



Herb Pollard, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220

June 12, 2017

Dear Chair Pollard and Council Members:

Please accept these comments on behalf of Midwater Trawlers Cooperative (MTC). MTC represents 26 trawl catcher vessels that participate in the at-sea and shoreside whiting sectors as well as traditional Groundfish fisheries off the west coast.

**MTC supports the GAP statement on this issue and we urge the Council to recommend to NMFS the following actions:**

- 1. The entire off-the-top buffers for Pacific Ocean Perch (25 mt) and Darkblotched rockfish (50 mt) should be transferred to the at-sea whiting sectors as soon as possible**
- 2. The amount to be transferred should be split equally between the mothership and catcher-processor sectors: 12.5 mt of POP and 25 mt of Darkblotched rockfish to each sector**
- 3. The Council should develop and NMFS should implement the criteria for which canary rockfish could be transferred from the buffer to the at-sea sectors in case an issue arises for either at-sea sector between now and the September Council meeting**
- 4. NMFS should work with the MS and CP sectors to transfer some portion of widow rockfish from the MS sector to the CP sector if the MS Coop Board and membership can reach agreement to allow the transfer**

**CURRENT SITUATION**

As of this morning the mothership whiting sector has harvested approximately 23% of our annual whiting allocation. But these numbers don't tell the full story of the season so far.

<b>Species</b>	<b>Allocation</b>	<b>Harvest YTD</b>	<b>% Used</b>
Whiting	87,044 mt	20,025	23%
Darkblotched Rockfish	11.6 mt	0.91 mt	7.8%
Canary Rockfish	30 mt	0.99 mt	3.3%
Pacific Ocean Perch	12.5 mt	2.62 mt	20.9%
Widow Rockfish	290.3 mt	15.16 mt	5.2%
Chinook Salmon		29	

Source: Sea State

**Pre-Season**

During the April Council meeting the whiting industry became aware of the dire situation that Klamath Management Zone Chinook stocks were in. At the April meeting the whiting industry committed to do everything they could to avoid interacting with KMZ stocks during the whiting season. The Council recommended to NMFS the transfer of 7 mt of Pacific Ocean Perch split equally to the two at-sea sectors to incentivize the fleet to fish further north. The MS Coop Bycatch Committee and Board met several times between the April PFMC meeting and the start of the whiting season and developed stringent bycatch mitigation measures related to Chinook interactions. A copy of our wheel house guide is attached to this document. The measures to avoid salmon include closed areas, no night fishing, mandatory salmon excluder use, strict movement requirements and a self-imposed hard cap on numbers of Chinook that if breached would result in a cessation of all whiting fishing south of 44 degrees.

**Pools 1 & 2**

The MS fleets began the season fishing north. There were large fish and some of the best fishing we have seen since the implementation of Amendment 20 - but we ran into POP as was anticipated. In fact, Pool 1 closed prematurely leaving 14.5 million pounds of whiting unharvested in that pool because the MS sector exceeded the Pool 1<sup>st</sup> allowance of POP. While the pool was open, there were 192 total tows. Fifty-six percent of tows had at least one POP in them.

<b>Number of tows</b>	<b>Amount of POP</b>
8	100 to 500 kg
18	10 to 100 kg
82	1 to 9 kg
84	No POP
192	Total Hauls in Pool 1

Source: Sea State

Lightning strikes were not our primary problem – many tows with some POP add up quickly. When Pool 2 opened on May 31<sup>st</sup> the fleet moved further south to avoid POP and our take of POP reflects that change – over the last 13 days we have only caught .12 metric tons of POP. At the same time, our catch of Chinook has increased with a total of 29 Chinook taken to-date. The fishing is not as good down South, the fish are smaller than those we were catching up North and it takes longer to fill up a processing platform. Pool 3 does not open until July 1<sup>st</sup> so the threat of closing Pool 2 on POP would be very disruptive and economically damaging to the harvesters, processors and coastal communities. We need more POP to fish North. In fact, Sea State estimated that at the Pool 1 mothership bycatch rate for whiting fishing north of the Columbia River, we would need 19.28 mt of POP to have a reasonable expectation of achieving OY and harvesting our full whiting allocation. Pacific States Marine Fisheries Commission reports that the shoreside whiting fishery has caught 8.79 tons of POP since the start of the season. If the MS fishery had the same bycatch rate as the shoreside fishery Sea State reports that we would need at least 23 tons of POP to catch our whiting allocation north of the Columbia River. The GMT analysis is underestimating the needs of the MS sector – because the desire of the Council, the Salmon industry and the whiting fleet is to fish north to avoid KMZ Chinook stocks, the bycatch rate from Pool 1 is what should be used to determine the needs of the MS sector.

## **AUTHORITY AND RATIONAL**

There is ample justification for moving fish from the buffers to the at-sea sectors. There is no conservation concern. Even if the entire buffer were harvested in the at-sea fisheries (which is unlikely) the overall projections would still be much less than the 2017 harvest specifications according to the scorecard provided by the GMT. For darkblotched the attainment would be approximately 36.5% of the 2017 harvest guideline. POP would be projected to reach 39.5% attainment of the 2017 harvest guideline if the full buffer was harvested. Doling out small amounts instead of the full buffer also adds to NMFS workload and exacerbates our uncertainty about the remainder of the season.

The reality is that this fish has the most net benefit to the nation when it is transferred to the at-sea sectors. A distribution to the shoreside sector will not have much of an impact because the fish would have to be shared with all quota holders and the amounts each permit would receive would be small. Also, shoreside fishermen can trade, lease or buy quota pounds and shares from other quota holders and this avenue is not available to the at-sea fleets. According to the scorecard, non-trawl sectors are only expected to take a fraction of their allocations and it is unlikely that the recreational or fixed gear sectors would need either darkblotched or POP above their non-trawl allocation. The at-sea whiting sectors have clearly demonstrated our need for this fish to have a reasonable expectation of harvesting our whiting allocations.

There was no specific definition of “unforeseen catch event” in the regulations. Often, we think of a lightning strike as the definition but there are other events that are directly related to unforeseen circumstances. First, the KMZ Chinook stock situation was unanticipated when the 2017-2018 Groundfish specifications were implemented, resulting in some urgency for the whiting fleets as the season opened to fish in a more northerly fashion. The northern fishing resulted in the second unforeseen circumstance which is an increase in POP catch. As noted above, in the MS sector there are some large tows but most fish are caught in small amounts in multiple tows. Another unforeseen event is the stock status of POP which is currently being managed under a rebuilding plan but whose draft stock assessment suggests that the stock is rebuilt decades sooner than was anticipated.

The Appendix to the GAP statement does an excellent job of laying out why taking this action meets the goal and objectives of the FMP as well as Amendment 20. And I would incorporate that information by reference here.

## **50/50 SPLIT**

MTC supports an equal split to the at-sea sectors of any pounds transferred from the buffer. Of the several actions related to the at-sea sectors and access to bycatch that the Council and NMFS have taken over the last 3 ½ years, none were on a pro-rata basis. Both at-sea sectors need additional bycatch. The MS sector is so constrained by bycatch that we manage our fishery with five seasonal pools so that we can have a reasonable expectation of harvesting our full whiting allocation. A glance through the 12-page Wheel House Guide shows the extreme and costly measures that we take to avoid rockfish and salmon. The trawl 5-year review analysis shows clearly that the mothership sector is not achieving economic success. I believe that there is a direct correlation between the irrational way we have to manage our fishery and the lack of financial success for this sector. The MS fishery provides benefits to coastal communities in Washington and Oregon as the catcher vessels are mostly home-ported in these communities. We believe that a 50/50 approach is the fairest approach.

## **CANARY ROCKFISH**

To-date the MS sector has only used 3.3% of our canary allocation. The shoreside whiting fishery has landed 25

tons of canary as of this morning. If we get into canary problems between now and the September meeting, it makes sense to determine the criteria by which NMFS would transfer fish to the at-sea sectors. We know from the f/v Seeker disaster tow a few years ago that we can get into canary trouble quickly and it would be non-sensical to have the buffer in place, but no way to access it between Council meetings if needed. The MS sector suggests that if the canary catch in the MS sector approaches 50% of our canary allocation that 30 mt of additional canary can be transferred over the MS sector between the June and September Council meetings.

### **WIDOW ROCKFISH**

The MS Coop is exploring whether we can transfer some amount of widow rockfish from our sector to the CP sector. The CP sector has caught more than 50% of their widow allocation and the MS sector has only taken 5% of ours. We do have concerns that we could get into widow trouble ourselves later in the season and we are considering whether transferring the fish jeopardizes the MS sector. There are several steps that need to be taken to make this happen including consent from the MS Coop Board and membership. I recommend that the Council bless this approach and encourage NMFS to work with us to facilitate this activity.

### **CONCLUSION**

Finally, I want to thank the Council and NMFS for the several actions they have taken over the last 3.5 years to provide greater access to constraining species for the MS sector. I look forward to identifying and implementing a long-term solution for our sector through the 5-year review process.

Thank you for your consideration

Heather Munro Mann  
Midwater Trawlers Cooperative

## Wheelhouse Guide to 2017 WMC Bycatch Rules

### CHINOOK ALERT

The directed Chinook salmon troll fishery is closed south of 44 degrees. Bycatch of Chinook south of 44 degrees is an extremely sensitive political issue this season. The PMFC considered closing whiting south of 44 degrees, but agreed to give the whiting fleet a chance to show that we can self-manage our fishery to keep Chinook bycatch to an absolute minimum.

Fishing south of 44 should be a last resort only if fishing conditions in the north are unworkable. Sea State and the WMC manager will be closely monitoring any fishing south of 44 and be prepared to close all or part of the area at the 1<sup>st</sup> sign of Chinook bycatch. The whole area south of 44 will close to pools 1 and 2 based on caps for each pool of 100 Chinook taken in the area.

### WHAT NEW in 2017 (Highlighted text in this document)

- Updated Base Rates
- New 10 Chinook per day movement rule south of 44 degrees
- Rockfish Bycatch Incentive Program with additional movement and stand down rules (see section 5 below)
- Night fishing restriction are lifted outside 200 fathoms north of 44 degrees and outside 250 south of 44 degrees.
- Updated Closure coordinates

#### 1. Base Rates are used as the basis for modifying fishing practice obligations by Member's vessels.

The Board set 2017 bycatch "base rates" for 4 "Overfished" rockfish species (POP, Canary, Dark blotched, and Widow rockfish) as well as for Chinook salmon. The rockfish base rates are calculated by dividing the sector's bycatch limits by its whiting allocation as shown in the following table for 2017:

	CANARY	DKB	POP	WIDOW	CHINOOK
2017 MS sector bycatch amounts	30.0	11.6	12.5	290.3	2,169
2017 Pro-rata Base Rates	0.34	0.13	0.14	3.34	0.025
2017 Pool Performance Test (125%)	0.43	0.17	0.18	4.17	NA
200% Movement Trigger	0.69	0.27	0.29	6.67	0.05

The 2017 Chinook base rate has two stages:

- a) **0.025** Chinook/mt is the base rate for fleets that have taken more than their pro-rata share Chinook relative to whiting harvested, and,
- b) **0.0375** Chinook/mt is the base rate for fleets that have taken less than their pro-rata share of Chinook relative to whiting harvested.

*(See Section 5 for how the base rates are used.)*

## 2. Mothership Reporting to Sea State:

Each Mothership is responsible for obtaining the catch data and other information that may be necessary for effective fishery management, and providing that data to the Monitoring Agent (Sea State) soon as reasonably possible after receiving such data.

## 3. Sea State provides a daily report with:

- catch to date
- bycatch rates for MS sector
- bycatch rates by harvesting vessel
- aggregated bycatch rates by 'fleet'
- 3 day rolling average bycatch rates by 'fleet'
- maps of bycatch hotspots
- any other useful bycatch avoidance information

## 4. Each Mothership must provide daily "fleet to fleet" reports of bycatch encounters (not through Sea State)

Mothership Daily Reports (distributed prior to 9 AM) include:

- Total amount of whiting received in past 24 hours.
- Its fleet's aggregate bycatch rate for each Overfished Species of rockfish in kg/mt of whiting
- Its fleet's aggregate Chinook bycatch rate in # of salmon/mt.
- Its fleet's aggregate bycatch rate of Rougheyeye rockfish in kg/mt of whiting.
- Log of movements due to rate triggers and location of test tows.

Elevated Bycatch Tows are identified in *Daily Report* for any tow that includes bycatch of overfished species and Chinook that above the Base Rate but less than 150% of the Base Rate.

- Name of vessel, mt of whiting in tow and bycatch rate of each species that exceeds Base Rate
- Tow set and haul location and time, and tow depth.
- The vessel captain's best estimate of location of bycatch event.

High Bycatch Tows are identified in *Daily Report* for any tow that includes bycatch of Overfished Species or Chinook that is over 150% of the Base Rate. Motherships must report the same information for such tows as described above for "Elevated Bycatch Tows" ASAP to all vessels in its fleet and to all other Motherships.

## 5. The Fleet (the group of vessels delivering to a mothership) must relocate their fishing effort if any of the following occur:

(i) a Fleet's three (3) day rolling average bycatch rate of Overfished Species or Chinook salmon exceeds the Base Rate for any such species, and that Fleet's cumulative annual bycatch rate for such species exceeds fifty percent (50%) of the Base Rate for such species,

(ii) a Fleet's three (3) day rolling average bycatch rate for any of such species exceeds one-hundred twenty-five percent (125%) of the Base Rate for such species, or

(iii) a Fleet's bycatch rate during any single day exceeds two-hundred percent (200%) of the Base Rate for such species,

**(iv) a Fleet takes 10 or more Chinook south of 44 degrees on any single day,**

Note: North of 44 degrees the Chinook movement rules don't take effect until a Fleet has taken 50% of its pro-rata share of Chinook. South of 44 degrees the Chinook movement rules apply from the beginning of the season.

That Fleet and the Mothership to which it delivers shall relocate their fishing effort to an area where that Fleet could reasonably expect to achieve a lower Overfished Species and Chinook salmon bycatch rate.

#### **Additional Movement and Stand Down Requirements (NEW FOR 2017)**

The Pro-rata Share in any given pool includes the contributions of whiting and bycatch of all CVs obligated to it that have declared to the pool whether fishing or not. If a MS has CVs fishing in multiple open pools, the bycatch harvest and contributions in the multiple pools of all CVs obligated to the MS will be aggregated as if it were one pool for the purpose of evaluating whether a Fleet it is subject to these additional movement and stand down provisions.

If a Fleet has taken more than its Pro-rata Share of a rockfish bycatch species allocated to a pool, the MS and its CVs must move to an area or areas for the remainder of the seasonal pool where that species is unlikely to be harvested.

After being required to move, if on any given day the Fleet takes more than the Base Rate of the species at issue, the CV or CVs that exceeded the Base Rate shall stand down from fishing for 24 hours.

The stand down requirements do not apply to the 1<sup>st</sup> tow after a Fleet moves to a new area where other Fleets are not fishing if the tow is less than 1 hour in duration or if there less than 15 tons of whiting in the tow. Notice shall be given to all other MSs and their CVs prior to making a qualifying test tow. Notice of the results of a qualifying test tow must be given to all other MSs and their CVs

The movement and stand down requirements don't apply:

- when the ratio of the amount of unharvested Rockfish Species at issue to the amount of unharvested whiting in the pool or pools from which a Fleet is harvesting exceeds the Base Rate.

- when all other Fleets have completed their harvest of whiting from the pool or pools from which a Fleet is harvesting.
- when all other Platforms have ceased harvesting Pacific whiting for the year

### Policy on Notice of Relocation

If a movement is required, information identifying the trigger type, the bycatch species and the location and depth of the bycatch event(s) shall be sent to all other Motherships by email, fax or method of electronic transmission. Copies of Notices of Relocation shall be sent to the Monitor and Manager notifying them that a move has been made.

### Best Practices for High Bycatch Events

The Board adopted the following “Best Practices” regarding high bycatch events:

- All MS captains must utilize a bycatch spreadsheet that signals when bycatch rates trigger any of the three conditions that require relocation by their fleet.
- Mothership operators should use best practices to gather bycatch rate information (including deck estimates and observer data) ASAP, and expedite getting it to wheelhouse for dissemination to CVs in their fleet at the earliest indication of a bycatch event.
- If a movement is required, information identifying the trigger type, the bycatch species, the location and depth of the bycatch event(s), should be emailed to the other MS’s with cc’s to the coop monitor and manager notifying them that a move has been made. Notices should be sent to all other MS operators whether or not the MS is on the grounds.
- When a test tow is required following relocation, the Bycatch Agreement specifies that only one vessel out of a fleet shall tow until the results of the test tow are evaluated. Test tows should be short. Results of test tows above the base rate should be shared with other fleets.
- A fleet may enter an area without making a test tow if the area is already being fished by another mothership’s fleet, or if a successful test tow had been made by a member of another mothership’s fleet entering the area.

### 6. Closed Areas:

- Preseason closures - The Board has identified several areas that have had high bycatch problems in the past and has defined closures based on that information. The coordinates of the closures are included with this document. **Fishing – including shortwiring or longwiring - in these areas is a violation of the Coop Agreements.**
- Advisory Cautionary Areas - In addition to the closed areas defined by the Board, it has also identified area where caution is advised based on depth and time of day.



- The coordinates of the closed and cautionary areas are listed in tables below in section 10 of this document.
- In-season Closures - The Board has also given Sea State authority to issue additional closures based on what happens with bycatch in-season.
- NMFS Closures - If NMFS closes areas in-season for the Shorebased IFQ whiting fishery, the coop will comply with those closures as well.
- Information - Vessel operators should not assume that just avoiding closed areas will protect them from bycatch encounters. The Coop has compiled as much observer and VMS data as possible and made it available to be displayed on plotters so that skippers can make their own informed decisions on additional areas to avoid.

#### 7. Other Fishing Restrictions include:

- No Night Fishing between 10:00 pm and 5:30 am until Sept. 1 after which night fishing is not permitted inside 100 fathoms **except outside 200 fathoms north of 44 degrees and outside 250 fathoms south of 44 degrees.**
- Vessels may short-wire or long-wire gear and may make deliveries at night.
- Test Tows are required when entering a new fishing area.

#### 8. Enforcement Actions:

- Vessel Master Damages. Any vessel master that fails to comply with these rules shall be liable for damages in the maximum amount of \$2,500 for each violation.
- Owner Damages. Each vessel owner shall cause the vessel it owns or manages to conduct its fishing operation in compliance with this agreement or it shall be liable for damages in the maximum amount of \$10,000 for each violation.

#### 9. High Bycatch Vessels Are Ineligible to Fish in Subsequent Seasonal Fisheries:

WMC members declare the amounts of whiting they wish to harvest into seasonal pools (with different start dates.) Bycatch limit amounts are distributed to pools pro-rata to the amount of whiting declared to a pool. After a seasonal pool closure, the Coop Manager reviews bycatch amounts and applies criteria to determine which vessels are eligible to fish subsequent seasonal pools. The Coop Manager notifies vessels and permit owners of eligibility status based on the following test:

If the pool closed due to bycatch, and if amount of POP, Canary, Widow or Darkblotched rockfish harvested by a vessel in seasonal pool exceeds one hundred and twenty five percent (125%) of a vessel's pro-rata amount of bycatch allocated to their seasonal pool relative to the amount of whiting tonnage assigned the pool by a vessel, that vessel:

- shall not be eligible to harvest any Pacific whiting transferred from a closed pool to a subsequent pool, and
- shall not be eligible to harvest any Pacific whiting Harvest Share apportioned to a subsequent seasonal pool **other than** that assigned to such vessel at the time of initial Member election pursuant to Section 11(a)(iii),
- shall not accept transfers of fish from other members after the date the pool closed,
- shall not harvest quota they have received by transfer in another pool after the declaration date for such pool (and must cease harvesting such transferred quota at the time the their original pool closes and the test is applied if they fail the test)
- however, that vessel may declare the rest of their own undeclared quota for harvest in subsequent pools if the declaration date has not passed.

These restrictions apply unless and until all other vessels operating in compliance with such 125% performance standard have ceased harvesting Pacific whiting for the year, or the board determines there is available bycatch.

**2017 1<sup>ST</sup> Seasonal Pool Whiting Allocations and Bycatch Limits**

The bycatch limits are the basis for the test that vessels must pass. Exceeding 125% of a vessels pro-rata share of a bycatch species may limit the ability of a vessel to fish in a subsequent seasonal pool.

A seasonal pool shuts down for all vessels in the pool when the aggregate amount of any one of the 4 rockfish species is reached.

**10. Coordinates of Closure Areas**

Fishing in a closed area (including short-wiring and long-wiring) is a violation of the Coop Agreements. There are currently 12 closure areas shown in the following table. A file is available to vessel captains which can be loaded into ECC Globe or Olex chart plotters. The closure areas show up as red boxes when the file is loaded.

**Note for 2017:** The coordinates of the 200 fathom contour have been refined for the Bandon Highspot and the Outhouse Moon. The night fishing restricted area off Willipa has been lifted (but will be monitored for hotspot closure if warranted.)

**WMC Closure Areas**

1	Nitnak	48	7.50	125	47.50
1	Nitnak	48	10.00	125	42.50
1	Nitnak	48	5.00	125	38.00
1	Nitnak	48	4.00	125	38.00
1	Nitnak	48	5.50	125	47.50
1	Nitnak	48	7.50	125	47.50

2	Juan de Fuca	48	15.00	125	15.00
2	Juan de Fuca	48	15.00	125	10.00
2	Juan de Fuca	48	0.00	125	10.00
2	Juan de Fuca	48	0.00	125	25.00
2	Juan de Fuca	48	5.00	125	25.00
2	Juan de Fuca	48	15.00	125	15.00
3	Yellowtail Canyon	47	19.00	124	48.30
3	Yellowtail Canyon	47	19.00	124	44.50
3	Yellowtail Canyon	47	16.00	124	44.50
3	Yellowtail Canyon	47	16.00	124	48.30
3	Yellowtail Canyon	47	19.00	124	48.30
4	Grandma's House	46	35.00	124	30.00
4	Grandma's House	46	35.00	124	25.00
4	Grandma's House	46	29.00	124	25.00
4	Grandma's House	46	29.00	124	30.00
4	Grandma's House	46	35.00	124	30.00
5	Shale Pile	46	0.00	124	38.50
5	Shale Pile	46	0.00	124	31.00
5	Shale Pile	45	45.50	124	31.00
5	Shale Pile	45	45.50	124	38.00
5	Shale Pile	46	0.00	124	38.50
6	Nelson Island	44	43.50	124	51.50
6	Nelson Island	44	43.50	124	48.50
6	Nelson Island	44	40.50	124	48.50
6	Nelson Island	44	40.50	124	41.00
6	Nelson Island	44	37.50	124	41.00
6	Nelson Island	44	37.50	124	50.00
6	Nelson Island	44	39.00	124	51.00
6	Nelson Island	44	43.50	124	51.50
7	Finger	44	31.00	124	43.00
7	Finger	44	30.00	124	41.00
7	Finger	44	28.00	124	41.00
7	Finger	44	29.00	124	43.50

7	Finger	44	31.00	124	43.00
8	SW Heceta	44	19.00	124	45.00
8	SW Heceta	43	58.00	124	38.00
8	SW Heceta	43	55.00	124	38.00
8	SW Heceta	43	53.00	124	47.00
8	SW Heceta	43	55.00	124	59.00
8	SW Heceta	44	14.00	124	59.00
8	SW Heceta	44	16.00	124	57.40
8	SW Heceta	44	19.00	124	51.00
8	SW Heceta	44	19.00	124	45.00
9	Heceta DKB	43	51.50	124	42.00
9	Heceta DKB	43	51.50	124	40.00
9	Heceta DKB	43	50.50	124	40.00
9	Heceta DKB	43	50.50	124	42.00
9	Heceta DKB	43	51.50	124	42.00
19	South Heceta Annex	43	55.00	124	38.00
19	South Heceta Annex	43	53.00	124	47.00
19	South Heceta Annex	43	53.80	124	52.00
19	South Heceta Annex	43	50.50	124	52.00
19	South Heceta Annex	43	50.50	124	38.00
19	South Heceta Annex	43	55.00	124	38.00
20	Bandon High Spot 200	43	25.00	124	37.95
20	Bandon High Spot 200	43	25.00	124	41.50
20	Bandon High Spot 200	43	23.54	124	41.86
20	Bandon High Spot 200	43	20.00	124	43.20
20	Bandon High Spot 200	43	20.89	124	45.11
20	Bandon High Spot 200	43	15.50	124	45.50
20	Bandon High Spot 200	43	13.33	124	47.00
20	Bandon High Spot 200	43	12.80	124	48.00
20	Bandon High Spot 200	43	13.50	124	49.00
20	Bandon High Spot 200	43	15.60	124	50.00
20	Bandon High Spot 200	43	15.60	124	51.60
20	Bandon High Spot 200	43	11.00	124	52.90
20	Bandon High Spot 200	43	8.00	124	52.50
20	Bandon High Spot 200	43	5.60	124	53.03
20	Bandon High Spot 200	43	2.53	124	53.31

20	Bandon High Spot 200	43	0.89	124	53.15
20	Bandon High Spot 200	42	59.66	124	54.14
20	Bandon High Spot 200	42	59.30	124	54.56
20	Bandon High Spot 200	42	56.09	124	54.38
20	Bandon High Spot 200	42	54.11	124	54.45
20	Bandon High Spot 200	42	51.82	124	53.45
20	Bandon High Spot 200	42	48.59	124	53.65
20	Bandon High Spot 200	42	46.95	124	53.30
20	Bandon High Spot 200	42	45.09	124	52.34
20	Bandon High Spot 200	42	45.75	124	51.26
20	Bandon High Spot 200	42	46.68	124	50.95
20	Bandon High Spot 200	42	47.00	124	44.95
20	Bandon High Spot 200	43	25.00	124	37.95
21	Outhouse Moon	42	42.00	124	42.00
21	Outhouse Moon	42	42.00	124	44.64
21	Outhouse Moon	42	41.47	124	44.83
21	Outhouse Moon	42	41.00	124	44.83
21	Outhouse Moon	42	40.60	124	44.64
21	Outhouse Moon	42	39.97	124	44.12
21	Outhouse Moon	42	39.27	124	43.54
21	Outhouse Moon	42	38.46	124	43.14
21	Outhouse Moon	42	38.18	124	43.12
21	Outhouse Moon	42	37.85	124	43.46
21	Outhouse Moon	42	36.61	124	44.03
21	Outhouse Moon	42	35.00	124	44.92
21	Outhouse Moon	42	35.00	124	42.00
21	Outhouse Moon	42	42.00	124	42.00
23	JDF SE finger	47	58.20	125	18.60
23	JDF SE finger	47	58.20	125	15.90
23	JDF SE finger	47	56.60	125	14.50
23	JDF SE finger	47	56.60	125	17.30
23	JDF SE finger	47	58.20	125	18.60
24	47 45 finger	47	45.00	125	8.00
24	47 45 finger	47	43.50	125	8.00
24	47 45 finger	47	43.50	125	5.00
24	47 45 finger	47	45.00	125	5.00
24	47 45 finger	47	45.00	125	8.00
25	47 30 finger	47	31.00	124	59.00
25	47 30 finger	47	28.00	124	58.00

25	47 30 finger	47	28.00	124	54.00
25	47 30 finger	47	30.00	124	54.00
25	47 30 finger	47	31.00	124	59.00
26	YTC finger	47	17.75	124	55.50
26	YTC finger	47	14.25	124	53.50
26	YTC finger	47	16.00	124	44.50
26	YTC finger	47	19.00	124	44.50
26	YTC finger	47	20.50	124	48.00
26	YTC finger	47	19.00	124	54.00
26	YTC finger	47	17.75	124	55.50
27	Grays finger	46	52.50	124	55.50
27	Grays finger	46	49.00	124	55.50
27	Grays finger	46	49.00	124	54.00
27	Grays finger	46	52.50	124	54.00
27	Grays finger	46	52.50	124	55.50
29	Spit	48	4.00	125	38.00
29	Spit	48	1.33	125	40.00
29	Spit	47	56.85	125	37.00
29	Spit	47	55.30	125	37.00
29	Spit	47	54.50	125	35.00
29	Spit	47	55.25	125	29.25
29	Spit	47	56.00	125	27.33
29	Spit	47	58.00	125	26.00
29	Spit	47	58.00	125	24.00
29	Spit	48	0.00	125	24.00
29	Spit	47	4.00	125	38.00

### Coordinates of Advisory Areas

There are additional “Advisory Areas” listed in the table below which have been identified as potential problem areas. Fishing is allowed in an Advisory Area, however, these are areas that are thought to be rockfish habitat or where higher than average bycatch can be expected. Skippers are advised to be cautious about fishing in these areas.

There are currently 9 advisory areas shown in the following table. A file is available to vessel captains that can be loaded into ECC Globe or Olex chart plotters. The closure areas show up as yellow boxes when the file is loaded.

### WMC Advisory Areas

10	Juan de Fuca annex	48	6.00	125	10.00
10	Juan de Fuca annex	48	6.00	124	59.00

10	Juan de Fuca annex	48	4.00	124	59.00
10	Juan de Fuca annex	48	4.00	125	10.00
10	Juan de Fuca annex	48	6.00	125	10.00
11	Dark Blotch 44 55	44	55.60	124	47.30
11	Dark Blotch 44 55	44	55.60	124	45.90
11	Dark Blotch 44 55	44	52.40	124	43.60
11	Dark Blotch 44 55	44	46.60	124	52.50
11	Dark Blotch 44 55	44	54.20	124	55.80
11	Dark Blotch 44 55	44	55.60	124	47.30
12	Windy Island	44	47.00	124	43.00
12	Windy Island	44	46.00	124	37.00
12	Windy Island	44	44.00	124	38.00
12	Windy Island	44	44.00	124	43.00
12	Windy Island	44	47.00	124	43.00
13	Halibut Hill	44	32.20	124	54.00
13	Halibut Hill	44	32.00	124	48.00
13	Halibut Hill	44	28.50	124	46.50
13	Halibut Hill	44	27.10	124	47.40
13	Halibut Hill	44	27.30	124	52.40
13	Halibut Hill	44	32.20	124	54.00
15	Shale Pile 200 Advisory	45	45.33	124	38.00
15	Shale Pile 200 Advisory	46	0.00	124	38.60
15	Shale Pile 200 Advisory	46	0.00	124	46.33
15	Shale Pile 200 Advisory	45	58.50	124	44.80
15	Shale Pile 200 Advisory	45	57.33	124	44.33
15	Shale Pile 200 Advisory	45	56.40	124	45.20
15	Shale Pile 200 Advisory	45	54.50	124	44.50
15	Shale Pile 200 Advisory	45	52.33	124	45.33
15	Shale Pile 200 Advisory	45	50.00	124	44.33
15	Shale Pile 200 Advisory	45	47.50	124	43.66
15	Shale Pile 200 Advisory	45	45.50	124	46.00
15	Shale Pile 200 Advisory	45	43.00	124	45.50
15	Shale Pile 200 Advisory	45	41.00	124	42.50

15	Shale Pile 200 Advisory	45	40.50	124	40.50
15	Shale Pile 200 Advisory	45	39.00	124	40.33
15	Shale Pile 200 Advisory	45	33.50	124	30.50
15	Shale Pile 200 Advisory	45	30.00	124	30.00
15	Shale Pile 200 Advisory	45	20.00	124	24.50
15	Shale Pile 200 Advisory	45	18.00	124	24.50
15	Shale Pile 200 Advisory	45	15.00	124	22.00
15	Shale Pile 200 Advisory	45	30.00	124	22.00
15	Shale Pile 200 Advisory	45	45.33	124	38.00
16	South Astoria DKB spot	46	5.00	124	51.00
16	South Astoria DKB spot	46	5.00	124	45.00
16	South Astoria DKB spot	46	0.00	124	45.00
16	South Astoria DKB spot	46	0.00	124	51.00
16	South Astoria DKB spot	46	5.00	124	51.00
17	Nelson Island advisory	44	40.60	124	48.50
17	Nelson Island advisory	44	42.70	124	44.70
17	Nelson Island advisory	44	40.60	124	41.00
17	Nelson Island advisory	44	40.60	124	48.50
18	NW Heceta corner	44	16.00	124	57.40
18	NW Heceta corner	44	19.00	124	55.00
18	NW Heceta corner	44	19.00	124	51.00
18	NW Heceta corner	44	16.00	124	57.40
22	Canary Box	47	28.50	124	57.50
22	Canary Box	47	28.50	124	52.00
22	Canary Box	47	30.50	124	52.00
22	Canary Box	47	30.50	124	57.50
22	Canary Box	47	28.50	124	57.50