

STREAMS Subcommittee Meeting

September 26, 2024

Attendees: Gabriel Brooks (NOAA), Derrek Faber (ODFW), Gordon Axel (PTAGIS), John Tenney (PTAGIS), Brian Knoth (IDFG), Ben Winkler (Biomark), Brian Davis (USFWS), Jeff Fryer (CRITFC), Marika Dobos (IDFG), Sebastian Dudek (PTAGIS), Mike Ackerman (NPT), Macus Ong (ONA), Randy Johnson (Colville Tribes), Brady Allen (BPA), Kory Kuhn (Yakama Nation), Zack Mays (Yakama Nation), Nicole Tancreto (PTAGIS)

Round Robin

Macus Ong: Taking over for Carley Simpson at Okanagan Nation.

Brian Davis: Monitoring national fish hatcheries, reintroduce bull trout in Clackamas River, lamprey projects.

Zack Mays: Working with WDFW on permits for barge in lower Yakima River, 10-antenna array to be installed in mouth of Cle Elum River.

Jeff Fryer: Working on Zosel Dam with Biomark to remove ghost tags, replace some antennas, pull floating antennas. Lots of detections on the floating antennas, maybe related to different operations to help improve fish movement.

Randy Johnson: Not much new, received a promotion and might have a replacement for the Subcommittee.

Brian Knoth: taking advantage of low flows to do some repairs on arrays in the Potlach basin. Retrieved an antenna from another array that got buried in sediment and has not been functional for years.

Mike Ackerman: O&M on 32 sites with Nez Perce and Biomark. Upgraded a site to MC and provided increased detections. Installed IS100-Mux on Secesh river, 18-in read range. New site on Wallowa River.

Brady Allen: Contract change to add some funds to replace antennas in Bonneville ladder, received funds to upgrade WDFW sites in the Wenatchee from FS1001M transceivers.

Derrek Faber: Taking advantage of dry weather to do some repairs, new sites to be installed on the upper Grande Ronde and Catherine Creek. Will be repairing some sites in the John Day basin that were affected by fire. Putting arrays in southern Oregon (Cocheal River, not CRB).

NOAA Fisheries R&D Update

Gabriel Brooks

- Pair trawl used IS1001-Mux for the first time this year. Needed two new antennas.
- Also operated the flexible array with MC.
- Pile Dike sites: strap antennas onto the pilings (no screws) weight down the antennas with lead balls, power with solar. Four sites, but two sites have 2-MCs each.
- Pile dikes did not detect as many tags as last year. Possibly due to lower flows this year; fish staying close to thalweg and not getting pushed out to where the pile dikes are located.
- Updating flexible array with Falmat Faired cable, upgrading enclosures to prevent water leakage; transitioning to DOP cable
- Reduce to single MC at PD5 and PD6
- Evaluating two new PD sites (9 and 10)
- Improving download code for noise evaluation
- ELAM Modeling – need to get high quality bathymetry to model where fish are likely to be; to use for better placement of PD sites – expand to other types of sites
- Grant proposal to install pinniped detector near Astoria – try to detect consumed PIT tags
- Working with PSMFC on Bonneville Ice and Trash Sluiceway
- Working with PSMFC and Corps on McNary designs
- Derrek mentioned that power to antennas was down when he tried to use DOP cables on his sites
- Ben says you will see a drop in power with distance, also some crosstalk with dual DOP sites, recommends reaching out to Anthony Carson for more info
- Gabriel says if they go under 7 amps there is a big hole in the middle, antennas are 8ft x 20ft

PTAGIS Kennewick Update

Gordon Axel

- Hired to replaced Don Warf who retired this summer
- Finished install at Easton Dam
- Added a CNC machine to build antennas, working on antenna for Bonneville ITS almost ready for testing
- Antennas for BO4 Washington ladder are being built now by Biomark, should be installed this winter

- Started planning with Albeni Falls to come online in a few years

Biomark Update

Ben Winkler

- Make sure to download the latest Biomark Device Manager, mainly for bug fixes
- Cloudgate modems are having issues with inconsistent power, they wipe themselves clean and become non-functional
- The IS1001-Mux seems to be an improvement over the old mux. Installed in one array at ZEN, and it is getting about 3x the detections as the old mux is getting.

PTAGIS Portland Update

John Tenney

- Added the ability to add Power, Communications and Tag Decoding to interrogation site metadata
- Updated Subcommittee page with new name (STREAMS)
- Updated M5 and there are two different packages for Linux depending on architecture
- New release of I5
- Working on upgrade to database
- NUL characters coming from sites running M5, the data loading process strips them out of the data stream, but occasionally there are so many that they cause an exception on the maximum field length and the file is rejected
- 000.000000000 tags are coming in from many sites across the basin, they are screened out of the reporting system
- Ben reports that Biomark is seeing both NUL characters and the zeroes tag and is planning a communications overhaul for the NUL characters. The zeroes tag might be an interpretation of noise passing through the communication lines to M5.

Other Topics

Derrek Faber

- A couple of modems were hacked from overseas IP addresses, did not touch PIT tag devices, but used a lot of mobile data - \$1500 bill
 - Locked down modems so they only accept connections from his IP address
 - Gabriel also had that issue and noted that a password can be set on the Master Controller Lantronics board

- Ben noted that there are lots of intrusion attempts on Biomark modems, which are behind a VPN
- ODFW using quite a few temporary array sites to get an idea of what is happening in some tributaries, how can detections from those be loaded in the database without setting up an interrogation site?
 - Use Passive Recapture event in P4
 - Gabriel recommends a newsletter article about how to do it – PTAGIS will take that as an action
 - Mostly comes from IS1001, which P4 should be able to import