STREAMS Subcommittee Meeting

June 25, 2026

Attendees: Gabriel Brooks (PSMFC), Derrek Faber (ODFW), John Tenney (PSMFC), Brian Davis (USFWS), Jeff Fryer (CRITFC), Marika Dobos (IDFG), Mike Ackerman (NPT), Macus Ong (ONA), Brady Allen (BPA), Kory Kuhn (Yakama Nation), Nick Porter (Biomark), Daniel Wilson (PSMFC)

Action Items

Previous Action Item	Status	Follow-Up
Disable GPS support for Biomark BPR reader to preserve battery life	Open	Nick Porter to follow up.
Publish *RPI Setup Guide for M5 Field Deployment*	Closed	Shared on Teams channel for members; available to public upon request.
Continue testing survival-model approaches	In Progress	Mike Ackerman developing R packages pulling data from PTAGIS; expected completion in 3–6 months.

New Action Items

Owner	Action Item
John Tenney	Verify M5 2.2.9 package for Linux ARM Debian (32-bit).
Derek Faber	Develop detailed environmental sensor proposals, including calibration procedures, sample outputs, and telemetry requirements. Circulate to STREAMS and PTAGIS for review.
Gabe Brooks, Nick Porter	Collaborate on heated LiFePO4 batteries to enhance charging in cold temperatures

PTAGIS Update

John Tenney, PSMFC

- M5 2.2.9 fixes unstable time sync on low-end computers causing file submission and partitioning to hang when year changes (see related action for 32-bit LINUX ARM Debian package)

- End of support for I5 version 1.14 and earlier
- P5 1.5 release, support for additional digitizer tablet models
- Server migration to cloud continues
- Antenna and water-tight closure fabrication
- Preparing Klickitat Hatchery site installation
- Updated *Comprehensive PIT Tag Evaluation Procedure, Revision 3*

R&D and Infrastructure Updates

Gabriel Brooks, PSMFC – link to presentation

- Reviewed 2026 estuary detection performance and pile dike array results.
- Discussed flexible antenna testing, CAN-bus noise issues, and future deployment plans.
- Reviewed pair-trawl modifications intended to reduce drag and improve reliability.
- Provided updates on pinniped monitoring, Bonneville ITS gate installation, McNary spillway design, and ELAM modeling efforts.

Tag Release and Mainstem Detection-Rate Natural Experiment

Brian Davis, USFWS

- Hatchery release of two vendor tags in similar quantities compared for performance
- Volitional release caused tag collisions requiring tag performance
- Compared detection rates at mainstem dams
- Implications for detection efficiency and study design

Integration of Air and Water Temperature and Pressure Data Service at PTAGIS Instream Sites

Derrek Faber, ODFW

- Discussed adding air temperature, water temperature, and stage monitoring to PTAGIS interrogation sites.
- Reviewed potential hardware, calibration requirements, data collection intervals, and data management considerations.

- Members agree this would be useful public data; Derrek to continue development of proposal and work with PTAGIS on data integration concerns
- Leverage NOAA and DEQ standards for equipment calibration and record via PTAGIS interrogation site event logs

Round Robin Agency Updates

Derrek Faber, ODFW

- Added detection to ladders and trap at Looking Glass Hatchery
- Wenaha site was destroyed in December flooding. Installing temp array through November. Issues with solar power due to site within slot canyon and other obstacles to overcome.
- Upgrading JD1 and other site maintenance

Brady Allen, BPA

- Continue contract renewals for instream sites
- Working with Shoban Tribe to install new sites in Idaho

Jeff Fryer, CRITFC

- Additional detections at Zosel Dam due to low flows, especially on floating arrays
- Floating arrays removed in early June for dam maintenance will be reinstalled early in 2027
- Loss of communications due to battery issue
- The pier nose antenna design, as described in Gabe Brook's presentation, could potentially work well at Zosel Dam on both the upstream and downstream sides of the dam.

Marika Dobos, IDFG

- All sites are status quo
- Walleye tagging for three-year predation study, releases at Lower Granite and Little Goose, most detections on Tucannon and Grande Ronde.

Mike Ackerman, NPT

- Upgraded Wallowa River site to span river and increase read range

- Upgrades at Lolo Creek
- Position moved to general research than site O&M

Macus Ong, ONA

- New array at Penticton Dam (aka Okanagan Lake Dam), coded as OKT for Okanagan Lake Dam East Passage, a new fish ladder that is equipped with VAKI Riverwatcher combined with one PIT antenna in the enclosure, while the ladder has a trapping capacity for future adult and/or smolt PIT tagging, including fall brood collection (https://www.ptagis.org/Sites/InterrogationSites?code=OKT)
- OKM – McIntyre Dam site offline since March due to vandalism; lack of budget to replace damaged equipment; company insurance is also work in progress
- Other ONA sites are status quo
- Questions about measuring tag performance answered by Gabe Brooks:
    - Tag signal strength is not published by vendors or PTAGIS; however, can be measured via IS1001 enabling *Set FDXB Tag Signal Level Detection ON* (DTS1) to output signal strength per tag detection. Use a shuttle to move tag closer to antenna in small, measured increments and ensure consistent tag orientation. Relative ambient noise will skew results somewhat.
    - Will cable fairing help with noise issues on a stationary antenna? Gabe: no, only helps with flexible antennas that cause noise issues when changing drag/orientation in water.
    - Questions about MK25 – Biomark to respond

Brian Davis, USFWS

- All sites are status quo

Kory Kuhn, Yakama Nation

- All sites are status quo, some arrays this year survived flooding and fallen trees
- Question about missorted tags in preloaded trays compared to clip file answered by John Tenney:
    - 6 vials of preloaded tag vials identified as missorted after PTAGIS QA and Biomark preloading

    - Out of abundance of caution, PTAGIS notified recipients of 240 vials that could *potentially* contain missorted tags based upon the 6 vials confirmed; Biomark replaced some trays upon request.
    - PTAGIS was unable to reproduce issues causing tags to be missorted back into original vials during QA; redoubling efforts to enhance automation to ensure it couldn't happen again.
    - Kory confirmed scanning all tags during marking process and no longer relying on imported clip files as sole source of data.

Nick Porter, Biomark

- BP+ (external mine sweeper antenna) enhanced with LED light in addition to audible sound when fish detected.
- Kory Kuhn confirmed new Biomark BPR portable reader working well for them.