allocation is based on 125% of the 1995-99 average charter harvest, or 13.05% of the 2C combined halibut charter and commercial quota. Under a charter allocation of 13.05%, the halibut quota would be split 8,547 M lbs and 1.283 M lbs between the commercial and charter sectors, respectively, based on the 2004 combined halibut charter and commercial quota of 9.83 M lbs in Area 2C.

Table 3.14: Impact of Community Set-aside Options on Commercial and Charter Halibut Quota in Area 2C under Issue 1, Option 1 Allocations¹

Suboptions for Source of Set-aside ²		Community Pounds	Commercial			Charter			
			Pounds	change ³	% of combined IFQ	Pounds	change	% of combined IFQ	% above 1999 harvest ⁴
No Set-aside		0	8,547,185	0	86.95	1,282,815	0	13.05	36.5%
Suboption A: Equal pounds	Set-aside 0.5%	49,150	8,522,610	-0.3%	86.70	1,258,240	-1.9%	12.80	33.9%
	1.0%	98,300	8,498,035	-0.6%	86.45	1,233,665	-3.8%	12.55	31.2%
	1.5%	147,450	8,473,460	-0.9%	86.20	1,209,090	-5.7%	12.30	28.6%
	2.0%	196,600	8,448,885	-1.2%	85.95	1,184,515	-7.7%	12.05	26.0%
	2.5%	245,750	8,424,310	-1.4%	85.70	1,159,940	-9.6%	11.80	23.4%
Suboption B: Proportional shares	0.5%	49,150	8,504,449	-0.5%	86.52	1,276,401	-0.5%	12.98	35.8%
	1.0%	98,300	8,461,713	-1.0%	86.08	1,269,987	-1.0%	12.92	35.1%
	1.5%	147,450	8,418,977	-1.5%	85.65	1,263,573	-1.5%	12.85	34.4%
	2.0%	196,600	8,376,241	-2.0%	85.21	1,257,159	-2.0%	12.79	33.7%
	2.5%	245,750	8,333,505	-2.5%	84.78	1,250,745	-2.5%	12.72	33.1%
Suboption C: 100% from charter sector	0.5%	49,150	8,547,185	0.0%	86.95	1,233,665	-3.8%	12.55	31.2%
	1.0%	98,300	8,547,185	0.0%	86.95	1,184,515	-7.7%	12.05	26.0%
	1.5%	147,450	8,547,185	0.0%	86.95	1,135,365	-11.5%	11.55	20.8%
	2.0%	196,600	8,547,185	0.0%	86.95	1,086,215	-15.3%	11.05	15.6%
	2.5%	245,750	8,547,185	0.0%	86.95	1,037,065	-19.2%	10.55	10.3%

¹ Under Issue 1, Option 1, a halibut charter GHL of 13.05% in Area 2C is applied to the 2001 combined charter harvest and commercial halibut quota to determine the initial allocation to the existing charter sector. The GHLs are based on corrected 1996-1999 SWHS data.

² The Council may select a set-aside anywhere within the range of 0.5-2.5% of the combined commercial and charter halibut quota.

³ These values represent the percent change in the actual poundage allocated to each sector under each suboption.

⁴ The charter sector harvested 0.94 million pounds of halibut in Area 2C in 1999.

Suboption A, in which equal pounds of the set-aside are taken from the commercial and charter sectors, results in a 0.3 - 1.4 percent decrease to the commercial sector's halibut quota and a 1.9 - 9.6 percent decrease to the charter allocation. Using the 2001 combined quota, this translates to a 24,575 - 122,875 pound reduction to each sector's initial allocation. Suboption B distributes the set-aside proportionally between the commercial and charter sectors, resulting in a 0.5 - 2.5 percent reduction to both sectors. This translates to a 42,736 - 213,680 pound reduction in the commercial sector and a 6,414 - 32,070 pound reduction in the charter sector. Suboption C, in which the entire community set-aside is taken from the charter quota, results in no change to the commercial allocation and a 3.8 - 19.2 percent reduction (49,150 - 245,750 pounds) to the charter allocation.

The impact of the set-aside on the commercial sector under any suboption is relatively modest on a percentage basis because the commercial sector is allocated such a large percentage of the combined quota (86.95% under Option 1). For this same reason, the commercial sector's allocation would be affected less under Suboption A, in which equal pounds are taken from the commercial and charter sectors, than under Suboption B, in which a proportional amount is taken from each. Suboption C, in which the entire set-aside is taken from the charter sector, naturally results in no impact to the commercial sector's initial allocation. Thus, under all of the available options for both the magnitude and the source of the set-aside, the maximum potential loss incurred by the commercial sector is 213,680 pounds, resulting from a 2.5 percent set-aside taken proportionally from both sectors (Suboption B).

By contrast, because the charter sector receives a much smaller percentage of the combined quota (13.05% under Option 1), the charter sector would assume greater deductions under Suboptions A and C, than under Suboption B. Unlike the commercial sector, the impact of the set-aside on the charter sector varies greatly with the source. Under Suboption B, the maximum reduction to the initial charter allocation is 2.5 percent, while under Suboption A, that sector could realize almost a 10 percent decrease. Under Suboption C, the charter allocation could potentially decrease by up to 19.2 percent. So, while the magnitude of the set-aside partially determines the impact to each sector, the related decision on the source of the set-aside is at least as significant to the charter sector. For instance, should the Council adopt a 1.5 percent set-aside, whether it is taken in equal pounds (Suboption A), proportionally (Suboption B), or none at all from the commercial sector (Suboption C), the result would be 0.9, 1.5, or 0 percent reductions to the initial commercial allocation. However, that same set-aside of 1.5 percent, under Suboptions A, B, and C, results in a 5.7, 1.5, or 11.5 percent reduction to the existing charter fleet's allocation.

While the current charter fleet's initial allocation could potentially be reduced by up to 19.2 percent, this should not be interpreted as a 19.2 percent reduction to what the charter sector has *historically* harvested. Recall that the allocation does not represent the harvest level of the charter sector in the past, but rather that sector's historical harvest, plus a buffer of 25 percent for additional charter growth. The allocation under Option 1 is based on the charter sector receiving 125 percent of its average 1995-99 harvest in each area (NPFMC 2000). Note then that the percentage change reported in Table 3.14 as a result of setting aside quota for communities applies to the initial charter *allocation*, based on 125 percent of their average 1995-99 harvest, and not the amount of halibut they harvested in the recent past.

Table 3.14 quantifies this distinction in the far right-hand column. This column relates the percent difference between the charter allocation under each suboption for a set-aside and the actual charter harvest in 1999. The most recent available data from ADF&G indicate that the charter sector harvested 0.94 million pounds of halibut in Area 2C in 1999. With no set-aside, implementing a 13.05% charter allocation would allocate about 1.283 M lbs to the charter sector in Area 2C using the 2001 combined quota. Based on those numbers, the charter catch would need to increase by about 36.5% over the 1999 harvest level before it would reach its quota. This column shows how the set-aside would affect the buffer built into the charter allocation for growth in the charter industry. For example, under the maximum set-aside proposed (2.5%) and Suboption C, the initial *allocation* to the charter sector would be reduced by about 19%, but the charter sector *harvest* would still need to *increase* by about 10% over the 1999 harvest level before it would be constrained by the quota. Under Option 1, there is no proposed option for the set-aside that would constrain the current charter harvest; the greatest impact of any of the options would be to reduce the buffer built into the charter allocation to 10% over 1999 catch levels.

Area 3A

Table 3.15 shows the same information for Area 3A. Again, this section refers only to Option 1 under Issue 1, in which the charter sector's allocation in Area 3A is based on an allocation of 14.11% of the combined halibut charter and commercial quota (equal to 125% of the 1995-99 average charter harvest). Under a 14.11% charter allocation, the halibut quota would be split 21.168 M and 3.478 M lbs between the commercial and charter sectors, respectively, based on the 2001 combined halibut charter and commercial quota of 24.646 M pounds for Area 3A.

Suboption A, in which equal pounds of the set-aside are taken from the commercial and charter sectors, results in a 0.3 - 1.5 percent decrease to the commercial sector's halibut quota and a 1.8 - 8.9 percent decrease to the charter sector's allocation. Using the 2001 combined quota, this represents a 61,615 - 308,075 pound reduction to each sector. Suboption B distributes the set-aside proportionally between the commercial and charter sectors, resulting in a 0.5 - 2.5 percent reduction to both sectors' initial allocations. This translates to a 105,842 - 529,211 pound reduction to the commercial sector and 17,388 - 86,939 pound reduction to the charter sector. Suboption C, in which the community set-aside is taken entirely from the charter sector, results in no change to the commercial allocation and a 3.5 - 17.7 percent reduction (123,230 - 616,150 lbs) to the initial charter allocation, in Area 3A.

Table 3.15: Impact of Community Set-aside Options on Commercial and Charter Halibut Quota in Area 3A under Issue 1, Option 1 Allocations¹

Suboptions for Source of Set-aside ²		Community Pounds	Commercial			Charter			
			Pounds	change ³	% of combined IFQ	Pounds	change	% of combined IFQ	% above 1999 harvest ⁴
No Set-aside		0	21,168,449	0	85.89	3,477,551	0	14.11	37.5%
Suboption A: Equal pounds	Set-aside								
	0.5%	123,230	21,106,834	-0.3%	85.64	3,415,936	-1.8%	13.86	35.0%
	1.0%	246,460	21,045,219	-0.6%	85.39	3,354,321	-3.5%	13.61	32.6%
	1.5%	369,690	20,983,604	-0.9%	85.14	3,292,706	-5.3%	13.36	30.1%
	2.0%	492,920	20,921,989	-1.2%	84.89	3,231,091	-7.1%	13.11	27.7%
	2.5%	616,150	20,860,374	-1.5%	84.64	3,169,476	-8.9%	12.86	25.3%
Suboption B: Proportional shares	0.5%	123,230	21,062,607	-0.5%	85.46	3,460,163	-0.5%	14.04	36.8%
	1.0%	246,460	20,956,765	-1.0%	85.03	3,442,775	-1.0%	13.97	36.1%
	1.5%	369,690	20,850,923	-1.5%	84.60	3,425,387	-1.5%	13.90	35.4%
	2.0%	492,920	20,745,080	-2.0%	84.17	3,409,043	-2.0%	13.83	34.7%
	2.5%	616,150	20,639,238	-2.5%	83.74	3,390,612	-2.5%	13.76	34.0%
Suboption C: 100% from charter sector	0.5%	123,230	21,168,449	0.0%	85.89	3,354,321	-3.5%	13.61	32.6%
	1.0%	246,460	21,168,449	0.0%	85.89	3,231,091	-7.1%	13.11	27.7%
	1.5%	369,690	21,168,449	0.0%	85.89	3,107,861	-10.6%	12.61	22.8%
	2.0%	492,920	21,168,449	0.0%	85.89	2,984,631	-14.2%	12.11	18.0%
	2.5%	616,150	21,168,449	0.0%	85.89	2,861,401	-17.7%	11.61	13.1%

¹ Under Issue 1, Option 1, a halibut charter GHL of 14.11% in Area 3A is applied to the 2001 combined charter harvest and commercial halibut quota to determine the initial allocation to the existing charter sector. The GHLs are based on corrected 1996-1999 SWHS data.

² The Council may select a set-aside anywhere within the range of 0.5-2.5% of the combined commercial and charter halibut quota.

³ These values represent the percent change in the actual poundage allocated to each sector under each suboption.

⁴ The charter sector harvested 2.53 million pounds of halibut in Area 3A in 1999.

Again, because the commercial sector is allocated such a large percentage of the combined quota under Option 1 (85.89%) in Area 3A, there is a relatively modest impact to the commercial sector on a percentage basis. Suboption A, in which equal pounds are taken from each sector, results in a maximum 1.5% reduction to the commercial sector's initial allocation. Suboption B, in which a proportional amount is taken from each sector, results in the greatest potential loss to the commercial sector (up to 2.5%). Suboption C, in which the entire set-aside is taken from the charter sector, results in no impact to the commercial sector's initial halibut allocation. Thus, under all of the available options for both the size and the source of the set-aside, the maximum potential loss incurred by the commercial sector is 529,211 pounds, resulting from a 2.5 percent set-aside taken proportionally from both sectors (Suboption B).

The charter sector, held to an allocation of 14.11% of the combined quota in Area 3A, under Option 1, would experience greater deductions under Suboptions A and C than under Suboption B. As stated previously for Area 2C, the impact of the set-aside on the charter sector varies greatly with the source. Under Suboption B, the maximum reduction to the initial charter sector allocation is 2.5 percent, while under Suboption A, that sector could realize almost a 9 percent decrease. If the charter sector bears the entire set-aside (Suboption C),

the initial charter allocation could potentially decrease by up to 17.7 percent, depending on the magnitude of the set-aside. For example, should the Council adopt a 1.5 percent set-aside, whether it is taken in equal pounds (Suboption A), proportionally (Suboption B), or none at all from the commercial sector (Suboption C), the result would be 0.9, 1.5, and 0 percent reductions to the initial commercial allocation. However, that same set-aside amount of 1.5 percent, under Suboptions A, B, and C, results in a 5.3, 1.5, and 10.6 percent reduction to the initial charter allocation, respectively.

Recall also that, as in Area 2C, the charter allocation under Option 1 (14.11% of the combined quota) does not represent the harvest level of the charter sector in the past, but rather that sector's historical harvest, plus a buffer of 25% for additional charter growth. Note then that the percentage change reported in Table 3.15 as a result of setting aside quota for communities applies to the initial charter *allocation*, based on 125% of their average 1995-99 harvest, and not the amount of halibut they *harvested* in the recent past.

In order to provide this context, Table 3.15 also relates the percent difference between the charter allocation under each suboption for a set-aside and the actual charter harvest in 1999. The most recent available data from ADF&G indicate that the charter sector harvested 2.53 million pounds of halibut in Area 3A in 1999. With no set-aside, implementing a 14.11% charter allocation would allocate about 3,477,551 lbs to the charter sector in Area 3A, using the 2001 combined quota. Based on those numbers, the charter catch would need to increase by about 37.5% over the 1999 harvest level before it would reach the quota. Similar to Area 2C, the options under consideration for the set-aside would not affect the current charter harvest because of the magnitude of the buffer built into the allocation. The set-aside would, however, reduce the buffer for future growth. Thus, under Option 1, there is no proposed option for the set-aside that would constrain the current charter harvest in Area 3A; the greatest impact of any of the options would be to reduce the buffer built into the charter allocation to 13% over 1999 catch levels.

3.5.11.2.4.2 Impact on Initial Allocations under Issue 1, Option 2

Under Issue 1, Option 2 of this proposal, halibut charter allocations of 10.73% and 9.82% for Areas 2C and 3A, respectively, are also under consideration. These allocations are based on the average 1998-99 charter harvest. This section is presented exactly as was the previous section, only using these modified allocations. While the amount of quota allocated to the charter and commercial sectors is directly tied to the allocation percentage selected in this analysis, recall that the set-aside is calculated using the area specific combined charter and commercial quota. Thus, the amount of quota set aside for target communities does not change under each of the options considered for initial distribution of quota share. What does change is the level of impact the set-aside has on the initial allocations to the commercial and charter sectors. Therefore, under each of the options under consideration for setting the charter allocation in Issue 1, a 0.5 - 2.5 percent community set-aside results in an allocation of 49,150 - 245,750 pounds to target communities in Area 2C and 123,230 - 616,150 pounds to target communities in Area 3A, based on the 2001 combined quotas (regardless from which sector it is reallocated).

Area 2C

Table 3.16 shows the effect of allocating the community set-aside in Area 2C according to each of the proposed suboptions. This section refers to Option 2, in which the charter sector's allocation in Area 2C is based on 10.73% of the combined halibut charter and commercial quota. The commercial sector would then be allocated 89.27%. Under the no action alternative and a 10.73% charter allocation, the halibut quota would be split 8.775 M pounds and 1.055 M pounds, respectively, between the commercial and charter sectors, based on the 2001 combined halibut charter and commercial quota of 9.83million pounds in Area 2C.

The *percent change* to the commercial fleet's initial allocations, using a charter allocation of 10.73% under Option 2, are slightly lower compared to using a 13.05% charter allocation under Option 1. This is because the commercial sector is allocated such a relatively large percentage of the combined quota under either option, so an increase of 2.32% to the commercial sector under Option 2 does not affect the commercial allocation very much (compare Tables 3.14 and 3.16). Using a charter allocation of 10.73%, under all of the

available suboptions for both the magnitude and the source of the set-aside, the maximum potential loss to the commercial sector is 219,381 pounds, resulting from a 2.5 percent set-aside taken proportionally from both sectors (Suboption B). Under Option 1, the maximum potential reduction to the commercial quota is also 2.5%, which represents 213,680 pounds, a difference of 5,701 pounds.

Because the charter sector allocation decreases by 2.32% under Option 2, the effect of the set-aside on the charter sector increases under this option. Suboption A, in which equal pounds of the set-aside are taken from the commercial and charter sectors, results in a 2.3 - 11.6 percent (24,575 - 122,875 lb) decrease to the charter allocation. Suboption B distributes the set-aside proportionally between the commercial and charter sectors, resulting in a 0.5 - 2.5 percent (5,274 - 26,369 lb) decrease to the charter sector's initial allocation. Suboption C, in which the entire community set-aside is taken only from the charter sector, results in a 4.7 - 23.3 percent reduction (49,150 - 245,750 lb) to the charter allocation in Area 2C. Thus, regardless of the initial allocation, the greatest potential loss to the charter sector under any of the options is still the maximum set-aside amount, or 245,750 lbs.

Table 3.16: Impact of Community Set-aside Options on Commercial and Charter Halibut Quota in Area 2C Under Issue 1, Option 2 Allocations¹

Suboptions for Source of Set-aside ²		Community Pounds	Commercial			Charter			
			Pounds	change ³	% of combined IFQ	Pounds	change	% of combined IFQ	% above 1999 harvest ⁴
No Set-aside		0	8,775,241	0	89.27	1,054,759	0	10.73	12.2%
Suboption A: Equal pounds	Set-aside								
	0.5%	49,150	8,750,666	-0.3%	89.02	1,030,184	-2.3%	10.48	9.6%
	1.0%	98,300	8,726,091	-0.6%	88.77	1,005,609	-4.7%	10.23	7.0%
	1.5%	147,450	8,701,516	-0.8%	88.52	981,034	-7.0%	9.98	4.4%
	2.0%	196,600	8,676,941	-1.1%	88.27	956,459	-9.3%	9.73	1.8%
2.5%	245,750	8,652,366	-1.4%	88.02	931,884	-11.6%	9.48	-0.9%	
Suboption B: Proportional shares	0.5%	49,150	8,731,365	-0.5%	88.82	1,049,485	-0.5%	10.68	11.6%
	1.0%	98,300	8,687,489	-1.0%	88.38	1,044,211	-1.0%	10.62	11.1%
	1.5%	147,450	8,643,612	-1.5%	87.93	1,038,938	-1.5%	10.57	10.5%
	2.0%	196,600	8,599,736	-2.0%	87.48	1,033,664	-2.0%	10.52	10.0%
	2.5%	245,750	8,555,860	-2.5%	87.04	1,028,390	-2.5%	10.46	9.4%
Suboption C: 100% from charter sector	0.5%	49,150	8,775,241	0.0%	86.68	1,005,609	-4.7%	10.23	7.0%
	1.0%	98,300	8,775,241	0.0%	86.68	956,459	-9.3%	9.73	1.8%
	1.5%	147,450	8,775,241	0.0%	86.68	907,309	-14.0%	9.23	-3.5%
	2.0%	196,600	8,775,241	0.0%	86.68	858,159	-18.6%	8.73	-8.7%
	2.5%	245,750	8,775,241	0.0%	86.68	809,009	-23.3%	8.23	-13.9%

¹ Under Issue 1, Option 2, a halibut charter GHF of 10.73% in Area 2C is applied to the 2001 combined charter harvest and commercial halibut quota to determine the initial allocation to the existing charter sector. The GHFs are based on corrected 1996-1999 SWHS data.

² The Council may select a set-aside anywhere within the range of 0.5-2.5% of the combined commercial and charter halibut quota.

³ These values represent the percent change in the actual poundage allocated to each sector under each suboption.

⁴ The charter sector harvested 0.94 million pounds of halibut in Area 2C in 1999.

The charter allocation under Option 2 (10.73% of the combined quota) represents the charter sector's average 1998-99 historical harvest. The percent difference between the charter allocation under each suboption for a set-aside and the actual charter harvest in 1999, is shown in the far right-hand column in Table 3.16. ADF&G data indicate that the charter sector harvested 0.94 million pounds of halibut in Area 2C in 1999. With no set-aside, implementing a 10.73% charter allocation would allocate about 1.055 million lbs to the charter sector in Area 2C using the 2001 combined quota. Note that because the charter sector in Area 2C harvested fewer halibut in 1999 than in 1998, an allocation equal to 10.73% of the combined quota still provides for 12.2% additional growth above 1999 harvest levels.

Unlike Option 1 presented in the previous section, some of the options under consideration for the set-aside

under Option 2 could potentially affect the current charter harvest. For example, if Suboption A is selected, a 2.5% set-aside would constrain the charter sector to 0.9% below 1999 catch levels. A smaller set-aside under the same suboption would still provide a buffer in the charter quota for growth of about 1.8 - 9.6% above 1999 catch levels. Suboption B would also continue to provide a buffer for charter growth, from 9.4 - 11.6%, depending on the magnitude of the set-aside. Finally, under Suboption C, there again is the potential for the set-aside to constrain the charter sector below 1999 catch levels. The greatest impact of any of the set-aside suboptions would be to reduce the charter sector's allocation to 13.9% below 1999 catch levels (a 2.5% set-aside under Suboption C).

Area 3A

Table 3.17 shows the effect of allocating the community set-aside in Area 3A according to each of the proposed suboptions, if the Council selects Issue 1, Option 2, in which the charter sector's allocation in Area 3A is based on 9.82% of the combined halibut charter and commercial quota. Under the no action alternative and a 9.82% charter allocation, the halibut quota would be split 22.226 M and 2.420 M pounds between the commercial and charter sectors, respectively, based on the 2001 combined halibut charter and commercial quota of 24.646 million pounds for Area 3A.

Intuitively, the effects of Option 2 are greater for Area 3A than for Area 2C. In Area 2C, the charter allocations identified under Options 1 and 2 are 13.05% and 10.73% of the combined quota, respectively, a difference of 2.32%. In Area 3A, the charter allocations under Options 1 and 2 are 14.11% and 9.82%, respectively, a difference of 4.29%, which is reflected in the impact of the set-aside.

Compared to Option 1, the commercial sector in Area 3A is allocated a higher percentage of the combined quota than under Option 2 (90.18% versus 85.89%). However, the difference in the impact of the set-aside on the commercial sector between the options is negligible on a *percentage* basis, because the commercial sector is allocated such a relatively high percentage of the combined quota in both cases. Suboption A, in which equal pounds are taken from each sector, results in a 0.3 - 1.4 percent reduction to the commercial sector's initial allocation and a 2.5 - 12.7 percent decrease to the charter allocation. Using the 2001 combined quota, this translates to a 61,615 - 308,075 pound reduction to each sector's initial allocation. Suboption B, in which a proportional amount is taken from each sector, results in a 0.5 - 2.5 percent reduction to both sectors, which represents a 111,129 - 555,644 pound reduction to the commercial sector and a 12,101 - 60,506 pound reduction to the charter sector. Suboption C, in which the entire set-aside is taken from the charter sector, results in no impact to the commercial sector's initial halibut allocation and a 5.1 - 25.5 percent reduction (123,230 - 616,150 pounds) to the charter allocation in Area 3A.

Thus, under all of the available options for both the magnitude and the source of the set-aside, the maximum potential loss to the commercial sector is 555,644 pounds, resulting from a 2.5 percent set-aside taken proportionally from both sectors (Suboption B). Recall that under Option 1 and a charter allocation of 14.11%, the maximum potential reduction to the commercial quota is also 2.5 percent, which translates to 529,211 pounds (a difference of 26,433 pounds). In the charter sector, the greatest potential loss is still the maximum set-aside amount, or 616,150 lbs (Suboption C), regardless of the initial charter allocation selected.

Table 3.17: Impact of Community Set-aside Options on Commercial and Charter Halibut Quota in Area 3A Under Issue 1, Option 2 Allocations¹

Suboptions for Source of Set-aside ²		Community Pounds	Commercial			Charter			
			Pounds	change ³	% of combined IFQ	Pounds	change	% of combined IFQ	% above 1999 harvest ⁴
No Set-aside		0	22,225,763	0	90.18	2,420,237	0	9.82	-4.3%
Suboption A: Equal pounds	Set-aside								
	0.5%	123,230	22,164,148	-0.3%	89.93	2,358,622	-2.5%	9.57	-6.8%
	1.0%	246,460	22,102,533	-0.6%	89.68	2,297,007	-5.1%	9.32	-9.2%
	1.5%	369,690	22,040,918	-0.8%	89.43	2,235,392	-7.6%	9.07	-11.6%
	2.0%	492,920	21,979,303	-1.1%	89.18	2,173,777	-10.2%	8.82	-14.1%
	2.5%	616,150	21,917,688	-1.4%	88.93	2,112,162	-12.7%	8.57	-16.5%
Suboption B: Proportional shares	0.5%	123,230	22,114,634	-0.5%	89.73	2,408,136	-0.5%	9.77	-4.8%
	1.0%	246,460	22,003,505	-1.0%	89.28	2,396,035	-1.0%	9.72	-5.3%
	1.5%	369,690	21,892,376	-1.5%	88.83	2,383,934	-1.5%	9.67	-5.8%
	2.0%	492,920	21,781,248	-2.0%	88.38	2,371,832	-2.0%	9.62	-6.3%
	2.5%	616,150	21,670,119	-2.5%	87.93	2,359,731	-2.5%	9.57	-6.7%
Suboption C: 100% from charter sector	0.5%	123,230	22,225,763	0.0%	87.74	2,297,007	-5.1%	9.32	-9.2%
	1.0%	246,460	22,225,763	0.0%	87.74	2,173,777	-10.2%	8.82	-14.1%
	1.5%	369,690	22,225,763	0.0%	87.74	2,050,547	-15.3%	8.32	-19.0%
	2.0%	492,920	22,225,763	0.0%	87.74	1,927,317	-20.4%	7.82	-23.8%
	2.5%	616,150	22,225,763	0.0%	87.74	1,804,087	-25.5%	7.32	-28.7%

¹ Under Issue 1, Option 2, a halibut charter GHL of 9.82% in Area 3A is applied to the 2001 combined charter harvest and commercial halibut quota to determine the initial allocation to the existing charter sector. The GHLs are based on corrected 1996-1999 SWHS data.

² The Council may select a set-aside anywhere within the range of 0.5-2.5% of the combined commercial and charter halibut quota.

³ These values represent the percent change in the actual poundage allocated to each sector under each suboption.

⁴The charter sector harvested 2.53 million pounds of halibut in Area 3A in 1999.

The charter allocation under Option 2 (9.82% of the combined quota) represents the charter sector's average 1998-99 historical harvest. Recall that ADF&G reports that the charter sector harvested 2.53 million pounds of halibut in Area 3A in 1999. With no set-aside, implementing a 9.82% charter quota would allocate about 2.420 million lbs to the charter sector in Area 3A, using the 2001 combined quota. Based on those numbers, even without a set-aside, the charter harvest would need to decrease 4.3% below the 1999 harvest level to stay within the charter quota proposed under Option 2 (using the 2001 TAC).

Unlike Option 1 presented in the previous section, all of the options under consideration for the set-aside under Option 2 could potentially affect the current charter harvest. For example, if Suboption A is selected, the charter sector could be reduced 6.8 - 16.5% below the 1999 catch level. Suboption B would also reduce current charter harvest, from 4.8 - 6.7%, depending on the magnitude of the set-aside. Under Suboption C, the charter allocation could decrease to 9.2 - 28.7% below 1999 catch levels. Recall that even without a set-aside, the charter allocation under consideration under Issue 1, Option 2 would restrict the charter sector to about 4.3% below their 1999 catch.

3.5.11.2.4.3 Impact on Initial Allocations under Issue 1, Option 3

Area 2C

Under Issue 1, Option 3 of the overall halibut charter IFQ analysis, halibut charter allocations of 10.44% and 11.29% for Areas 2C and 3A, respectively, are also under consideration. These allocations are based on the 1995-99 average charter harvest. Table 3.18 shows the effects of allocating the community set-aside in Area 2C according to each of the proposed suboptions when the charter sector's initial allocation is 10.44% of the combined halibut charter and commercial quota. Under a 10.44% charter allocation and without a set-aside, the halibut quota would be split 8.804 M pounds and 1.026 M pounds, between the commercial and charter sectors, respectively, based on the 2001 combined halibut charter and commercial quota of 9.830 M pounds

in Area 2C.

Under Option 3, the commercial sector's initial allocation (89.56% of the combined halibut quota) increases by 2.61% and 0.29%, compared to Options 1 and 2, respectively. Yet, because the commercial sector is allocated such a large percentage of the combined quota under all three options, the effect of the set-aside on the commercial allocation does not change on a *percentage* basis regardless of the charter allocation selected under Issue 1 (compare Tables 3.14, 3.16, and 3.18). Under all of the suboptions under consideration, the maximum potential loss to the commercial sector is 2.5% of its initial allocation (Suboption B). Under Option 3 and the 2001 TAC, that translates to 220,094 pounds.

The *percent changes* to the charter fleet allocations as a result of the set-aside are greater under a charter allocation of 10.44% (Option 3) than under allocations of 13.05% (Option 1) or 10.73% (Option 2), simply because the charter sector is receiving a lower percentage of the combined quota. Under Option 3, the charter sector allocation decreases by 2.61% and 0.29% when compared to Options 1 and 2, respectively. Suboption A, in which equal pounds of the set-aside are taken from the commercial and charter sectors, results in a 2.4 - 12.0 percent (24,575 - 122,875 lb) decrease to the charter allocation. Suboption B distributes the set-aside proportionally between the commercial and charter sectors, resulting in a 0.5 - 2.5 percent (5,131 - 25,656 lb) decrease to the charter sector's initial allocation. Suboption C, in which the entire community set-aside is taken only from the charter sector, results in a 4.8 - 23.9 percent reduction (49,150 - 245,750 lb) to the charter allocation in Area 2C. Thus, the greatest potential loss incurred by to the charter sector is still the maximum set-aside amount, or 245,750 lbs. However, 245,750 pounds equates to a 23.9% reduction in the charter allocation if the initial allocation is set at 10.44% of the combined quota (Option 3), while the same set-aside amount equates to a 19.2% reduction under an initial charter allocation of 13.05% of the combined quota (Option 1) and a 23.3% reduction under a 10.73% charter allocation (Option 2).

The charter allocation under Option 3 (10.44% of the combined quota in Area 2C) represents the charter sector's average 1995-99 historical harvest. ADF&G data indicate that the charter sector harvested 0.94 million pounds of halibut in Area 2C in 1999. With no set-aside, implementing a 10.44% charter quota would allocate about 1.026 M lbs to the charter sector in Area 2C using the 2001 combined quota. Based on those numbers, the charter catch could increase by about 9.2% over the 1999 harvest level before it would reach the quota. Table 3.18 shows that only Suboptions A and C for a set-aside would necessarily affect the current charter harvest level. For example, if a 0.5% set-aside was selected under Suboption A, the charter sector would still need to increase 6.6% over the 1999 harvest level before being constrained by the quota. However, if a 2.5% set-aside was selected under Suboption A, the charter sector allocation would be reduced to 3.9% below 1999 harvest levels. Under Suboption B, there would still exist a 6.4 - 8.6% buffer for growth above 1999 catch levels. Under Suboption C, the greatest impact of any of the options would be to reduce the allocation to the charter sector to 17.0% below 1999 catch levels.

Table 3.18: Impact of Community Set-aside Options on Commercial and Charter Halibut Quota in Area 2C under Issue 1, Option 3 Allocations¹

Suboptions for Source of Set-aside ²		Community Pounds	Commercial			Charter			
			Pounds	change ³	% of combined IFQ	Pounds	change	% of combined IFQ	% above 1999 harvest ⁴
No Set-aside		0	8,803,748	0	89.56	1,026,252	0	10.44	9.2%
Suboption A: Equal pounds	Set-aside								
	0.5%	49,150	8,779,173	-0.3%	89.31	1,001,677	-2.4%	10.19	6.6%
	1.0%	98,300	8,754,598	-0.6%	89.06	977,102	-4.8%	9.94	3.9%
	1.5%	147,450	8,730,023	-0.8%	88.81	952,527	-7.2%	9.69	1.3%
	2.0%	196,600	8,705,448	-1.1%	88.56	927,952	-9.6%	9.44	-1.3%
2.5%	245,750	8,680,873	-1.4%	88.31	903,377	-12.0%	9.19	-3.9%	
Suboption B: Proportional shares	0.5%	49,150	8,759,729	-0.5%	89.11	1,021,121	-0.5%	10.39	8.6%
	1.0%	98,300	8,715,711	-1.0%	88.66	1,015,989	-1.0%	10.34	8.1%
	1.5%	147,450	8,671,692	-1.5%	88.22	1,010,858	-1.5%	10.28	7.5%
	2.0%	196,600	8,627,673	-2.0%	87.77	1,005,727	-2.0%	10.23	7.0%
	2.5%	245,750	8,583,654	-2.5%	87.32	1,000,596	-2.5%	10.18	6.4%
Suboption C: 100% from charter sector	0.5%	49,150	8,803,748	0.0%	89.56	977,102	-4.8%	9.94	3.9%
	1.0%	98,300	8,803,748	0.0%	89.56	927,952	-9.6%	9.44	-1.3%
	1.5%	147,450	8,803,748	0.0%	89.56	878,802	-14.4%	8.94	-6.5%
	2.0%	196,600	8,803,748	0.0%	89.56	829,652	-19.2%	8.44	-11.7%
	2.5%	245,750	8,803,748	0.0%	89.56	780,502	-23.9%	7.94	-17.0%

¹ Under Issue 1, Option 3, a halibut charter GHF of 10.44% in Area 2C is applied to the 2001 combined charter harvest and commercial halibut quota to determine the initial allocation to the existing charter sector. The GHFs are based on corrected 1996-1999 SWHS data.

² The Council may select a set-aside anywhere within the range of 0.5-2.5% of the combined commercial and charter halibut quota.

³ These values represent the percent change in the actual poundage allocated to each sector under each suboption.

⁴ The charter sector harvested 0.94 million pounds of halibut in Area 2C in 1999.

Area 3A

Table 3.19 shows the effects of allocating the community set-aside in Area 3A, according to each of the proposed suboptions, when the charter sector's initial allocation is based on 11.29% of the combined halibut charter and commercial quota under Issue 1, Option 3. Under the no action alternative and an 11.29% charter allocation, the halibut quota would be split 21.863 M pounds and 2.783 M pounds, between the commercial and charter sectors, respectively, based on the 2001 combined halibut charter and commercial quota of 24.646 M pounds in Area 3A.

The effects of the options under consideration in Issue 1 are slightly greater for Area 3A than for Area 2C. In Area 2C, the charter allocations identified under Options 1, 2, and 3 are 13.05%, 10.73%, and 10.44%, respectively, a difference of up to 2.61%. In Area 3A, the charter allocations under Options 1, 2, and 3 are 14.11%, 9.82%, and 11.29%, respectively, a difference of up to 4.29%. Because the charter sector in Area 3A would be allocated a greater percentage of the combined quota under Option 1, the set-aside has a smaller effect on the charter sector under that option compared to the other options. Option 2 allocates the smallest percentage to the charter sector in Area 3A, so adoption of a set-aside has the greatest effect on the charter sector under that option. The allocation percentage under consideration in Option 3 falls between those two options.

As stated previously, the charter allocation options under consideration in Issue 1 do not change the impact of the set-aside on the commercial sector's allocation on a *percentage* basis. Under all of the options under consideration, the maximum potential loss to the commercial sector is 2.5% of its initial allocation (Suboption B). Using a charter allocation of 11.29% of the combined quota and the 2001 halibut TAC, that translates to 546,587 pounds. Under Options 1 and 2, a 2.5% loss translates to 529,211 and 555,644 pounds, respectively.

Table 3.19: Impact of Community Set-aside Options on Commercial and Charter Halibut Quota in Area 3A under Issue 1, Option 3 Allocations¹

Suboptions for Source of Set-aside ²		Community Pounds	Commercial			Charter			
			Pounds	change ³	% of combined IFQ	Pounds	change	% of combined IFQ	% above 1999 harvest ⁴
No Set-aside		0	21,863,467	0	88.71	2,782,533	0	11.29	10.0%
Suboption A: Equal pounds	Set-aside								
	0.5%	123,230	21,801,852	-0.3%	88.46	2,720,918	-2.2%	11.04	7.5%
	1.0%	246,460	21,740,237	-0.6%	88.21	2,659,303	-4.4%	10.79	5.1%
	1.5%	369,690	21,678,622	-0.8%	87.96	2,597,688	-6.6%	10.54	2.7%
	2.0%	492,920	21,617,007	-1.1%	87.71	2,536,073	-8.9%	10.29	0.2%
2.5%	616,150	21,555,392	-1.4%	87.46	2,474,458	-11.1%	10.04	-2.2%	
Suboption B: Proportional shares	0.5%	123,230	21,754,149	-0.5%	88.27	2,768,621	-0.5%	11.23	9.4%
	1.0%	246,460	21,644,832	-1.0%	87.82	2,754,708	-1.0%	11.18	8.9%
	1.5%	369,690	21,535,515	-1.5%	87.38	2,740,795	-1.5%	11.12	8.3%
	2.0%	492,920	21,426,197	-2.0%	86.94	2,726,883	-2.0%	11.06	7.8%
	2.5%	616,150	21,316,880	-2.5%	86.49	2,712,970	-2.5%	11.01	7.2%
Suboption C: 100% from charter sector	0.5%	123,230	21,863,467	0.0%	88.71	2,659,303	-4.4%	10.79	5.1%
	1.0%	246,460	21,863,467	0.0%	88.71	2,536,073	-8.9%	10.29	0.2%
	1.5%	369,690	21,863,467	0.0%	88.71	2,412,843	-13.3%	9.79	-4.6%
	2.0%	492,920	21,863,467	0.0%	88.71	2,289,613	-17.7%	9.29	-9.5%
	2.5%	616,150	21,863,467	0.0%	88.71	2,166,383	-22.1%	8.79	-14.4%

¹ Under Issue 1, Option 3, a halibut charter GHL of 11.29% in Area 3A is applied to the 2001 combined charter harvest and commercial halibut quota to determine the initial allocation to the existing charter sector. The GHLs are based on corrected 1996-1999 SWHS data.

² The Council may select a set-aside anywhere within the range of 0.5-2.5% of the combined commercial and charter halibut quota.

³ These values represent the percent change in the actual poundage allocated to each sector under each suboption.

⁴The charter sector harvested 2.53 million pounds of halibut in Area 3A in 1999.

Under the charter allocation proposed in Option 3 (11.29% of the combined quota in Area 3A), implementation of a set-aside under Suboption A would result in a 2.2 - 11.1 percent (61,615 - 308,075 lb) decrease to the charter allocation. Suboption B, in which a proportional amount is taken from each sector, results in a 0.5 - 2.5 percent, or 13,912 - 69,563 pound, reduction to the charter sector. Suboption C, in which the entire set-aside is taken from the charter sector, results in a 4.4 - 22.1 percent (123,230 - 616,150 lb) reduction to the charter allocation.

The charter allocation under Option 3 represents the charter sector's average 1995-99 historical harvest. ADF&G data indicate that the charter sector harvested 2.53 million pounds of halibut in Area 3A in 1999. With no set-aside, implementing a 11.29% charter quota would allocate about 2.783 M lbs to the charter sector in Area 3A using the 2001 combined quota. Based on those numbers, the charter catch could increase by about 10.0% over the 1999 harvest level before it would reach the quota. Table 3.19 shows that only Suboptions A and C for a set-aside would necessarily constrain the current charter harvest level. For example, a 2.5% set-aside adopted under Suboption A would reduce the charter sector's initial allocation to 2.2% below 1999 catch levels. Other points within the set-aside range under Suboption A would continue to provide a buffer for growth in the charter sector, from 0.2% - 7.5%, depending on the magnitude of the set-aside. Under Suboption B, there would exist a 7.2% - 9.4% buffer for growth above 1999 levels. Under Suboption C, the greatest impact of any of the options would be to reduce the allocation to the charter sector to 14.4% below 1999 catch levels.

Summary

In summary, there are two parts of the decision on the set-aside that are addressed in this section: the *source* and the *size*. Among suboptions for the *source* of the community set-aside, Suboption C would be the least costly to the commercial sector, as the set-aside would be taken wholly from the charter sector's allocation. Suboption A would be the next best suboption for the commercial sector, whereby equal pounds are taken

from the commercial and charter sectors. Because the commercial sector would be allocated the great majority of the combined halibut quota under any option under Issue 1, taking half of the set-aside pounds from the commercial sector results in a very modest reduction to their allocation. Suboption B is the most costly suboption for the commercial sector, as the set-aside would be taken proportionally from the commercial and charter allocations. Again, because the majority of the combined quota would be allocated to the commercial sector under any option under Issue 1, Suboption B would result in the majority of the set-aside pounds being reallocated from the commercial sector. Suboption B essentially means that the commercial and charter sectors each take the same percentage reduction to their allocations to create the set-aside.

By comparison, the least costly suboption for the source of the set-aside for the charter sector is Suboption B. Because the charter sector is allocated a smaller relative percentage of the combined quota than the commercial sector, Suboption B results in a smaller percentage of the set-aside being taken from the charter allocation. Suboption A is the next best suboption for the charter sector, in which equal pounds are taken from the commercial and charter sectors. Suboption C is the most costly suboption for the charter sector, as the entire set-aside would be reallocated from the charter sector.

Clearly, the larger the *size* of quota set aside for Gulf communities (within the range of 0.5% - 2.5%), the greater the impact on the existing commercial and charter sectors. The decision points on the set-aside *size* and *source* are interrelated, however, since the magnitude of the set-aside has different impacts on each sector, depending on the source. For instance, the decision on the size of the set-aside becomes irrelevant to the commercial sector if the decision on the source of the set-aside is to take the entire set-aside from the charter sector.

Should the charter IFQ program be approved, the decision on the charter allocation for each area is under Issue 1 (Options 1-3). Yet the decision under Issue 1 also affects the level of impact the set-aside has on the commercial and charter allocations, as discussed extensively in this section. The greater the initial allocation to the commercial sector, the smaller the impact of the set-aside on that sector. The same applies to the charter sector. Thus, in Area 2C, Issue 1, Option 3 is the most beneficial to the commercial sector, since it allocates the greatest percentage of the quota (89.56%) to the commercial sector among all the options. In Area 3A, Issue 1, Option 2 is the most beneficial to the commercial sector for the same reason, allocating 90.18% to the commercial sector. Conversely, these two options are the most costly for the charter sector. In Area 2C, Issue 1, Option 1 is the most beneficial to the charter sector, allocating 13.05% of the combined quota to the charter sector. Similarly in Area 3A, Issue 1, Option 1 allocates the greatest percentage of the combined quota (14.11%) to the charter sector among all the options.

3.5.11.2.4.3 Implications of Set-Aside Amount for Communities

Recall that the primary goal of the set-aside is to enable interested individuals in underdeveloped communities to develop and sustain halibut charter operations and eventually purchase quota share. The set-aside is not intended to provide for halibut charter development for an unlimited number of operators in all qualifying communities, just as the community quota is not intended to sustain these start-up charter operations indefinitely. The Coalition proposal suggests structuring the community set-aside on a series of individual, community, and cumulative program caps to address these issues and create a program that will allow for charter development in these communities without representing a long-term, permanent allocation to qualified individuals. This section provides an overview of the Coalition's proposed caps and the assumptions they are founded upon, in addition to an analysis of the quota requirements necessary to develop a halibut charter business in these communities, based on data presented earlier in Table 3.9. The information in this section is intended to help evaluate whether the set-aside range is adequate to meet community needs in Areas 2C and 3A.

Individual and Community Caps

The Coalition bases their proposed limits first on an estimate of the number or pounds of halibut that a mature charter operation averages per season. The proposal relies on anecdotal information to suggest that 10,000 lbs (or 500 fish) is a reasonable average, although there is a large range of “successful” operations based on several factors including: location, whether the business is full-time or part-time, and whether it’s a multiple or single vessel operation. The Coalition also suggests that each community should have the opportunity for at least two residents to obtain the 10,000 lbs production standard, but that possibly as many as five mature operations are necessary to move a community from an underdeveloped to a developed charter halibut base. Based on these assumptions, the Coalition proposes an individual cap of 10,000 lbs and a community cap of 50,000 lbs (10,000 lbs/operator x 5 operators). Under this proposal, the individual cap of 10,000 lbs applies to all halibut charter quota, inclusive of any privately owned quota. In addition, the proposal specifies that no individual should receive more than 2,000 lbs of halibut charter quota in the first year and no more than 2,000 lbs each successive year, up to the 10,000 pound cap.

Although determining a cap amount is not part of the Council’s final decision, it is important to analyze the development needs of a start-up and/or mature charter operation in each area in order to determine whether the proposed set-aside range is sufficient to cover the potentially eligible communities in each area. For example, a 0.5%-2.5% range corresponds to 49,150 - 245,750 pounds in Area 2C and 123,230 - 616,150 pounds in Area 3A, using the 2001 combined commercial and charter halibut quota. Of the 37 proposed communities, 23 occur in Area 2C, resulting in an allocation of 460,000 lbs to Area 2C, if each community applies for and receives 20,000 lbs minimum to support two full-time charter operators. This amount far exceeds even the upper bound of the set-aside (245,750 lbs) for Area 2C, should the Council select a 2.5% set-aside. Thus, if the basis for the range of the set-aside is to be driven by the goal of establishing a mature halibut operation base in each community, the range will have to reflect the potential number of eligible communities in each area, the minimum number of qualified charter operators per community, and the average poundage per charter operator. Because of the inherent differences in halibut charter operations between Areas 2C and 3A, the Council may choose to establish different magnitudes of the set-aside in Area 2C and 3A. This point will be explored further in this section.

A related premise of the set-aside concept is that the eligible communities in each area are entitled to equal shares of the community quota allocated to that area. This means there is no subjective role for NMFS, the state, or the communities themselves in determining whether one community ‘deserves’ more quota than another. For example, if all 23 communities in Area 2C are eligible and apply for community quota, they are each guaranteed a minimum amount of that quota, regardless of whether some eligible 2C community receives fewer quota shares during initial allocation of the general IFQ pool. Thus, it is necessary to evaluate the needs of start-up and mature charter businesses in eligible communities in each area, in order to determine the magnitude of the set-aside adequate to fulfill those minimum needs and to allocate quota share in a manner compatible with the number of proposed communities in each area. This method removes subjective oversight of the program, but decreases flexibility of granting some communities less than the defined minimum if it is not needed to meet their current charter demand. These tradeoffs were considered when developing the program. It also assumes that all of the halibut allocated to a community will be used. If a community’s charter operators cannot use the minimum allocation it will decrease the overall benefits of the set-aside program.

Assumptions for Analysis

Several assumptions are made in order to project the implications of the set-aside range for communities and to determine the amount of community quota necessary to develop a halibut charter base in each area. The assumptions stem from the overall goal of the program, which, while remaining somewhat open to interpretation, the Council has indicated is to give communities enough quota to get charter businesses started (part-time), assuming that additional quota to support a mature, full-time business would be subsequently purchased from the general IFQ pool. The goal influences both the amount of poundage necessary to meet the resource needs of a start-up versus a mature operation, and the number of operators per community that

constitute a halibut charter base. Because of the uncertainty surrounding this issue, several scenarios are captured in the tables in this section, based on two different goals (start-up versus full-time) and differing sets of assumptions regarding the quota needs to meet those goals. The assumptions in the Coalition proposal are presented along with those shown in Table 3.9, and are used in the following sections for each area.

Area 2C

Staff estimates of the halibut requirements for start-up and full-time charter operators for Area 2C target communities are shown in Table 3.9. Start-up operators in Area 2C are estimated to need 50 fish or 900 lbs, and full-time operators need 170 fish or 3,000 lbs. These figures are somewhat lower than the requirements proposed by the Coalition of 2,000 lbs per individual in the first year and an individual cap of 10,000 lbs. Note that the Coalition proposal also uses a slightly higher average weight of 20 lbs per fish than is estimated in this analysis. The tables in this section report the allocations for Area 2C using both sets of assumptions and an average weight of 18.0 lbs per fish. While quota needs may vary widely among communities and individuals depending on the type of business and other factors, some measure of average resource requirements is necessary to determine the adequacy of the set-aside range. The staff calculations are based on the ADF&G estimates of average halibut size taken in the charter fishery, average harvest rates, and the number of trips needed for a start-up and full time operator. Number of trips for the various operations were derived using information from logbook data. These estimates represent the best information available to the analysts. The information reported by the Coalition represent their understanding of the fishery. Because they were a primary contributor in the development of the set-side program, it was felt that their information should be presented.

Table 3.20 shows the projected impact of the set-aside range on the target communities in Area 2C. It indicates that, based on a range of 0.5 -2.5 percent, each of the 23 proposed Area 2C communities would receive between 2,137 and 10,685 pounds. Again, the determination of what magnitude(s) within the range is sufficient to fulfill the general requirements of a charter operation in these communities is dependent on the assumptions regarding the minimum pounds needed for start-up and mature operations. The table shows the potential allocation to each community based on the requirements for individuals, stated in the Coalition proposal (2,000 lbs for start-up and 10,000 lbs for a mature business) and as modified by the data presented in Table 3.9 (900 lbs/ for a start-up and 3,000 lbs for a mature business).

Assuming that an individual needs 2,000 lbs to meet the start-up requirements for a halibut charter business, the set-aside range would provide about 1 - 5 businesses with enough quota to do so. If a start-up business requires only 900 lbs, the range increases to 2 - 12 charter vessels, per community. Clearly, the same amount of quota will support fewer mature businesses. If a mature business needs 10,000 lbs of quota, only the maximum set-aside of 2.5% (10,685 lbs) would suffice to support one mature business in each Area 2C target community. Assuming a mature business needs only 3,000 pounds, a 1.0% or 1.5% set-aside would support 1 and 2 businesses, respectively, a 2.0% set-aside would support almost 3 operations with the remainder being made up from other sources, and a 2.5% set-aside would support greater than 3 operations.

The calculations assume that all 23 proposed eligible communities in Area 2C will both qualify and apply for community quota share. Preliminary data indicate that potentially four of the Area 2C target communities with existing charter operations may receive sufficient halibut charter quota during initial allocation to preclude them from qualifying for community set-aside quota. In addition, there may be other barriers to entry associated with starting halibut charter operations in some communities related to raising capital and securing clients. Both of these factors may result in fewer than 23 communities applying for quota share, affecting the amount potentially available to the remaining qualified communities. Given the uncertainty of which communities will qualify and participate, the program will require the communities to apply for quota prior to the start of fishing. The application period will allow managers of the program to determine how much quota will be allocated to the qualified community groups.

For example, if only 13 of the proposed communities are ultimately eligible, apply for, and receive community quota share, the amount of quota per community would increase to a potential range of 3,781 -

18,904 pounds, subject to whatever community cap is imposed. Accounting for this possibility, the number of halibut charter operations that the set-aside could potentially support could increase substantially. While the number of eligible communities is not at issue in this analysis, it is important to note that the impacts of the proposed set-aside range are dependent on the final number of eligible communities applying for quota share each season.

Table 3.20 shows the magnitudes within the 0.5% - 2.5% range for the set-aside that may meet the needs of underdeveloped communities, as well as the magnitudes that are either insufficient or in excess of community needs, given the estimates of start-up and mature charter business requirements. This determination is also dependent on whether the goal of the program is to give these individuals enough quota for part-time, start-up businesses or mature, full-time businesses. The Coalition proposal states that the goal is to create a successful, mature halibut charter base in each community, however, the Council indicated during initial review that the set-aside should be based on the needs of a number of start-up charter businesses. In this case, analysis of the adequacy of the range would focus on the 2,000 lbs requirement as proposed by the Coalition, and/or the 900 lbs requirement as indicated by recent data.

A related question is how many unique halibut charter operations are necessary to transition a community from its underdeveloped state. The Coalition proposal suggests at least 2 individuals in each community should receive community quota, but that 5 businesses would likely represent a stable halibut charter base. Assuming two individuals in each of 23 communities need 10,000 lbs each to develop a mature operation, no amount of set-aside within the proposed range of 0.5% - 2.5% would meet those requirements. Assuming two individuals in each of 23 communities need only 3,000 lbs each to develop a mature operation, a minimum set-aside of 1.5% would be adequate. While any small amount of community quota may benefit the participant, the overall program goal is to provide for sustained community participation in the halibut charter industry and to enable communities to create a halibut charter economic base. If the intent is to overcome the initial QS barrier to enter the halibut charter industry by providing operators with enough quota to *start* businesses and enable them to eventually buy halibut QS, Table 3.20 shows that a set-aside of 1.0% or greater in Area 2C may be adequate to accomplish a goal of establishing five start-up charter operations in each proposed eligible community (assuming 900 lbs meets the poundage requirement).

It is important to emphasize, this community set aside analysis assesses only the (potential) theoretical upper limit on the “supply-side” of the equation. These results are, therefore, incomplete. That is, based upon the “supply-side” results presented above, one might conclude that, if the size of the set-aside was doubled, it would “support” 230 new charter businesses; if tripled, 345, etc. The missing information concerns whether there really exists sufficient latent demand for (what is predicted to be) “high priced” charter fishing, to support 115 new charter firms? And, what implication would this level of new competition have for existing operators (both in and outside of targeted communities)?

Unfortunately, there is no information available on the demand for charters in remote communities. If these communities are unable to attract clients to take charter trips, then the amount of quota available to the community is irrelevant. These communities will need to market these trips. It may make sense to market them in combination with other unique attributes the communities may have to offer. Communities may also be able to band together to generically market these remote trips. If the prices of these trips are more than those offered in less remote places, it will be in their interest to “differentiate” their product (i.e., market the specific attributes of these trips that make them unique). In the absence of empirical evidence of “demand”, the “supply” projections provided above, must be cautiously interpreted.

A phase-in approach is also under consideration in this analysis, and has been discussed previously in Section 3.5.11.2.2. Under the framework of a phase-in, Table 3.20 may also be used to determine how many charter businesses a first-year phase-in could support, based on the minimum requirements for the area, and how many start-up businesses could be supported thereafter. For example, under a phase-in and a Council decision to set aside 1.5% of the combined charter and commercial halibut quota, the Council may choose to start the program by allocating only 0.5% of the combined halibut quota to communities, and increase the set-aside by 0.5% per year as the fishery meets the set-aside limit. The intent may be to jump-start several new charter businesses, and increase the allocation as they develop. Under this example in Area 2C, the data indicates that starting with a 0.5% set-aside would provide sufficient QS for only 1 or 2 operations to start-up in each community, depending on whether the assumed minimum requirement to get started is 2,000 lbs or 900 lbs, respectively. As businesses develop, an area may harvest their 0.5% limit, and the set-aside may bump up to 1.0% and eventually 1.5% depending on the number of individual applicants and their rate of growth.

During initial review and in its February minutes, the SSC cautioned against placing too much reliance on the estimates of the number and pounds of halibut needed for start-up and mature operations presented in Table 3.9 and used in Tables 3.20 for Area 2C and 3.22 for Area 3A. The SSC noted that the estimation of “necessary” catch levels can arguably result in an overestimation or an underestimation, depending on the data used. In light of this issue, the Council recommended that a range of necessary catch levels be analyzed, in order to show how the *number of charter operators that can be supported* by the set-aside changes with the assumptions regarding the *amount of halibut needed* to support a business. While this task is not a veritable sensitivity analysis, the type of comparison made is similar. The concept is to show how sensitive the results are to changes in the assumptions.

Table 3.21 below presents a range of necessary quota needs (in pounds of halibut) to support a halibut charter operation in Area 2C, from 1,000 - 15,000 pounds. The selected range is not based on any analysis of actual catch levels, as in Table 3.20. Data points representing estimated quota needs of 3,000, 6,000, 10,000 and 15,000 lbs are highlighted as specific points requested by the Council during initial review. The table shows the number of charter businesses that could be sustained by the proposed set-aside, given the pounds of halibut quota necessary to support a business. Each of the five columns represent a specific set-aside percentage within the range under consideration in Issue 11: 0.5%, 1.0%, 1.5%, 2.0%, and 2.5%, and the corresponding number of pounds each Area 2C target community would receive under that set-aside if each of the 23 proposed target communities were eligible, applied for, and received an equal amount of set-aside quota in the annual allocation.

Table 3.21: Projected number of Charter Halibut Businesses Supported by Proposed Set-Aside Range in Area 2C.

Table 3.20: Projected Impact of Halibut Charter Set-aside on Area 2C Target Communities

Amount of Set-aside	0.50%	1.00%	1.50%	2.00%	2.50%
Total Set-aside Pounds	49,150	98,300	147,450	196,600	245,750
Lbs/community if 23 communities¹	2,137	4,274	6,411	8,548	10,685
# of individual operations (vessels) supported if:					
start-up business needs 2,000 lbs	1.1	2.1	3.2	4.3	5.3
start-up business needs 900 lbs	2.4	4.7	7.1	9.5	11.9
mature business needs 10,000 lbs	0.2	0.4	0.6	0.9	1.1
mature business needs 3,000 lbs	0.7	1.4	2.1	2.8	3.6

¹The amount of the set-aside is based on the specified percentage (0.5 - 2.5%) of the combined 2001 commercial and charter halibut quota.

²Twenty-three communities are currently on the draft list of eligible communities. Should the Council adopt a set-aside, this number will not be final until the follow-up regulatory amendment.

For instance, if a 1.0% set-aside was chosen for Area 2C, and the quota was distributed equally among the proposed 23 Area 2C target communities, each community would receive 4,274 lbs of quota. The table then shows the corresponding number of businesses that could be supported by that amount of set-aside quota in each community, depending on how much quota one assumes is necessary to support a halibut charter business (1,000 - 15,000 lbs). Using this example, if one assumes that 1,000 lbs is necessary to start a charter business, a 1.0% set-aside would be sufficient to support 4 start-up charter businesses in each community. Assuming that 2,000 lbs is necessary, a 1.0% set-aside would support half that number, or 2 charter businesses in each community. Note that the resulting number of charter businesses is inversely proportional to the amount of halibut quota needed to support a business. Assuming a specific set-aside percentage, if the amount of halibut quota necessary to start a business is doubled, the number of charter businesses that set-aside can support is halved.

Figure 3.7 is a graphic representation of the values in Table 3.21. The figure illustrates that as the estimate of the amount of halibut quota needed to support a charter business increases, both the total number and the *marginal* number of charter businesses it can support decreases. For instance, under a 1.0% set-aside, the

Halibut quota needed to support a charter business (in lbs)	Set-aside range and corresponding lbs/community in Area 2C ¹				
	0.5%	1.0%	1.5%	2.0%	2.5%
	2,137 lbs	4,274 lbs	6,411 lbs	8,548 lbs	10,685 lbs
Number of charter businesses supported by set-aside					
1,000	2.1	4.3	6.4	8.5	10.7
2,000	1.1	2.1	3.2	4.3	5.3
3,000	0.7	1.4	2.1	2.8	3.6
4,000	0.5	1.1	1.6	2.1	2.7
5,000	0.4	0.9	1.3	1.7	2.1
6,000	0.4	0.7	1.1	1.4	1.8
7,000	0.3	0.6	0.9	1.2	1.5
8,000	0.3	0.5	0.8	1.1	1.3
9,000	0.2	0.5	0.7	0.9	1.2
10,000	0.2	0.4	0.6	0.9	1.1
11,000	0.2	0.4	0.6	0.8	1.0
12,000	0.2	0.4	0.5	0.7	0.9
13,000	0.2	0.3	0.5	0.7	0.8
14,000	0.2	0.3	0.5	0.6	0.8
15,000	0.1	0.3	0.4	0.6	0.7

¹Under Issue 11, the Council may select a set-aside anywhere within the range of 0.5 - 2.5% of the combined commercial and charter halibut quota. Twenty-three communities are currently on the draft eligibility list for Area 2C.

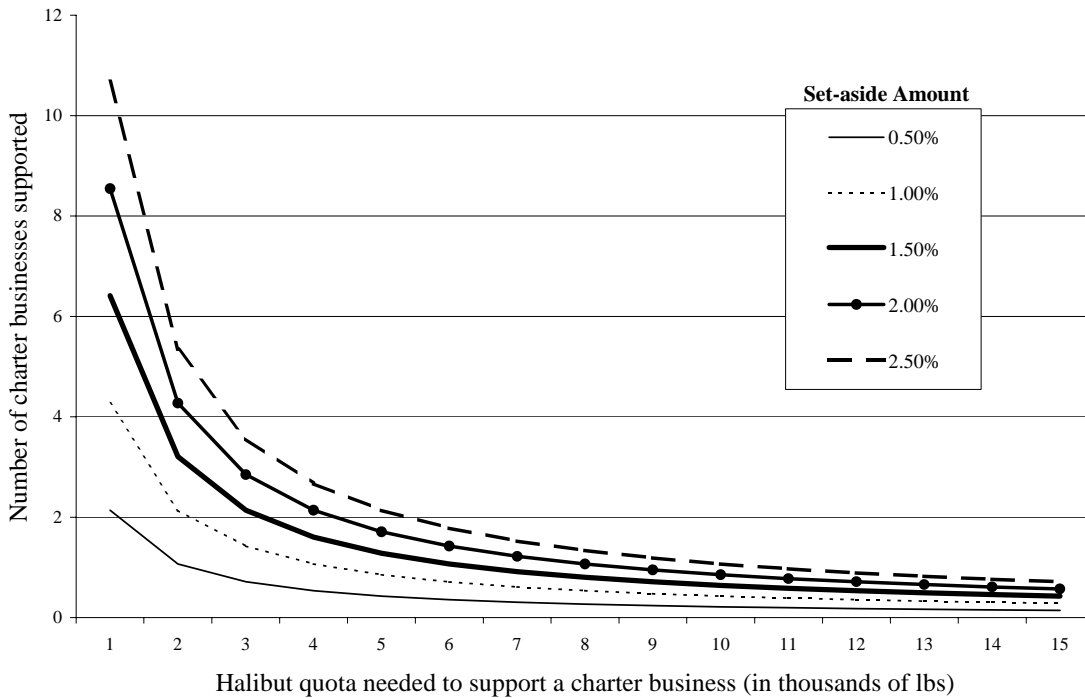
difference between assuming that a charter business needs 1,000 versus 2,000 pounds of quota is effectively 2 businesses. Yet the difference between assuming that a charter business needs 14,000 versus 15,000 pounds of quota is negligible (0.3 - 0.3). In both cases there is not adequate quota to fund a charter operation. Thus, as the estimates of the amount of halibut quota necessary to support a charter business increase, the data becomes increasingly insensitive to those changes. In Area 2C, given the proposed range for the set-aside and the relatively small allocations that could be made to each community, the number of additional businesses that the set-aside could support quickly becomes negligible as the halibut quota requirements increase. For instance, if a 1.0% set-aside is selected, any quota requirement greater than 5,000 lbs would result in too little quota to support a business.

The estimates discussed in this section do not account for the number of charter businesses already operating in the Area 2C proposed eligible communities. If the number of existing charter businesses is taken into account, it is possible that a lower magnitude of the set-aside would be adequate to develop a halibut charter base in each community. The analysis also does not account for other factors (e.g., as previously noted, client demand) that may limit the number of charter businesses in target communities.

Given the lack of information available on client demand, it is not possible to determine the appropriate set-aside for these operations from a demand perspective. If this client market is different from that in ports like

Figure 3.7

Projected Number of Halibut Charter Businesses Supported by Proposed Set-aside Range in each Area 2C Target Community



Homer and Seward, as conjectured, then it is impossible to make estimates using current surveys from those areas. Deriving estimates of client demand for remote trips goes well beyond the analytic tools available for this analysis and would require significantly more information than is currently available. The authors do not want the importance of client demand to be diminished simply because the information does not exist. However, this issue will need to be addressed through public comment since that is the only source of information that is currently available.

Area 3A

Based on the information shown in Table 3.9, start-up operators in Area 3A are estimated to need 50 fish or 1,000 lbs, and full-time operators are estimated to need 310 fish or 6,000 lbs. The halibut charter quota requirements also vary between areas; a mature business in Area 2C is estimated to need 170 fish or 3,000 lbs. [Note that the 1999 average halibut weight is greater for Area 3A than 2C; 19.2 lbs versus 18.0 lbs]. These figures are somewhat lower than the requirements proposed by the Coalition. The tables in this section report the allocations for Area 3A using both sets of assumptions and an average weight of 19.2 lbs per fish.

Table 3.22 shows the projected impact of the range of the set-aside on the proposed eligible communities in Area 3A. The table indicates that, based on the set-aside range of 0.5 - 2.5 percent, each of the 14 proposed Area 3A communities would be allocated a range of 8,802 - 44,011 pounds. The table shows the corresponding allocation to each community based on the requirements suggested in the Coalition proposal (2,000/individual for start-up and 10,000/individual for a mature business) and also as modified by the data presented in Table 3.9 (1,000/individual for start-up and 6,000/individual for a mature business).

Assuming that an individual needs 2,000 lbs to meet the start-up requirements for a halibut charter business, the set-aside range would provide 4 - 22 businesses with enough quota to do so. If a start-up business requires 1,000 lbs, the range doubles to about 9 - 44 operations per community. If a mature business needs 10,000 lbs

Table 3.22 Projected Impact of Halibut Charter Set-aside on Area 3A Target Communities

Amount of Set-aside	0.50%	1.00%	1.50%	2.00%	2.50%
Total Set-aside Pounds ¹	123,230	246,460	369,690	492,920	616,150
Lbs/community if 14 communities ²	8,802	17,604	26,406	35,209	44,011
# of individual operations (vessels) supported if:					
start-up business needs 2,000 lbs	4.4	8.8	13.2	17.6	22.0
start-up business needs 1,000 lbs	8.8	17.6	26.4	35.2	44.0
mature business needs 10,000 lbs	0.9	1.8	2.6	3.5	4.4
mature business needs 6,000 lbs	1.5	2.9	4.4	5.9	7.3

¹The amount of the set-aside is based on the specified percentage (0.5 - 2.5%) of the combined 2001 commercial and charter halibut quota.

²Fourteen communities are currently on the draft list of eligible communities. Should the Council adopt a set-aside, this number will not be final until the follow-up regulatory amendment.

of quota, the set-aside range could support nearly 1 - 4 mature businesses in each 3A community. Assuming a mature business needs 6,000 pounds, the range increases to about 1 - 7 operations per community. If the goal is to provide enough quota to a number of *start-up* charter businesses, the focus should be on the 2,000 lbs or 1,000 lbs requirement, as opposed to the amount of halibut needed to support mature operations.

The information so far assumes that all 14 proposed eligible communities in Area 3A will both qualify and apply for community quota share. Preliminary data indicate that at least one of the targeted Area 3A communities with existing charter operations may receive sufficient halibut charter quota during initial allocation to preclude qualifying for community set-aside quota. This assumes that communities would be subject to a community cap, inclusive of any privately held quota. In addition, there may be other barriers to entry associated with starting halibut charter operations in some communities, such as equipment costs, infrastructure considerations, or lack of a client base (e.g., insufficient demand). Any of these factors may result in fewer than 14 communities applying for quota share, which would affect the amount potentially available to the remaining qualified communities. The exact number of participating communities is not at issue in this analysis, but would be determined in a trailing amendment should the Council decide to adopt a set-aside.

As discussed in the section relating to Area 2C, it is also necessary to estimate how many unique halibut charter operations would create a viable, successful halibut charter base in each community. The Coalition proposal suggests at least 2 individuals in each community should receive community quota, but that 5 businesses would likely represent a stable halibut charter base. Based on the above assumptions, a minimum set-aside of 0.5% would satisfy the needs of about 5 start-up operations in each Area 3A target community under a 2,000 lb requirement, and 9 start-up operations under a 1,000 requirement (Table 3.22). Again, if the number of *existing* charter businesses is taken into account, it is possible that a lower magnitude of the set-aside would be adequate to develop a halibut charter base in some communities.

Table 3.22 also provides information relative to the decision of using a phase-in approach. For example, under a phase-in and a Council decision to set aside 1.5% of the combined charter and commercial halibut quota, the Council may choose to start the program allocating only 0.5% of the combined halibut quota to communities, and increase the set-aside by 0.5% per year as the fishery meets the set-aside limit. As businesses develop, communities may increase their requests to meet the 0.5% guideline, causing the set-aside to bump up to 1.0% and eventually 1.5% depending on the number of individual applicants and their rate of growth.

Again, because of concern about over or underestimating the halibut quota needs per individual operation in the target communities, Table 3.23 was generated to show how the results change in relation to a broad range

of estimates. Table 3.23 presents a range of quota needs (in pounds of halibut) to support a halibut charter operation in Area 3A, from 1,000 - 15,000 pounds. Data points representing estimated quota needs of 3,000, 6,000, 10,000 and 15,000 lbs are highlighted as specific points requested by the Council during initial review. The table is presented exactly as in the previous section for Area 2C, showing the number of charter businesses that could be sustained by the proposed set-aside, given a range of pounds of halibut quota necessary to support a business.

For example, if a 1.0% set-aside was chosen for Area 3A, and the quota was distributed equally among the 14 target communities, each community would receive 17,604 lbs of quota. The table then shows the corresponding number of businesses that could be supported by that amount of set-aside quota in each community, depending on how much quota is assumed necessary to support a halibut charter business (1,000 - 15,000 lbs). Using this example, if one assumes 1,000 lbs is necessary to start a charter business, a 1.0% set-aside would support 17 start-up charter businesses in each community. Assuming that 2,000 lbs is necessary, a 1.0% set-aside would support half that amount, or 8 charter businesses in each community. Again, the resulting number of charter businesses is inversely proportional to the amount of halibut quota needed to support a business. Assuming a specific set-aside percentage, if the amount of halibut quota necessary to start a business is doubled, the number of charter businesses that the set-aside can support is halved.

Figure 3.8 illustrates the relationship between the variables in Table 3.23: as the estimated amount of halibut quota needed to support a charter business increases, the marginal number of charter businesses it can support decreases. Thus, while the assumption regarding quota needs may be important at the lower end of the range, it becomes increasingly less important toward the higher end of the range. For instance, under a 1.0% set-aside, the difference between assuming that a charter business needs 1,000 versus 2,000 pounds of quota is 8 businesses. Yet the difference between assuming that a charter business needs 14,000 versus 15,000 pounds is meaningless since neither option would support a business. Thus, as the estimates of halibut quota necessary to support a charter business increase, the results become increasingly insensitive to those changes.

Summary

To summarize, there are several sets of assumptions inherent in determining what might constitute an adequate amount of community quota that should be clearly addressed. Contrary to the Coalition proposal, the Council may determine that the intent of the program is to give communities enough quota to support a number of *start-up* operations, assuming that, subsequently, additional halibut QS to support a full-time business would be purchased. Relative to that question is whether 2,000 lbs, 1,000 lbs, or some other amount of poundage is a reasonable estimate of quota needs for a developing operation in each area, and what number of operators per community the set-aside is intended to support in developing a halibut charter base. The range of options under consideration for this action is limited to 0.5 - 2.5% of the combined halibut charter and commercial quota, and these assumptions will be critical in determining whether any amount of set-aside within that range will be adequate to benefit the proposed eligible communities and meet the intended goal of the program. The analysis does not consider, however, possible limits on the total number of charter businesses in the target communities that the market, i.e. client demand, can support. Such a market demand analysis is fundamental to any true evaluation of the likely effects of a set-aside program, but exceeds the capacity of current models and data sources.

3.5.11.2.5 Break-even Analysis for Halibut Charter Businesses in Areas 2C and 3A

The Council requested that the analysis include a discussion of the administrative costs of the program in contrast to the breakeven point of a halibut charter business relative to the amount of allocation that may be made available. The breakeven analysis may also provide some guidance on the amount of halibut required to support start-up/part-time and mature/full-time charter businesses in Areas 2C and 3A. This section provides a simplified breakeven analysis based on the ISER (1999) guide and charter business survey data for operating expenses.

Estimated start-up and operating costs for charter businesses were provided in Appendix 2 (NPFMC 2003)

based on the ISER (1999) survey. The survey (based on the 1993 operating year) had a sample size of 331 businesses, representing a 73% response rate from large firms and 27% response rate for other firms. Since the highest response rate was from the stratum of firms identified by regional biologists as the major guide or charter businesses in their regions, the results may be more reflective of these larger charter businesses and less representative of small and/or start-up charter businesses. This sample was reduced to exclude operators in the Arctic-Yukon-Kuskokwim and Southwest regions and exclude operators that specified species other than halibut as the target species. This reduced the sample from 331 down to 236. Statistics on operating expenses based on this sample are summarized in Table 3.71, including the mean, median, and percentile cutoff values for the total operating expenditures. The median and mean operating expenditures are \$27,400 and \$100,621 in 1993 dollars. The large difference between the median and mean is another indicator that the data may be biased by a number of very large charter businesses. Adjusting for inflation to 1998 (for consistency with charter trip pricing data), indicates median and mean operating expenses of \$29,000 and \$106,600 for charter businesses operating in Areas 2C and 3A.

Note the following weaknesses associated with this break-even analysis:

Several weaknesses with these statistics include the following: (1) the survey had a higher response rate for the more established businesses in each region and may be more reflective of larger charter businesses operating in major ports; (2) the survey included businesses providing guide services to anglers and businesses that provided transportation to fishing location and, thus, is based on a broader definition of “guide” than that used in the ADF&G guide registration program; (3) there is no break out of charter operators in Area 2C versus 3A; and (4) there is no break out of businesses operating in major ports versus remote ports.

Table 3.24 shows the break-even analysis for charter businesses in Areas 2C and 3A, using the inflation adjusted median and mean operating expenses of \$29,000 and \$106,600 per year, respectively. Several other assumptions are made as follows: (1) charter trip prices in Areas 2C and 3A range from \$150-\$220 and \$130-\$190, respectively; (2) a typical trip in each area takes six clients; (3) average harvests per trip for Areas 2C and 3A are 3 fish/trip and 5 fish/trip, respectively; and (4) 1999 average weights of halibut harvested by charterboat clients in Areas 2C and 3A are 18.0 lb/fish and 19.2 lb/fish, respectively.

Table 3.24 Break-even Analysis for Charter Businesses in Areas 2C and 3A Based on Median and Mean Total Operating Expenses from ISER (1999) Guide and Charter Business Survey

Area	Operating Expenses		\$/ client	# clients	# trips	fish/ trip	# fish	# pounds
	1993 \$	inf-adj \$						
2C	27,400	29,000	150	193	32	3	97	1,737
	100,621	106,600	150	711	119	3	356	6,399
	27,400	29,000	220	132	22	3	66	1,188
	100,621	106,600	220	485	81	3	243	4,365
3A	27,400	29,000	130	223	37	5	186	3,568
	100,621	106,600	130	820	137	5	683	13,120
	27,400	29,000	190	153	26	5	128	2,448
	100,621	106,600	190	561	94	5	468	8,976

Assumptions:

1. Operating expenses based on ISER (1999) median and mean values in '93 \$.
2. Inflation adjusted to 1998 for consistency with pricing data using the PPI for the water transportation industry.
3. Assumes 6 clients per trip.
4. Pounds based on average 1999 weights of 18 lb/fish and 19.2 lb/fish for Areas 2C and 3A, respectively.

As shown, the halibut resource required, under the suite of assumptions identified above, to break even for a charter business in Area 2C ranges from a low of 1,200 pounds (using \$220 per client and expenses of \$29,000) to a high of 6,400 pounds (using \$150 per client and expenses of \$106,600). Similarly, the amount of halibut required to break even in Area 3A ranges from 2,400 pounds to 13,100 pounds. The range for Area 2C is somewhat lower and the range for Area 3A is somewhat higher than the amounts proposed by the Coalition of 2,000 pounds and 10,000 pounds for start-up and mature charter operators, respectively. On the other hand, if the median operating expenditure of \$29,000 per year is more reflective of a small charter business, then only 1,200-1,700 fish in Area 2C and 2,400-3,600 fish in Area 3A may be needed to break-even. It is also possible that a start-up charter business operates at a loss for the first few years (while a client base is being developed) and that actual harvest levels during the start-up phase would be lower than the break-even requirements.

Recall that the ranges for halibut requirements used in Section 3.5.11.2.4.3 (impact of magnitude of set-aside on communities) were based on average halibut harvests per vessel for vessels ranking in the first and second quartiles for Areas 2C and 3A (Tables 3.8 and 3.9). Based on these statistics, estimated halibut requirements for Area 2C are 900 lbs and 3,000 pounds for start-up and mature operators, respectively, and estimated requirements for Area 3A are 1,000 and 6,000 for start-up and mature operators, respectively. These amounts, along with the Coalition proposed amounts, are used in the analysis (and not the amounts suggested by the breakeven analysis) since the estimates are based on actual harvests of businesses operating in the communities among the 37 targeted by the set-aside. *Since the estimates based on the breakeven analysis may be less reflective of charter businesses operating in the target communities, they are not used in the analysis.* The breakeven analysis does suggest, however, that the ranges used to evaluate the implications of the set-aside magnitude for the 37 target communities are reasonable.

3.5.11.2.6 Suboption 2: Sunset Provision

This section provides an analysis of the longer-term implications of the community set-aside if there is (a)

no sunset provision, (b) the program sunsets in 5 years, (c) the program sunsets in 10 years, and (d) participants in the program at the time of sunset would be allowed to continue participation within the guidelines of the program.

(a) No Sunset Provision

One of the main purposes of the community set-aside is to reduce one of the key economic barriers to entry into the charter industry, for certain communities in which this sector is relatively underdeveloped. Quota is to be set aside for qualifying individuals in eligible communities to use for purposes of starting and developing viable charter operations. As proposed by the Coalition, participants would be expected to eventually purchase halibut QS, rather than rely on allocations from the set-aside indefinitely. Several provisions in the Coalition proposal are designed to encourage this outcome. First, there is a proposal to cap the amount of set-aside quota that an individual can receive to a maximum of 10,000 pounds, inclusive of any QS owned by the individual. Secondly, the proposal includes a community cap of 50,000 pounds, inclusive of all QS held by residents of the community. Finally, the proposal includes a 10-year limit on how long any individual can participate in the program. As individuals and/or communities reach these limits, set-aside quota may be made available for other individuals and/or communities, or returned to the general allocation pool.

It is conceivable that, in the long run, no more communities or individuals would qualify for an allocation from the set-aside (i.e. the program sun-sets). If so, the entire set-aside amount would roll back annually to the general charter/commercial allocation pool. If this were to occur, some of the short-run impacts of the set-aside would be reversed; some charter operators that had not been recipients of quota from the set-aside program would no longer need to lease IFQs to meet client demand or could sell some QS (In the commercial sector, the TAC would effectively be increased.) On the other hand, it is more likely that, as the remote-community charter sector matures, there is a relatively stable number of new entrants that qualify to receive set-aside quota. This stable level of new entrants reflects the normal rate of turnover resulting from a need to replace operators that go out of business (although previous estimates provided in the GHF analysis indicated a turnover rate of 50% between 1998 and 1999). In this case, if the amount of quota needed to account for turnover is below the set-aside allocation, the effects of the set-aside would be partially but not completely reversed since each year some portion of the set-aside would be allocated to communities. Thus, while individual participation may be limited, a community's participation would not necessarily be limited so long as the community cap is not exceeded and a stable number of individuals continue to apply for set-aside quota each year.

It is also possible that some participants may continue to rely on set-aside quota until their 10-year limit approaches. Or, some community-members may feel compelled to take advantage of the "free" set-aside quota as long as it exists. This implies that a large number of individuals may continue to request allocations from the set-aside each year. It is also conceivable that the set-aside quota artificially encourages too many individuals to start charter operations in the context of what client demand may actually be able to support. If so, the dynamics in the remote-community charter sector could become distorted since business decisions are being made on a false premise. Given the significant financial risks associated with starting a charter business, even with the set-aside, it seems unlikely that this type of behavior would be wide spread or prevail over an extended period of time. This risk is not, however, fully a private sector concern. It is probable that some of the target communities may be "induced," by the promise of economic diversity and growth, to incur capital investment obligations, in support infrastructure, which, if the start-up charter businesses are not successful, could adversely impact the local public sector's financial stability.

Program Sunsets in (b) 5-years or (c) 10-years

A sunset provision of 5 or 10 years is more likely to ensure that the impact of the community set-aside is contained. Once the program ends, no halibut quota would be set aside for communities and the TAC for the charter and commercial sectors would be set as usual. The effects of the set-aside on the charter and commercial sectors would partially reverse although the allocations to all sectors (major-port,

remote-community and commercial sectors) will likely differ from their starting points as a result of any transfers that have taken place. Any “back-end” changes in net economic benefits resulting from the sunset are potentially modest if community members successfully reduced their reliance on the set-aside in advance of the sunset date. For example, if a large portion of the set-aside quota is being rolled back because relatively few requests for set-aside quota are being made, then the impacts of ending the program are likely to be minor. On the other hand, if participants wait until the last minute, the sudden ending of the set-aside program could jeopardize at the margin some of the remote-community charter businesses. Similarly, a program sunset may negatively impact individuals that begin participation in the latter years of the program.

If participants know in advance that the program will sunset, they are more likely to make alternative provisions (i.e., purchase QS as they are able). If the intent of the program is to provide short-term relief to certain communities so that adjustments to the charter IFQ program can be made gradually, it is possible that an explicit sunset clause is more likely to encourage participants to purchase QS, rather than plan on long-term reliance. If, however, the intent of the program is to provide opportunities to communities to sustain participation in the charter industry on a long-term basis, a program sunset may place an unnecessary limit on the community (as opposed to the individuals in the community) rather than serve mainly to encourage individuals to reduce reliance on set aside quota.⁴

The difference between 5 and 10 years is more of a policy call. The (major-port) charter and commercial sectors would likely prefer a 5-year sunset, since it provides greater certainty and allows for better long-term planning. It is equally likely that targeted communities would prefer no termination date, so as to maximize the development potential provided by subsidized access to quota.

(d) Upon Sunset, Allow Continued Participation Under Program Guidelines

At the February 2001 meeting, the Council added a suboption to allow those participating in the program at the time of the sunset (if the program is chosen by the Council) to continue participation under the guidelines of the program. Thus, for example, if the program includes a 10-year limit on how long any individual may participate in the program, and an individual begins participation in the last year of the program prior to the sunset, the individual would be allowed to continue to request and receive set-aside quota for another nine years.

This suboption would result in a more gradual attenuation of the program and the program impacts on the other sectors. By allowing participants to continue under the guidelines of the program, this suboption would help mitigate some of the negative aspects of ending the program abruptly under a strict sunset. That is, a

⁴While the proposed community set-aside is structurally distinct from the existing CDQ program, some of the factors considered in the development of the CDQ program may have relevance to the community set-aside, to the extent that the set-aside is intended to provide for economic development opportunities. The NRC study (1999b) on Alaska’s CDQ program specifically considered the issue of program duration in the context of an economic development program like the CDQ program. The committee noted the following:

“The committee believes that the CDQ program must not be seen as a short-term solution to a long-term problem in western Alaska. Contemplation of termination of the program suggests a view of development as a terminal concept. There may be a perception in some quarters that there will come a time when the CDQ program can be declared to have achieved its goals, and be terminated. However, ..., the purposes for which the program were created, such as long-term economic development, are not terminal concepts.”

With respect to this issue, the committee reached the following conclusion:

“The CDQ program must be a long-term program because it deals with a long-term issue: development of healthy, sustainable communities in coastal Alaska. Long-term development requires stability in the underlying policy base so decision-makers can make choices that balance current and future needs.”

strict sunset could jeopardize the ultimate success of a new charter operator that begins participation late in the program. On the other hand, depending on other limits established under the program, especially limits on individual participation, this suboption would extend the effective life of the program. For example, if the program sunsets in 10 years and the program limits individual participation to 10 years, it is possible that the effective duration of the program would nearly double (to 19 years). The effective length of the program will depend on (1) years prior to sunset (if the Council adopts a sunset), (2) limit on years of participation, (3) number of individuals that begin participation late in the program, and (4) aggregate amount of set-aside quota such individuals are likely to request. Note that the limit on years of participation and many other details of the program would be developed as part of a trailing amendment should the Council adopt the community set-aside option.

3.5.11.2.7 Impact of Set-Aside on Quota Share Values

Long-term stability of quota share values is an important goal of any IFQ program. While holders of quota shares do not own the underlying asset (the fish), quota shares represent an important asset that has economic value. Furthermore, the ability to use quota shares as collateral is enhanced if quota share values are stable. In addition to potential changes in QS values resulting from the overall charter IFQ program, the community set-aside may also impact QS values. The potential impact results from (1) the effective reallocation of quota from the existing charter and/or commercial sectors (depending on the source of the set-aside) to communities, (2) the annual roll-back of uncommitted quota shares, and (3) whether or not a sunset provision is adopted. Each effect is discussed qualitatively next.

Impact of Reallocation on QS Values

Each year, halibut quota from the charter and/or commercial sectors would be set-aside for community use. Quota share values reflect rational expectations about the future value of the resource when utilized in each sector. If the underlying sector allocation (in pounds) is reduced each year by the amount of the set-aside, IFQ and QS transfer prices will adjust accordingly. On the one hand, the pounds of halibut represented by each QS unit declines if the sector's allocation declines. On the other hand, IFQ prices in dollars per pound rise if the sector's allocation declines as a result of a reduction in supply. Depending on the elasticity of demand in each sector, the increase in the per pound price may or may not offset the decrease in QS unit prices due to each QS unit representing fewer pounds (e.g., the effective dilution of each QS unit due to the set-aside). For example, if demand in the commercial sector is elastic, the percent increase in the price per pound would not offset the percent decrease in the sector's allocation and QS value could decline.

In the short run, the potential decrease in QS value may adversely impact current halibut QS holders in the commercial sector, especially those that have purchased their QS holdings or hope to secure loans by using their QS holdings as collateral. As a result of transfers since the initial issuance, current holders may be broken down into three categories: (1) those that only hold QS units received in the initial allocation; (2) those that hold QS units received in the initial allocation, plus QS units subsequently purchased; and (3) those that only hold purchased QS units. Discussions with RAM indicate that it is difficult to determine the percentage of current QS holdings received by transfer (i.e., purchased) versus received in the initial allocation (personal communication with Jessica Gharrett, 1/21/01). RAM estimates, however, that as of year-end 2000, there were 901 holders of QS (76.5% of whom are Alaskans) who did not receive any QS in the initial allocation, but now hold QS as a result of transfers. For example, as of year-end 2000, such individuals held 12,136,343 QS units for Area 2C and 29,187,521 QS units for Area 3A. In addition, RAM indicates that a relatively large percentage of outstanding QS units have one or more liens against them, a measure of the extent that such QS units are being used as collateral for loans (although it is not possible to discern the purpose of the loans). In either case, the community set-aside has the potential to negatively impact current holders of commercial halibut QS. Public testimony may provide the Council with further indication of the magnitude and dollar value of this effect.

Members of the charter sector that qualify to receive an initial allocation are likely to be negatively impacted by the set-aside decreasing the QS value. Their QS value will decrease because each unit of QS results in less

halibut being issued as IFQ (i.e., the amount of halibut in the allocation pool is reduced). They will also face increased competition (to the extent that charter trips in the set-aside communities are substitutes for trips in the traditional charter communities) for clients from operators that have “subsidized” halibut allotments. Combined the cumulative negative impacts from the set-aside may be worse for the charter fleet than the commercial fleet.

Impact of the Roll-Back and Phase-In on QS Values

Since the TAC for each sector typically changes each year (due mostly to biological considerations), the amount of fish represented by each QS unit also fluctuates. As a result, QS prices fluctuate as well. The annual roll-back adds another source of fluctuation in the year’s TAC. If the amount of set-aside quota rolled back each year changes in an unpredictable fashion, it will be more difficult to predict the impact of the set-aside on the year’s TAC. This introduces another source of variability in QS prices. To the extent that a phase-in reduces the amount of quota rolled back each year, it may serve to reduce fluctuations in QS prices due to the community set-aside.

Impact of the Sunset Provision on QS Values

Quota share values take into account the long-term prospects for the sector. An explicit sunset provision would add an extra element of certainty by limiting the life of the community set-aside. Without a sunset provision, quota shares may be priced as if the community set-aside represents a permanent allocation. With a sunset provision, quota share values may reflect the fact that the set-aside is a temporary allocation.