STREAMS Subcommittee Meeting

November 5, 2026 - Online

Attendees: Derrek Faber (ODFW), Nicholas Porter (Biomark), Brian Knoth (IDFG), Brian Davis (USFWS), Matthew Stilwater (WDFW), Jeff Fryer (CRTIFC), Zack Mays (YINN), Mike Ackerman (NPT), Randy Johnson (CCT), Brady Allen (BPA), Kory Kuhn (YINN), John Tenney (PSMFC), Gabriel Brooks (PSMFC), Gordy Axel (PSMFC), Daniel Wilson (PSMFC), Sebastian Dudek (PSMFC), Nicole Tancreto (PSMFC)

Action Items

- Derrek and John to bring draft environmental schema to PTSC meeting early 2027, seek feedback on the proposal and likelihood of being used
- Nick to confirm decimal antenna ID plans and follow up with John

PTAGIS Updates

John Tenney, Gordy Axel

- **Field software:** I5 2.0 is now 64-bit, improving large-file handling; the database moves to the ProgramData folder. Versions 1.1.4 and earlier can no longer submit data. P4 retirement is scheduled for December 1, 2026; P5 transition tutorials are available.
- **Cloud migration:** Azure/Microsoft Fabric migration and advanced reporting development continue, with transition targeted for 2027. Website/dashboard updates are underway; feature requests and newsletter contributions are welcome.
- **Operations:** Sites are transitioning to Starlink, with seasonal service pauses reducing costs. Hatchery and Cle Elum Helix detection projects are expected online in 2027.
- **Antenna IDs:** Decimal-only IDs are being discussed for new Biomark hardware, likely the new master controller and IS1001.

PIT R&D Update

Gabriel Brooks

- **Pinniped predation:** Expand trap antennas from the Astoria proof of concept to Bonneville and additional traps. Captive studies will assess detection efficiency, tag collision, passage time, and tag orientation.

- **McNary:** TSW antenna work is paused pending funding after bids exceeded estimates. An in-house Corps design is being explored; timing remains undetermined. A pier-nose prototype, possibly at Ice Harbor, is also under consideration.
- **Estuary:** Coordinate with the Corps on pile dike redesigns; test flexible antennas for steelhead detection and a larger trawl antenna to improve passage and reduce drag. The ELAM model report is targeted for mid-January 2027, before outmigration.
- **Lodestone tools:** The estuary dashboard combines site diagnostics, detections, weather, flow, and camera data. The antenna-field visualizer remains a proof of concept; controlled-environment testing is needed before comparisons are reliable.

Round Robin Updates

Brady Allen (BPA): Two-year contracts are being staggered, and consolidated maintenance contracts support shared equipment and resources. Discounted Biomark pricing is available for BPA-funded equipment.

Jeff Fryer (CRITFC): Zosel Dam (ZSL) has had periodic power issues over the summer and into the fall and is currently down, though likely still collecting data internally. Floating antennas were removed seasonally. OKM vandalism repairs need funding, and Penticton Channel (OKP) is currently down.

Randy Johnson (CCT): Winterizing sites after a low-water season; some streams dried up and exposed antennas.

Brian Knoth (IDFG): Wrapping up fieldwork and completed battery upgrades. High flows and scour in the Potlatch system continue to damage antennas; bridge-mounted designs are being explored.

Mike Ackerman (NPT): Lower Wallowa WR1 now spans the river following a master-controller upgrade, supporting reach-specific juvenile survival monitoring. An API-based mark data retrieval tool is available to share.

Brian Davis (USFWS): Site-maintenance duties need to be reassigned following a staff departure. Seasonal circular-antenna reporting prompted requests for improved location data in passive recapture reports.

> **Nicole:** Per-record latitude/longitude for passive recaptures is now available in the complete tag history report. River-kilometer support for passive recapture events remains under review.

Matthew Stilwater (WDFW): Wenatchee flood repairs continue, and Methow MUX units have been upgraded to IS1001s. Maintenance contracts are being consolidated. Starlink has been purchased, but approval to use it remains pending.

Zack Mays (YINN): Completing high-water damage repairs and plans to relocate its barge. The Cle Elum butterfly-loop design will be assessed in spring 2027. Scott Livingston identified the barge communication issue; the system has not yet been reinstalled.

Derrek Faber (ODFW): Hood River mouth and Wenaha arrays are operating. Fire-damaged John Day, Bridge Creek, and 30 Mile Creek sites need restoration; John Day may move upstream. Wenaha flexible antennas are performing well with low noise, possibly aided by shielded enclosures.

> **Gabriel Brooks:** Biomark is planning to test whether shielded enclosures reduce interference when using flexible antennas with MC.

Kory Kuhn (YINN): Winterizing and removing its floating array to avoid ice damage. I5 2.0 significantly improved large-file processing; explicit time-zone selection was also welcomed.

Nicholas Porter (Biomark): Starlink is being tested at sites with unreliable older satellite service. Development of a new IS1001 and master controller continues.

Proposal to add Environmental Data to PTAGIS

- Keep it focused on values directly related to fish and PIT tag detections: Water depth/pressure, water temp, air temp
- Include air temp as fallback predictor for water temperature, can be used as backup if water temp instrument fails
- Keep the environmental data separate from the PIT tag data so users can match them using their own rules
- 15-minute recording interval gives a good hour-level sample
- Submitting environmental data to PTAGIS is optional
- Calibration records are optional, distinguishing calibrated from provisional data. Additional instrument types remain open for future development.

Advance the draft environmental-data schema to the steering committee. The chair called a show-of-hands vote and it passed.