

PTSC Annual Meeting

March 18, 2026

PMSFC HQ, Portland, OR

Attendees: Brady Allen (BPA), Brandon Chockley (FPC), Brittany Beebe (ODFW), Charles Morrill (WDFW), Craig White (PTAGIS), Daniel Wilson (PTAGIS), Derrek Faber (ODFW), Gabriel Brooks (PTAGIS), Gordon Axel (PTAGIS), Jeff Fryer (CRITFC), Jesse Lamb (NOAA), Jesse Rivera (USFWS), John Tenney (PTAGIS), Mari Williams (PSMFC), Nicole Tancreto (PTAGIS), Nolan Smith (IDFG), Russell Scranton (BPA), Sam Cimino (PSMFC), Sebastian Dudek (PTAGIS), Verl Miller (BPA), Will Simpson (USFWS)

Action Items:

1. Brandon and Will to send Mark Procedure Manual updates (MUI/SUI and AQUIS/MS-222 discussions) to John.
2. PTAGIS will publish final Mark Procedure Manual on the website and announce it in the next newsletter

PTAGIS Portland Update

John Tenney – [link to presentation](#)

2025 Coordination Summary

- 49 new MRR sites added
- New 384.30A9 Oregon RFID HDX tag mask approved
- Updated PTAGIS Data Specification

2025 STREAMS Subcommittee update

- Three meetings (Jan/Jun/Dec)
- SOPs for modem security; discount programs; quick-start guides
- Next focus on environmental metadata (temp, depth/pressure)
- Comment: FPC has temperature data from USACE hydro facilities

P5 Tagging Software released

- P4 will be retired at the end of 2026
- P5 mobile tablet map currently available without measuring length, but working on adding that feature

- Prototype tablet tools for length measurement
- Another option would be to add a photo of fish to the record in P5 and use cloud-based AI to update fork length (and potentially other details captured from photo) post submission to PTAGIS
- Q: Would adding photos to P5 records increase necessary data storage? A: Yes, it would depend on resolution needed for AI model.

M5 Interrogation Software

- Two minor releases to fix change-of-year related issues
- 51 sites used in 2025
- Linux support, tested on Raspberry Pi

I5 Interrogation Software

- Data submitted from 143 sites in 2025
- Q: Any issues with IT blocking USB drives? A: Yes, it can be a problem, but I5 supports downloading directly from devices

Website, Reporting System, API

- Self-hosted GIS instead of ESRI
- Security/penetration testing
- Continued development of Admin intranet site
- MicroStrategy reporting system is at end of life and we need a replacement
- PSMFC network outage for 6 days in April 2025 when PSMFC office moved locations, but no data loss

Azure Cloud Migration

- Drivers: MicroStrategy EOL, on-prem cost, need for scalability
- Azure Fabric evaluation successful; cloud-native data processing is scalable & cost-efficient
- New web-based Query Builder prototype developed
- Next steps: finalize Query Builder, integrate more data, build Power BI reports, migrate 10M files, switch ptagis.org to cloud
- Q: What is the timeline? A: Depends on several factors, but hoping that this time next year most pieces will be operating both on-prem and in cloud

PTAGIS Kennewick Update

Gordy Axel – [Link to presentation](#)

Separation by Code and juvenile bypass facilities

- Gate diversion efficiencies remained high in 2025
- Upgrades at Lower Granite Dam replaced pneumatic slide-gate cylinders with electric drives across multiple gates; PTAGIS provided updated PLCs and HMIs. Similar upgrades are scheduled for Little Goose in 2026.
- GRS has been phenomenal success for detections at Lower Granite: 142k detections at GRS vs 28k at GRJ
 - Q: Has anyone looked at the detection representation between GRJ and GRS? A: NOAA is probably looking at that

Ongoing Work

- Continued transceiver repair and recycling, only 2 units needed repair out of 681, looking into alternatives for aging devices
- Continued PIT tag QA with 3% sample of tags shipped; all tags met expectations in 2025

Major Projects

- Bonneville WA Short serpentine section remodel completed; operational March 5, 2025
 - Detected 220 lamprey
 - PTAGIS fabricated new antenna for ladder exit to evaluate travel time through new serpentine section
 - Planning to make exit antenna permanent
- Bonneville PH1 Ice and Trash Sluiceway nearly complete
 - Planned operational date of April 1, 2026
 - Will run year-round
- Klickitat Hatchery remodel
 - Adding antennas into ladder and juvenile outfall
 - Should be ready for spring 2027
- McNary Dam PIT Detection
 - EDR completed in 2025 with 2 top options: matrix antenna and TSW embedded antennas
- Cle Elum Dam PIT detection
 - Adding PIT detection to adult ladder and juvenile helix system

- Planning for operational spring 2027
- Other projects:
 - Albeni Falls
 - Incorporated NOAA R&D project into PTAGIS, hired Gabriel Brooks
- Q: Update about Rapid River? A: Investigating upgrades to the system to reduce need for onsite maintenance.

PIT Research & Development Project Update

Gabriel Brooks – [Link to presentation](#)

R&D project evolution

- NOAA – reporting and validation
- PSMFC-PTAGIS – development and design
- USACE – ELAM modeling effort
- GB Started last cycle with NOAA, retired for 9 months, and now starting back up with PTAGIS

Pile Dikes in estuary

- Pasco constructing 2 more pile dike barges in 2026
- Installing 8 sites this year, including 2 new sites based on draft ELAM ((Eulerian-Lagrangian Agent Method) model
- Automated status reporting and time correction to look at travel time between pile dikes
- Adding antennas to gaps in dikes created by boats/time

Flexible Array

- Testing multiple deployment strategies.
- Planned early -July deployment of 1m Boom Vane for single -vessel operation and increased antenna spread.
- Greater spread is expected to increase sampling area and enhance antenna performance.
- Trials include use near pile dikes and attachment to pilings.

Pair Trawl

- Pair Trawl will operate as normal in 2026
- Reincorporate GPS lat/long to each detection for future ELAM calibration
- Begin development of new matrix antenna
- Q: How much life is left on those boats? A: Probably need engine overhaul in the next few years, major expense.

Pinniped Project

- PIT tag detections in pinniped trap
- Detected 48 in 2025
- Discussions for adding detections at Bonneville traps

ELAM Project

- Model to simulate fish path/line distribution
- Draft 2026 model used to locate additional pile dike sites
- 2026 data will be used to calibrate and authenticate

Bonneville Ice and Trash Sluiceway

- Gate with antennas would not go all the way down on initial install
- Second installation attempt planned for March 23
- Delay allowed Kennewick to recalibrate antenna/transceiver settings

McNary Detection

- Matrix design initially selected, however there are hydraulic and debris concerns, noise from gate proximity and VFDs could be issues
- Now looking at TSW crest antenna, which only scored 1 point below matrix antenna on EDR
- Setting up nearby listening post to establish baseline noise
- Need 30% design complete by May; have only been working on MCN detection for 2 years, GRS took 10 years
- No space for larger 3001 transceivers on deck, will use IS1001 instead which have about 36 inches of read range to cover 120 inches of water over the crest
- Considering adding pier nose antennas. They would not indicate a 'passage event' but would provide detections at MCN for fish that survived that far.
- Q: detecting fish after MCN is also problem for precision. A: pier nose antennas provide detection opportunities at many downstream projects
- Q: Antennas in both TSW bays or just one? A: Probably one, cost estimate is not complete yet, but antenna + gate could be deployed to different TSW bay based upon usage patterns.

Gabriel and PTAGIS-Kennewick staff are available for basin-wide support if needed for any PIT tag detection problems.

PIT Tag Marking Procedures Manual Outstanding Questions

1. Section B.1.a. Should PTSC endorse use of SUIs?

Discussion:

- IDFG reported that one hatchery group said they were more efficient with MUIs than SUIs and that SUI trays take up too much space.
- The packaging and waste with SUIs are significant, can't recycle trays, but some places will take the needles.
 - Verl checked with Biomark about recycling trays and learned that they can be recycled in Boise, ID, and Biomark will accept returned empty trays to recycle
- Fish health and tagger safety are easier with SUIs.
- MUIs need to be disinfected and replaced when they become dull.

Action: Brandon will write up a sentence or two that mentions both MUIs and SUIs are viable choices depending on project needs.

2. Section B.2.c. Refine guidance on anesthesia?

Discussion:

- AQUI-S is the only approved anesthesia for consumption by humans, so if you work in area where fish might be caught and kept it should be used
- MS-222 needs 21-day delay until it can be consumed

Action: Will S. to update the opening paragraph, mentioning both AQUI-S/Clove Oil and MS-222 options.

3. Section B.4.c Concerns when using foam board for small fish

- a. No need for updates -- Will already added the last sentence to address this concern

4. Section B.4.e Update images used in figures 4,5, and 6?

Discussion:

- Could hire freelancer to update images.
- Could use photographs to replace the illustrations.

Action: John will work on updates for images, probably for a future update to the manual.

5. John added a sentence about the need to scan every fish to section C.

PIT Tag Procurement and Distribution

- New tag coming from Biomark that is reported to have nearly the same read range as 12 mm. It is a skinny 10mm tag, potentially better for smaller fish. It is already included in the current contract and will be tested by PTAGIS when it is ready.
- PTAGIS evaluating shipping alternatives and software update to support multiple carriers for long term cost savings with tag distribution
- USFWS used to get tags through BOR IDIQ. IDIQ was delayed and now BOR requested PTAGIS test various tags for their procurement, but BPA and the PTSC reconfirmed PTAGIS exclusively tests tags for the BPA RFO.

Digital Field Guide for SRR and Condition

Russell Scranton - [link to presentation](#)

- Digital field guides unify many species/run/rear type/condition references across diverse field scenarios.
- Digital format improves the update cadence, image quality, usability in harsh field conditions, and allows filtering by life stage or method.
- The approach aligns with multiple monitoring protocols and standardized biological/metadata metrics.
- Controlled vocabulary clarifies definitions for wild/natural, hatchery origin, and unknown rearing type.
- Updates planned for invasive species, hybrids, and improved high-quality imagery.
- Building a shared photo/video library to support training, documentation, and consistent identification.
- Next milestones: recruit collaborators (March 2026), finalize guidance and metadata, publish final product by December 2026.

Discussion:

- It would be nice to have a central place to identify non-native species to the CRB
- If anyone has images or is interested in helping with the guide, reach out to Russell Scranton and/or Mari Williams
- Russell will also look for PIT tagging photos that could be used in the mark procedures manual.

Wrap Up and PTSC Business

- Charlie will remain chair; co-chair will be Jeff Fryer.