

# ***Oregon Department of Fish and Wildlife***

## ***Report on the 2016 Oregon Recreational and Commercial Pacific Halibut Fisheries***

***and***

## ***Economic Impacts of 2017 Catch Alternatives***



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Marine Resources Program  
&  
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Corvallis, Oregon

January 2017

## ***2016 Oregon Recreational Fisheries***

### ***Allocation***

Beginning in 2014, the Oregon recreational Pacific halibut fishery has received 20.0 percent of the Area 2A Total Allowable Catch (TAC), or catch limit as indicated in the Pacific Fishery Management Council (PFMC) “Pacific Halibut Catch Sharing Plan” (CSP). Previously, the Oregon and California recreational fisheries had been combined and received 20.6 percent of the Area 2A TAC. In 2016, 2.3 percent of the Oregon recreational allocation was allocated to the Columbia River subarea (Leadbetter Point, Washington to Cape Falcon, Oregon; Figure 1). The Central Oregon Coast Subarea (Cape Falcon to Humbug Mountain) was allocated 93.79 percent and the Southern Oregon Subarea (Humbug Mountain to the OR/CA Border) received 3.91 percent of the Oregon recreational allocation.

### ***Recreational Catch Monitoring***

Catch estimates were derived using data obtained from the Oregon Recreational Boat Survey (ORBS). Catches, by port and boat type (charter or private), were calculated by applying trip level data obtained from dockside sampling (mean anglers per boat, mean fish weight, mean fish per angler, proportion of trips targeting Pacific halibut, proportion of non-targeted trips with incidental catch of Pacific halibut) to total effort counts (boats). Samplers were instructed to measure the lengths of all Pacific halibut from every other boat sampled, for both the private and charter fleets. This information was used to estimate total weight of fish landed. In 2016, statewide, 3,578 Pacific halibut were sampled, which was 33 percent of the estimated 11,147 Pacific halibut landed into Oregon (Table 1).

### ***Groundfish Retention***

In 2016, retention of all groundfish except other flatfish species (new in 2015), sablefish and Pacific cod were prohibited in the Columbia River and Oregon Central Coast all-depth fisheries if Pacific halibut were aboard the vessel. This provision is to reduce incidental take of yelloweye rockfish, federally classified as an overfished species. Sablefish and Pacific cod were allowed to be retained as they are rarely targeted; rather they are often taken incidentally in the directed halibut fishery. Groundfish retention was allowed in the nearshore halibut fishery (in areas open for groundfish fishing) when the all-depth fishery was closed and in the Southern Oregon subarea because the majority of halibut fishing occurs inside of 40 fathoms, where yelloweye rockfish are less abundant and have higher survival after release.

Since 2005, the high relief area of Stonewall Bank, located approximately 15 miles off Newport, has been closed to halibut fishing (Figure 1). The intent of this provision is also to reduce the incidental take of yelloweye rockfish.

### ***Discussion***

#### ***Columbia River Subarea (Leadbetter Point, Washington to Cape Falcon, Oregon)***

In 2016, the Columbia River fishery was scheduled to have two openings, an all-depth season beginning the 1<sup>st</sup> Thursday of May, continuing 4 days per week (Thurs-Sun) until the quota was attained or September 30, and a nearshore fishery opening the Monday after the first all-depth opening, continuing 3 days per week (Mon-Wed) until the quota was attained or September 30. On June 3, 2016 the all-depth season closed with a total of 11,896 pounds caught, which was 1,387

pounds over the 10,509 pound allocation. The overage in the all-depth season was greater than what was set aside for the nearshore season. Therefore, the nearshore season was also closed at that time. There had been no effort or landings in the nearshore fishery at that time. An estimated 2,111 pounds (17.7 percent of the total subarea catch) were landed into Oregon ports all from the all-depth season: (Table 1). The total Oregon contribution to the subarea catch limit was 5,062 pounds, 2.3 percent of the Oregon recreational allocation.

### ***Oregon Central Coast Subarea (Cape Falcon to Humbug Mountain)***

The fishery in this subarea has two components: a shallow nearshore fishery and a directed all-depth fishery (spring and summer seasons).

#### *Nearshore fishery (inside 40 fathoms)*

Beginning in 2010, anglers began targeting halibut inside 40 fathoms, resulting in earlier than anticipated closures. To extend the season, in 2013 the nearshore fishery was changed from seven days per week to three days per week (Thursday, Friday, and Saturday). However, the nearshore season closed within one calendar day of when it had in 2012, even with the three day per week openings. Many anglers were unhappy with the three day per week openings, and requested going back to seven day per week, but opening later in the year. The intention was to allow halibut opportunities later into the summer months. Therefore, beginning in 2014, the nearshore fishery opened on July 1, seven days per week and remained open through October 31, or until allocation attainment. Due to leaving some allocation unharvested in 2014, anglers requested that the fishery opening date be moved to June 1, beginning in 2016.

In 2016, the initial allocation to the central coast nearshore fishery was 24,769 pounds. On September 12, 5,000 pounds were added from the summer all-depth season and 1,000 pounds from the Southern Oregon Subarea as the nearshore fishery was close to quota attainment and the other fisheries were not anticipated to take their entire allocation before the regulatory closure. On September 22, an additional 2,000 pounds from the summer all-depth season were moved to the nearshore fishery to keep it open through the regulatory closure of October 31. Total catch was 32,132 pounds, which was 637 pounds (2 percent) under the adjusted allocation of 32,769 pounds.

#### *All-depth fishery*

The directed all-depth fishery, split into spring (May-July) and summer (August-October) seasons, is allocated 88 percent of the Oregon Central Coast subarea catch limit. In 2016, 71.6 percent of that amount (130,038 pounds) was allocated to the spring fishery and the remainder to the summer fishery (51,603 pounds).

The 2016 spring season was managed in two periods, each with fishing allowed Thursday, Friday and Saturday. The first period was managed under the fixed-day approach in use since 1995: a number of fixed dates are set pre-season so anglers can plan their fishing in advance, with the intent to not exceed the spring catch limit. Any remaining poundage is available for a second open period in the spring; these “make-up” dates are also set pre-season. The first period (fixed-day season) was open for 12 days on May 12-14, 19-21, 26-28, and June 2-4. Due to very good weather and ocean conditions leading to increased effort, catches were so good during the first opening, similar to 2015, that there was concern that the fixed dates could take the entire spring and summer all-depth allocations. However, the weather on second set of fixed dates was marginal. The last two sets of fixed dates had better weather, with catch rates more similar to normal spring all-depth openings.

After the fixed dates, enough quota remained for two back-up days of fishing. The total catch from the spring season was 132,097 pounds (Table 1), or 101.5% percent of the spring all-depth catch limit. The overage of 2,059 pounds was shifted from the summer all-depth fishery.

The 2016 summer fishery was set preseason to open every other Friday and Saturday from August 5 through October 31. For the second time since 2005, the summer all-depth fishery remained open the entire season. Effort and catch rates during the first two openings were lower than recent years' openings. High winds and poor ocean conditions limited effort and catches. The third opening was more similar other August opening in recent years. Effort and catch rates steadily declined after that. This was partially due to weather (winds), and anglers moving on to other outdoor activities, such as hunting. In mid-September it was estimated that the all-depth fishery would not take its entire allocation. Therefore 5,000 pounds was moved to the nearshore fishery on September 12, and another 2,000 pounds on September 24. The intent was to keep both fisheries open through the regulatory closure of October 31. The total catch in the summer fishery was 38,423 pounds (Table 1), under the revised summer fishery catch limit by 4,122 pounds (10 percent).

#### *Combined Nearshore and All-Depth Fisheries*

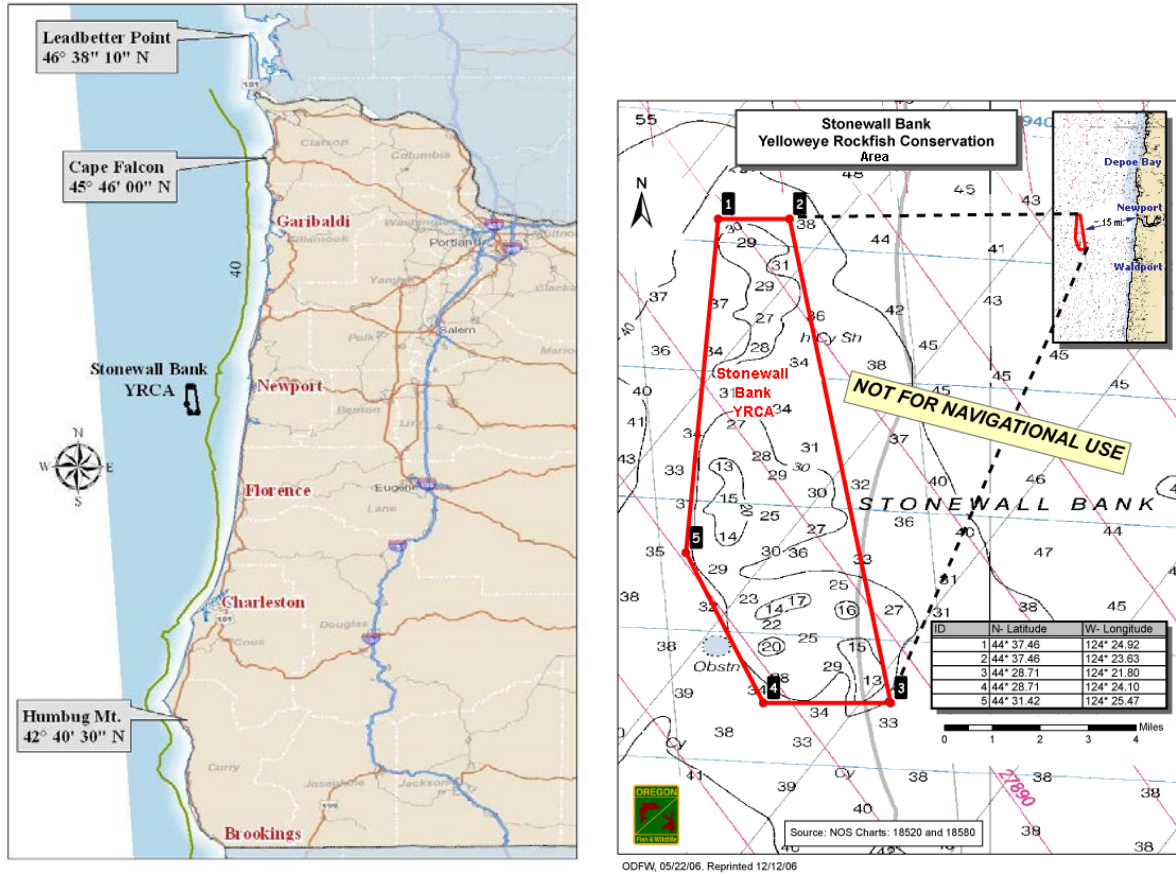
The combined catch from the nearshore and all-depth fisheries was 202,651 pounds, or 98.2 percent of the 206,410 pound total allocation for the Oregon Central Coast subarea.

#### ***Southern Oregon Subarea***

Until 2011, Pacific halibut were rarely targeted off Oregon in the former South of Humbug subarea as this area is located in what was thought to be the southern edge of the species' range. Beginning in 2014, a new Southern Oregon Subarea was created from Humbug Mountain to the Oregon/California Border. The Southern Oregon subarea received 3.91 percent of the Oregon recreational allocation. During 2016 as in 2015, early season had little success compared to 2010-2013 primarily due to unfavorable current conditions, and possibly some gear conflict issues with the commercial Dungeness crab fishery. Effort and catch picked up some in late July when salmon opportunities began to decrease. There was minimal effort or catch from this subarea after Labor Day weekend, again primarily due to weather conditions. In mid-September, this subarea was not anticipated to require its entire allocation, and 1,000 pounds were transferred to the Central Oregon Coast Subarea nearshore season. The intent was to keep both fisheries open through the regulatory closure of October 31, which was achieved. The catch estimate for the Southern Oregon subarea was 4,173 pounds, under the adjusted allocation of 7,605 pounds by 3,432 pounds, 45 percent.

#### ***Summary***

The combined catch of Pacific halibut in the 2016 Oregon recreational fisheries is estimated at 208,935 pounds. The catch was comprised of an estimated 11,147 fish averaging 18.7 pounds net weight (Table 1). An estimated 21,000 angler trips contributed \$2.5 million, via spending on trip- and fishing-related expenses such as hotels, lodging, tackle, and other items.



**Figure 1. Maps with Oregon Pacific halibut recreational regulation locations, including Stonewall Bank Yelloweye Rockfish Conservation Area**

**Table 1. 2016 Oregon Pacific halibut recreational fishery catch data.**

Subarea	Season	No. of Halibut Sampled	Average Weight (net lbs.)	No. of Halibut Harvested	Total Pounds (Net Weight)
Columbia River	All-Depth	41	16.6	127	2,111
	Nearshore	0	N/A	0	0
Central Oregon Coast	Spring All-Depth	2,352	17.8	7,429	132,097
	Summer All-Depth	616	20.3	1,893	38,423
	Nearshore	446	21.5	1,495	32,132
Southern Oregon Subarea		123	20.6	203	4,173
<b>Total</b>		<b>3,578</b>	<b>18.7</b>	<b>11,147</b>	<b>208,935</b>

## 2016 Oregon Commercial Fishery

A brief review of Oregon’s commercial Pacific halibut fishery in recent years with a focus on 2016 is below<sup>1</sup>. A more detailed report prepared in 2014 on the economics of Oregon’s recreational and commercial fisheries is available at:

[www.dfw.state.or.us/MRP/finfish/halibut/docs/management/EconomicHalibutReport2014.pdf](http://www.dfw.state.or.us/MRP/finfish/halibut/docs/management/EconomicHalibutReport2014.pdf)

### Participation

The Oregon commercial halibut fishery provides a small amount of harvest revenue to a relatively large number of participants. A few vessels are dependent on the fishery for a majority of their annual revenue. The explanation for the large number of participants includes the low gear-up costs for participation, and open access licensing. In addition to directed fishery participation, there are many participants in the incidental halibut salmon troll fishery. Oregon-registered vessels with an IPHC license for commercial halibut in Area 2A are shown in Table 2. Approximately 60 percent of those vessels that had directed commercial licenses made deliveries in 2016; as did approximately 42 percent of those with incidental troll salmon licenses. While the average per-vessel harvest revenue is somewhat minor in recent years for the directed halibut fishery (\$1,000 to \$10,000), there may be some participation motivated by wanting to continue a landings history if this currently open-access, derby style fishery were to become an individual fishing quota fishery in the future.

Table 2. Number of Oregon-registered vessels with an IPHC license for commercial halibut fisheries in Area 2A, 2011-2016

<b>Oregon Registered Vessels</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Directed Commercial	102	115	88	99	92	109
Incidental Sablefish (N of Pt. Chehalis)	Not	1	0	2	0	1
Directed and Incidental Sablefish	Open	4	8	5	5	1
Incidental Troll Salmon	180	173	192	239	230	193

### Harvesting and Processing

There were 0.23 million round weight pounds landed into Oregon at an ex-vessel value of \$1.33 million in 2016. Halibut ex-vessel prices averaged \$5.61 per round weight pound in 2016. There were a total of 148 unique vessels that had shoreside halibut landings in Oregon in 2016. Of the 148 vessels, 81 vessels landed halibut with troll gear (i.e., the incidental salmon fishery), and 67 landed halibut with longline or hook and line gears (i.e., the directed fishery). There were also 15 vessels that landed halibut in the shoreside Pacific whiting fishery<sup>2</sup> in 2016. There were 262 deliveries in the directed fishery, 430 deliveries in the incidental salmon troll fishery, and 88 deliveries in the shoreside whiting fishery in 2016. Forty four percent of the vessels in the directed

<sup>1</sup> Full report: <http://www.dfw.state.or.us/MRP/finfish/halibut/docs/management/EconomicHalibutReport2016.pdf>

<sup>2</sup> The Pacific whiting fishery is a maximized retention fishery. Harvesters are not paid for the landings and processors typically distribute the fish to food banks or destroy them

fishery had less than \$10,000 in ex-vessel revenue in 2016. Oregon harvest volume was 96 percent directed and four percent incidental in 2016.

Ten processors or buyers purchased over \$10,000 of landed halibut each in 2016, and this comprised over 96 percent of all halibut landings in Oregon. The top three processors or buyers purchased about 58 percent of all Oregon halibut landings.<sup>1</sup>

### ***Economic Impacts of 2017 Catch Alternatives***

Economic impacts of a range of harvest alternatives are shown below in the format of the decision table that is used to illustrate biological implications of each alternative (presented by Dr. Ian Stewart at the 2016 IPHC Interim Meeting). This format facilitates the coordinated evaluation of both biological and economic impacts. For Area 2A in 2017, the difference between the Status Quo fishery constant exploitable yield (FCEY; 1.14 million pounds) and the Blue Line alternative (0.75 million pounds) is 390 thousand pounds (34.2 %). As a result, the biological and economic implications are different for both alternatives.

Table 3 and Table 4 show projections of harvest and economic impacts for the commercial and recreational fisheries, respectively, for selected harvest level alternatives.

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1. Processor receipts of halibut include research, discard, trawl, and catch from outside the EEZ.

**Table 3. Oregon commercial halibut fishery harvest and economic impacts from proposed harvest alternatives in 2017.**

IPHC Management Alternative	IPHC		Estimated Oregon Harvest		Oregon Economic Impacts		
	Coastwide Removals (net pounds, millions)	Area 2A FCEY (net pounds, millions)	Volume (round pounds, thousands)	Value (thousands)	Harvest Value (thousands)	Personal Income (thousands)	Change
FCEY = 0					-1,282	-2,067	-100%
Blue Line	37.9	0.75	150	843	-438	-707	-34%
Directed			144	810	-421	-680	
Incidental			6	33	-17	-27	
Maintain 2014-16							
Average SPR	41.6	0.84	168	944	-337	-544	-26%
Directed			162	908	-324	-523	
Incidental			7	37	-13	-21	
50 Million lbs Coast-wide Removals	50.0	1.02	204	1,147	-135	-218	-11%
Directed			196	1,102	-130	-209	
Incidental			8	45	-5	-8	
Status Quo 2016	54.5	1.14	228	1,282	0	0	0%
Directed			220	1,232	0	0	
Incidental			9	50	0	0	

- Notes:
1. Economic impacts are the difference in the proposed alternatives in 2017 less status quo in 2016, at the statewide economic level. The difference is based on comparison to 2016 catch limits and not actual catch.
  2. Value and Harvest Value equal ex-vessel.
  3. The Oregon share of landings in 2015 for the Area 2A commercial non-tribal harvests was 75.5%. The share is computed after excluding non-EEZ catch area, research, bycatch, and sablefish incidental catch. The share includes the directed fishery (96%) and salmon incidental fishery (4%) harvests.
  4. The Year 2017 harvest value assumes Year 2016 prices.
  5. Personal income is the income accruing to households in the form of net earnings from wages, salaries, proprietorship income, etc.

Source: Study, 2016 IPHC Interim Meeting Handout, TRG (2015a), and PacFIN.



**Table 4. Oregon recreational halibut fishery harvest and economic impacts from proposed harvest alternatives in 2017.**

IPHC Management Alternative	IPHC Coastwide Removals	Area 2A FCEY	Projected Angler Trips (thousands)			Expenditures (thousands)			Economic Impacts (thousands)		
			Charter	Private	Total	Charter	Private	Total	Oregon Coast	Statewide	Change
FCEY = 0									-1,848	-2,574	-100%
Blue Line Maintain 2014-16	37.9	0.75	2.43	9.72	12.15	926	1,166	2,092	-632	-881	-34%
Average SPR	41.6	0.84	2.72	10.89	13.61	1,037	1,306	2,343	-486	-677	-26%
50 Million lbs Coast-wide Removals	50	1.02	3.30	13.22	16.52	1,259	1,586	2,845	-195	-271	-11%
Status Quo 2016	54.5	1.14	3.69	14.77	18.47	1,407	1,773	3,180	0	0	0%

- Notes:
1. Coastwide removals and Area 2A FCEY are in millions of net pounds.
  2. Projected angler trips are based on Area 2A FCEY times the factor 0.0162. The factor is a linear regression fit of years 2005-2016 trip (dependent variable) and Area 2A FCEY (single predictor variable) data. Charter trips are assumed to be 20% of total trips.
  3. Economic impacts (thousands of nominal dollars) are the difference in the proposed alternatives in 2017 less 2016 adopted. The difference is based on comparison to 2016 CSP allocation and not actual catch. Economic impacts are measured by personal income at the statewide or coastwide economic level.

- Sources:
1. Trips per pound and trip share for charter and private mode are from ODFW (personal communication December 2016).
  2. Economic response coefficients are from Fisheries Economic Assessment Model (FEAM) based on IMPLAN 2011 base data.

Economic impacts of a broad range of harvest levels are provided in Figure 2. The strong linear relationship between the 2A TAC, commercial landings, sport angler trips, and total economic value produced by these fisheries is due to the fact that the allocations to the Oregon sport and commercial fisheries are fixed percentages of the 2A FCEY.

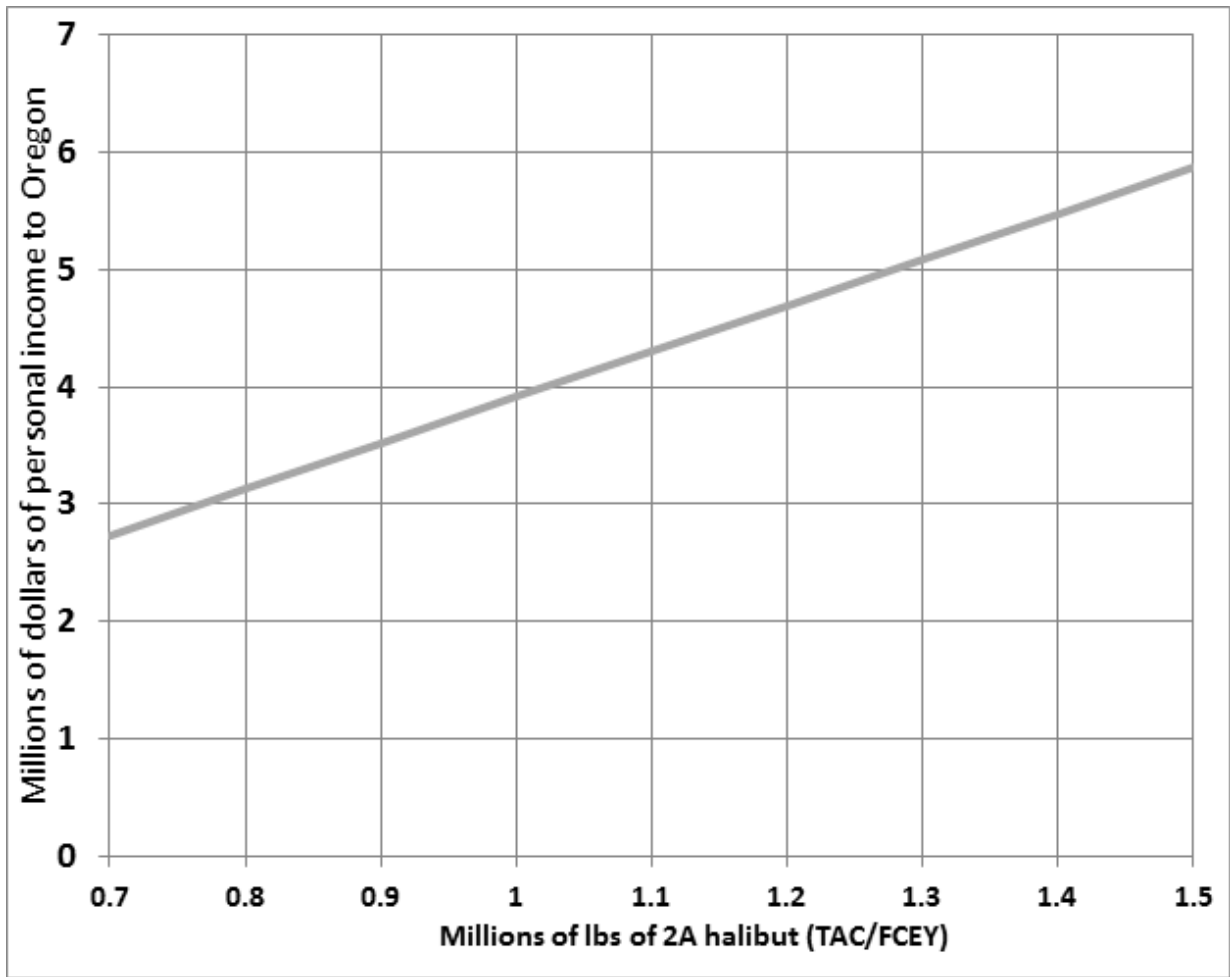


Figure 2. Relationship between Area 2A FCEY and the economic value to Oregon