

Approved DRMT Zoom Meeting Notes November 10, 2021

Prepared by Shawn Hines, Jamestown S'Klallam Tribe

DRMT Members Present: Hansi Hals/Jamestown S'Klallam Tribe, Ben Smith/Dungeness Water Users Association, Shawn Hines/JST (alt), Judy Larson/ Protect the Peninsula's Future, Tony Corrado/Protect the Peninsula's Future (alt), Tom Martin/Clallam PUD, Lorenz Sollmann/USFWS, Jenna Ziogas/Dungeness River Nature Center (alt), Robert Phreaner/Olympic Peninsula Audubon Society, Cathy Lear/Clallam County, Danielle Zitomer/WDFW, Powel Jones/Dungeness River Nature Center

Others Present: Annie Raymond/JST, Jeff Gufler/WDFW Hatcheries, Phil Martin/resident, Genie Mixon/Dungeness Meadows, Jaimie Tippet/Riverside Landowner, Alex Scagliotti/Graysmarsh, Randy Johnson/JST, Joel Green/Streamkeepers, Jenny Whitney/WDFW, Robert Knapp/JST, Hilton Turnbull/JST, Neil Harrington/JST, Ron Gilles/Realtor, Tiffany Royal/NWIFC

I. Introductions

Hansi called meeting to order, introductions were made, and October 13 DRMT meeting notes were reviewed. Following some edits, Ben Smith made a motion and Cathy Lear seconded the motion to approve the notes. Powel abstained, as he was not present at October meeting. Notes were approved as edited.

Public Comment

- Graysmarsh hiring full time permanent wildlife tech. Email Alex Scagliotti for more info: alex.scagliotti@nwtzl.com
- Ron Gilles commented that he represents a landowner on McClay/Old Olympic Hwy whereby the County utilized grant funding to put in deep well (over 900 ft). Landowner planned to trade their deep well lot to PUD for use as mitigation. Ecology does not accept the data they have gathered on the 4th aquifer, since there are only three aquifers represented in the ground water model associated with the water rule and mitigation calculator. Tom Martin added they hired a consultant (under contract from County) to use data from current ground water model to extrapolate what the impacts would be from pumping from fourth aquifer. Ecology did not feel the method used for extrapolating the data was valid, and instead are assuming the effects of pumping from aquifer four are the same as pumping from aquifer three.
- Hansi pointed out that this can be one of the questions that is asked if the decision is ever made to redo the groundwater model. Judy requested follow up at a future meeting.
- Genie Mixon commented that she noticed that some monitoring wells have been installed at the reservoir site. Ben Smith added that this was done in order to get some soil samples. 12-15 test wells were drilled, as part of the 30 percent design.

II. Dungeness Salmon Life Histories/Monitoring/Status

Jenny Whitney, WDFW

- Jenny provided information on the Tools for Monitoring Fish Populations, as well as a refresher on the Life History of Dungeness Fish.
- Jenny went over many of the tools for monitoring populations and described examples of each: spawning ground surveys (redd counts, live and dead fish); carcass sampling to collect scales, coded wire tags, otoliths, and tissue samples for genetic analysis; SONAR and tangle netting; smolt traps; snorkel counts; eDNA; hatchery returns
- Reviewed Dungeness Fish Life Histories: Chinook (summer-run), Coho (fall-run), Pink (summer and fall run, odd years), Chum (fall-run, summer?), Steelhead (winter-run), Bull trout
- Chinook: adults return July-Sept, spawn mid-Aug through mid-Oct, hatch and emerge from gravel after 8 wks, fry move downstream Jan-Apr, and parr mid-May through mid-Jul. Most return to Dungeness as 3 and 4 yr olds. ESA listed 1997. Hatchery program at Hurd Ck Hatchery.
- 72% of Chinook returns to Dungeness are from hatchery (2007-2019 data). Need 100 fish/yr for broodstock recovery program (both hatchery and natural origin). More spawning in lower part of the river than upper.
- Coho: adults return mid-Sept to mid-Jan, spawn mid-Oct through Jan, hatch after about 8 wks, rear for over a full yr in freshwater before outmigrating as smolt Apr-Jun, spend another yr plus in saltwater, return primarily as 3 yr olds. No good estimate of wild coho run size. Wild smolt outmigration numbers have ranged from 6,000-50,000 over past 10 yrs. Hatchery program at Dungeness Hatchery.

- Pink: return Jul-Oct, odd years only, spawn mid-Aug through mid-Oct, very limited freshwater rearing before out-migration mid-Mar through mid-May in even yrs, return as 2 yr olds. Strong pink year this year.
- Chum: adult fall-run return Oct-Dec, spawn mid-Oct through Dec, limited freshwater rearing before outmigrating Mar through mid-May, return as 3 to 5 year olds, adult abundance has ranged from 100-800 over past 10 yrs. Dungeness is part of the Hood Canal summer chum ESU. [*Hansi noted later that, per Randy Johnson, adult summer chum have been captured and ID'd to Dosewallups and Discovery Bay stocks.*]
- Steelhead: return Feb through Jun, spawn timing is mid-Mar through mid-Jun, spend 1-3 yrs rearing in freshwater, return as 3-5 yr olds to spawn and can spawn multiple times, varied life history strategies. Don't currently have estimates of adult spawning escapement for most yrs (we hope to with SONAR), but likely less than 500 adults. ESA-listed in 2007. Hatchery program at Dungeness Hatchery.
- Bull Trout: stay tuned for Riverscape survey presentation at next month's DRMT meeting.

Q/A:

- Q: Are the broodstock raised at hatchery always wild stock? A: *That is the goal. For recovery program, you don't want to have genetic drift where hatchery pop looks like one thing and wild pop looks like another. Important to keep population going until habitat can be restored to the point that all fish can utilize.*
- Q: If chum are fall-chum, what does that mean for future of summer chum? A: *There has been talk about whether there should be a recovery program, or a short-term hatchery program; if so, where would they come from? Still having conversations about what to do next.*
- Q: Are the eDNA tests sensitive enough to distinguish between the two chum runs? Would that be a technique to add? A: *Not sure if the markers would be sensitive enough. Will take that question back to genetics lab.*
- Q: When you do the snorkel studies, do the populations co-mingle evenly? Are the counts skewed when they are mixing? A: *They do distribute, but they do co-mingle. Some of the holes had thousands of pinks, so then very difficult to notice other species.*
- Comment: Riverside landowner (1 mile North of Audubon Center) observed pod of chum spawning on their property; observed thousands of pinks several months ago, Chinook hung out on edges.

III. Dungeness and Hurd Creek Hatcheries, Operations and Objectives

Jeff Gufler, WDFW

- Hurd Ck is like a nursery, mainly for Chinook.
- Goal to release 800,000 coho smolts, 10,000 steelhead, 200,000 spring Chinook (reared at both hatcheries at different stages)
- Operate two remote acclimation sites, between Apr-Jun. One near Greywolf fork (RM 1), and one at Dungeness Fork (RM 16). Each site releases 50,000 Chinook smolts.
- Dungeness Hatchery main intake just rebuilt in Feb 2021. Huge improvement. ESA compliant screens. Many improvements.
- Coho returning to Dungeness right now. 4,000 in pond right now. Will continue to spawn for next five wks.
- Canyon Ck upgrade in 2018.
- Hurd Hatchery: nursery, spawn/incubate and early rearing for Spring Chinook. Adults collected Jul-Sep with weir, plus netting. After capture, trucked to Hurd Ck, and held in tank until they are spawned. Need 45-50 pair to make 200,000 annual release goal. Also incubate/rear/release steelhead and pinks, if returns are low. This year, don't need to take pinks since they are abundant. Also incubates Elwha chinook eggs for Elwha (not for Dungeness).
- Re-started Dungeness captive broodstock program in 2017. Goal is to release additional 500,000 smolts each year for two generations. First planned release will be spring 2022.
- This year only got 184,000 eggs, just short of goal. Captive broodstock program should supplement.

- Planning to relocate most of Hurd Ck facility, due to river getting closer to hatchery. Flooding in 2015, and 2017. Lost a well in 2017. New wells drilled and in use. Most of facility will move out of path of river, ponds, incubation building. Will also receive fish-friendly upgrades.

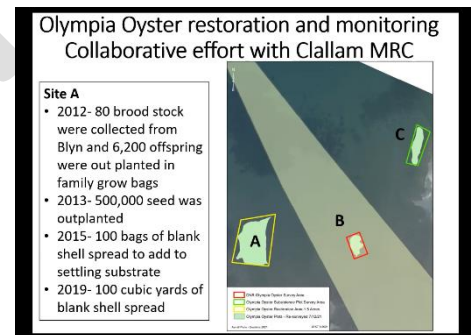
Q/A:

- Q: How are the release numbers determined? A: *negotiated between WDFW and Tribe as co-managers. Renegotiated every three or so years.*
- Q: What's the inhibiting factor? Why not just doubling the hatchery fish since we are still having problems? A: *We are looking to increase Chinook releases with broodstock program, since habitat improvements have been underway.* Hansi suggested to add this question to future agenda to discuss more thoroughly.
- Q: Is there a number at which co-managers decide that pinks should or shouldn't be captured? A: *Based on co-manager decisions/judgement call. The times they haven't done it was when the pink returns were so abundant, so they didn't need to utilize that tool.*
- Comment: *looking forward to touring new hatchery facility when complete!*

IV. JST's Shellfish Program and 2020 Heatwave Survey

Annie Raymond, Jamestown S'Klallam Tribe

- JST Shellfish Program Activities: increasing opportunity of harvest, shellfish fisheries science and management, scientific studies related to shellfish, restoration
- Olympia oysters are a first food for JST, so restoring tidelands a high priority.
- Pacific NW Crab research group, environmental monitoring, harmful algal bloom and biotoxin, monitoring, etc.
- Olympia Oyster Restoration data has allowed us to examine how the heat dome from this summer affected this species.
- Olympia Oyster Timeline for Blyn site, 1.5 acre plot (see slide at right):
- Sites B and C, each 1/3 acre. 2014 Site B established with 250,000 seeded cultch (on Pacific oyster shell). Site C established 2019 with 50 bags of seeded cultch. Measure recruitment, abundance by counting, measuring oysters in quadrants, as well as mortality.
- Site A - data shows a lot more recruitment in 2020 and 2021, years when a lot of substrate (Pacific Oyster shell) was placed. Site B – healthy recruitment, as well.
- Heat dome – smelled like a clam bake in Sequim Bay. Observed recent shellfish mortality (no diatoms growing on them yet) in the form of open cockle shells. Working with others on semi-quantitative assessment in Salish Sea by sharing our data.
- We sampled in May prior to heat dome, and again after. Population estimate decrease, however not significantly different at Site B and C.
- Percentage of live oysters before and after (see slide at right):
- Again, 12 % decrease in live oysters after, however not statistically significant. But data will be included in regional study to see bigger picture of affects.
- Next step: Did a tideland-wide survey. Will map the data and to see where they are recruiting throughout tidelands, to inform beach restoration.
- One of the conclusions from the semi-quantitative study happening regionally is that there are pockets of resilience across the Salish Sea. In Discovery Bay, for example, there wasn't a huge effect on the oysters there from the heat dome.



What was percentage of live oysters before and after the heat dome?

| | Site B | Site C |
|---------------|--------|--------|
| % Live BEFORE | 54% | 74% |
| % Live AFTER | 42% | 63% |

Q/A:

- Q: What are the conditions accounting for the resiliency at Discovery Bay? How do they compare to conditions in Sequim Bay/Blyn area, and also the proposed plans for the area near the Refuge? A: *The collaborative group have all been going to the same spots in Salish Sea to look at changes; paper to be submitted in about a month. Looked like things on outer Coast seemed to do a little better, for one because they had low tide earlier in the morning; whereas Blyn and South sound had low tide right in the middle of the day. Also, in Discovery Bay, there are more seepy tidelands, so more water flowing through that area, and some of the oysters are in lagoons.*
- Q: What type of shellfish are included in the regional study? A: *All kinds.*
- Q: Did shellfish size have anything to do with it? A: *Patterns noticed so far were driven more by where they live in inner-tidal; haven't noticed any patterns related to shellfish size. For example, barnacles did not do well because they are so high up in inner-tidal zone.*
- Comment: Interest in seeing results of the Salish study.

V. Green Crab Updates

Lorenz Sollmann, USFW

- History: Western NA arrival in SF Bay 1989, along west coast of WA 1998, Salish Sea in 2012 (Sooke Bay on Vancouver Island, Canada), Westcott Bay on SJ and Padilla Bay 2016, Dungeness in 2017, Monitoring in WA from 2000-2010 (State contractor run volunteer program)
- 2021: 8 total captures, all in Graveyard Spit channel, 7 males and 1 female, sizes ranged from 43mm (F) to 87mm (M).
- 839 traps and just under 200 hours of monitoring. Still not able to use volunteers due to Covid.
- CPUE = 0.95 (down from 2.6 in 2017).
- Assuming we don't have a breeding population based on these observations. Male dominated population.

Neil Harrington, JST

- 2017 green crab detected in Dungeness Spit; also looked at Washington Harbor, Sequim Bay
- One green crab in 2017 in JCL, CPUE = 0.26/100 traps (total effort 372 in SSB)
- Two in 2019 at Chicken Coop and Blyn tide flats, CPUE = 0.28/100 traps (total effort 345 traps in SSB)
- Zero in 2020 (238 trap sets in SSB and Travis Spit)
- 2021: 16 green crab in South Sequim Bay in July (747 traps total)
- CPUE = 1.9 crab/100 traps
- Not a full-fledged infestation, but concerning; 1:1 male to female, most crabs from 2020; hoping that we don't have a breeding population; the 16 that were caught were 8 male, 8 female
- Other areas trapped in 2021: WA Harbor (129 traps), Travis Spit (46 traps), no crabs in traps
- Regionally:
 - Drayton Harbor: 135 green crab, CPUE 3.13 crabs/100 traps
 - Lummi Sea Pond, 1,000s caught by Lummi NR
 - Makah Bay, 1364 crabs in 2021
 - Kilisut Harbor, WDFW caught 2 in a salt marsh on Indian Island
 - WA Seagrant monitoring program (50 sites) – 1 new capture at Swinomish Casino
 - Sporadic captures at Padilla Bay NERR-CPUE of 1 crab/100 traps
- Plan for 2022: continue concentrating on South Sequim Bay, program similar to refuge; slated to get Clallam MRC intern; hopefully have WDFW crew out a gain for intensive of WA Harbor and SSB

Q/A:

- Q: In places where green crab are more abundant, what problems have they caused? What are the strategies for eradicating them? A: *On East Coast, saltmarsh degradation, eelgrass loss, loss of mollusks/bivalves. Strategies are limited to trapping.*

- Q: Pitship area near John Wayne Marina ever had any traps? A: *More fresh water. Not suitable habitat for green crab.*
- Q: Heat dome have any effect on green crab populations? A: *Neil: Green crab are fairly heat tolerant species; have capability to dig down into mud. In general, didn't see any mortality of crab. Lorenz: Captures were pre heat dome.*
- Lorenz: Considering each female can have up to 250,000 eggs, any work we do in Salish Sea is very worthwhile.

Next/Future Agenda Items and Project Updates:

- Shawn reminded Team that the whole month of November is open nominations for 2022 DRMT Chair and Executive Committee (which consists of automatic appointment of JSKT and County, plus three open spots). Current 2021 Exec Committee: Ben Smith/WUA, Robert Beebe/Riverside Property Owners, Ann Soule/City of Sequim, plus JSKT and County. Nominations can happen now or via email during November. Members can nominate themselves or any current DRMT member.
- Cathy noted there will be equipment on levee between Schoolhouse and gate where everyone parks. Please plan to walk/fish somewhere else for next several days to avoid dump trucks/traffic, etc. They are excavating material for testing to determine where the material can be re-used. Got permission from ACOE.
- Ben noted the test holes for reservoir found good soil types which may not require synthetic liner in reservoir. Cost and maintenance benefit if they don't have to use the liner. Should be done with 30 percent design early 2022, then public meetings, etc. Hansi recommended another update from Carol Creasey or consultant in spring.
- Powell offered to provide a live tour of the new Center before anyone else. Idea to meet up at the new Center directly following next month's meeting, give people time after meeting to drive over, guided tour by Powell, hot drinks at the bridge to see the holiday lights. RSVP to Shawn. Depending on interest, maybe two groups to keep Covid friendly.
- Kudos to all for participating, providing ideas, sticking with DRMT through Covid!

Public Comment

- None

Meeting Adjourned