
2024 RCMT Meeting

47th Meeting

Hosted by: ADFW
Juneau, AK & MS Teams Meeting
1255 W. 8th Street, Juneau, AK

Final Minutes

Dates, times: Tues May 7, Wed May 8, & Thu, May 9, 2024

Meeting & Documents information posted [Regional Committee on Marking and Tagging](#)

- [RCMT 2024 Meeting Material – 2024 All Agency Update & CWT Sampling: The Case for Electronic-Field Detection](#)
 - [RCMT Last Year's Meeting Minutes: rcmt-2023-minutes](#)
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Summary of Action Items

- Kate (Nancy) will send out a meeting survey to figure out the best dates for RCMT 2025 annual meeting- done
- Future calendar invites will be sent out for each day to reflect start and end times unique to the day. - done
- Host for RCMT 2026 meeting, IDFG volunteered but can confirm later. Host for 2027 is still open
- Confirm replacement on RCMT for Bill Bosh, check if this is Anneliese Myers myea@yakamafish-nsn.gov [Done July 2024 – Nancy Confirmed Anneliese is the replacement]
- Lara will get job descriptions from partners to try and streamline the descriptions, pay scales, benefits, required experience, etc. It can be useful to set up a shared portal to share jobs, information, marketing, etc
- Marianne will look into why Yakima and Nez Pierce are not reporting catch sample to RMIS.
- Jim will check if the sampling agency will still be CDFWKT not that CDFWKT is rolled up into CDFW for data submittal to RMIS.
- Dave will send an email out to everyone with contact information to work with them directly and get feedback.
- Marianne will provide Nancy with process for presenting on CWT BMP progress for the PSC MSF funding. -done
- CCT operated their own labs and would like to be added to the workshop lists- Monica checked and Andrea Pearl is on the list of attendees
- Jason will provide Monica with definitions for barge and net definitions to be proposed for addition to Release Strategy for the RMIS data specification.- done and in proposal line up #56
- Dave at NMT will share list of which agencies that have trailers and who are the contacts [Monica to follow up with Dave to obtain the list and share with the RCMT]. Agencies are to send Monica the contacts they want on the website and their trailer cleaning documents. Monica will upload the content on the RCMT website and share the page URL with the group.
- For the RCMT Regional Coordination and Agreements' Background/Role section, Lara and Carrie can help with the wording to capture how PSC is focused on indicators that fall within the treaty whereas RCMT is broader.
- Nancy/Kate will send out a survey to find a date in the fall to schedule one or two virtual meetings so that we can continue working on these elements in the Operating Guidelines.
- PSMFC will also explore using a collaborative platform to share RCMT working/draft information that is accessible to everyone in the committee, and that isn't a fit for the RCMT website. Lara will help with

setting up a space for sharing the documents, most likely on Sharepoint

MAY 7: TUESDAY: 10:30 AM – 5 PM; LUNCH: 12:30 AM TO 1:30 PM

1. General RCMT Items (Nancy Leonard /PSMFC)

A. Introductions & review agenda

- Special welcome to new reps: Ash Shaffer with NWIFC (member agency); Robert Hogg with CTUIR

The group was reminded that Bill Bosch (Yakima Tribe) is retired but Marianne can check who has taking over his position. Thoughts were that Anneliese Myers <myea@yakamafish-nsn.gov> may be the replacement.

Action item: confirm replacement on RCMT for Bill Bosh

All the past RMPC meeting notes (except covid year when there was no meeting) have been scanned and uploaded on to the RMPC website. The action and decisions from these notes are being extracted and will be initially reviewed internally by RMPC staff and then shared with the RCMT group for their review.

B. Future meetings

- The 2025 meeting is intended to be hosted in California; we need to confirm dates (likely in April) and discuss possible locations;

Jason (CDFW) will be hosting the 2025 meeting and has locations in mind. He will work with Nancy Leonard and Kate Al-Sheikhly (PSMFC Admin Support) on the meeting logistics. It is preferred that everyone travel the day before so we can have an earlier start time, 9am, on Day 1.

For the 2025 RCMT meeting, there is a request to coordinate the 2025 RMPC meeting dates around the Lower Snake River Compensation Plan (LSRCP). Coordinating with LSRCP will be challenging they don't set the dates until a few months in advance (usually in May, sometimes in April or June). Also avoid the Pacific Fishery Management Council meeting that is usually the first week of April (April 9-15th for 2025). Field work for tagging tends to happen in April, so the last two weeks in April are preferred for scheduling the RCMT meeting.

Action Item: Kate (Nancy) will send out a meeting survey to figure out the best dates for RCMT 2025 annual meeting.

Future calendar invites will be sent out for each day to reflect start and end times unique to the day.

Consider who can host the next two years. Host for RCMT 2026 meeting, IDFG volunteered but can confirm later. Host for 2027 is still open

2. Recruitment & Retention of CWT Field Staff (Stan Allen, Lara Erikson /PSMFC)

This is based on Item #3-A from 2023 RCMT meeting. This is a presentation & discussion of the sub-group's findings on how to hire marking and tagging crew members.

The areas that the group focused on are:

- Access: are we accessing the right people and helping them find us? When posting job announcements, make sure they are being posted on the correct hiring website such as LinkedIn, and even consider social media such as Instagram. Also look into in-person options such as career fairs, and fisheries conferences.
- Connection: are we connecting with the right people and who should we target? Ways to connect with the right people are to consider internships at your entity, conducting workshops, and classroom courses.

- Attraction: are we attracting the right people? Some of the ways to attract people is by looking into educational programs and career fairs.
- Process: Are we streamlining the process by making it easy to understand, easy access, and making the process easy on the iPhone and Androids (staff and potential new hires don't always have laptops)? Is there a central portal that makes the process easier on managers and applicants? Using the CWT website as an option which can then redirect people to the entity's job posting can be a way to streamline the process.
- Competition: are we being competitive enough with pay, and positions (are they temp, seasonal, full time)? We can assume people are looking for full time but they might be looking for seasonal or part time. The pay, whether hourly or salary (dependent on the job level), needs to be competitive with what else is out there and are we going to offer benefits such as pension options and retirement. Offering housing and transportation, groceries because of the remote areas or the housing market in an area is also something that should be considered depending on the location of the job.
- Support: this is focusing on keeping the staff once they are hired. Having trainings for safety, career development, mentoring, and leadership options can encourage retention of staff. Keeping staff safe, following compliance, offering training and appropriate gear, prevent and mitigate accidents creates better awareness and keeps people feeling secure in their job. By providing the proper tools to be successful in their jobs (addressing concerns, communicate effectively, address interests and goals),
- Big take home: are we listening to our staff? Are we providing performance plans, evaluations, offering mentorships to stellar employees and having the senior staff play a bigger role for the new staff coming on board. Are we invested in them and how to make sure they are invested with us is important to keeping and finding employees.
- Next steps: The group is going to continue efforts with the engagement of RCMT, to help with support or providing a portal for access to job announcements. They are going to continue to look at options for job sharing, and the potential to working with PSMFC for utilizing the CWT website and other support. Also, utilizing Industry Assistance, for example, using the Sturgeon project for help with tagging if the seasons don't overlap. They will also start the process of looking into funding to address the options for salaries, pay, and benefits.

Discussion:

This year recruiting went better than last, and has kept improving after COVID, but there is still a need to find ways to keep skilled seasonal employees that have time and training invested, to come back each season. The same goes for good auto-fish trailer operators, or keeping good staff in general. Auto-fish trailers can be a good steppingstone but the job might not be a good fit for people looking for careers as Fish Biologists, so they don't stay. Opening up the skill set to plumbing, IT skills, and HVAC skills, helped with recruitment for some.

Reaching out to colleges and universities or utilizing NOAA SeaGrant, was also brought up as an idea and looking into grant money to help with outreach and education. Recruitment can happen before classes are done to help hire students for the summer, or even design a class around these needs, which has been done in the past. Ken Johnson and Stan Allen had started a list of colleges to outreach to back when Ken as the RMPC Program Manager. In Idaho, they are trying to integrate the marking and tagging into the hatchery season. However, it was brought up that a lot of the skill sets are needed to work in an Auto-trailer, like plumbing and electrical, and these are not taught during a fisheries education program.

One of the big hurdles brought up was the disconnect with HR departments and understanding the seasonal work, salaries, job classifications. Current position descriptions are not a good match and it is a lot of work for HR to change position descriptions for a small set of people that are hired. It would be a tremendous amount of work within the State agencies to create a new job classification and people hiring are up against barriers and have to live within certain hiring rules. One of the ways around this would be to use contracting companies, or PSMFC (which does hire some CWT staff in Idaho). If PSMFC could do the hiring, and be able to move the employees from project to project, or even state to state, how would housing be handled?

One of the ways Colville has had success with employees is by training their hatchery staff to help manage the trailer. The NWIFC found that their staff enjoy the time in the field (which is about 7 months) and in the off season they work in the fish health program. Their employees enjoyed applying a diverse skillset as part of their job and were included in the decision-making process (this is an example of making your employees invested in you and showing them, you are invested in them).

Action Item: Lara will get job descriptions from partners to try and streamline the descriptions, pay scales, benefits, required experience, etc. It can be useful to set up a shared portal to share jobs, information, marketing,

etc.

3. Regional Mark Processing Center operations & announcements (Dan Webb /PSMFC)

A. Status of CWT Datasets

An overview of the datasets:

- CRITFC didn't tag in 2020 so those numbers won't ever show up in the graphs.
- NMFS will be rolled up in ADFG, so they won't be reporting in the future.
- CDFW has escapement and hatchery returns but not commercial.
- CDFWKT rolled up into normal CDFW so you won't see CDFWKT reporting anymore. But, sampling agency will still be CDFWKT? **Jim will need to double check this to make sure this is accurate.** Use caution if moving historical CDFWKT to CDFW, but run by ocean sampling before confirming with Dan and Jim. No changes will be made to historical data without a conversation with all CDFW parties.
- **Marianne can look into why Yakima and Nez Pierce are not reporting catch sample.**

Discussion:

A suggestion from the group was to have notes in the bar graph for years like COVID, NMFS being rolled up into ADFG, and reasons why there are no numbers showing for people who aren't familiar with the data. This can be helpful and prevent questions about the data.

Action Items:

- **Marianne will look into why Yakima and Nez Pierce are not reporting catch sample to RMIS.**
- **Jim will check if the sampling agency will still be CDFWKT not that CDFWKT is rolled up into CDFW for data submittal to RMIS.**

B. RMPC Webservice API Status Update

- Update on new RMPC webservice for submitting data
 - Now trialing API based auto-downloading service for large datasets
-
- The goal is to have 5 different data types available.
 - Users will need an API key to pull data and when you need an API key, make a request to Dan. Jim can assist as well if Dan not available.
 - Queries are being built into the system such as Recoveries by release hatchery but if users have regular queries that are used frequently and would like them to be built into the system, let Dan know and he can build them into the API.
 - For validations we will continue to accept full data sets.
 - Will be doing development with different interfaces to get data from API.
 - Looking forward to collaborating with other agencies as they build their R scripts. A great example to look at is Matt Callahan with NOAA, he created a basic R script <https://github.com/PSMFC-Streamnet-RMPC/api-docs>. As you try out the R-codes/API keys, Dan and Jim are looking for more feedback.

4. Northwest Marine Technology (Dave Knutzen, Geraldine Vanderhaegen /NMT)

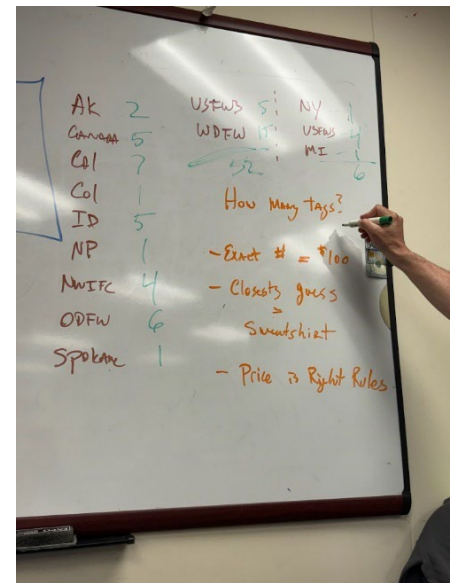
Dave reiterated to the group that they are there to help answer questions or address needs, so feel free to reach out any time. They have made updates to their website by adding documentation for user guides and instructions (<https://www.nmt.us/about/technical-manuals/>), and updated videos. The price list has been updated with pictures and part numbers (<https://www.nmt.us/afsdocs/>). If there are any questions about tag codes, such as legitimate tag codes), please reach out.

Geraldine handles all the orders, and she is available to help by phone or email. The earlier you can get your orders in, the better, because certain items can be on back order. If you do order an item that is back ordered, they are trying to stay on top of it so they can inform you of any updates. When doing orders for trailer parts, let them know which trailer you have and also, make sure your warranty parts are up to date.

Recently hired Joseph as a Senior Program manager. He is working on the AI tag reading software tool (notes for this presentation are at the end of this section).

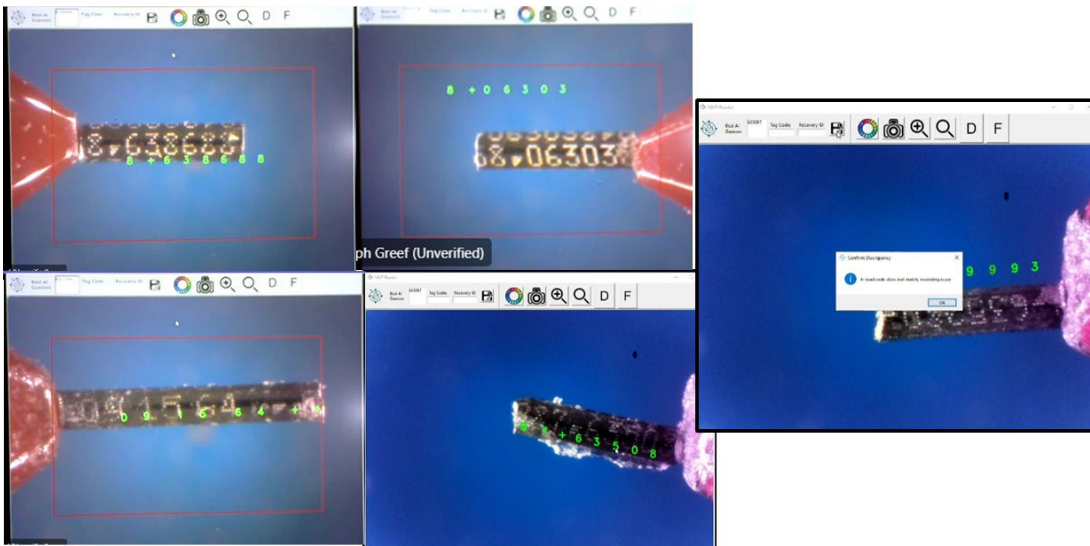
NMT has made a lot of updates to their equipment:

- currently working on a duplicate tool to make sure nothing is lost due to computer errors.
- added a new power supply to the tunnel detectors, and added an entry funnel detector. NMT is in the process of building the entry funnel for WDFW). They are difficult to build but are happy to do so. Please remember that these have been around for 30 years so let NMT know well in advance when you want updated equipment since they cannot do a fast turn around. If you are getting any funding for equipment upgrades, it would be helpful to give NMT a heads up, to help with turn around time.
- The R-8000 are now obsolete and have been for multiple years now, but the tunnel detector itself went through a whole redesign.
- The blue box is going to look exactly the same but with more robust, waterproof type of cabling and added an entry tunnel to the detector (WDFW is getting 8 of them).
- Auto-trailers: ADFG has 2, CDFO has 5, CDFW has 7, Colville has 1, Idaho has 5, Nez Perce has 1, NWIFC has 4, ODFW has 6, Spokane has 1, USFWS has 5, WDFW has 15.
- ODFW, WDFW, CDFW, NWIFC have all done rebuilds on their trailers.
- CDFO has 3 new trailers, Michigan has 1, WDFW is getting a new trailer, Great Lakes and USFWS are getting new trailers.
- New auto fish trailers will have tag injectors, controlled by a tablet and integrated into auto fish computer system, which might be a tough transition for some. Another upgrade is better waterproof cabling.
- There have also been updates to the QCD.
- The head molds have also been updated and will help make tag placement easier especially for larger fish sizes.
- Dave reiterated that everyone should update their software, as that can help alleviate a lot of issues.
- Power-issues at the hatcheries continues to be the main culprit that results to calls for NMT support. Trailers take a certain amount of power that the hatcheries can't handle, and heaters and/or generators cycling on and off can cause additional power issues for trailers.
- NMT is no longer servicing blue wands or adult fish counter, and are no longer producing the r-8000's. The multi-shots are starting to fade out of production and service will soon no longer be provided.
- T-wands are the most frequently repaired items and usually end up needing to be returned. NMT is still offering the \$1000 discount if they can't repair the t-wand.
- R-9500's gates seem to be going bad, and some need tuning. A lot of detectors are 30 years old! But these are still working.
- Mark 4 repairs include a variety of fixes. . When these need repairs it may take 3- 4 weeks. Also note that repairs on T-1's make take 2 weeks, and it is difficult to guarantee repairs because they are over 8 years old.
- R detectors currently have a long waiting period for repairs.



Tag reading project presentation by Joseph Greef

Joseph created a tool that is an electronic microscope using AI instead of humans to read the tag information. He used helper AI's and verification AI's to help the software run smoothly, for example, by correcting the vision when reading an upside down tag. One of the issues he fixed was Raspberry Pi's inability to run the AI, and this was resolved by increasing the computing unit to run at video speeds. Currently, it cannot handle hard to read or scratched tags very well and they are working on an advanced system that will look at multiple images to build up the tag (see images below). The code is customizable for entities to capture data that is specific to their needs.



Example images of the AI software reading the tag numbers from a CWT. Top images are of regular CWTs. Bottom images are of slightly scratched CWT's. Image to the right is the pop up asking the user to validate the number on the CWT.

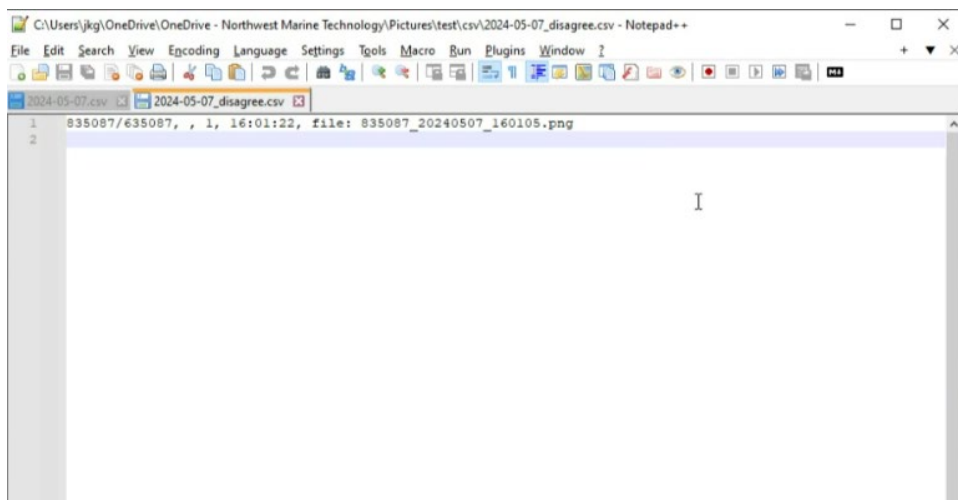


Figure 1: Image of the Tag reading software after CWT's have been scanned.

Some of the things he is looking into for the future are integrating the viewer unit into a desktop computer with a digital microscope attached. He would like to set up working groups to get user input to help develop better versions of the software. The estimated timeline until these are available for use is about a year and cost is TBD. One of the options being consider is to sell the viewer and the software as a kit. Once these are ready, they will prioritize training and will be happy to hold workshops for group training.

Action item: Dave will send an email out to everyone with contact information to work with them directly and get feedback.

5. All-Agency Update on: (Tag-Coordination Representative, ALL-AGENCY Participation)

- Tagging Levels, any Mass Marking for 2024, see tables below.
- Mark-Selective Fishery Plans &/or Comments, see tables below.
- LINK to Agency Planning Documents: [All-Agency Update 2024](#)

Member agencies:

| Agency or Organization | 2024 Tagging Levels, Marking Plans, Comments |
|------------------------|--|
|------------------------|--|

ADFG / Alaska Dept. Fish & Game: See agency-provided document in above link

- Most of release plans are the same as previous years.
- In the last two years, Southern Southeast Regional Aquaculture Association (SSRA) started mass marking for Chinook in Juneau and there's some discussion about mass marking coho. The motivation was to not lose a stock that had been developed at Little Port Walter (LPW).
- No Mark selected fisheries planned at this point.
- Released a large number of pinks and chum.

IDFG / Idaho Dept. Fish & Game: See agency-provided document in above link

WDFW / Washington Dept. Fish & Wildlife:

| | Number of fish to be released with a CWT | | Number of fish to be released without a CWT | | | |
|----|--|-------------------|---|-------------------|------------------|--------------------|
| | Ad Clipped | Unclipped | Ad Clipped | Unclipped | Total Production | |
| 6 | Columbia River Coho | 1,673,000 | 150,000 | 7,528,000 | - | 9,351,000 |
| 7 | Columbia River Chinook | 4,851,466 | 1,329,728 | 15,169,899 | 3,699,543 | 25,050,636 |
| 8 | Puget Sound Coho | 445,000 | 225,000 | 5,039,000 | 272,750 | 5,981,750 |
| 9 | Puget Sound Chinook | 5,542,500 | 6,505,000 | 31,960,000 | 2,575,000 | 46,582,500 |
| 10 | Coastal Coho | 435,000 | 195,000 | 5,050,000 | - | 5,680,000 |
| 11 | Coastal Chinook | 780,000 | 200,000 | 9,070,000 | - | 10,050,000 |
| 12 | Totals | 13,726,966 | 8,604,728 | 73,816,899 | 6,547,293 | 102,695,886 |

- Samish hatchery had a malfunction and lost a million fall chinook releases that were for Southern Resident Killer Whale (SRKW) production. However, they don't think it will make a huge impact on the SRKW population.
- They were short on brood stock this year for Cowlitz.
- WDFW did receive some funding from their legislature to initiate a new monitoring and evaluation program for the West side of the state, which has not been in place yet. There is currently one on the East side, and they are going through to identify any of the releases that didn't have a CWT.

USFWS / U.S. Fish & Wildlife Service: See agency-provided document in above link

- Spring creek is releasing 1.5 million from 1 million for SRKW, while Little White and Willard hatchery chinook wasn't used for SRKW.
- Little White Salmon Spring Chinook had an increase of 650K for SRKW making it a total of 1.6 million.
- Coleman Nat'l fish hatchery had a low brood stock returns so they did not conduct their unfed fry for '23.
- McCaw hatchery chinook meet brood this year.
- Coho Eagle Creek increased CWT amounts 30k to 60k to help with data analysis.
- Reduction in Winthrop Coho from the Wenatchee River of 100k and 108k from 2023.
- Quilcene Nat'l fish hatch ending Quilcene bay net pen program and moving it to an on station release.
- Steelhead release targets are the same as last year.
- The Warm Springs Hatchery had a power glitch that didn't align well with the alarm system, and there was a pump failure. They lost about 80% of their brood year '22 and '23 fish which is why the numbers are greatly reduced.
- Chum are unmarked.
- Have a few DIT programs in the Columbia Basin that may be ending next year.

ODFW / Oregon Dept. Fish & Wildlife: See agency-provided document in above link

- No notable differences from last year.
- Major loss at hatchery by Umpqua due to a bleach event.

MIC / Metlakatla Indian Community:

- No updates shared at the meeting.

CDFW / California Department of Fish & Wildlife: ... See agency-provided document in above link

- Iron gate on Klamath closed and all operations and have been moved to Fall Creek hatchery. This is due to the dams coming out.
- Fall creek doesn't have the capacity so they released a million fry which is why their levels aren't as high for

| |
|---|
| <p>Chinook on the Klamath as other hatcheries.</p> <ul style="list-style-type: none"> - Meeting targets at other hatcheries. - Still at 25% and still no plans of mass marketing. |
| <p>CDFO / Fisheries & Oceans Canada : See agency-provided document in above link</p> <ul style="list-style-type: none"> - Introduced mass marking in more programs for chinook for this year. The indicator stocks for Robertson and Snootli Creek will have mass marking for the purpose of broodstock and stream management. - The Gold River San Juan, Tahsis and Leiner, will also have mass marking which were generally not CWT but it will introduce more mass marking in area 25. - Also, in area 25, Conuma, a large hatchery of 2.7 million mass marked fish, but not tagged, and Burman, a smaller hatchery with 200k mass marked fish. These are within areas with larger hatchery areas with a lot of mass marking with non CWT. Considering having MSF's on Conuma, Burman, and Sarita stocks (indicated with dark blue on the table). It currently does not have stocks at risk but the intent is to manage the brood stock and reduce the impact of the hatchery fish. - Mass marking of these indicator stocks have been submitted for SFEC. - Nothing new for coho this year for Mark Selective Fisheries. - Continuing with small area fisheries for Chinook on local returning stock between Vancouver Island and the mainland, while avoiding Fraiser stocks at risk, in selecting these small areas. - Selective fishery around Victoria, is expanding as a pilot program with some enhanced monitoring on a small scale. |
| <p>CRITFC / Columbia R. Intertribal Fish Commission:</p> <ul style="list-style-type: none"> - Low returns for Spring Chinook in the Snohomish and Nooksack basins. - Marking plans remain the same as the last few years since we took on production for Southern Resident Killer Whales and remained stable. down a little for summer chinook because of low returns. - No changes to coho programs. - Steelhead reduced on Elwa to 30k from 200k because they are meeting recovery goals, so they will eventually do away with that program. |
| <p>NWIFC / Northwest Indian Fisheries Commission: ... See agency-provided document in above link</p> <ul style="list-style-type: none"> - Marking plans remain stable. |
| <p>NMFS / National Marine Fisheries Service, Alaska:No updates shared at this meeting.</p> |

■ : Agency CDFO represents two votes (members) of the RCMT;

Discussion

The PSC Chinook Technical Committee (CTC) is looking at Double Index Tag (DIT) programs and will be coming out with reports on the few programs that exist in the Columbia Basin that may be ending next year. DFO is introducing DIT studies for two of their indicator species and one will be used as a reference point for the changes that will be occurring to inform the model.

There is work being done to incorporate mark selective fishery algorithms in the exploitation rate analysis, using Marked Release Rate (MMR) and unmarked kept rate (UKR) which will help look at the impact of marked fisheries on wild stocks. The intent would be to have full electronic detection in any fishery that would encounter CWT indicator stocks that are unclipped.

Other reporting agencies:

| Agency or Organization | 2024 Tagging Levels, Marking Plans, Comments |
|--|--|
| CCT / Colville Confederated Tribe(s) | See agency-provided document in above link |
| - Update submitted. | |
| CTUIR / Confederated Tribes Umatilla | See agency-provided document in above link |
| - Renamed hatchery to the Imtwaha fish hatchery (IFH for acronym). <i>The correct spelling will be updated after the Darta Specification version 5.0 is implemented as part of that update will allow RMIS to capture additional special</i> | |

characters.

- Did a second full production release this spring, going to do a similar release next year and every year moving forward
- Releasing 500k yearling smolt annually, but 300k of those are being released on site, on the South Fork Walla Walla River.
- Releasing 100,000 at the tributary near Mill Creek, that runs through the town of Walla Walla.
- Poor survival with the Carson Hatchery fish and the natural origin fish that were tagged from Rotary screw traps. There is a loss of about 60% of the smolts getting out of the Walla Walla River. There will be a release at the mouth, and then compare those numbers for the next few years.
- Contracted with ODFW and Trevor Clark's group to mark our fish, and aiming to tag at the end of May or early June.

NPT / Nez Perce Tribe: See agency-provided document in above link

- The Hanford Hatchery is still projecting to tag 200k fish which will happen around May 23rd. However, they are having a problem at the Hanford site with the timing of capture and tagging. The timing is biologically determined because they are seining wild smolts. Unfortunately the time to seine wild smolts coincides with Priest Rapids releasing millions of fish earlier and earlier which are now planned for approximately, May 23rd as well. This has swamped the Handford sampling with clipped fish and increased competition between those released and wild smolts out-migrating.
- Hoping to have more coordination with WDFW and CRITFC to see if those releases can be delayed a bit.

YAKA / Yakama Nation:

- No updates shared at this meeting

6. Presentation: CWT Sampling: The Case for Electronic-Field Detection (Michele Masuda, Adrian Celewycz /NMFS-AK)

https://www.rmhc.org/masuda_celewycz_2019_electronic_field_detection-2/

There was some interest in a paper that Adrian Celewycz and Michele Masuda coauthored in 2019, coded wire tag sampling the case for electronic field detection. The summary of the paper approximated the benefits of electronic sampling versus visual only sampling of ad clip fish in 3 Chinook salmon projects in the Gulf of Alaska which involved a mix of detection methods and field sites.

The first project had a Tunnel detector installed at a fish processing plant in Kodiak. The second project involved detectors at a fish processing plant in Kodiak that processed catches from rockfish and troll fisheries. The third project involved detectors used on vessels in the Gulf of Alaska that were testing salmon excluder devices. For all of the projects, the salmon were electronically scanned in the field and then sampled. If they returned positive signals and their AD clip status were recorded, they were sent to the lab to be determined how many coded wire tags would have been recovered with electronic detection. It was found that electronic detection was effective in increasing the coded wire tags recovered by about 20 to 24% over visual detection only. Electronic detection was also effective in screening out untagged, but AD clipped salmon and an estimated 64 to 74% of AD clip Chinook salmon sampled had no coded wire tags, so a visual only program would have processed 64 to 74% of the samples, unnecessarily.

Discussion: Is there a push for everybody to start fully electronic sampling?

The Observer program is looking into doing more electronic detection in the Bearing Sea, because it's a little bit more manageable there. But in the Gulf of Alaska, they are still mostly using visual only detection and that might be because of cost and training.

MAY 8: WEDNESDAY: 9:00 AM – 11:30 AM

7. RCMT Best Management Practices CWT (Nancy Leonard, Monica Diaz /PSMFC)

This is based on Item #4 from 2023 RCMT meeting: [Need to Develop Standard Procedures for New CWT Labs \(Ron Olson /NWIFC\).](#)

- Update on April 22, 2024 and input received;
- Timeline for process and upcoming workshops; Q&A;
- See also: [CWT-Lab-Standards-Proposal-for-a-Workshop-14April2024.docx](#) .

In 2023, RCMT identified the need to document the best management of CWTs, and received funding from PSC to start the process of the document. The final products will be a Best Management Practices (BMP) guidelines document and a lab poster. We reached out to lab managers to get their lab documents and photos, then summarized everything into approximately 18 chapters, and 3 major sections: Transporting heads to lab, Prep and dissection of the heads, Reading and recording of CWT. We are Currently in the process of cleaning up the 2nd draft of the first section. Workshops are virtual with 1 hybrid person workshop in August, in Portland at the PSMFC office. Because of time, the final review will be over email in September with the final versions ready to distribute in October. The revisions from the 1st workshop are almost done for the 2nd draft and will be emailed out before the next workshop.

Discussion

- Question about the workshops being recorded: Currently they are not being recorded, but there can be an email summary of who was in attendance and bullet points of the focus topics with agreements, and the email can go out the broader group.
- When the email goes out, a list of workshop attendees will be included to make sure no one (who should be included in the workshops) is missed.
- Marianne brought up the PSC- Marck Selective Fund (MSF) process for presenting progress reports for the funding received to support this work. She will email Nancy the "Letter of Agreement" funding for Chinook Implementation as a funding standard procedure.
- The revised CWT Document will be sent next week for those who missed the workshop.
- CCT operated their own labs and would like to be added to the workshop lists.
- Part of the workshops will be to decide what elements will be useful on a poster to focus on in the labs.
- We are looking to get information from people who need assistance with travel support for the August hybrid meeting in Portland. There is limited funding available so please reach out to Nancy or Monica.

Action Item: Marianne will send Nancy the Letter of Agreement that describes the presentation of progress to the PSC MSF group.

Monica to check if CCT is on the list of attendees for the CWT BMP workshops.

8. Update on PSC Data Exchange Projects & 2024+ Workplan (Nancy Leonard, Jim Longwill /PSMFC)

- PSC Data Exchange V 4.2: was implemented in [Oct 2023](#) & the corresponding [data specification](#) document was published through the Pacific Salmon Commission in Dec 2023;
- Proposed merger of Working Group on Data Standards into Data Sharing (TCDS) presented to PSC commissioners during PSC February 2024 meeting;

The Proposal for merging the Working Group on Data Standards into the Data Sharing Technical Committee was submitted and presented to PSC commissioners in Feb 2024. Commissioners are expected to review the proposal and approve it by end of 2024/early 2025.

A Question was asked about the proposal to combine data sharing and data standards, and if there was feedback provided on that last February meeting or is that something that will be on the October Executive Session agenda and what is timeline for the feedback. The answer to this is, Nick and Nancy presented in February to the Commissioners, the revised TCDS Term of Reference (TOR) which indicated the intention of merging the two groups, but retaining the same number of seats and diversity of expertise. The TOR indicated they didn't want to lose the diverse expertise and representation of analysts, data providers, and database managers within the US and Canada. So far there has been no response from PSC. It will be up for voting in October.

- PSC Data Exchange V 5.0: Existing proposals (21) are being finalized & aimed for 2025 implementation;

There will be additional columns for agencies to include in their data submittal files when version 5.0 of the data specification is implemented. If someone sends 4.2 data a conversion will be done by RMIS and a default value added to required new columns that aren't populated. This is expected to happen in 2025 but there will be a period of adjustment for agencies. One format change is that the "coordinator" field will be removed and will now be categorized under the Tag-Code-or-Release-Id field and called "Untagged Agency Prefix"

- PSC Data Exchange V 5.0: Some new proposals being considered:
 - i. Pr #51: Add Exchange Format for Auxiliary Recovery Data
 - ii. Pr #52: Detection Method Clarification
 - iii. Pr #55P: Update Dataset Transfer Methods (documented in Specification)
 - iv. Pr #nn: Remove Redundant Fields (awaiting input from Tech comms.)

The group met in April 2024 to discuss proposals and will be meeting again in June in Nanaimo and then later in September in Portland. A summary of these proposals is below:

- There are 18 historic proposals, 8 are fully approved for V5.0 and reviewed at the TCDS meeting in April.
- 10 are under active discussions and will be the focus of discussion in the June meeting
- Proposal #2: Agency deadlines for publishing data to RMPC along with a reporting timelines table.
- Auxiliary Recovery Data: this can involve aggregated recoveries, is going to be considered and if implemented, would take place outside of the current data exchange proposals. These data are being considered for other data access locations, such as PSC reports, and, at this time, are not going to be incorporated into the existing RMIS recovery file that will remain as one record per observed recovery. TCDS members are still discussing options to provide access to Auxiliary data such as somewhere on the PSC website, or other public data warehouses. The intent is to be able to provide access to these data, that the tech committees determine should be publicly accessible. Some tech committees are interested in making these data accessible from a public location, whereas others are not and prefer the process of receiving requests for data access. This is an ongoing discussion among within the tech committees and the TCDS.
- Detection Method Clarification: this field still has more discussion planned for the June TCDS meeting. There will be a discussion around how you code the subsampling situations and the sampled mark.
- Update Dataset Transfer Methods : this proposal is to add more specific language in 5.0 on how to upload data into RMPC and that will include the new API. The language will refer the user to the webform. Automated quality controlled reporting is still being discussed by TCDS but will be more for 6.0. It will cover record by record data management. It will allow management of data by unique ID for record by record.
- Special Characters: The UTF-8 character format will help maintain and capture accurate names such as tribal, and Spanish names, in the database. This will mostly affect filter programming.
- The RMPC is continuing to accept 4.1 data until next year (2025) to allow agencies to upgrade their data on their end. The conversions to V 4.2 must be completed by the time V5.0 is implemented for RMIS.
- Controlled vocabulary is currently being produced to define all the terms in the RMIS database. It will be published in coordination with 5.0 and will be discussed more at the June meeting. The Controlled Vocabulary and current data specifications, combined, effectively will be replacing the Blue Book for this content moving forward.
- UUID is going into V5.0 on the active proposal list.

Discussion:

A draft of the Controlled Vocabulary will be shared with the technical committee in early 2025 then will be shared with the data providers. Following that, there will be a meeting with other technical committees to make sure the data providers are represented.

Co-chairs will attend the Jan meeting at PSC to update everyone on what they are doing, with the focus being primary consumers first, then the data providers. The majority of the data providers are represented in the TCDS so they are aware of the changes coming

For release strategy, there is volitional and forced release strategy. California would like to have Barge and Net Pens added to Release Strategy for release reporting. Jason will provide Monica with definitions, and this will be discussed at the next TCDS.

There was a request made to the TCDS co-chairs to post the proposals that haven't been accepted, so that they can be reviewed and commented on by people who are not part of the TCDS process. PSMFC can look into posting these or this can be something the TCDS does which opened the conversation of what else the TCDS group wants to discuss during the meetings as the committee evolves and sharing and discussing these proposals can be one of its new roles.

TCDS is currently working on providing a summarized proposal status spreadsheet which will be available in a PSC SharePoint folder accessible to other PSC member and groups. This folder will also provide the proposal template used by the TCDS so that others can submit requested changes to the Data Specification.

The TCDS is working on a New 'controlled vocabulary' to describe all terms and definitions used in the PSC Data Exchange and RMIS database. The controlled vocabulary builds on definitions from TCDS-1989-1 ("Blue Book") Appendix 4.3 Detail Definitions and other sources. This project (see TCDS Pr #3) was begun by TCDS in 2023 and is underway with likely completion for V 5.0.

TCDS Co-chairs Nick and Nancy are trying to get on agendas for other technical committees to try and get input from the RMIS data consumers as well as data providers on proposed changes and feedback. The TCDS has engaged with Chinook, Coho and SFEC Technical Teams which has helped with awareness and understanding of what TCDS is doing and sharing input.

The lack of representation of PSC Secretariat on the TCDS came up during the revision of the TCDS Term of Reference, and PSC assigned a secretariat liaison, Catherine Mitchelton (Michielsens@psc.org), to the TCDS. This addition facilitates more engagement by the PSC Secretariat and awareness of the TCDS work. Revision of the Term of Reference also brought attention to an existing TCDS responsibility to provide guidance/input on software. In response to realizing that the TCDS had that type of task assigned to it, the PSC Secretariat recently shared with the TCDS a draft guidance document developed by the Secretariat staff to serve as guidance for all PSC Technical Committees that are developing automated reporting. The TCDS provided informal input and comments to the PSC Secretariat liaison Catherine on this draft document. As noted from the TCDS June 2024 meeting notes, many technical teams are using shiny apps to display their analysis and thus the PSC Secretariat is also developing guidance for proper use and will be sharing that draft guidance with the TCDS. These apps incorporate figures and tables from published reports, and associated data and documentation are available to be downloaded. All data sets in this application are already published in some form, whether that is through figures/tables in the annual reports, report appendices, or supplementary data files that are posted on the PSC website. Additionally, no confidential or proprietary information is included.

Action Item: Jason will provide Monica with definitions for barge and net definitions to be proposed for addition to Release Strategy.

- Are there any questions that RCMT members have on PSC data exchange?

9. Request to Facilitate Auto-trailer Information Sharing (Nancy Leonard and Kathryn Fraser /CDFO)

Discussion item on how to facilitate inter-agency communication about auto-trailer information such as sharing approaches to disinfection. See: [Inquiry-rcmt-2024-nmt-autotrailers](#).

There was a request to have the contact information of Auto-trailer coordinators accessible (internally) during an annual tagging procedure. Dave at NMT has already started a list of which agencies have trailers and who the contacts are, and can send that out.

Action Item: Dave at NMT will share list of which agencies that have trailers and who are the contacts [Monica to follow up to obtain the list and share with the RCMT]

The request came because there have been major changes over a number of years with the auto-trailers, and there is interest to capture and share the specialized knowledge of operators. The intent is to facilitate direct access to the auto trailer coordinators who would share their knowledge with others and new hires and be a resource to other when we have personal turnover.

The group decided it would be valuable to add a webpage dedicated to auto-trailers with the appropriate contact that is decided by the agency. To ensure that the list is up-to-date, the group agreed to review the list of contacts once a year.

From this discussion also came the need to create proposal for a Best Management Practices for Auto fish Trailers document. The document can also point to the NMT site which has a large procedure that also contains this information.

Action Item: Agencies are to send Monica the contacts they want on the RCMT website and their autotrailer cleaning documents. Monica will upload the content on the RCMT website and share the page URL with the group.

10. Intro & Overview of [Dr#1/] Item #10 for tomorrow: Working Session... (Nancy Leonard)

The group started the discussion on the need to update 2011 Regional Coordination and Agreement, which became identified as a need while working on the new website. For this task the group will focus on how we want to refine the committee operating guidance from the 2011 version. To inform this task we will highlight what has been discussed during RCMT meetings between 2011-current time that has not been updated in the Agreement. We will also work on initiating suggested revisions provided by the group during last year's 2023 RCMT meeting and subsequently added to by Ron Olson after the meeting. Ron provided Nancy with his proposed edits after he was retired early in 2024, but these have not been distributed to everyone yet. Ron Olson is also providing RCMT and CWT related resource documents to provide access from the RCMT website. PSMFC RMPC is working with the Columbia Basin Fish and Wildlife Librarian to figure out how to properly share those documents and, for documents that aren't publications, the library will maintain a copy and provide us with a stable URL for the RCMT website.

As we work on revising the Agreement, we need to assess how the committee has evolved and how we want to define it moving forward, for example we need to consider how the RCMT seems to now be focused more on information exchange and less on voting. Updates to the Agreement could include:

- More focus on information exchange
- Adding sections that clarify RCMT roles vs PSC roles (through the Pacific Salmon Treaty), including how RCMT includes California and is the only group that has both Canada and California.
- Explain how RCMT interacts with other groups and where there is overlap. A good visual would be a diagram of the PSC and RCMT committees and how they connect.
- Decide if the RCMT still need membership voting or if there are alternative ways for the group to handle decisions. The 2011 Agreement describes a voting process but the group has not had a reason to vote in many years.

Canada is still trying to figure out where they sit and having these updated guidelines will help. One of the reasons for revisiting the agreement now is to clarify the value added of having an entire coastwide committee that includes California to Alaska, including Canada.

MAY 8: AFTERNOON

FIELD TRIPS:

- **Ted Stevens Marine Research Institute; start at 2pm:**

Tours are typically an hour in duration and highlight the Alaska Fisheries Science Center's two main missions: fish stock assessment of the North Pacific Ocean, and ecosystem research. We will start in the downstairs aquarium area with a general overview of

Alaska Fisheries Science Center and then move into the lab wing to view/discuss the different methods (e.g., surveys, eDNA analysis, analytical chemistry, bioenergetics analyses, etc.) scientists use to study marine ecosystems in Alaska. Cameras are welcome.. See: <https://www.fisheries.noaa.gov/about/alaska-fisheries-science-center>

- Mendenhall Glacier Visitor Center (only if time permits); start at ~3:30pm

See: <https://www.fs.usda.gov/detail/tongass/about-forest/offices/?cid=stelprdb5400800>

MAY 9: THURSDAY: 9:00 AM – 11:00 AM

11. Working Session: Updating the 2011 Regional Coordination & Agreements.: (Nancy Leonard, RCMT members)

- This is based on Item #7 (RCMT: Update to Regional Agreements & Agency Roles, Etc.) from 2023 RCMT meeting.
- Draft version for discussion includes edits discussed agreed to during the 2023 RCMT meeting and content from Ron Olson added at the end of 2023.
- Current active version: *Regional Coordination and Agreements on Marking and Tagging Pacific Coast Salmonids* (last [updated in 2011](#)).
- This is a presentation on activity to date & discussion with group on updating, re-organizing this document for adoption in 2025.

The document was broken up into three sections to help focus discussion on providing edits and inputs: Background/Role, Interactions with other Committees, and Future Roles.

Background/Role Discussion:

- There needs to be clarification in the guidelines, taken from the PSC treaty, to state that are concurrent databases, Canada and the US, as well as each entities own databases. Each agency has the freedom to change their own database but the choice of what is shared is under the PSC treaty. Including a visual (one that is newer than the 1989 version) of who and what is being exchanged. Be careful with the wording and tone in the document so that it does not seem like one country is dictating what the other should be doing.
- Mention the history about RCMT's past voting structure for variances from usage of the adipose clip (AD Clip), and the desequestering of the AD Clip as a CWT tag and those issues were elevated to agency policy level, which then lead to creating SFEC. SFEC is now focused on indicator stocks and the development/assessments of analysis tools and methods, under the treaty while RCMT focuses on more stocks, tagging, procedures, coding and coordination. A suggestion was made to change "voting" to consensus.
- There can be some topics that do need some form of voting if we can't come to a consensus. There is old language such as "Evaluate regional marking proposals" which hasn't been done in a long time, unless referring to specific variance requests. RCMT is leaning into more information sharing in the spirit of scientific cooperation. Potential language for consideration: A committee where information on agency marking and tagging of salmonids is shared and discussed to facilitate data integrity.
- Think about changing the wording "Coordinate coastwide agreements..." to "Coordinate coastwide efforts or activities" since the former can sound harsh and doesn't reflect bilateral agreements
- Recommend editing "conduct fisheries management analysis" to "conduct CWT analyses that support fishery management decisions"
- Lara and Carrie can help with the wording to capture how PSC is focused on indicators that fall within the treaty whereas RMCT is broader
- The PSC authored a CWT improvement report with information about what was required, what's working, what's not working, what the methods are supposed to be, what each agency is doing, who's part of the treaty along the path of success, failure. Focusing efforts on improvements towards the goal of meeting the Memorandum of Understanding that we maintain a CWT system.

Interactions with other committees:

- Discuss how RCMT interacts with other PSC committees in the document, making sure to note that

CTC, COTC, SFEC do more than just analysis, they also provide advice based on their methods which are also published. It was suggested to think of this as multilevel: RCMT is like a forum for information sharing from wand usage to sampling practices. PSC functions as the data sharing level, which involves all tagged fish and getting all release info for anyone to do analysis (data sharing), then below that is the SFEC (strictly a committee to look at viability of CWT system for implementing the PST). [There is a memorandum of understanding](#) that created the SFEC on the PSC site that can be referenced in the document.

- There is a bigger audience beyond the PSC committees, like at hatcheries levels and researchers, regardless of their affiliation that use RMIS.
- It can be good input to ask the other chairs of the committees to share what we do; how do they think we are interacting with them. This might be something for 2025.
- Be careful to write anything in a way that says recommendations as a regulation. The document will be more like a best management practices or recommendations.

Future roles

- Would like to have future discussions about sharing genetic data. Idaho can do a PBT presentation at the 2026 meeting. PBT and other genetics data can be looked at as another tool in the tool box. If the group doesn't want to put the word "genetic" in the document, it can be worded to sound more like exploring complementary data such as "forum for exploring other data types" or "future tagging or marking technologies for stock identification". Making it sound generic leaves the door open to PIT tags, PBT, whatever the future brings.
- RCMT can be the group that provides access to proposed modifications to the RMIS Data Specification that are submitted from other committees (e.g., PSC committees) to inform other RMIS users about proposed changes. RCMT could also serve to submit proposals to the PSC TCDS that are discussed at RCMT and with RMIS users that aren't involved in PSC. The timeline between a proposal being submitted, reviewed, and implemented, is long enough to allow capturing input from RCMT. An idea on organizing the proposed modifications the website can be Active list vs Implementation list.
- RCMT is a good forum for US parties to engage with the needs of the data managers, but not necessarily needed for Canada (For example, the DIT programs were not agreed on bilaterally). Adjust the role to communicate special topics or moving forward on recommendations. It would be good to get representation from tag manager, lab managers, etc., to attend meetings for these special agenda topics and data specification proposals. To facilitate participation by more individuals RMPC would need to **post the draft agenda months in advance for travel and to get on people's calendar.**
- For special topics or other active topics, would like to have a mid year, or more frequent, virtual meeting to help continue these topics, instead of waiting a whole year for the next meeting. We can keep them flexible and cancel if there is no need for them.

Next Steps:

- Canada has their own Best Practices that might differ from the U.S. Best Practices, but can find out more about naming to help with the agreement but does see the importance of the best management practices. The wording "Best Management Practices" should be avoided when naming these documents.
- Focus on improving, capturing and updating the background section and interactions with the RCMT role, based on what we heard today.
- **Schedule one or two virtual meetings so that we can continue working on these elements.** During that meeting, we will also carve out time to update people more on the PSC TCDS RMIS data specification proposals and flag a specific time for that topic so data providers or others are invited to join for that section and then they can drop off as needed.
- **Find a way to share information that is accessible to everyone on the committee using a collaborative forum. Either Google Drive or MS Teams. Lara will help with setting up a space for sharing the documents, most likely on Sharepoint**
- PSMFC will be hosting regulations database that will be necessary for analysis of mark selective fisheries
- **Send out a poll for a survey to find a date in the Fall for a virtual meeting to continue work on this**

Action Item:

- **For the Background/Role section, Lara and Carrie can help with the wording to capture how PSC is focused on indicators that fall within the treaty whereas RMCT is broader**
- **Send out a survey to find a date in the fall to schedule one or two virtual meetings so that we can continue**

working on these elements in the Operating Guidelines

- Find a way to share information that is accessible to everyone on the committee. Either Google Drive or MS Teams. Lara will help with setting up a space for sharing the documents, most likely on Sharepoint

12. Special Marking Announcements &/or Requests for 2024, 2025: (Nancy Leonard)

- Are there any agency projects (underway or planned) that might affect the sampling, recovery ops of other agencies, or might otherwise be of interest to the RCMT?
- Are there any variance requests from members?

None were mentioned at the meeting.

13. Attendance

| Name | Entity | Attendance |
|-------------------------|---------------|-------------------|
| Jim Longwill | PSMFC | In person |
| Nancy Leonard | PSMFC | In person |
| Stan Allen | PSMFC | In person |
| Dave Knutzen | NMT | In person |
| Marianne McClure | CRITFC | Virtual |
| Dan Webb, PSMFC | PSMFC | In person |
| Jason Azat | CDFW | Virtual |
| Trevor Clark | ODFW | In Person |
| Monica Diaz | PSMFC | In Person |
| Kate Al-Sheikhly | PSMFC | In person |
| Lara Erikson | PSMFC | Virtual |
| Geraldine Vander Haegen | NMT | Virtual |
| Andrea Pearl | CCT | Virtual |
| Joe Greef, NMT | NMT | Virtual |
| Sarah White | PSMFC, CDFW | Virtual |
| Kathy Fraser | DFO | Virtual |
| Robert Hogg | CTUIR | Virtual |
| Yvonne Dettlaff | USFWS | Virtual |
| Ash Shaffer | NWIFC | In Person |
| Michele Masuda | NOAA | In person |
| Benjamin Cross | USFW | In person |
| Carrie Cook-Tabor | USFWS | Virtual |
| Jillian Cady | WDFW | Virtual |