

Coastal Dungeness Crab Industry Meeting

October 13, 2022



Agenda

- 9:00 am Introductions/Purpose of the meeting
- 9:30 am 21-22 Final Catch and Fish Ticket Revisions Update
- 10:30 am Conservation Plan – Entanglement Monitoring
- 11:30 am Lunch Break (45 minutes)
- 12:15 pm Electronic Monitoring- Fishery Monitoring
- 1:30 pm 2023 Rule Making
- 2:15 pm Other: Offshore wind, Biotoxin bill, Pre-season testing
- 3:00 pm Wrap Up and Next Steps
- 3:30 pm Adjourn



**FISH TICKET CHANGES AND FINAL
2021-2022 SEASON CATCH**

Fish Ticket Catch Area Changes

Catch Area	Original	Revised
59A1		72,352
59A2		13,088
60A1	985,604	251,943
60A2	300,467	950,566
60B	2,599	721
Total	1,288,670	1,288,670



Impacts to 2022-2023 State-QIN Discussions

- The fish ticket changes were exceptional
- Issue was elevated to the Director
- QIN requested a formal report – sent September 29
- No response from Quinault yet



Report Highlights

- After 25 days, state catch was the highest in a similar time period since 2012-2013.
- From February 3 through February 10, a total of 108 tickets were revised moving reported catch both into and out of the QIN U&A
- These changes resulted in changing the state share from 47.4 to 40.6 percent.
- A staff review of each ticket was initiated, comparing the vessel's fishing patterns in 2022 with its historic patterns
- The magnitude and direction of poundage change also triggered an enforcement investigation



Report Highlights

- Policy staff proceeded with caution due to uncertainty in the state catch data
- SMA changes were implemented based on projections and uncertainty kept the SMA changes in place through the end of the season
- Confusion about fish ticket boundaries, logbook boundaries, and boundaries for other management needs in addition to new participants and new dock personnel attributed to the problems
- Outreach to help fishers and dealers with E-tix and catch areas
- Electronic monitoring will be necessary to verify catch area in the future



Report - Recommendation

Director's recommendation:

Use catch data as originally submitted to evaluate state-QIN harvest sharing for the 2021-2022 season.

September 15	State	QIN
Original	53.6%	46.4%
Revised	48.5%	51.5%



2021-2022 Final State-QIN Harvest Sharing

End of Season - Original				
	59A-2	60A-1	60B	Total
QIN	225,253	3,053,385	29,868	3,308,506
STATE	247,392	3,447,841	133,206	3,828,439
TOTAL	472,645	6,501,226	163,074	7,136,945
QIN	48%	47%	18.3%	46.4%
STATE	52%	53%	81.7%	53.6%



Historic Harvest Sharing

Season	FINAL Difference Between State and QIN (<i>-state landed more</i>)	FINAL State Final Catch Share	FINAL QIN Final Catch Share
2021/22	-519,933	54%	46%
2020/21	282,525	47%	53%
2019/20	84,648	49%	51%
2018/19	292,356	47%	53%
2017/18	87,623	49%	51%
2016/17	-861,334	57%	43%
2015/16	-60,176	51%	49%
2014/15	507,234	41%	59%
2013/14	686,018	40%	60%
2012/13	-450,123	53%	47%
2011/12	-224,587	53%	47%
<i>total</i>	-175,749		
<i>average</i>	-15,977	50%	50%



2021-2022 Final Catch

2021/2022 WASHINGTON STATE COASTAL DUNGENESS CRAB CATCH

STATE LANDINGS																		
	59A1	59A2	60A1	60A2	60B	60C	60D	61	TOTAL									
NOV																		
DEC				2,341,076		605,063	43,267	1,631,047	4,620,453									
JAN*	95,326	87,194	2,607,624	3,913,527	18,144	202,756	16,409	410,895	7,351,875									
FEB	270,281	66,068	511,296	848,145	21,034	56,158	4,520	130,883	1,908,385									
MARCH	56,343	30,614	160,771	327,139	17,765	31,702	3,664	48,025	676,023									
APRIL	16,761	24,509	66,610	115,269	15,528	8,687	1,409	12,404	261,177									
MAY	20,108	19,628	33,977	57,733	16,825	2,075		7,751	158,097									
JUNE	7,761	11,288	20,526	44,809	16,001			3,271	103,656									
JULY	142	6,265	22,350	39,942	10,162			2,266	81,127									
AUG	150	1,826	20,321	52,646	14,183			1,211	90,337									
SEPT	256		4,366	18,472	3,564				26,658									
TOTAL	467,128	247,392	3,447,841	7,758,758	133,206	906,441	69,269	2,247,753	15,277,788									
State thru 10/10/22									TOTAL FOR ALL CATCH AREAS ALL TRIBES	3,476,490								
* January catch reflects landings as originally submitted on fish tickets before changes were made.									TOTAL STATE AND TRIBAL LANDINGS	18,754,278								
									TOTAL STATE FISHERY VALUE									\$88,230,067





New Fish Ticket Reporting Requirement

Electronic Fish Ticket Reporting

- **Electronic fish ticket reporting will be mandatory at the start of the 2022-2023 season**
- Two options:
- E-tix, which many dealers are already using on a voluntary basis for the majority of coastal shellfish landings
- WA-Tix – a new mobile electronic catch reporting application, to support small buyers who don't have access to E-tix



WA-tix Training and Outreach and E-tix Support

- Most crab reporting is already completed with E-tix
- Opportunity to work with dealers to help with electronic fish ticket entry – resolve issues we heard about in February
- WDFW staff will reach out to dealers that are still using paper tickets to provide one on one support
- Potentially other focused, in person training and support
- Web-site with helpful information including user manuals
<https://wdfw.wa.gov/fishing/commercial/wa-tix>
- Dedicated staff to help with problems



WDFW Coastal Dungeness Crab Fish Ticket and Logbook Areas



CONSERVATION PLAN – ENTANGLEMENT MONITORING

Monitoring - Overview

Is a required part of the CP and must track:

- Compliance with permit terms and conditions
- Impacts the fishery has on species of concern
- Progress / achievement of CP goals and objectives



Monitoring Program Req'd Elements

- a) Improve the reporting and documentation of entanglements using standardized protocols. → Get more eyes on the water, improve reporting rate.
- b) Improve the ability of NMFS and the States to identify the origins of reported entanglements. → Improve gear identification.
- c) Estimate the number or level of takes that occur but are not observed or reported. → Develop co-occurrence models, scar accumulation rate info, and a statistically robust method for estimating unobserved take.



Why Improve Gear Marking?

- Entanglement reports often involve photos taken under poor conditions; difficult to identify gear/fishery.
- Gear marking is critical to either assign an entanglement to a specific fishery (**fishery attribution**) or to confirm with certainty that an entanglement isn't associated with a specific fishery (**negative attribution**)



Buoy Color and Brand Registration

- [WAC 220-340-430](#) states that it is unlawful for a license holder to fish for crab unless they have:
 - Registered a unique buoy color /pattern and a unique buoy brand
 - It's unlawful to fish for crab using any other buoy brand or color than those registered with the department



Buoy Color Registration Tool

- All buoy color registrations will need to be registered in the new tool, even if you've already registered your buoy colors
- Will require a smartphone in order to take and submit photos.
- Available in November
- Demo at lunch

Test out the form here and send us your feedback →

<https://survey123.arcgis.com/share/1a6ae9a42a7342d4884f63a089968aa9>



Line Marking - Purpose & Need

May 2020 Tri-State line marking coordination discussion:

Agreed upon goals for current and future line marking regulations:

- 1) Identifiable and accurate
- 2) Visible (primarily in photographs)
- 3) Reasonable and cost-effective
- 4) Coordinated across West Coast Dungeness crab fisheries and expandable to other fixed gear fisheries, as desired
- 5) Environmentally friendly

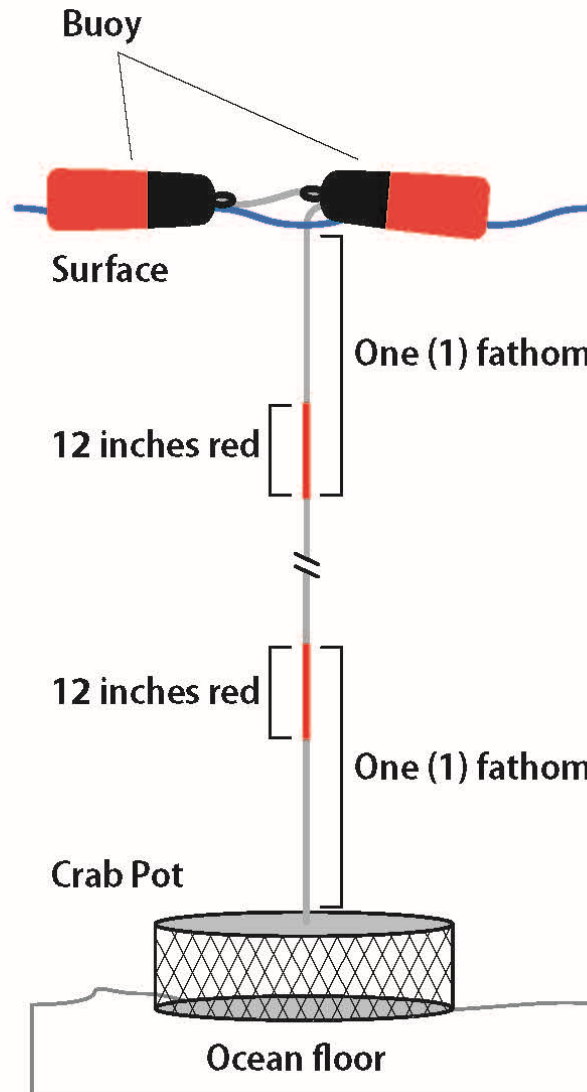


NMFS Line Marking Analysis

- Key to negative attribution
- Multiple marks
- More (and probably much larger) marks than currently required
- Focus on top and upper portion of gear
- Other portions of gear (mid / line): every few fathoms, esp. top half



Current Rules – Line Marking

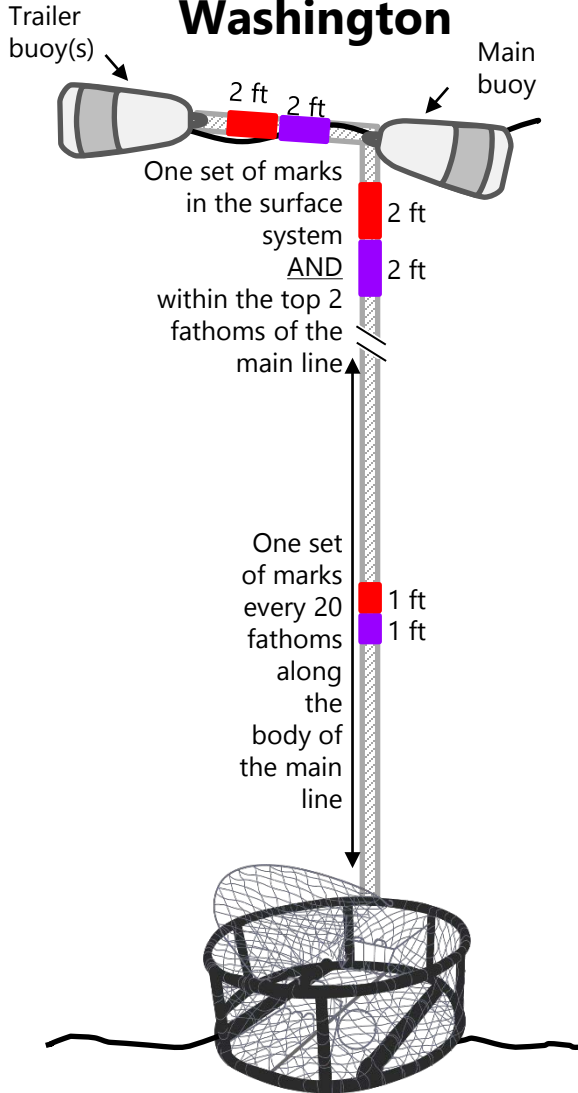


Input on Current Line Marking Regulation

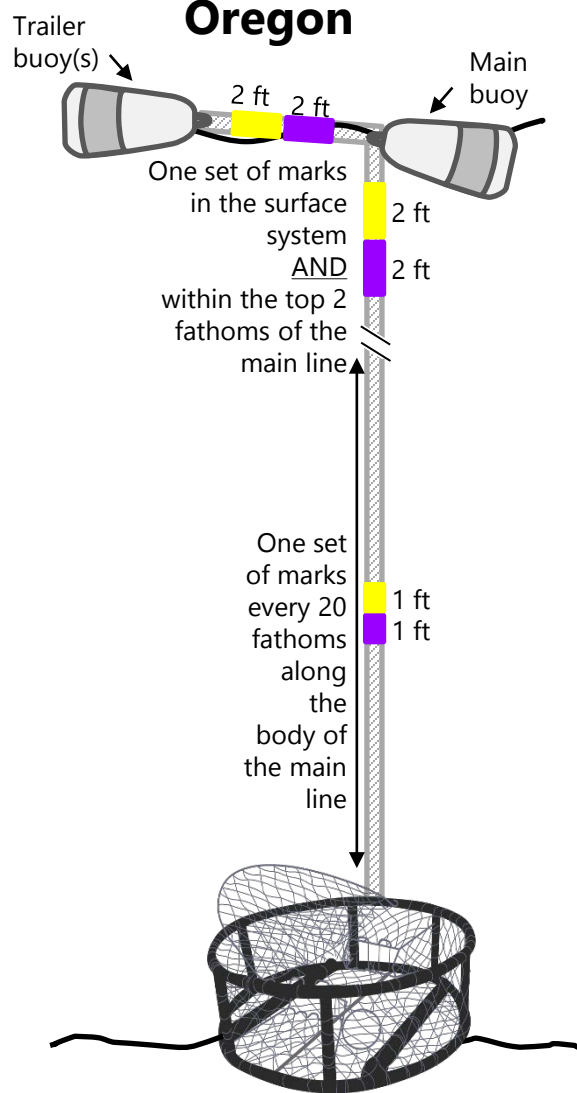
- Unsure about what is lawful and what is not (e.g., zip ties are not legal)
- Current rule needs more clarity
- Proposal:
- For each shellfish pot used in the Washington coastal commercial Dungeness crab fishery and rigged with line, that line must be marked with 12 inches of red in at least two places. At a minimum, 12 inches of line must be continuously marked in red, no more than one fathom from the main buoy and no more than one fathom from the pot.”



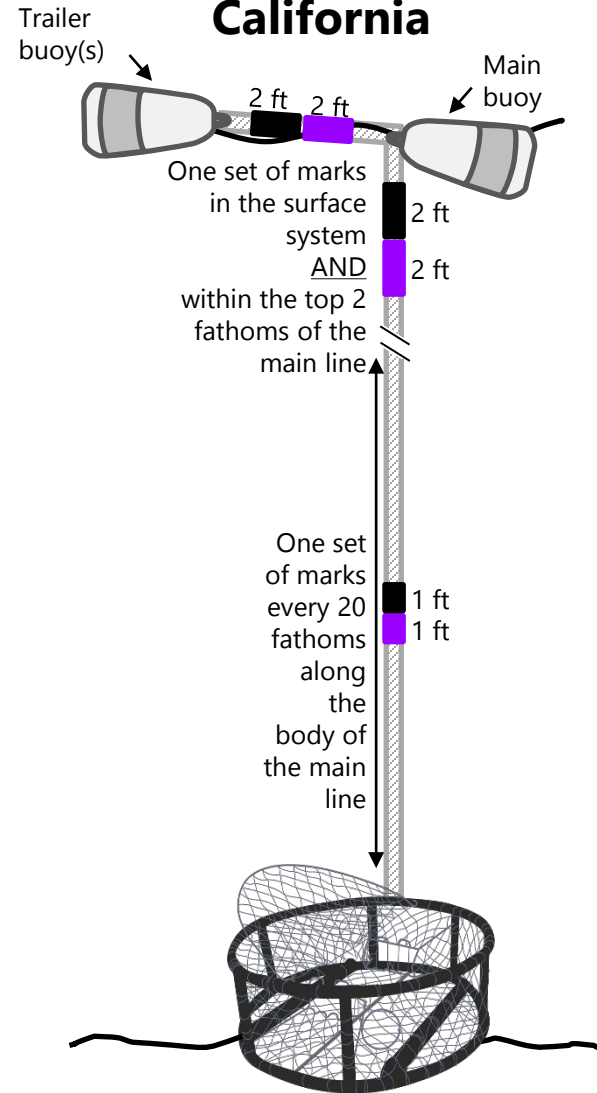
Washington



Oregon



California



Line Marking Roadmap

Short-term (1-3 years)

Line marking

Seek funding for transition to fishery-specific line

Coordination with other WC fisheries

Medium-term (3-6 years)

Continue line marks

Continue coordination

Begin pre-reg line replacements as rope ages


Long-term (7+ years)

Fishery-specific line replaces old marked line completely

Negative attribution fully realized



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Home Species & Habitats **Fishing & Shellfishing** Hunting Licenses & Permits Places to go

Fishing & Shellfishing / Commercial fishing / Commercial Dungeness crab fishery / Coastal commercial Dungeness crab fishery /


Marine life entanglement information and resources

Fishing & Shellfishing

- Fishing regulations
- Shellfishing regulations
- Places to go fishing
- Fishing and stocking reports
- Fishing & shellfishing basics
- Managing fish populations
- Tribal fishing

Marine life entanglement information and resources

An increase in marine life entanglements has occurred in recent years along the U.S. West Coast relative to rates recorded prior to 2013. Commercial Dungeness crab fishing gear collectively makes up the largest portion of identifiable gear found in West Coast entanglement cases ([NOAA 2020](#)). Large whale and marine turtle species are among those most impacted by fishing gear entanglements off the West Coast, and these animals are federally protected under the Marine Mammal Protection Act and/or the Endangered Species Act. To bring the fishery into compliance with federal regulations and



url: <https://wdfw.wa.gov/fishing/commercial/crab/coastal/marine-entanglements>

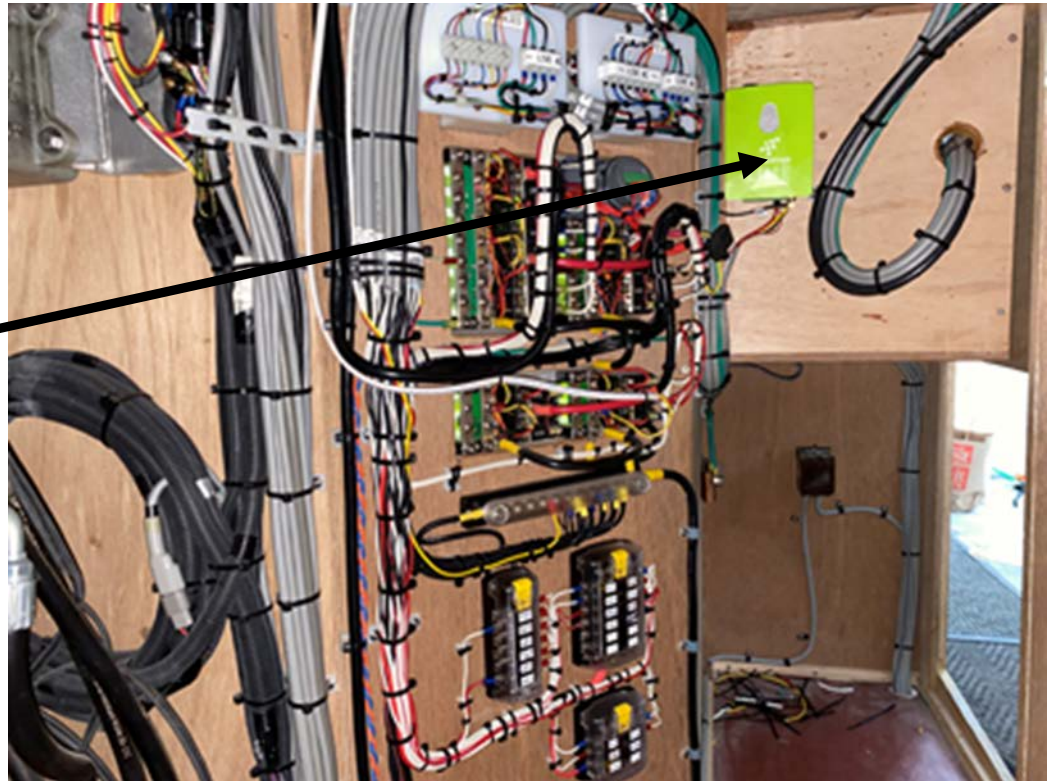


ELECTRONIC MONITORING – FISHERY MONITORING

Electronic Monitoring (EM)

- Why EM for the Coastal Crab Fishery?

*The “LIME” EM unit
WDFW tested
During the 2020-21 and
2021-22 seasons.*



Why?

Electronic Monitoring

Purpose: Improve WDFW's ability to monitor fishing activity in real-time with robust and verifiable data.

Need: Tools to achieve precise, accurate, and timely accounting of effort including where, when, and amount.



Why?

Electronic Monitoring

EM is necessary to meet:

- ESA/MMPA obligations
 - Track co-occurrence of fishing gear and marine mammal activity
- Co-management responsibilities
 - Confirm catch area reporting for co-management
 - Show a commitment to address concerns with gear tampering
- Tri-State commitments

Co-management is unique to WA – EM may look different here than other coastal states

EM can also support improved:

- Biotxin management and public safety concerns
 - Allow evisceration orders triggered by biotoxins
- Enforcement
 - Gear Tampering
 - Fair start provisions
 - Closed areas
- Human safety considerations
- Economic viability and sustainability of the fishery



System Requirements

The EM system must meet minimum technical specifications to support improved fishery monitoring.

Fine-Scale Location Data

- Confirm catch area reporting
- Individual pot location
- Enforce evisceration orders and biotoxin closures

Cellular data uploads

- Needed for near real time data
- Too many vessels for staff to physically download data



System Components

EM system with hydraulic sensor

- Can meet minimum EM needs
- Cheaper ~ \$1,500 initial install and ~\$50/month cell charges
- Less equipment to install and maintain

EM system with hydraulic sensor and *video camera*

- Provides ability to enforce gear tampering
- More expensive ~\$4,500 initial install and ~\$65/month cell charges
- More equipment



System Components

EM System with Hydraulic Sensor and Video Camera

- Video requires significant amounts of costly data storage and cannot be easily transmitted cellularly if at all.
- Some systems record video the entire time the vessel is operating.
 - This creates a huge amount of video and significant storage and viewing challenges.



System Components

EM System with Hydraulic Sensor and Video Camera

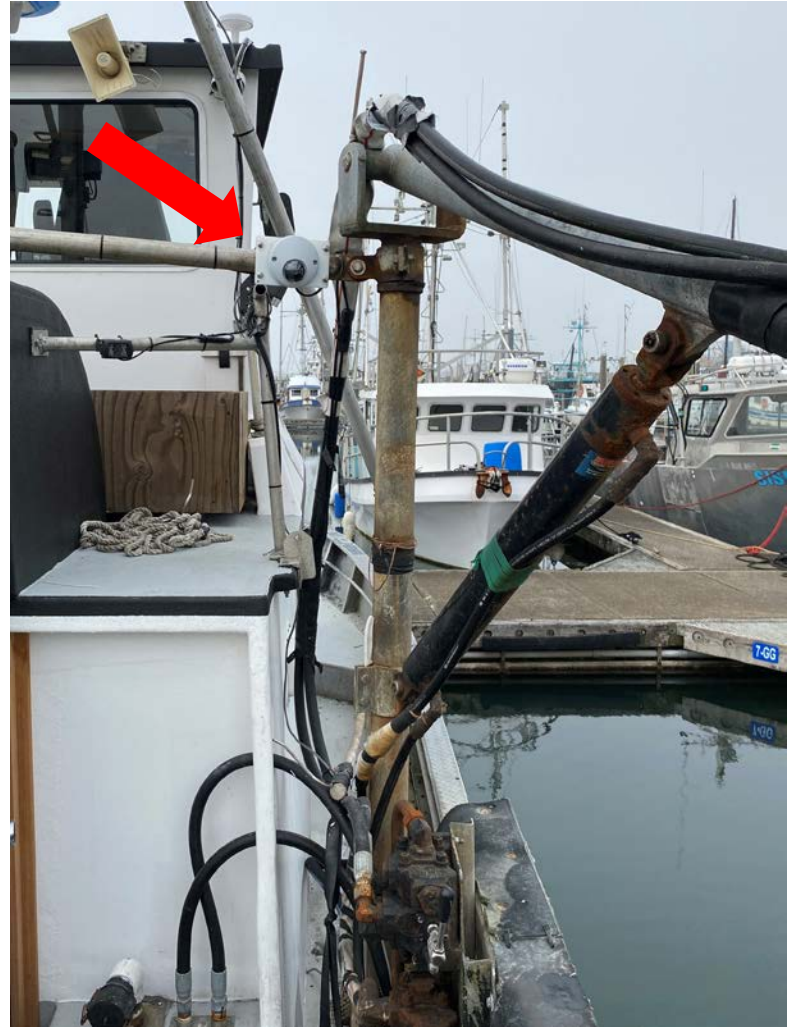
- Cameras can be focused only on the area where crab pots come aboard, and some can record only when the hydraulics are operated.
- Some systems also, “write-over” video after a defined period reducing the need to store large volumes of video data.
- These options combined could reduce the need to store large volumes of data.



Testing EM Systems

EM System with Hydraulic Sensor and Video Camera

- Recently installed a system that may be able to fulfill WDFW's needs
 - Ability to overwrite old data
 - Hydraulic sensor triggers recording
- Testing has yet to be performed



System Components

Some knowns and unknowns;

- We know systems that offer the basic EM with hydraulic sensors will be available for the 2023-24 season
- At this time, the WDFW pilot has not tested EM with video. Potential for some testing this season.
- We do know that video cannot be added to the systems WDFW reviewed. An entire new system must be installed.



Bottomline / What's the advantage?

How will EM benefit crab fishers?

- Level the playing field by improved enforcement of gear tampering/theft, pot limits, closed areas, etc.
- Potentially allow for more state/tribal fishing in common
- Potentially end the need for paper logbooks
- Support more flexible management when biotoxins are high
- Address derelict gear recovery concerns
- *Provides crab fishers data to confront and meet challenges with whale conservation, wind energy, state/tribal sharing, and biotoxin monitoring*



Bottomline / What's the advantage?

How will EM benefit fishery managers?

- Access to accurate real-time fishing location data
- Meet state/tribal commitments
- Improve enforcement of gear tampering/theft, pot limits, closed areas, etc.
- Ability to be flexible during high biotoxin events
- Necessary for co-occurrence modeling needed for the CP/ITP
- *More flexible management relative to reducing entanglement risk and biotoxin events; improved fishing location data informing offshore wind energy and supporting co-management*





Lunch Break until 12:45pm

2023 RULE MAKING

Proposed Rule Changes for 2023

- EM requirement
- Line marking update
- Allow experimental gear testing for the recreational fishery



Other potential rule changes

- Maximum surface gear allowance
- BB numbers → some other WA identifier
- Level 1 ent. training requirement
- Mandatory reporting of entangled animals



2023 Rule Making Timeline

- Final proposed rule language – June
- Commission briefing – August
- Commission final action – September
- Rules effective - November



OTHER TOPICS

Offshore Wind

- [Washington Marine Spatial Plan \(MSP\)](#)
 - Enforceable policies
 - Fishery use protection standard
- Stakeholder processes



RCW 43.372.040

Comprehensive marine management plan.

(8) Any provision of the marine management plan that does not have as its primary purpose the management of commercial or recreational fishing but that has an impact on this fishing **must minimize the negative impacts on the fishing**. The team must **accord substantial weight to recommendations from the director of the department of fish and wildlife** for plan revisions to minimize the negative impacts.



RCW 43.372.020

Marine interagency team.

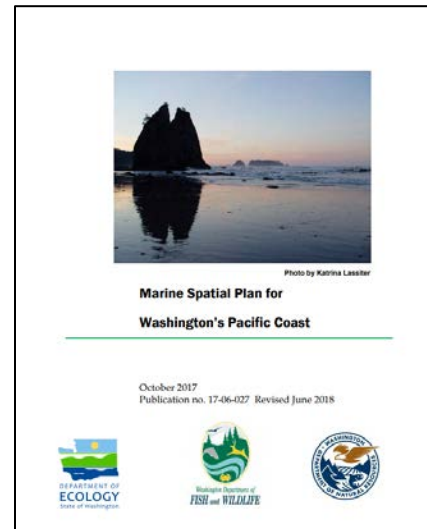
- (1) The office of the governor shall chair a marine interagency team that is composed of representatives of each of the agencies in the governor's natural resources cabinet with management responsibilities for marine waters, including the independent agencies . . .
- (2) The team may not commence any activities authorized under RCW 43.372.030 and 43.372.040 until federal, private, or other funding is secured specifically for these activities.

Timeline

Legislature passes marine planning law in March 2010.

Finds funding July 2012.

State publishes draft plan in October 2017, final June 2018



MSP Management Framework Sec 4.

Fisheries Groups

- a. Applicants will notify the Washington State Department of Fish and Wildlife's (WDFW) Intergovernmental Ocean Policy office regarding a potential project proposal, as early as possible, including likely location(s) of the project.
- b. The Washington Department of Fish and Wildlife will then provide timely notice to affected stakeholders, which may include established fishing advisory groups³⁰ and license holders, for potentially affected commercial and recreational fisheries.
- c. Applicants will coordinate with WDFW and commercial and recreational fisheries on an effective process and schedule to identify and discuss potential adverse impacts on commercial and recreational fisheries and opportunities to avoid, reduce, or minimize impacts, which may require multiple meetings. For state-permitting purposes for any project that includes any proposed structure (temporary or permanent),³¹ a pre-application meeting must be scheduled and held in a timely manner with WDFW to ensure effective communication and coordination. WDFW will include affected fishery stakeholders in the meeting (See Section 4.2.1.5).



Table 10: The Marine Spatial Plan for Washington’s Pacific Coast *continued*

Section	Title	“At a Glance” Summary
4.6	Fisheries Use Protection Standards	<i>Please see Chapter 4, pages 4-38 to 4-39 for full details on the fisheries use protection standards.</i>
4.6.3 (a-b)	Protection Standards for Fisheries	<p>(a) Protection standards for fisheries: Applicants proposing new ocean uses involving offshore development, as defined in the SMA, must demonstrate that their projects meet the following standards to protect fisheries located at the project site and nearby:</p> <ul style="list-style-type: none"> i. There are no likely long-term significant adverse effects to fisheries. ii. All reasonable steps are taken to avoid and minimize social and economic impacts to fishing <p>Additionally, other factors must be taken into consideration when assessing adverse effects on commercial and recreational fisheries and whether all reasonable steps have been taken to avoid and minimize such effects.</p> <p>(b) Definition of adverse effect for fisheries:</p> <p>Adverse effects can be direct, indirect, or cumulative. Adverse effects for commercial or recreational fisheries are defined as any of the following:</p> <ul style="list-style-type: none"> i. A significant reduction in the ability of commercial or recreational fisheries to access the resource used by any fishery or fishing community (ies). ii. A significant increase in the risk to entangle fishing gear. iii. A significant reduction in navigational safety for commercial and recreational fisheries. iv. Environmental harm that significantly reduces quality or quantity of marine resources available for harvest.

<https://apps.ecology.wa.gov/publications/SummaryPages/2006013.html>



Form of Federal-State Engagement

- BOEM looks to the state for recommendations on format of engagement, i.e. task force?
- Governor's decision
- Agencies, WCMAC, public advise
- Form of tribal engagement?
- Timing?



How to align engagement process and state's consistency decision with the federal process?

- At one or more points in the process, the state will need to evaluate consistency with the Fisheries Use Protection Standard.
- [Ecology is the lead](#), WDFW accorded substantial weight
- Fishery stakeholder process key part, WCMAC expected to advise as well.
- Based on CA and OR experience, it appears that we would want at least a preliminary analysis of consistency, assuming full buildout of the area, prior to BOEM identifying which areas to lease.



Washington Unsolicited Lease Requests

Name	Approx. miles from shore	Total area (sq mi)	Total area (sq km)	Size of project (GW)
<u>Olympic Wind</u>	>40	291.9	756	Up to 2 GW
<u>Cascadia Wind</u>	~15	403	1,044	≥2 GW



Biotoxin Bill

- WDFW and DOH to coordinate, work with Tribes and stakeholders to support a bill similar to 1508
- Focused coordination to begin after elections



Pre-Season Test Fishery

Early testing:

- Westport- October 18th
- Long Beach- October 20th
 - Results expected October 21st

First round of testing:

- Scheduled for November 6th-10th
- Results expected before November 15th



Questions

