

# 2025 Annual PTSC Meeting

Friday, March 21, 2025, 9:00am

Online - Microsoft Teams Meeting

Attendees: Charles Morrill (WDFW), Jesse Rivera (USFWS), Jeff Fryer (CRITFC), Pat Keniry (ODFW), Jesse Lamb (NOAA), Brandon Chockley (FPC), Brady Allen (BPA), John Tenney, Gordon Axel, Daniel Wilson, Craig White, Nicole Tancreto, Sebastian Dudek

## Action Items

- PTAGIS will update help text for SbyC request to suggest researchers link to reports that have been completed for ongoing projects

## PTAGIS Portland Office Update

John Tenney

### *Review action items from last meeting*

- Will is having a hard time getting response from Lamprey work group about tagging lamprey. John will send out the latest draft with Tiffani's changes and we will publish an update without lamprey information.
- Scott and Charlie updated the *PTSC Charter* to *PTSC Guidelines* and it is published on the website. One goal was to expand PTSC membership, but no one has reached out to join.
- Scott (now Nolan), Brandon and Brady still need to review options to support O&M at RPJ after 2025. Brandon mentioned that moving it to CSS contract was one possibility and if that needs to happen, someone needs to contact Michelle DeHart ASAP, as she is currently working on the 2026 CSS budget and it needs to be submitted by April 1. John mentioned Scott offered the idea of IDFG staff from Lewiston office could help with startup/shutdown procedures at the site and be 'on call' if equipment needed tuning. Another option would be for Idaho Power to assume some of the O&M responsibilities, so PTAGIS doesn't have to subcontract this work each year.
- Tag mask validation request process has been enhanced.
- PTAGIS corrected timestamp offset issue.

### *2024 Coordination Activities*

- 2024 PIT Tag Workshop

- Validation Codes, Site Metadata, Specifications
- Newsletters, tutorial videos, documentation, etc.
- Technical Support
- STREAMS Subcommittee coordination

#### *P5 Tagging Software*

- Released this week – soft rollout
- Requires Windows 64-bit PC (will not run on 32-bit)
- Drop-in replacement for P4
- Enhancements in P5
  - Additional weight and length validation
  - Length conversions for adults
  - Improved Bluetooth connectivity
  - Easier installation
  - Import Sessions and Configuration from P4
  - Multi-user support coming soon
  - Mobile tablet map – does not support taking lengths

#### *P4 Tagging Software*

- Released 10 years ago
- 12.4k MRR files submitted in 2024, over 100k since released
- Plan to retire in 2026

#### *M5 Interrogation Software*

- Submitted over 600k files in 2024
- Two releases in 2024 (one pending for Linux version)
  - PSMFC IT disabled the use of Linux WSL tools so staff could not release a new Linux version to fix DOY 366 issue. This will take a workaround for staff to produce future versions of M5 running on LINUX.

#### *I5 Interrogation Software*

- Submitted 1700 data files from 141 sites in 2024
- Five releases in 2024

#### *PTAGIS Website, Reporting System and API*

- Added 2024 workshop page
- Security patches based on internal penetration and IT external testing
- Enhanced handling of large files for SbyC requests
- GIS upgrades and self-hosting

- API upgraded for P5 features
- MicroStrategy software will be ending support for on-premises installations
- Enhanced tag mask request and metadata display on website
- Web-based Admin portal for asset inventory management
  - Will be moving internal PC-based software to web-based in the future

### *Database and Data Processing*

- Purchased new database server
- Converted the old database server to a backup server and implemented *Always On Availability* to be able to manually complete a warm failover in support of on-prem disaster tolerance.
- Corrected timestamps in 5 million observation records and 180k files; coordinated changes to the community via newsletter and event logs for each impacted site

### *Cloud Migration Part 2*

- Rationale:
  - MicroStrategy end of life, no affordable replacement for on-premises
  - Enhanced security and operations, guaranteed uptime and security compliance
  - Cost efficiency with elastic scaling
  - Innovation and access to emerging technology
- Plan
  - Lift and shift existing database not affordable due to processing of hourly files determined by previous effort
  - Plan to stream data from PTAGIS interrogation sites to cloud
  - Evaluate Microsoft Fabric to manage and report data through Power BI
  - 1-2 year process to build cloud-native data processing while keeping existing, on-prem systems up and running

## PTAGIS Kennewick Office Update

Gordon Axel (Hired after Don Warf retired summer 2024)

### *Ongoing O&M at PTAGIS Maintained Interrogation Sites*

- Detection and diversion gate efficiencies remain high at all juvenile bypass facilities
- Completed upgrade at Lower Granite to replace pneumatic gates with electronic, replaced PLC and HMI
- Continuing to repair transceivers in-house, 681 units in inventory
- Working on a plan to replace aging transceivers

- Continue random 3% sample of PIT tags for QA testing

#### *PIT Tag Testing for BPA bulk purchase RFO*

- Test amplitude, resonant frequency, turn-on voltage, BW-3dB, Q and Modulation %
- Also test read range with and without noise
- Contract was awarded to Biomark
- Other manufacturers' tags met CPTe standards and associated tag masks added to validation
  - See <https://www.ptagis.org/FAQ#6>

#### *Construction and Design Projects*

- Bonneville Ice and Trash Sluiceway
  - Complete design with USACE
  - NOAA was contracting for the shields, but contracting has since been disallowed, which will likely push back the installation timeline
  - PTAGIS Kennewick is building the antennas
- Bonneville WA shore ladder serpentine remodel completed
  - Watered up March 5, 2025
  - New design has 3 antennas per wall and incorporates first lamprey slots
  - Post-construction evaluation will occur under PIT R&D project
- Klickitat Hatchery Remodel
  - Yakama Nation requested PTAGIS design detection system for adult intake and juvenile outflow
  - PTAGIS completed designs for antenna, electrical infrastructure, panel placements, fiber optic comms and new PIT tag room
  - Installation planned for fall after fish routes are in place
- McNary Dam PIT Detection Development
  - Kick-off charrette with USACE was October 3, 2024
  - Workshop with regional participation took place March 20, 2025
  - Developing EDR with decision matrix for options
  - Charlie will share information from the workshop with PTSC when available
  - Jesse L. asked if downstream detection is still being considered. Gordy said there is the possibility of PIT barges for short term.
  - Charlie stated the next meeting is May 3, 2025, if anyone wants to participate.
- Cle Elum and Clear Creek Dam projects
  - PTAGIS will support BOR team as needed
- Albeni Falls Dam is also on the horizon

## Questions

- Charlie: what are the improved capabilities on-site in Kennewick
- Gordy: CNC machine allows PTAGIS to build thin-bodied antennas in-house. Visited Biomark facility to view their antenna building process
- Charlie: Any information on the NOAA R&D project?
- Gordy: biggest news is that Gabriel Brooks has been working remotely in Pennsylvania and could not move back to the west coast, so he took early retirement. Hope to bring him to PSMFC. I am in contact with him almost on weekly basis.

## PIT R&D 2024-2025 Update

Gordon Axel

Gabriel Brooks provided this update, but he is no longer employed by NOAA. He has been working remotely and was unable to move back to the west, so took the early retirement. PSMFC is discussing with NOAA to move R&D project to PSMFC and hope to bring Gabriel on when available.

## Estuary Detections

- TWX and Pair Trawl
  - Upgraded from FS1001M to IS1001-MUX, antennas and wireless communications
  - Preseason testing showed 7% increase in detections
- Pile Dike Sites
  - Upgrades in 2024 include experimental barge at PD8, year-round mounts and increased size
  - Jesse L. provided input that most of the antennas are installed and running this year and new PDX and PDY experimental sites will be installed soon
  - These sites provide 50% detections in the estuary, first time over 25k last year
  - At certain flows, PDs are better at detecting some species than trawl and flexible array, see slide 8 in presentation.
  - Pile dikes are almost replicating trawl, but depends a lot on flow
- Flexible array upgraded in 2024
  - Improved for 2025, running depends on contracting issues
  - Brady: NOAA is not able to sub-contract right now and it was supposed to start in 10 days. BPA is working on a direct contract with Ocean Associates so the trawl can operate along with juvenile tagging at Lower Granite

- Gordy: these are critical to estimate juvenile survival and NOAA and BPA are scrambling to get this done
- Jesse: makes the pile dikes that much more important
- ELAM Model is still a planned objective

### *Design Projects*

- Bonneville Ice and Trash Sluiceway contracting was in process when the directive came down for NOAA to halt contracting
- Worked with Nez Perce on pile dike site
  - Will be installed near confluence of Clearwater and Snake to look at survival to LGR reservoir
- Post-construction evaluation of Bonneville ladder changes
  - Replace HDX antenna with FDX system to evaluate travel time in new section
  - New antenna will be located at the exit of the ladder, just above BO4
- East Mooring Basin Pinniped study
  - Evaluation to see if PIT-tagged fish consumed by pinnipeds can be detected
  - Raspberry Pi collecting status reports and taking pictures upon detection

## Other Topics

### *Request from FPAC about SbyC Requests*

- Charlie: FPAC requests that PTSC consider adding a place in SbyC Requests for researchers to provide link to reports for ongoing projects.
- John suggested updating the help text for the existing Description field so that researchers could put a link to online research there

### *Surplus of PTAGIS Fish Scales*

- John offered PTAGIS fish scales/tape measures to members if they have projects where they could be used
  - Jesse L, Charlie, Jeff and Jesse R expressed interest

### *PNAMP PIT Tag Data and Analysis Webinar Series*

- PNAMP is offering a series of webinars about querying and using PIT tag observation data
- Nicole will be presenting at the first one in April
- See [Fish Monitoring Work Group - PIT Tag Data & Analysis 2025 Webinar Series - Pacific Northwest Aquatic Monitoring Partnership](#) for details