

Charter Halibut Permit Latency Discussion Paper¹

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1 Introduction

In December 2016, the Council requested a discussion paper to explore mechanisms for reducing latent capacity in the CHP program. The Council noted that latent capacity could jeopardize the success of the Recreational Quota Entity (RQE) program² and impact the unguided, subsistence, and directed longline sectors. The Council suggested possible mechanisms to be explored, including:

1. A single tier of limitation based on an average minimum use of the permit,
2. A multiple set of limitation tiers that are based on low (less than 20 trips), medium (less than 50 trips) and high usage (51 or more trips), and
3. Limiting of the number of angler-days per permit.

This paper begins by considering the issue of CHP latency. In the second section, we take an initial look at the proposed mechanisms for controlling effort, identify decision points, and provide some initial scoping of the impacts of this action. We use the final section to describe next steps the Council may consider with regards to this issue.

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² The RQE is a concept recommended by the Council in December 2016. It would allow for the creation of a non-profit entity that could purchase and hold Area 2C and/ or Area 3A halibut QS. The pounds resulting from an RQE's QS holdings would be added into the charter sector's annual allocation to provide an adjusted charter allocation. This concept is currently being considered in the rule making process (82 FR 46016).

Note that the Council is considering the present proposal concurrently with another discussion paper (NPFMC 2017) which would allow the RQE to purchase up to 30% of the CHPs in each Area 2C and 3A, to temporarily remove from use. While these proposals would likely have different impacts, their relationship with latent capacity may be connected. If stakeholders and the Council identify a problem with latent CHP capacity, the description of that problem through a purpose and need statement will determine if and how these proposals will be connected.

2 Examination of the Problem

In this section we explore the issues around latent CHP capacity. First, we discuss how an increase in CHP use could ultimately affect the annual management measures and have possible adverse impacts on the existing charter fleet and other groups under the existing halibut abundance. Next, we discuss the potential for growth in the sector and the difficulty in predicting the long-term effort and harvest.

2.1 The Influence of CHP Use on Charter Management Measures

Since the implementation of the halibut Catch Sharing Plan (CSP), effective in 2014, charter halibut management measures have been annually adjusted so that expected removals fall under the charter allocation for that regulatory area (IPHC Area 2C or Area 3A). The management measures are adjusted annually because there are several moving parts to ensuring that expected removals align with the allocation.

A Charter Management Committee has met in October each year of the CSP to discuss the performance under the management measures from the previous season and to suggest measures to analyze for the upcoming season. ADF&G conducts this analysis based on projections of effort (angler-trips) and harvest per unit effort (HPUE; the number of fish per angler-trips) for each sub-area using saltwater logbook data back to 2006. Projections of effort and HPUE allow for the calculation of expected harvest (number of fish) by sub-area. In addition, mean weight is projected by sub-area using data from ADF&G dockside creel sampling at major ports (Meyer 2014). Harvest multiplied by mean weight provides estimated charter yield. The sector's yield plus release mortality should fall under the allocation assigned to the area by the IPHC. CHP use, in terms of the number of angler-trips, is essentially effort in this equation. Thus, changes in effort can affect harvest, HPUE, and release mortality.

Based on the recommendations from the Charter Management Committee, these ADF&G projections can account for a new suite of management measures each year. Depending on previous trends in harvest, effort, HPUE, average weight, release mortality, and the charter allocation, approved management measures may be either more or less restrictive than in the previous year.

Another factor contributing to management measures includes adjustments to correct for projection error. The current regulatory process does not include a mechanism to carry over overages or underages from one year to the next. However, projection error is retroactively accounted for by incorporating (and weighting) the most recent fisheries data into the projections for the following year's effort, HPUE, and average weight. For instance, removals in Area 3A can be more difficult to predict due to the combination of measures in place and the difficulty in teasing apart the effect of each one. In particular, it can be difficult to analyze measures that have never been implemented and those which require the ADF&G analysts to consider human behavior in several dimensions. For example, if there is a day of the week closure for charter anglers in 3A, will anglers be able to simply move effort by rebooking on a different day of the week? If a reverse slot limit is implemented in Area 3A, how will that change average weight? With a two-fish bag limit, only one of which is constrained by a size limit, there are more decision points for the angler in the number and size of fish they will retain. The combinations of angler response can complicate projections.

Controlling effort could offer more consistency in this variable, which could provide less restrictive management measures, all else equal. However, other factors can also be significant. For example, if the allocation decreases or the mean weight of the fish increases, the management measure could still become more restrictive. Thus, capping effort does not necessarily ensure stable management measures.

2.2 Potential for Future Growth

Some stakeholders have pointed to the detrimental impacts of growth in the charter sector on their existing operations as a reason for capping effort. As is the case with any fishery not regulated under individual quotas, new or expanded operations can impact the existing operations by increasing competition for the resource.

The potential for future expansion is easy to see. As many other documents have demonstrated (NMFS/NPFMC 2016; NPFMC 2015, 2016), there is substantial latent capacity within the existing CHPs. The following exercise demonstrates the extent of this latent capacity.

In this scenario, each CHP is used on 100 charter halibut fishing trips³ a year. The charter halibut season is from February 1 to December 31; 334 days. One hundred trips were chosen for this example to demonstrate a “full time” halibut charter operation; i.e., fishing once a day from May 15 – Sept 8, with one day off a week.⁴ The majority of CHPs are used on less than 100 trips per year (see Figure 7 and Figure 8). Some CHPs are used more. The potential trip capacity for 100 trips is the number of CHPs (as demonstrated in Table 1) multiplied by 100. This is compared to the number of trips that were reported in logbooks.⁵

Table 1 Number of transferable and non-transferable CHPs for Area 2C and 3A, as of 10/31/17

CHP type	Area 2C	Area 3A
Non-transferable	155	85
Transferable	374	341
Total CHPs	529	426

Source: NMFS RAM CHP database

Table 2 and Table 3 demonstrate the large amount of unused trip capacity for both Area 2C and Area 3A, even when CHPs are constrained to 100 trips. Based on the number of trips each CHP was used between 2012 and 2016, these tables demonstrate that Area 2C CHPs are being used 33% to 42% of their “full capacity”, as defined in this example. Area 3A CHPs are only being used 38% to 41% of their full capacity. This means, using the example of 100 trips, CHPs could be used on 2.4 to 3 times more halibut charter trips.

³ Section 3 explains the filters used in defining a “halibut fishing trip” for the purposes of these examples. The Council may consider additional ways to define what constitutes a halibut fishing trips based on information reported in the logbook. For instance, the definition used in these examples are slightly different than the trip definition used in Tables 1 and 2 and Figures 1 and 2.

⁴ CHPs in Area 3A are constrained to one trip per day under current management measures. However, CHPs in Area 2C may take more than one trip per day.

⁵ Note that between 2 and 25 CHPs each year are used on more than 100 trips.

Table 2 The number of trips that would be taken if every Area 2C CHP was used on 100 trips in a season, compared to the number of trips reported, 2012 through 2016

Year	Potential trips	Trips taken	% of potential trips taken	% of trips latent
2012	52,900	17,560	33%	67%
2013	52,900	18,847	36%	64%
2014	52,900	20,852	39%	61%
2015	52,900	22,050	42%	58%
2016	52,900	22,475	42%	58%

Source: ADF&G saltwater logbook data sourced through AKFIN

Note some CHPs are used on more than 100 trips each year in Area 2C, ranging from a total of between 27 and 242 additional trips in the years provided. These additional trips are represented in the “trips taken” for each year, which decreases the percent of latent capacity shown in this example.

Table 3 The number of trips that would be taken if every Area 3A CHP was used on 100 trips in a season, compared to the number of trips reported, 2012 through 2016

Year	Potential trips	Trips taken	% of potential trips taken	% of trips latent
2012	42,600	17,616	41%	59%
2013	42,600	17,634	41%	59%
2014	42,600	16,344	38%	62%
2015	42,600	16,363	38%	62%
2016	42,600	17,095	40%	60%

Source: ADF&G saltwater logbook data sourced through AKFIN

Note some CHPs are used on more than 100 trips each year in Area 3A, ranging from a total of between 112 and 494 additional trips in the years provided. These additional trips are represented in the “trips taken” for each year, which decreases the percent of latent capacity shown in this example.

Since a CHP on one trip may represent the harvesting effort from anywhere between one and 38 anglers, latent capacity can be further specified by considering the number of anglers per trip. Using the maximum number of anglers that may catch halibut on a charter vessel for each CHP (the angler endorsement assigned to each CHP) multiplied by 100 trips, we can identify the potential angler-trip capacity for each area (Table 4 and Table 5). Comparing the potential angler-trips to the number of anglers reported fishing on halibut trips in the logbooks demonstrates the large amount of latent angler-trip capacity that exists in each area. Based on the number of angler-trips that were taken for each CHP used between 2012 and 2016, these tables demonstrate CHPs have been using 26% to 34% of their “full capacity” in Area 2C and 33% to 40% of their “full capacity” in Area 3A. This means, under this example, CHPs have the potential to take 2.5 to 3.9 times more angler-trips if every CHP was used “full time.”

Table 4 The number of angler-trips that would be taken if every Area 2C CHP was used on 100 trips in a season at full angler capacity, compared to the number of angler-trips reported, 2012 through 2016

Year	Potential angler-trips	Angler-trips taken	% of potential angler-trips taken	% of angler-trips latent
2012	271,400	69,287	26%	74%
2013	271,400	75,569	28%	72%
2014	271,400	84,489	31%	69%
2015	271,400	89,561	33%	67%
2016	271,400	91,858	34%	66%

Source: ADF&G saltwater logbook data sourced through AKFIN

Note some CHPs are used on more angler-trips each year in Area 2C than assumed in this example (100*angler endorsement), ranging from a total of between 75 and 645 additional angler-trips in the years provided. These additional angler-trips are represented in the “angler-trips taken” for each year, which decreases the percent of latent capacity shown in this example.

Table 5 The number of angler-trips that would be taken if every Area 3A CHP was used on 100 trips in a season at full angler capacity, compared to the number of angler-trips reported, 2012 through 2016

Year	Potential angler-trips	Angler-trips taken	% of potential angler-trips taken	% of angler-trips latent
2012	315,800	121,352	38%	62%
2013	315,800	125,272	40%	60%
2014	315,800	106,332	34%	66%
2015	315,800	105,537	33%	67%
2016	315,800	109,188	35%	65%

Source: ADF&G saltwater logbook data sourced through AKFIN

Note some CHPs are used on more angler-trips each year in Area 3A than assumed in this example (100*angler endorsement), ranging from a total of between 111 and 2,756 additional angler-trips in the years provided. These additional angler-trips are represented in the “angler-trips taken” for each year, which decreases the percent of latent capacity shown in this example.

The reason CHPs are unused or used at low effort levels are expected to be as diverse as the operations themselves. Some operators may be “part-time”, running charters in addition to another job or as a hobby. Many operations have come to rely on a diverse portfolio of species, and in some cases, have expanded outside of fishing trips to include sightseeing and wildlife tours, hunting, gear rental companies, and other marine transportation. Also, many businesses have multiple CHPs, and stack them in order to ensure that the total angler endorsements cover all clients.

Many businesses received a non-transferable CHP due to the halibut logbook activity from a back-up charter vessel; a vessel they would use if something went wrong with their primary vessel or if they needed extra capacity. Since these CHPs cannot be sold, some operators likely still use their non-transferable CHP in this way. There are particularly high levels of latent non-transferable CHPs. Isolating non-transferable CHPs in this example of a 100-trip season demonstrates a potential trip capacity that, in some years, for both Area 2C and Area 3A, is more than five times the number of trips previously used by these CHPs (not depicted in a table). It is possible, however, for non-transferable CHPs to be leased. Recent trip and angler-trip trends for non-transferable CHPs do not demonstrate drastic changes in use for either area (Table 6 and Table 7). Area 2C has seen a small, yet variable increase in both trips and angler-trips. Area 3A has seen a small and variable decrease in both trips and angler-trips.

Table 6 Area 2C non-transferable CHP trip and angler-trips counts, 2012 through 2016

Metric	2012	2013	2014	2015	2016
Trips	3,269	3,010	3,433	3,771	3,761
Angler-trips	12,027	11,024	12,744	13,781	14,249

Source: ADF&G saltwater logbook data sourced through AKFIN

Table 7 Area 3A Non-transferable CHP trip and angler-trips counts, 2012 through 2016

Metric	2012	2013	2014	2015	2016
Trips	1,940	1,802	1,834	1,602	1,662
Angler-trips	10,887	10,328	9,574	8,252	9,100

Source: ADF&G saltwater logbook data sourced through AKFIN

The amount of latent capacity demonstrated in these examples is meant to bookend extreme examples of potential growth. It is unrealistic to assume all of this effort will be realized because these examples do not take into consideration the seasonal trend in angler demand or any other external factors that may be contributing to the activity of the fleet. As has been demonstrated in past ADF&G analyses (Meyers & Powers 2015), the charter fishery has a distinct seasonal trend in most sub-areas, with seats filling up mid-summer (June and July), but generally, substantially fewer trips occurring in the shoulder seasons (May

and September). Given the tourism schedule, school summer break, and desire to fish in good summer weather, this seasonal trend is intuitive and not likely to disappear even if angler demand increases.

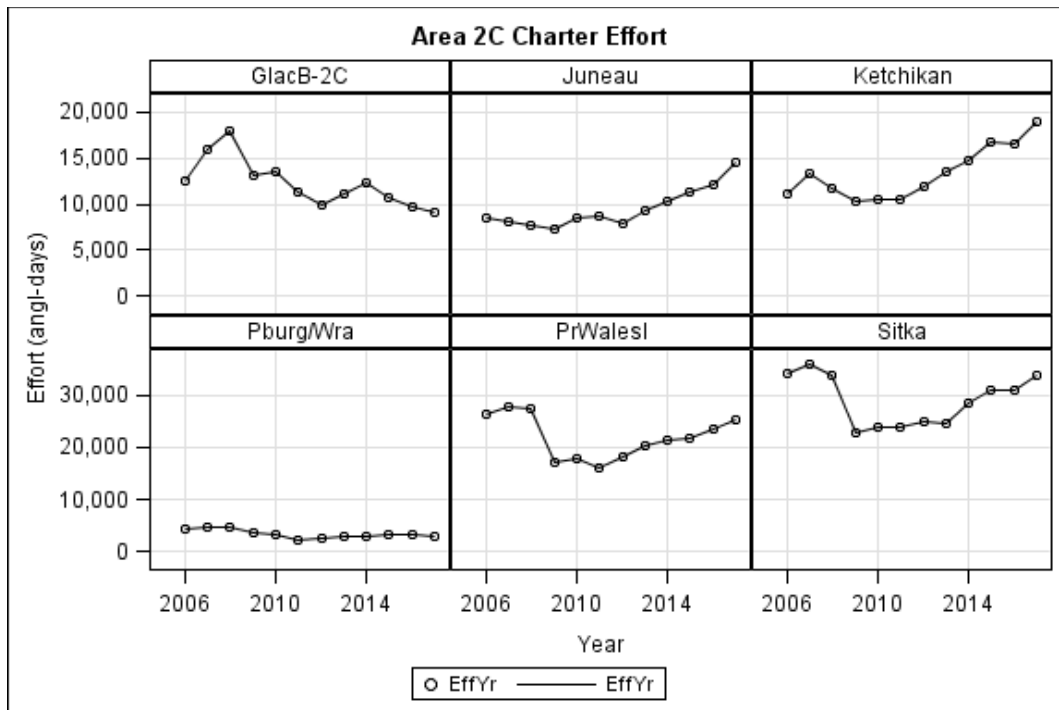
The point of the exercise is not to say that this level of increased activity is likely to occur, but to demonstrate the extent of latent capacity. A CHP is an input control; a restriction put on the amount of participation. Compared to output controls, which may directly limit catch through mechanisms like harvest quota or bag limits, input controls indirectly affect harvest in the fishery. An input control is less effective at capping effort when there is substantial underutilized capacity in the fishery due to outside influences.

2.3 Expectations for Future Growth

While we can bookend what an extreme increase in effort would look like in the halibut charter sector, the likelihood for long-term growth is much more difficult to predict because of the many factors directly and indirectly influencing the supply and demand for halibut charter trips. For example, the annual management measures in each area, the status of other popular recreational species (e.g., salmon) and management status of those fisheries (e.g., new permits), and the global economy will all influence the future of the halibut charter sector.

While changes in the level of operations is difficult to predict, retrospective changes in participation in the charter sector can provide some insight to the trajectory of operations. Counts of halibut charter businesses in each area over time would provide a sense of the entry or exit of halibut charter businesses; however, changes in the size of the sector can also manifest as an expansion, decline, or diversification of existing businesses as well. We focus on the changes in the number of bottomfish angler-trips taken by sub-area over time, as provided in the ADF&G (Figure 1 and Figure 2).

Figure 1 Area 2C charter effort by sub-area, 2006 through 2017

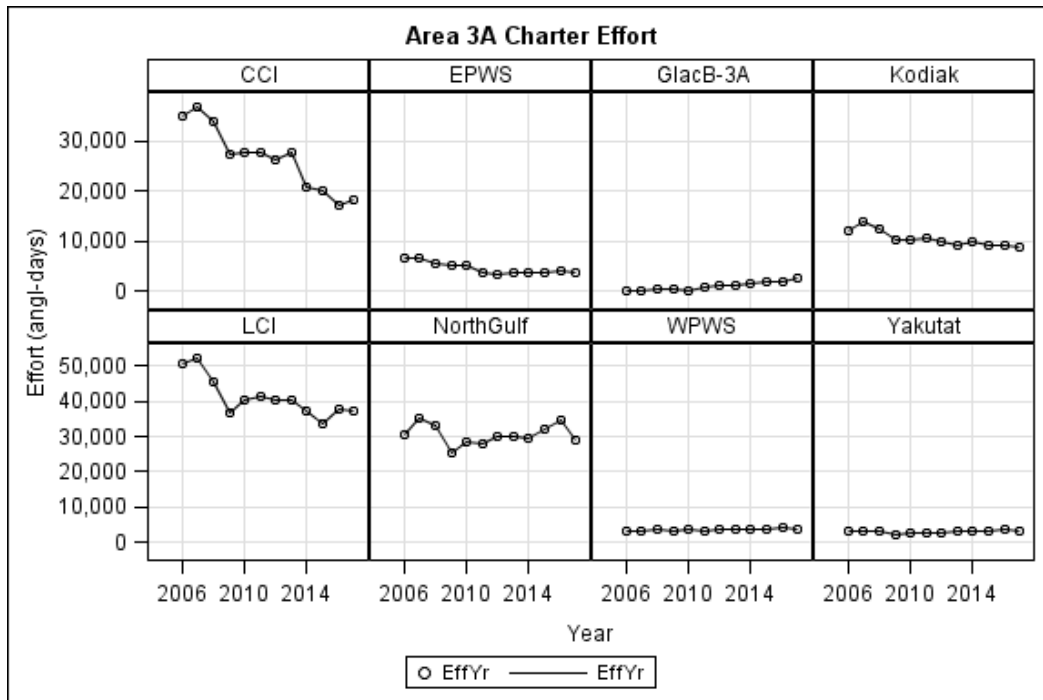


Sub-areas include: the 2C portion of Glacier Bay (GlacB-2C), Juneau, Haines, Skagway (Juneau), Ketchikan (Ketchikan), Petersburg/ Wrangell (Pburg/Wra), Prince of Wales Island (PrWalesI), Sitka (Sitka)

Note: 2017 estimates are preliminary

Source: ADF&G

Figure 2 Area 3A charter effort by sub-area, 2006 through 2017



Sub-areas include: Central Cook Inlet (CCI), Eastern Prince William Sound (EPWS), the 3A portion of Glacier Bay (GlacB-3A), Kodiak/ Alaska Peninsula (Kodiak), Lower Cook Inlet (Homer), North Gulf (NorthGulf), Western Prince William Sound (WPWS), Yakutat (Yakutat)
Note: 2017 estimates are preliminary
Source: ADF&G

The data are not currently available to tease out how the many influences of charter trip supply and demand have manifested into effort or to project where effort may trend in the long-run.

3 Initial Look at Proposed Action and the Scope of Impacts

This section provides an initial investigation of limiting CHP use through the proposed annual CHP trip limit categories. First, we provide a description of the data and definition used in this initial analysis. This section then considers how CHP trip categories might be established, including related decision points on establishing such categories (i.e., what metric may be limited (trips or angler-trips), definition of a halibut trip, the number of categories, and whether there would be an upper limit to the top tier of CHP). Next, this section considers type of qualification criteria the Council might consider and the impacts of different qualifications. This section incorporates the Council's three previously described mechanisms into this organizational structure, and works to provide additional context should the Council be interested in other cut-off points for establishing categories or qualification criteria. This section concludes with a series of decision points and areas for additional consideration related to establishing annual CHP trip limits.

3.1 Data and Definitions

This section relies on ADF&G saltwater logbook data from 2012 through 2016 merged with CHP characteristic and permit holder information from NMFS Restricted Access Management (RAM). Since 2015, ADF&G has followed up with business owners that submit logbook pages containing errors such as missing or invalid CHP numbers. Thus, CHP data on logbooks has improved in recent years. As described in (NMFS/NPFMC 2016), CHP numbers in logbook data from 2012 to 2015 underwent

additional verification by ADF&G staff for that specific analysis. Staff identified outliers and corrected CHP numbers that they were able to confirm were entered incorrectly. This may occur if, for example, the charter guide's handwriting was misread, or a number was keyed in incorrectly, but the number happened to be valid. This second-stage verification process has not occurred for CHP numbers in 2016 logbook data. Continued verification would require additional ADF&G staff time.

This analysis uses a definition of halibut trips that includes any charter trip reported in the saltwater logbook in which a CHP was reported, and either bottomfishing effort was noted, or halibut was reported to be caught (regardless of whether it was retained).⁶ This is a fairly generous definition of a halibut trips as it could include a trip in which the anglers were targeting another bottomfish species and never caught a halibut. However, it also includes anglers that went out targeting halibut, but were unsuccessful. Angler-trips were defined as the number of reported anglers on charter trips matching this description.

The original issuance of a CHP, as well as the distinction for whether that CHP would be issued as transferable or non-transferable was based on the logbook history from two different time periods and based on two different regulatory definitions of qualifying trip. The applicant selected one of the two years from the "qualification period" (either 2004 or 2005) to demonstrate their number of "bottomfish logbook fishing trips", a term defined for this qualification purpose in Federal regulations (§300.67(f)(2)). The applicant was also required to demonstrate participation history during a "recent participation period", which was the 2008 IPHC sport-fishing season. During this year the applicant needed to demonstrate their participation through "halibut logbook fishing trips", a term that is also defined Federal regulations (§300.67(f)(3)).

The reason for this distinction in the definition of trip being used as a qualification criterion, is that in 2004 and 2005, ADF&G did not require businesses to report the number of halibut kept, or kept and released, for each logbook fishing trip. This information was available in 2008.

Currently, in addition to having records of trips where bottomfishing effort was expended, we also have numbers of halibut kept and released. Moreover, charter guides record the CHP number used on the logbook page as well. Thus, this analysis uses a very broad definition of halibut trip when considering who might qualify under different annual CHP trip (or angler-trip) limit schemes. Of the saltwater charter trips in which a CHP number was recorded, we counted those who recorded either bottomfishing effort OR that halibut was caught (released or kept). The Council can choose to hone this definition for future iterations of analysis.

3.2 Annual CHP Trip Limit Categories

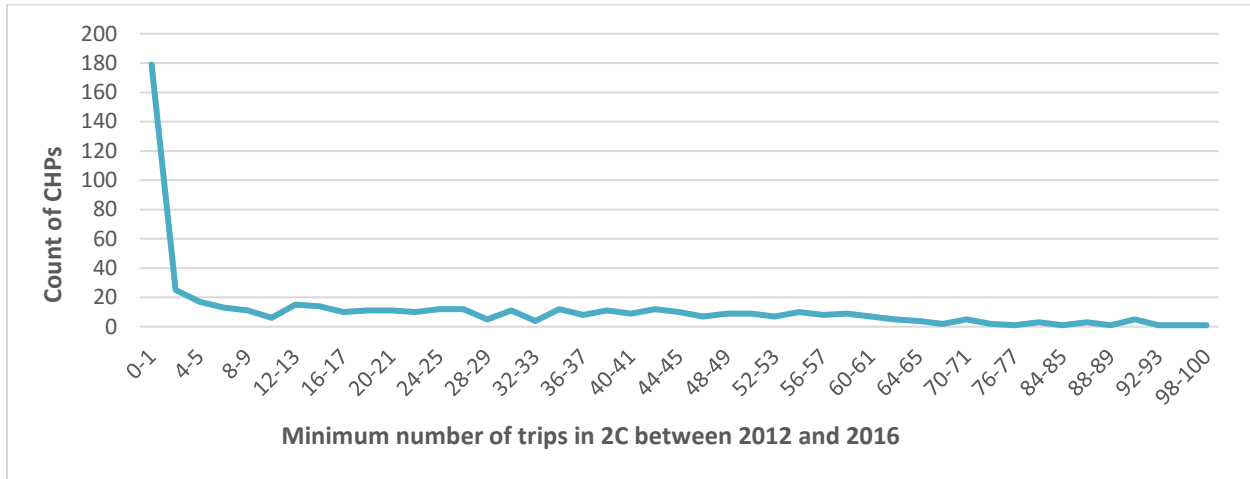
A principal decision point for the Council is how annual CHP trip limit categories would be established. The first and second mechanism suggested by the Council offer two different ways for creating CHP trip limit categories, using the average minimum and establishing categories as "low" (less than 20 trips), "medium" (20-50) and 3) "high usage" (51 or more trips). Implicit in these suggestions, is variation in the number of CHP trip limit categories. The first option would create two distinct categories of CHPs, the second option would create three.

The first mechanism suggested by the Council is to create a single tier of limitation based on an average minimum use of the CHP. The analyst assumes this language implies the cut-off would be established by identifying the minimum number of trips each CHP was used for between 2012 and 2016, and taking the average of all minimum trips over that time period, for each area. As demonstrated by the extent of latent capacity, every year there are many CHPs are not used or used at low levels. Therefore, if the category is

⁶ Note this is a slightly different definition of trip than previously used in NMFS/NPFMC (2016) and is slightly different than demonstrated in Tables 1 and 2 and Figures 1 and 2.

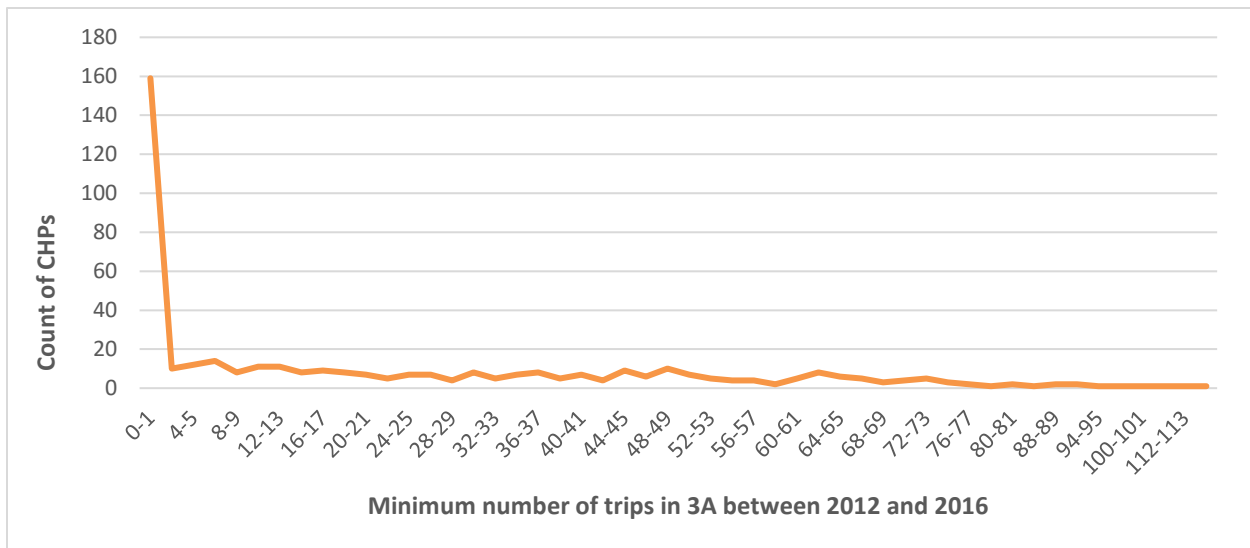
established based on minimum use, the average minimum is influenced by CHPs that were not used in a one of the years or used at a low level. This is demonstrated by Figure 3 and Figure 4. The average minimum between 2012 and 2016 is 22 trips per CHP in Area 2C and 23 trips per CHP in Area 3A.

Figure 3 Minimum number of trips taken by each Area 2C CHP, 2012 to 2016



Source: ADF&G saltwater logbook data sourced through AKFIN

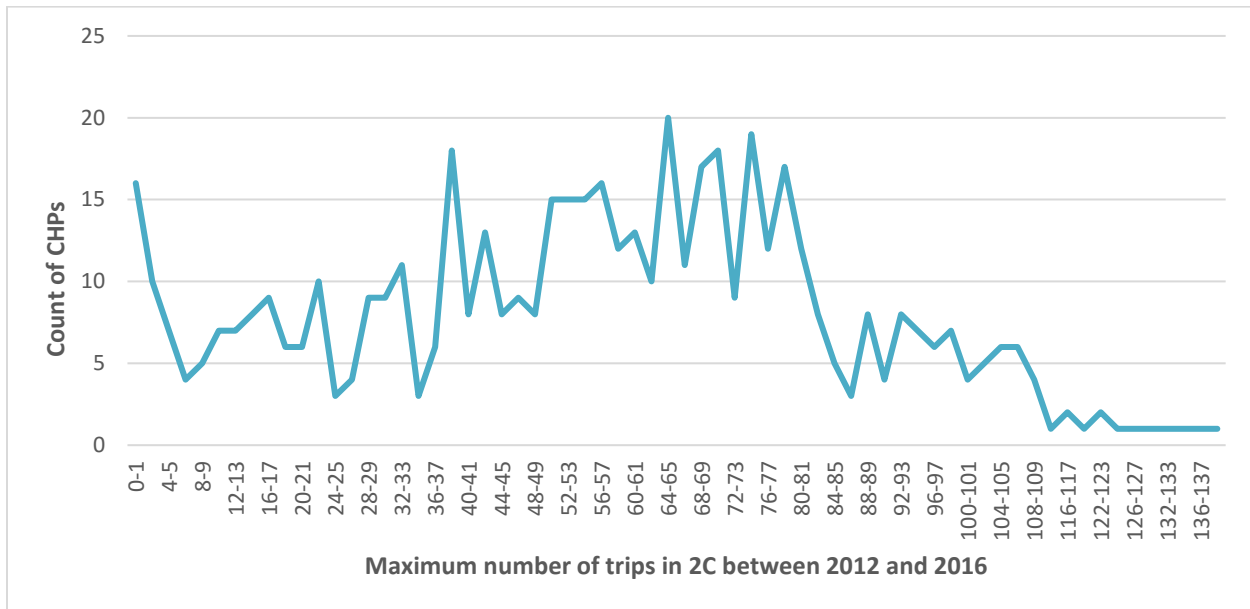
Figure 4 Minimum number of trips taken by each Area 3A CHP, 2012 to 2016



Source: ADF&G saltwater logbook data sourced through AKFIN

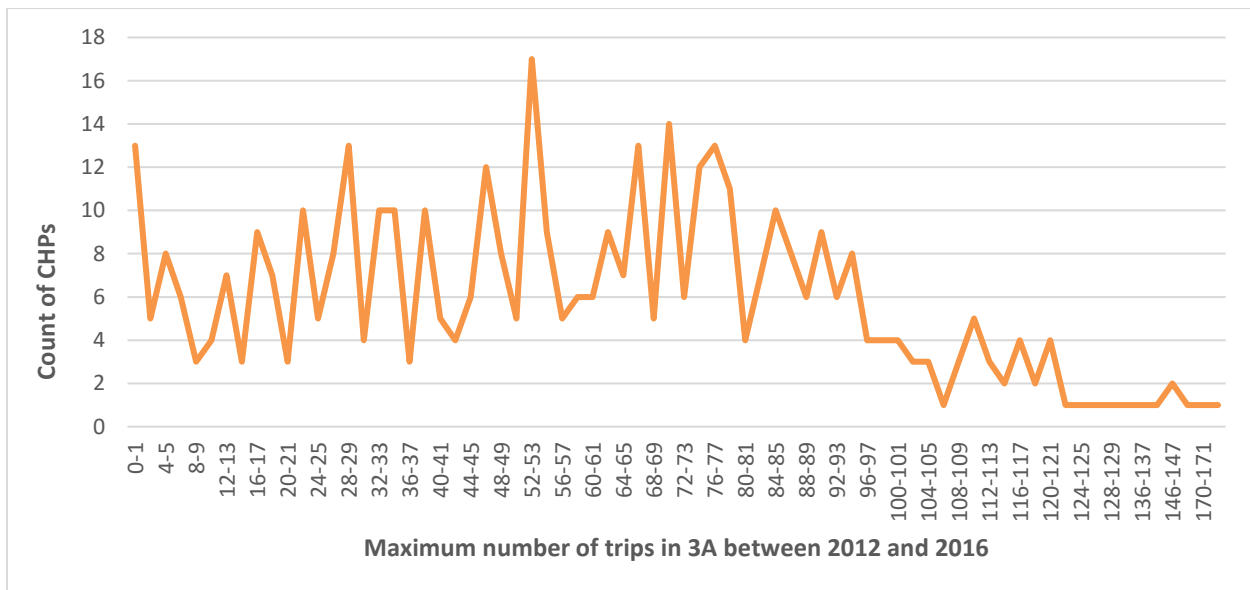
For comparison, if categories were established by average *maximum* CHP use, Figure 5 and Figure 6 demonstrate a very different distribution. The average maximum between 2012 and 2016, would provide the cut-off points of 56 trips per CHP in Area 2C and 58 trips per CHP in Area 3A.

Figure 5 Maximum number of trips taken by each Area 2C CHP, 2012 to 2016



Source: ADF&G saltwater logbook data sourced through AKFIN

Figure 6 Maximum number of trips taken by each Area 3A CHP, 2012 to 2016



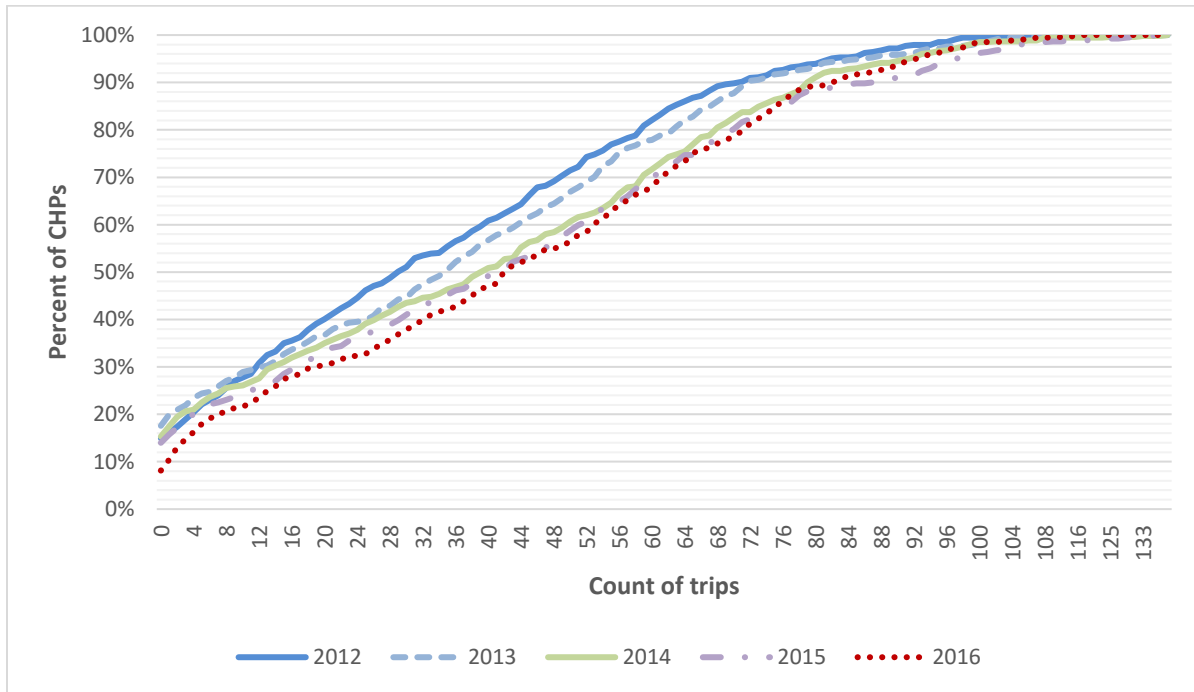
Source: ADF&G saltwater logbook data sourced through AKFIN

As mentioned, the second mechanism outlined by the Council would be multiple set of limitation tiers that are based on low (less than 20 trips), medium (20-50) and 3) high usage (51 or more trips).

To provide more context for other ways to establish cut-off points for CHP trip limit categories, Figure 7 and Figure 8 demonstrate the cumulative trip distribution for Area 2C and 3A, respectively. For instance, as the cumulative distribution shifts to the right for Area 2C between 2012 and 2016, Figure 7 illustrates that a higher proportion of CHPs are being used on a greater number of trips. In 2012, 50% of the CHPs had been used 29 times or less in Area 2C. This is compared to 2016, in which 50% of the CHPs had been

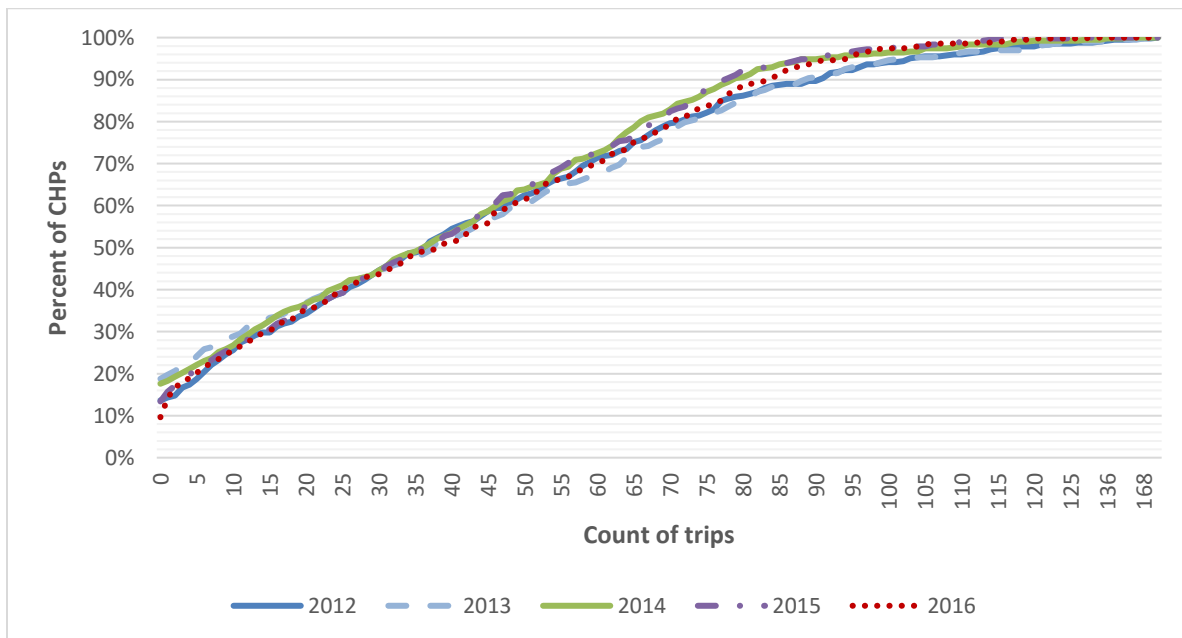
used 42 times or less. The overlapping lines in Figure 8 signifies more consistency in Area 3A’s relative distribution of trips on CHPs.

Figure 7 Cumulative trip distribution in Area 2C, 2012 through 2016



Source: ADF&G saltwater logbook data sourced through AKFIN

Figure 8 Cumulative trip distribution in Area 3A, 2012 through 2016



Source: ADF&G saltwater logbook data sourced through AKFIN

The Council might also consider cut-off points that are based around a presumption of the way the CHP is used. For instance, a high category that represents a “full time” user’s level of activity, a medium category

that represents the number of times a “part-time user or diversified user” may be likely to use their CHP in a season, and low category that represents an “occasional user or highly diversified user”. Given the diversity of the sector, these definitions will not be applicable to all CHP holders. However, this type of categorization might help to find more natural breaks in use that could represent CHP trip limit categories.

3.2.1 Inclusion of Transferable and Non-transferable CHPs

The Council may consider whether annual CHP trip limits would apply to CHPs that are transferable, non-transferable, or both. Non-transferable CHPs are only valid for the lifetime of the holder, or if the holder is a non-individual entity, the CHP is only valid to the extent that that entity has not dissolved or added additional shareholders. Thus, the intent is these CHPs would be retired overtime. However, if annual CHP trip limits were only applied to transferable CHPs, at least within the short-term, effort could still increase in the non-transferable category of CHP.

3.2.2 Trip or Angler-trip

Another consideration for how to establish CHP trip limits would be the metric of limitation. The third mechanism the Council suggested for consideration would be to annually limit the number of angler days per permit. Based on ease of using logbook data, the analyst uses the metric of “angler-trips” rather than angler days. In many cases these are the same thing, but in some cases the same angler may take more than one charter trip a day, in which case these trips are counted separately. Similar to the examples above, a single or multi-point cut-off could be set with which to designate CHP angler-trip categories.

The benefit of setting annual angler-trip limits over CHP trip limits is that it would allow the charter businesses more flexibility in choosing how to book their halibut trips. If each CHP had a specific number of halibut trips is was capped at, the business would have an incentive to make sure they filled their vessel with anglers up to their angler endorsement every time. This could add additional pressure on the business to make sure it was using its CHP trip limits efficiently and it could impact the quality of the trip for the angler. If the limits were placed on the number of angler-trips, businesses could take a smaller number of clients out fishing without the concern that they were giving up opportunities for anglers.

The Council did not suggest cut-off points to consider under this CHP angler-trip limit mechanism. The following tables and figures are intended to provide context for the consideration of cut-off points. Table 8 and Table 9 provide total, average, and median angler-trip counts for each area, 2012 through 2016. Figure 9 and Figure 10 illustrate the cumulative angler-trip distribution for each area, 2012 through 2017.

Table 8 Total, average, and median angler-trips for Area 2C CHPs, 2012 through 2016

	2012	2013	2014	2015	2016
Total angler-trips	69,287	75,569	84,489	89,561	91,858
Average angler-trips	131	143	160	169	174
Median angler-trips	105	127	142	149	164

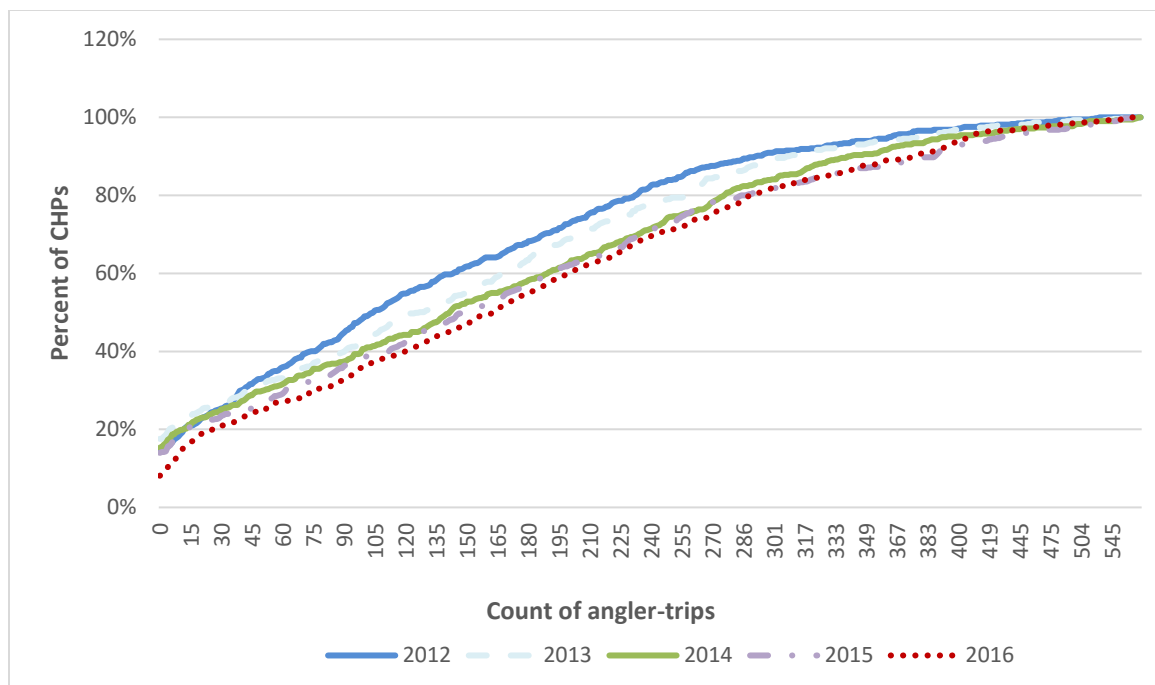
Source: ADF&G saltwater logbook data sourced through AKFIN

Table 9 Total, average, and median angler-trips for Area 3A CHPs, 2012 through 2016

	2012	2013	2014	2015	2016
Total angler-trips	121,352	125,272	106,332	105,537	109,188
Average angler-trips	285	294	250	248	256
Median angler-trips	191	185	180	175	185

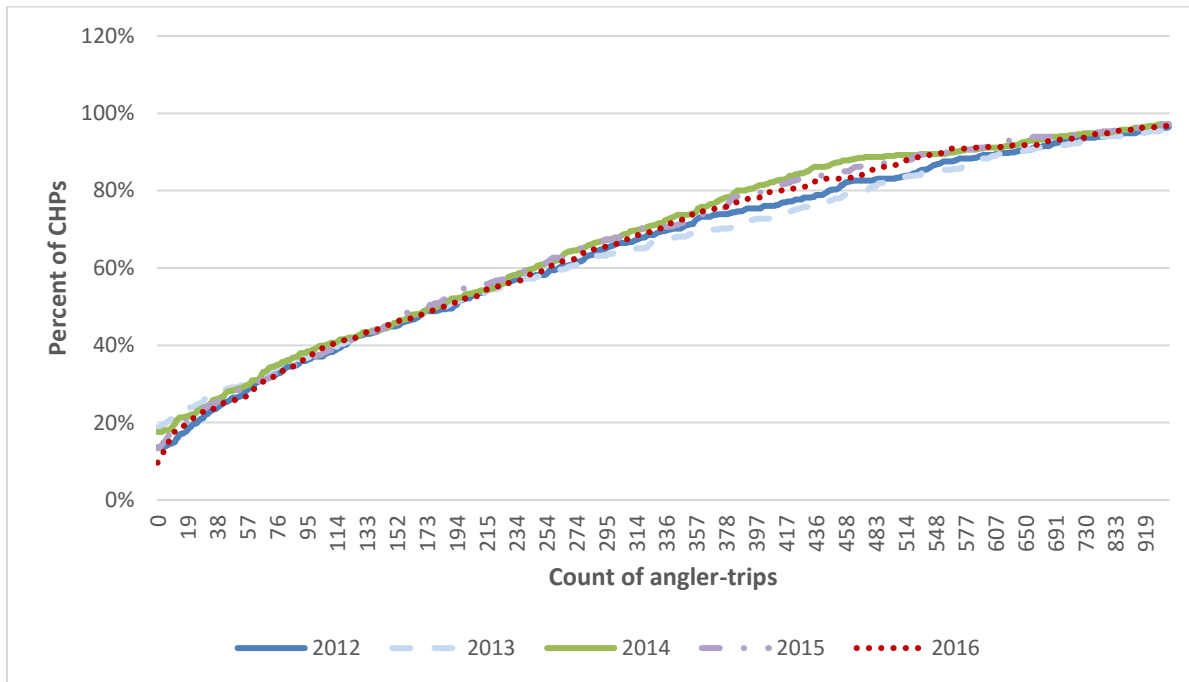
Source: ADF&G saltwater logbook data sourced through AKFIN

Figure 9 Cumulative angler-trip distribution for Area 2C CHPs, 2012 through 2016



Source: ADF&G saltwater logbook data sourced through AKFIN

Figure 10 Cumulative angler-trip distribution for Area 3A CHPs (truncated), 2012 through 2016



Note that this figure is truncated at 1,000 angler-trips in order to present an appropriate visual scope. The truncated data represents at least 96% of all CHPs each year depicted.

Source: ADF&G saltwater logbook data sourced through AKFIN

3.2.3 Definition of ‘Halibut Trip’ for Purposes of Restricting Trips

If the Council moves forward on this proposed action, it will need to define what type of trip annual CHP trip limits would be restricting. There is no data to support a definition of a halibut trip based on the target species, i.e., anglers that intended to catch halibut.

Logbooks have space to report CHP number, bottomfishing effort, halibut that is caught, and halibut that is released. Thus, in order for annual CHP trip limits to be enforceable, a definition would need to use one of these metrics. A CHP holder that has used up to their annual CHP trip limit, would still be able to take their clients fishing for other types of bottomfishing. Additionally, an angler targeting a different species may inadvertently catch a halibut. Thus, restricting bottomfishing effort may be too broad, and restricting catch and release of halibut could create a barrier to bottomfishing altogether. Thus, the Council may wish to consider annual CHP trip limits applying to halibut is caught and retained. This means that a trip in which an angler intended to catch halibut, but was unsuccessful, would not constitute a “halibut trip” that would contribute to the CHP’s limit. A trip in which anglers were targeting salmon, but caught and retained a halibut would count towards a CHP’s trip limit by this definition.

Note that this definition may or may not be different from the definition of halibut trip for purposes of identifying qualification into a CHP trip limit category. For example, under the broad definition of “halibut trip” used in this analysis, a trip in which the guide recorded a CHP number and any bottomfishing effort would qualify as a halibut trip. This discussion is continued in the following section.

3.2.4 Annual CHP Trip Limits for the Top Tier of CHPs

Thus far, the Council has not suggested an annual trip limit for the CHPs that are designated in the highest category of activity. These CHPs may have less latent potential, particularly during peak season, however, they could still increase effort in a way that could erode the positive distributional impacts that capping effort among other less used CHPs might bring.

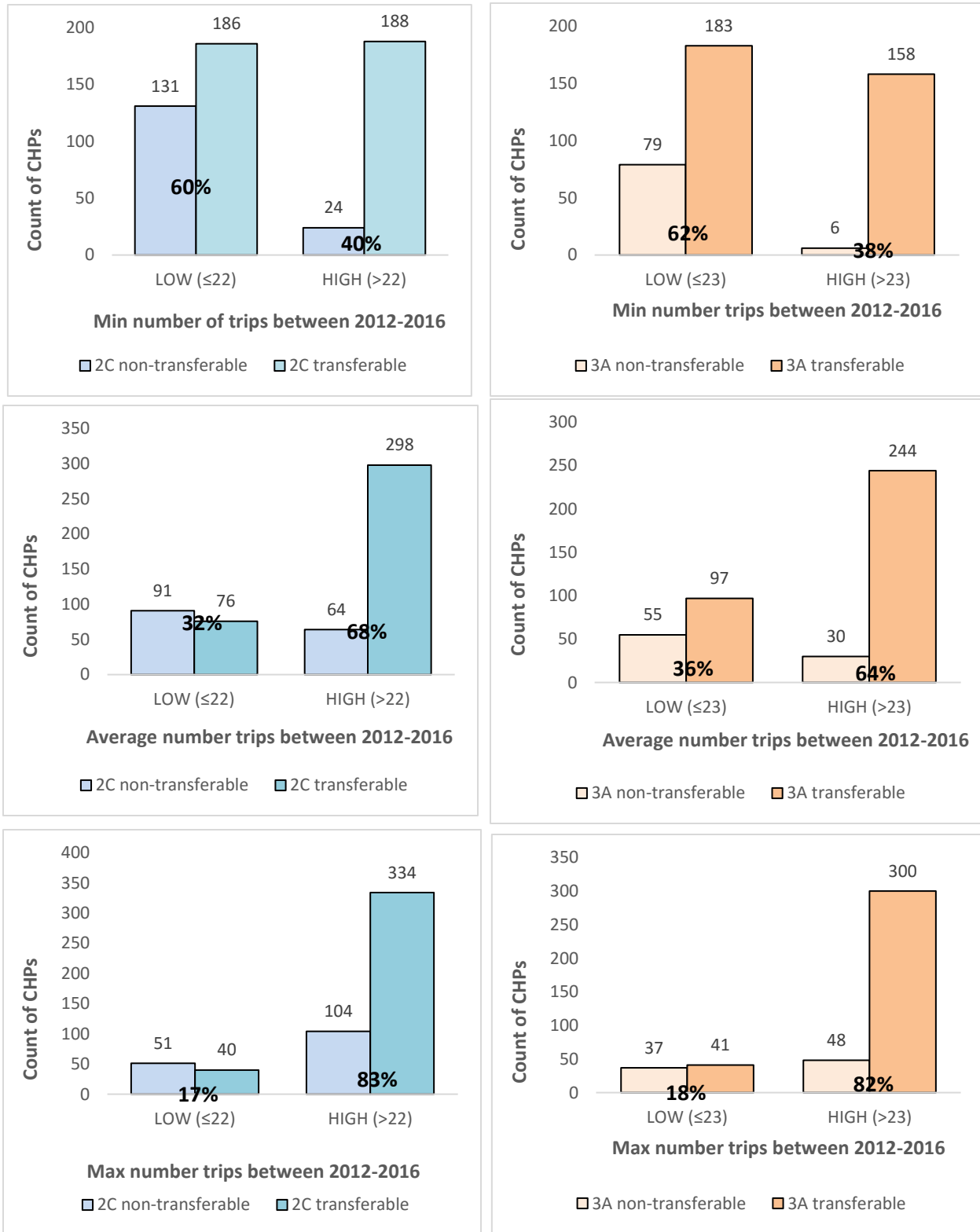
Adding an annual trip limit for the top tier of CHPs may prove difficult as there is a broad distribution in the number of charter halibut trips the most active CHPs take are used on. Using the maximum number of trips taken by a CHP as a cut-off point would leave room for most CHPs to become more active. Truncating the top tier using a more restrictive cut-off point, would cap some charter businesses under their current level of effort.

3.3 Qualification Criteria

The Council has not specified options describing how a CHP might qualify for a particular annual CHP trip limit category. Qualification might be based on previous activity. For instance, minimum, average, median, or maximum use of a CHP during some specified time frame could represent participation. Decisions around qualification criteria can have a substantial impact on both how effective the CHP trip limits are and how much of adverse impact they have to future and existing business. As previously mentioned, qualification for a CHP was based on participation in the “applicant selected year” between two years, as well as participation in a recent participation period. Note that using any qualification criteria other than “maximum use” (or use from an applicant-selected year), could constrain a business from the level of operation they had recently be participating in.

To provide some examples of the distribution of CHPs as they would qualify into annual CHP trip limit categories, we use the Council’s first two suggested mechanisms, as well as minimum, average, and maximum CHP trip activity from 2012 to 2016. Figure 11 illustrates the level of qualification under the Council’s first suggested cut-off (the average minimum). Figure 12 illustrates the level of qualification under the Council’s three-tiered mechanism (suggested as option 2) under minimum, average, and maximum CHP trip activity from 2012 to 2016. This would include a tier based on low (less than 20 trips), medium (21 to 50 trips) and high usage (51 or more trips).

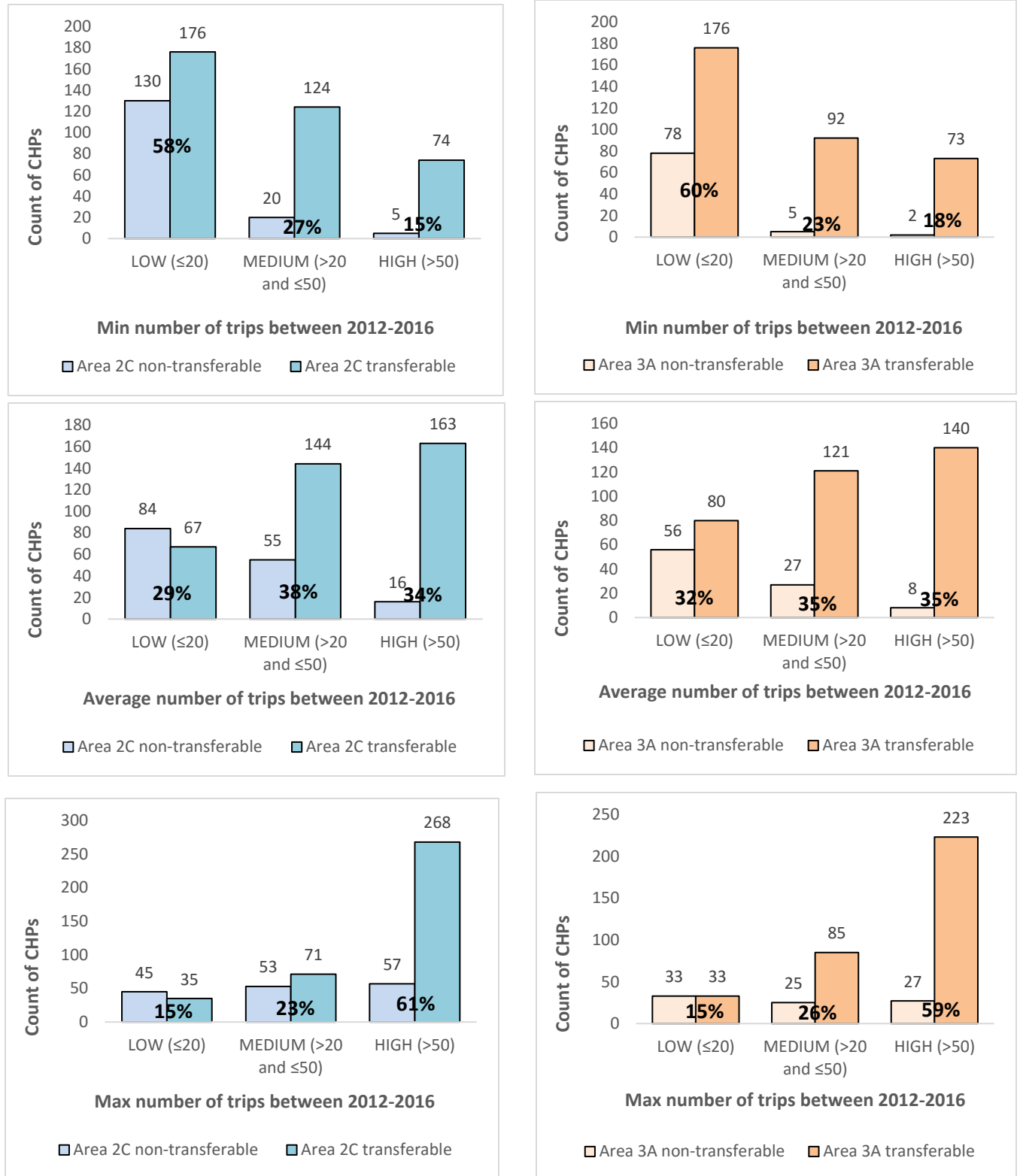
Figure 11 Count of Area 2C and 3A CHPs that would qualify for each trip category based on their minimum, average, or maximum trip use between 2012 and 2016, if categories were established based on the average minimum use in each area



Source: ADF&G saltwater logbook data sourced through AKFIN

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Figure 12 Number CHPs that would fall into each trip category based on their minimum, average, and maximum trip use between 2012 and 2016, Area 2C and Area 3A, based on low, medium, and high tiers of use



Source: ADF&G saltwater logbook data sourced through AKFIN

3.3.1 Definition of ‘Halibut Trip’ for Qualification Purposes

As previously mentioned, this analysis uses a very broad definition of halibut trip when considering which CHPs might qualify under different annual CHP trip (or angler-trip) limit schemes. Of those trips with a recorded a CHP number, we counted those who recorded either bottomfishing effort OR that halibut was caught (released or kept). The Council could choose to define a halibut trip differently from what was analyzed in this discussion paper. For example, the Council may choose to base history only off of trips in which a CHP was recorded, and halibut was retained.

3.3.2 Recently Transferred CHPs

The Council also may consider circumstances in which a CHP has recently been purchased and the new holder has not had time to build up activity. It is difficult for buyers to know the previous activity on a CHP before purchase; aside from the seller’s word, this history would likely only be available through NMFS RAM or through ADF&G record. Table 10 demonstrates the number and percent of CHPs that have been transferred over the duration of the charter halibut limited access program.

Table 10 CHP transfer activity, 2011 through 2016

Area	Year	Permit Count	% of all transferable permits transferred
2C	2011	33	8.8%
	2012	14	3.7%
	2013	10	2.7%
	2014	16	4.3%
	2015	23	6.1%
	2016	19	5.1%
Total 2011 - 2016 for 2C		101	27.0%
3A	2011	48	14.1%
	2012	23	6.7%
	2013	20	5.9%
	2014	23	6.7%
	2015	23	6.7%
	2016	39	11.4%
Total 2011 - 2016 for 3A		145	42.5%

Source: NMFS RAM CHP transfer data sourced through AKFIN

3.4 Preliminary Scope of Impacts

3.4.1 Positive and Negative Distributional Impacts

Under status quo, when the halibut charter sector fishery becomes more restrictive (due to a lower catch limit, increased harvest, or increased average weight of the fish), this primarily manifests as additional restrictions on the number and quality of fish charter operators can offer their clients. With the exception of some recent measures adopted in Area 3A (i.e., day of the week closure, daily CHP and vessel trip limits), tighter restrictions have generally not added additional limitations on access. This current proposal would likely limit access for future and potentially current operations, but might provide for a greater number of fish or higher quality fish for those participating in the fishing. There are significant trade-offs in these types of management.

Creating annual CHP trip (or angler-trip) limit categories, and the decisions made about how to establish these categories and qualification criteria, represent a balance of distributional impacts. The more restrictive the action (e.g., basing qualification on a CHP’s minimum or average use, establishing multiple cut-off points, capping the highest category of use), the more likely it will negatively affect current

operations by restricting use from what it has previously been or the ability for future operations to develop. However, the more restrictive the annual CHP trip limits, the more effective it may be at controlling effort levels, which could lead to the benefit of less restrictive management measures. The less restrictive the action (e.g., basing qualification on maximum use, establishing just one cut-off point, not capping the highest category of use) the less of a constraining factor it would be to existing and potentially future operations, but the less effective it would be over controlling effort levels in the fishery. If the Council identifies a problem and moves forward on action, future analysis will have the challenge of describing these negative and positive impacts and the user groups that are affected.

As an example, say the Council chose to create two annual CHP trip limit categories, a “low use” category and a “high use” category. For purposes of this example, say the Council established a cut-off point based on the average minimum use between 2012 and 2016; 22 trips for Area 2C and 23 trips for Area 3A. Say the Council also established qualification criteria based on a CHP’s maximum trips taken in a season between 2012 and 2016 (see Figure 11).

If CHPs in the “low” category were all used on 22 halibut trips per year in Area 2C and 23 halibut trips per year in Area 3A (their trip limits) and CHPs in the “high” category were all used on 100 halibut trips per year (as in the example explained in Section 2.2), Table 11 and Table 12 demonstrate the potential trips from these CHPs. The potential 45,802 trips in Area 2C and 36,594 trips in Area 3A from this CHP trip limit scenario can be compared to the potential trips from the “full time” fishery represented in Table 2 and Table 3. Using the example of 100 trips per CHP, Table 2 and Table 3 show a potential for 52,900 trips in Area 2C and 42,600 in Area 3A. Constraining the ability for 91 CHPs in Area 2C and 78 CHPs in Area 3A to take more than 22 and 23 trips (respectively), decreases some of the potential latent capacity. In Area 2C, the percent of trips latent drops from 58% (Table 2) to 51% (Table 11) in 2016. In Area 3A, the percent of trips latent drops from 60% (Table 3) to 53% (Table 12) in 2016.

Table 11 The number of trips that would be taken if all Area 2C CHP were either used on 22 trips (Low category) or 100 trips (High category) in a season, compared to the number of trips reported in 2016

Class	Number of CHPs	Potential trips	Trips taken	% of potential trips taken	% of trips latent
LOW (≤ 22)	91	2,002	478	24%	76%
HIGH (>22 and ≤ 100)	438	43,800	21,997	50%	50%
Total	529	45,802	22,475	49%	51%

Source: ADF&G saltwater logbook data sourced through AKFIN

Note some CHPs are used on more than 100 trips each year in Area 2C, ranging from a total of between 27 and 242 additional trips in the years provided. These additional trips are represented in the “trips taken” for each year, which decreases the percent of latent capacity shown in this example.

Table 12 The number of trips that would be taken if all Area 3A CHPs were used on either 23 trips (Low category) or 100 trips (High category) in a season, compared to the number of trips reported in 2016

Class	Number of CHPs	Potential trips	Trips taken	% of potential trips taken	% of trips latent
LOW (≤ 23)	78	1,794	415	23%	77%
HIGH (>23 and ≤ 100)	348	34,800	16,680	48%	52%
Total	426	36,594	17,095	47%	53%

Source: ADF&G saltwater logbook data sourced through AKFIN

Note some CHPs are used on more than 100 trips each year in Area 3A, ranging from a total of between 112 and 494 additional trips in the years provided. These additional trips are represented in the "trips taken" for each year, which decreases the percent of latent capacity shown in this example.

Again, this example is for demonstration purposes, but there are real-world reasons why not every CHP would be expected to be used 100 times per season. External factors, such as angler demand and a charter operator's preference for schedule, can restrict CHPs from 100 trips per season. Conversely, some CHPs are already used on more than 100 trips per season. Without a trip limit on the top category of CHPs, it is very difficult to estimate where effort may expand. The impacts depend on the fleet's response to the limitations to the CHP supply, which is difficult to predict. If the Council takes additional action on this issue, additional analysis will need to continue to consider the effectiveness of annual CHP trip limits, while expanding on the distributions impacts to those users whose access becomes limited.

3.4.2 Monitoring and Enforcement Challenges

This action would create a number of monitoring and enforcement challenges. For instance, similar to some other types of annual management measures, NOAA Office of Law Enforcement (OLE) will only be able to enforce annual CHP trip limits through a post-season audit. As described by OLE representatives previously, measures that are not able to be enforced on the water are much more difficult to enforce.

Moreover, annual limits on CHP trips will create an incentive for businesses not to submit logbook data or to falsify trip reports in order to extend business activity beyond their trip limits. There is no way for ADF&G to distinguish between vessel inactivity and non-submission of logbook data unless there is some other contact with the charter vessel, either through enforcement or creel sampling. Unlike in the commercial fishery, where OLE can cross-reference with logbooks (for vessels over 26 ft), IFQ landings reports, ADF&G fish tickets, and sometimes observer or electronic monitoring information, in the halibut charter sector, OLE must rely on logbook information, which can make both the enforcement and the appeals process more challenging.

Setting up a logbook record linking CHPs to halibut trips taken with the highest quality of data verification possible would take substantial contributions from ADF&G and collaboration with NOAA RAM. This is information not currently used by ADF&G. If it is used for annual enforcement, additional effort and resources may be required to keep the trip data as accurate as possible.

The burden of knowing how many trips (or angler-trips) a CHP has remaining in a season would likely fall to the CHP holder. This may be simple if the charter operation only uses one CHP and they have clear records of their halibut charter trips and anglers. It may be more of a burden if the operation relies on several CHPs. This would require more careful documentation and organization on the part of the charter operation to ensure they have trips remaining.

4 Next Steps

The next step is for stakeholders and the Council to identify if there is a problem here. If the Council believes there is a need for action, it could clarify its intent through a purpose and need statement and establish a set of alternatives. Based on National Environmental Policy Act (NEPA) guidance, a purpose and need should be able to:

- 1) identify the undesirable conditions,*
- 2) link the conditions to agency guidance (law, regulations, agency policy, etc.),*
- 3) frame the initial goals as clearly as possible, with reference to the resources conditions expected to exist at a future date,*
- 4) rework the goals into measurable objectives, and*
- 5) set a target goal or threshold value for successfully achieving each objective.*

Thus, when preparing a purpose and need, it is important for the Council and stakeholders to consider the goal of action, including what the fishery would look like if those goals were accomplished. For instance, is the objective to control effort? To stabilize management measures? To add more flexibility to management measures? This intent will serve as guidance for any subsequent analysis. Any alternatives that are generated should flow directly from the specified purpose and need.

The Council may choose to consider this action in conjunction with the alternatives presented in the latency discussion paper (NPFMC 2017) under the same purpose and need statement, or continue with this action separately. While the implications of these actions could be different, they may be working towards a common goal. This will depend on how the Council chooses to craft a purpose and need statement.

5 References

- Alaska Department of Fish and Game. 2017. Informational handout for charter management implementation committee meeting. October 10, 2017. Homer, Alaska.
- Meyer S. 2014. Estimation and projection of statewide recreational halibut harvest. Regional Operational Plan SF.4A.2014.08. October 2014. Alaska Department of Fish and Game. Homer, Alaska. Available at: <http://www.adfg.alaska.gov/FedAidPDFs/ROP.SF.4A.2014.08.pdf>
- Meyer S. and R. Powers. 2015. Analysis of management options for the Area 2C and 3A charter halibut fisheries for 2016. December 4, 2015. Alaska Department of Fish and Game. Homer, Alaska. Available at: <http://npfmc.legistar.com/gateway.aspx?M=F&ID=395e0f70-9f6d-41cd-bc16-2bd800648d2d.pdf>
- National Marine Fisheries Service/ North Pacific Fishery Management Council. [NMFS/NPFMC]. 2016. Charter Halibut Permit Usage Discussion Paper. December 2016. Juneau, Alaska. Available at: <http://npfmc.legistar.com/gateway.aspx?M=F&ID=659a2729-5fc1-4868-8070-ebbe39b01ad8.pdf>
- NPFMC. 2015. Initial Review Draft RIR/IRFA/EA for a proposed regulatory amendment: Halibut charter recreational quota entity and charter halibut permit recency action. December 2015. Anchorage, Alaska. Available under Agenda item C6 at: http://legistar2.granicus.com/npfmc/meetings/2015/12/931_A_North_Pacific_Council_15-12-07_Meeting_Agenda.pdf
- NPFMC. 2016. Initial Review Draft RIR/IRFA/EA for a proposed regulatory amendment to allow a recreational quota entity to hold commercial halibut quota share for use by halibut charter anglers. April 2016. Anchorage, Alaska. Available under Agenda item C9 at:

http://legistar2.granicus.com/npfmc/meetings/2016/4/936_A_North_Pacific_Council_16-04-04_Meeting_Agenda.pdf

NPFMC. 2017. Recreational quota entity ownership caps. December 2017. Anchorage, Alaska. Available under Agenda item C2 at:

http://legistar2.granicus.com/npfmc/meetings/2017/12/967_A_North_Pacific_Council_17-12-04_Meeting_Agenda.pdf