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May 9, 2023

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Mark Fritsch

SUBJECT: Asset Management Strategic Plan priorities for FY2024 for hatcheries and screens

BACKGROUND:

Presenter: Mark Fritsch will be joined by Eric Leitzinger, Andy Traylor and Jason Sweet from Bonneville Power Administration (Bonneville).

Summary: Council and Bonneville staff will present recommendations from the Asset Management Subcommittee (Subcommittee), represented by Council member Jeff Allen and Jason Sweet (Executive Manager, Fish and Wildlife Division, Bonneville), regarding Fiscal Year 2024 non-recurring maintenance priorities for the Fish and Wildlife Program's hatcheries and fish screens. The FY 2024 priority needs for non-recurring maintenance needs for the Program's past investments will use and integrate funds from Bonneville's reserves distribution clause (RDC) for the Program hatcheries and rate case funds from BP 24 for the screens. The subcommittee is looking for support to take a recommendation to the full Council in June.

Relevance: The 2014 Fish and Wildlife Program (Program), includes an investment strategy (Part Six, Section II; and Appendix P). Specifically, "*...long-term maintenance of the assets that have been created by prior program investments...*" is ranked the highest emerging priority in the Program. In

response an [Asset Management Strategic Plan](#) (Plan) was collaboratively developed with Bonneville to address non-recurring maintenance needs for hatcheries, fish screens, and mitigation lands to ensure longevity and integrity of the Program's past investments made for the benefit of fish and wildlife. That Plan was approved by the Council on October 10, 2018.

Workplan: Fish and Wildlife Division work plan 2023; Program Implementation, Implement the Asset Management Strategic Plan.

Background: The Plan outlines an annual process where non-recurring maintenance needs are identified for the screens and hatcheries to ensure that funds can be directed to the project(s) to inform their upcoming start-of-year budgets.

This year, as outlined in the Plan the hatchery asset condition assessments were updated (i.e., at five-year intervals) by an independent engineering firm (Four Peaks Environmental Science & Data Solutions) to confirm and update major asset condition for the [Program's hatcheries](#). The update evaluated 37 existing facilities and 3 new facilities.

On February 7th the Subcommittee met to discuss the integration of the RDC funds and the Plan's annual process. As part of the discussion, it was decided that the annual \$500,000 placeholder be used for the non-recurring needs associated with the Program's fish screens. The \$25 million of new RDC funds would be allocated towards the Program's hatcheries.

In February and March, Bonneville and Council staffs requested maintenance priorities from sponsors and managers for both screens and hatcheries. Hatchery managers used the updated condition assessment information along with their professional expertise to provide the highest priority maintenance needs for their facilities. Given the large influx of funds for Program hatcheries, high priority maintenance needs that would occur in the next 5 years were identified. Fish screens managers continued to use their priority list of Program fish screens. In total we received \$1,607,300 in requests for fish screens and identified nearly \$20 million of needs associated with the Program hatcheries.

In March and April Council and Bonneville staff 1) reviewed priorities received in relationship and capacity of annual project and/or portfolio budgets (including Accord funding); 2) confirmed total costs, and 3) determined if permitting and environmental review is needed.

On April 24th staff met with the Subcommittee regarding priorities for implementation in Fiscal Year 2024. On May 2nd additional information was received that the rate case funds from BP24 would be available to supplement the Asset Management Placeholder for the Programs fish screens. Based on this the FY 2024 recommendations for screens (Table

1) and hatcheries (Table 2) is for \$1,607,300 and \$19,996,074, respectively.

More Info:

- Resource maps for the Fish and Wildlife Program's [Hatcheries](#), [Screens](#) and [Lands](#).
- [2014 Fish and Wildlife Program](#) (Part Six, Section II, page 114; and Appendix P, Maintenance of Fish and Wildlife Program Investments, page 199).

Table 1. Fiscal Year 2024 requests for nonrecurring maintenance needs for the Fish and Wildlife Programs fish screens and recommended actions.

Manager (Items in priority order)	All FY24 Sites Submitted	Estimated Cost 2023	Description/Comments
Idaho	Shop	\$40,000	Replace propane furnace with new efficient models
	Shop	\$20,000	Replace ventilation and air exchange system with new system
	Shop	\$20,000	Enclose shop mezzanine
	Shop	\$12,500	Upgrade office and shop windows and doors
	Lemhi River- 45A (L-45A)	\$75,200	Screen replacement
	Lemhi River- 45B (L-45B)	\$63,000	Screen replacement
	Lemhi River-44 (L-44)	\$61,000	Screen replacement
	Wimpey Creek-03 (LWC-03)	\$30,000	Screen replacement
CTUIR	Little Walla Walla River	\$220,000	1. Rubber dam is damaged and needs replaced/repared, 2. Upgrade PLC panel and replace VFD for screen cleaner system, 3. Replace/upgrade air compressor system used to operate bladder dam and Obermeyer gate.
	Gardena/Burlingame	\$85,000	1. Side and bottom seal frame structures rusting, 2. Screen structure needs painted, 4. Motor/gear box repair, 3. Automated telemetry for canal head/check gates needs repaired/upgraded.
	3 Mile Left	\$95,000	Vertical belt screen needs replaced.
	Garden City Lowden II	\$30,000	Replace air compressors used to operate bladder dam and screen cleaning system.
SCWRCD	Barnes Road Diversion	\$56,750	Miscellaneous mechanical and valve replacement. Air tank replacement. Gate actuator replacement.
	Manastash Water Ditch Association (MWDA)/Consolidated Diversion	\$56,750	Miscellaneous mechanical and valve replacement. Air tank replacement. Gate actuator replacement. Repair/replace OU gate.

	Keach Jensen Diversion	\$306,750	Install automated brush cleaning system to assist with the airburst cleaning system to keep screens from getting clogged. Miscellaneous mechanical and valve replacement. Air tank replacement. Gate actuator replacement. Repair/replace OU gate.
WDFW	Wilson #83/Bull	\$120,500	Refurbish 3 drum screens
	Taylor #49	\$66,750	Refurbish 2 drum screens
ODFW	Catherine Creek Ricker	\$58,500	Remove Old deteriorated concrete box and construct Steel Fish Screen Box
	Lyda	\$65,500	Update walkway, replace paddlewheel, replace drivelines and gearboxes on drive system, install OSHA compliant handrailing, re-paint components, replace screen side and bottom seals.
	Haun Ditch #1 (City of Lostine)	\$40,000	Replace concrete structure and re-use screen components. Concrete screen floor totally crumbling and falling apart.
	Wade	\$9,100	Replace walkways 22" and handrails to meet safety standards
	Chamberlin	\$11,700	Replace walkways 22" and handrails to meet safety standards
	Johnson	\$14,300	Replace walkways 22" and handrails to meet safety standards
	10th Street	\$11,700	Replace walkways 22" and handrails to meet safety standards
	Simmons	\$9,100	Replace walkways 22" and handrails to meet safety standards
	Masterson	\$9,100	Replace walkways 22" and handrails to meet safety standards
	W.S. Ranch	\$9,100	Replace walkways 22" and handrails to meet safety standards
MFWP	Grave Creek Flanagan	\$10,000	Replace screen and self-cleaning infrastructure
TOTAL		\$1,607,300	

Table 2. Fiscal Year 2024 requests for nonrecurring maintenance needs for the Fish and Wildlife Programs Hatcheries. These priorities will address all Mission Critical and Essential assets at all F&W Program hatcheries between 0-5 years of expiry. Not all of these requests will be addressed in FY2024. Given long lead times and environmental compliance issues, this work will be spread out over the next 5 years.

Partner / RDC Contract	Project Number	SOW	Working Estimate
Colville Tribe			
Colville Hatchery	1985-038-00	Electrical upgrades, flow meters, PLC replacement, asphalt work	\$738,045
Chief Joseph Hatchery	2003-023-00	Pond painting, roof repairs, well house #8 exhaust, hatchery building AC	\$1,033,263
Omak Acclimation	2003-023-00	Alarm system, predator netting	\$120,771
Riverside Acclimation	2003-023-00	Alarm system upgrades	\$67,095
CTUIR			
Imeques Acclimation	1983-435-00	Alarm, access/parking, hydrorake, intake screens, storage	\$435,000
Pendleton Acclimation	1983-435-00	Alarm, transformer, hydrorake, intake screens	\$471,250
Thornhollow Acclimation	1983-435-00	Alarm, transformer, generator, intake screens and pumps	\$580,000
Three Mile Dam Fish Facility	1983-435-00	Intake pumps/screens, crowder/fish lock, alarm, generator, building maint.	\$826,500
Walla Walla Hatchery	2008-038-02	Paint adult ponds, day tank and diesel storage tank, valves in spawning building	\$391,500
IDFG			
Eagle Hatchery	2007-402-00	Rebuild heat exchangers on CBB chiller, asphalt, roof repairs, well pumps	\$362,124
Springfield Hatchery	2007-402-00	Roof repair, new siding, paint residences/garages/storage sheds, VFDs	\$134,120
Kalispel Tribe			
Kalispel Tribal Fish Hatchery	1995-001-00	Hatchery and residence septic systems, roof replacement upper/lower hatchery	\$187,500
Kootenai Tribe			
Kootenai Tribal Hatchery	1988-064-00		TBD
Twin Rivers Hatchery	1988-064-00		TBD
MFWP			
Sekokini Springs	2019-001-00	Replace old propane storage tank (500gal)	\$12,030
Nez Perce Tribe			
Nez Perce Tribal Hatchery	1983-350-00	East S-channel concrete, chiller, cyclone separator, surface water pumps	\$4,170,600

Cedar Flats Acclimation	1983-350-00	Alarm system upgrades	\$31,500
Luke's Gulch Acclimation	1983-350-00	Alarm system upgrades	\$31,500
Newsome Creek Acclimation	1983-350-00	Alarm system upgrades	\$31,500
North Lapwai Valley Acc.	1983-350-00	Alarm system upgrades, roof repairs, new trailer	\$81,900
Sweetwater Springs	1983-350-00	Shade cloth, facility access road upgrades	\$88,200
Yoosa/Camp Creek Acc.	1983-350-00	Alarm system upgrades, pond liners, gate	\$85,680
Lostine Weir and Acclimation	1998-007-02	Roof replacement and siding repair, possibly move raceways, new trailer	\$189,000
ODFW			
Umatilla Hatchery	1989-035-00	Chiller, roof repair, generators, pumps, residence upgrades	\$4,550,000
Spokane Tribe			
Spokane Tribal Hatchery	1991-046-00	Replace fuel tank, pond liner, access road/parking, raceway repairs, pumps, VFD	\$461,054
Warm Springs Tribe			
Parkdale Fish Hatchery	1988-053-07	Replace freezer compressor, replace residence carpet, LED lighting upgrades	\$30,028
WDFW			
Sherman Creek Hatchery	1991-047-00	Vehicle/equipment storage, paving, HDPE docks	\$400,500
Yakama Nation			
Cle Elum S&R Facility	1997-013-25	Pond paint, fuel tanks, gutter repair, electrical, surface water pumps, VFDs	\$787,725
MRS Coho Hatchery	2008-465-00	Extend building to enclose effluent clarifier	\$35,010
Westland Irrigation District			
WID Sampling Facility	1983-436-00	Wifi/alarm, fencing/gates, doors, generator with diesel storage	\$330,000

Subtotal	\$16,663,395
20% Contingency	\$ 3,332,679
Total	\$19,996,074

Asset Management Strategic Plan Priorities FY 2024

May 2023

Asset Management Strategic Plan and Strategic Asset Management Program

- **NPPC Asset Management Strategic Plan (Plan) approved 2018**
 - address non-recurring maintenance needs to ensure the longevity and integrity of the Program's past investments made for the benefit of fish and wildlife (hatcheries, fish screens, lands)
 - Implementation is guided by the Asset Management Subcommittee
 - Phased developed
 - Dependent on condition assessments and priority needs
 - Annual Process to inform upcoming start-of-year budgets
 - Annual \$500,000 Asset Management Placeholder
- **BPA Strategic Asset Management Plans (SAMPs) initiated for hatcheries in 2020**
 - Updated biennially to support the Integrated Program Review (IPR) cycle
 - Convert the objectives of the agency strategic plan and asset management policy into a long-term strategic approach to managing asset systems
 - Describes long-term objectives and strategies, asset criticality, risk assessments

Reserves Distribution Clause (RDC) and BP24

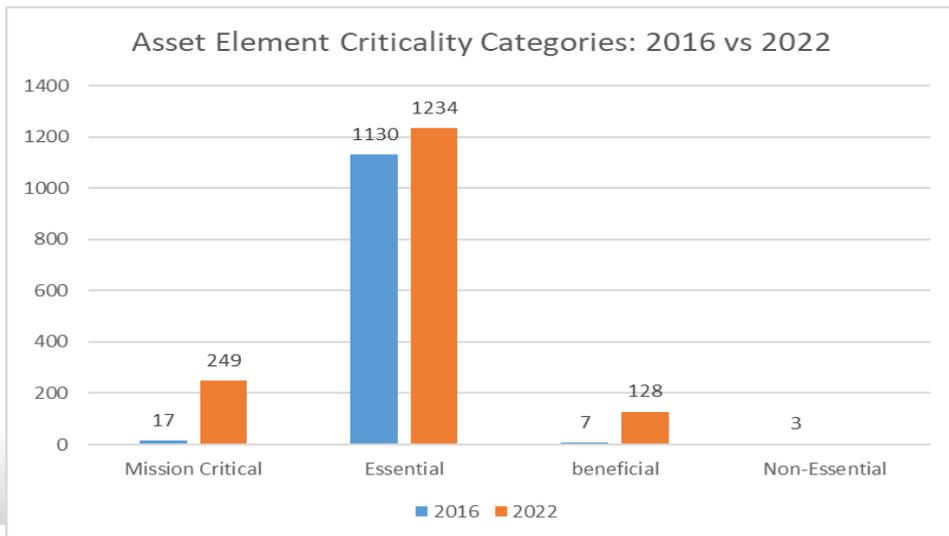
- Power Services FY22 financial performance triggered a RDC
 - Bonneville's Administrator allocated \$50M to address non-recurring maintenance needs at existing fish & wildlife assets
 - \$25M to LSRCP hatcheries, \$25M to EFW hatcheries
 - The distribution between programs was not based on a 50/50 split but rather set to cover existing high and medium priority needs for LSRCP assets, and to also cover the most critical existing needs at Program Hatcheries noted in the SAMP
 - Additional funding from the RDC will be integrated into established Bonneville/Council prioritization process
- Rate case funds from BP24 available to supplement the Asset Management Placeholder for the Programs fish screens.

The Plan's Annual Process

- January (February) – requests and priorities from sponsors/managers
- February to March - review priorities received
- April - discussion and confirmation of priorities with Asset Management Subcommittee.
- May – Fish and Wildlife Committee discussion and recommendation to Council
- June - Council decision and recommendation to Bonneville

2022 Hatchery Condition Assessment Update

- Assessed 37 existing and 3 new hatchery facilities
- Gained additional resolution for asset elements
- Revised Asset Element Criticality Category definitions
- Developed standard life expectancies for equipment
- Updated to reflect AM placeholder work from 2017-2023
- Updated costs to 2023 USD



2022 Hatchery Condition Assessment Update

- Use information from condition assessment update to inform prioritization
- Goal to address all mission critical and essential assets that are *expired* or in *poor* condition at all program hatcheries
- Utilize RDC funding in multi-year maintenance-only contracts
- Phased approach, moving down priority list as funds allow
- Exercise cost management strategy for construction related projects (contingency)

Fiscal Year 2024 requests for nonrecurring maintenance needs for the Fish and Wildlife Programs fish screens

Manager	Estimated Cost	Description
IDFG	\$321,700	Shop renovation, rebuilds and replacements
CTUIR	\$430,000	Rebuilds and replacements
SCWRCD	\$420,250	Rebuilds and replacements
WDFW	\$187,250	Rebuilds and replacements
ODFW	\$238,100	Rebuilds and replacements
MFWP	\$10,000	Rebuilds and replacements
Total	\$1,607,300	

Fiscal Year 2024 requests for nonrecurring maintenance needs for the Fish and Wildlife Programs hatcheries

Hatchery	Working Estimate
Colville Tribal Hatchery	\$738,045
Chief Joseph Hatchery	\$1,221,129
Umatilla Hatchery	\$7,744,130
Snake River Sockeye (Eagle and Springfield)	\$496,244
Kalispel Tribe Resident Fish	\$187,500
Kootenai River Fish Conservation (Kootenai Tribal and Twin Rivers)	TBD
Sekokini Springs	\$12,030
Nez Perce Tribal	\$4,709,880
Hood River Supplementation	\$30,028
Lake Roosevelt Resident Fish (Spokane Tribal and Sherman Creek)	\$861,554
Levi George Spring Chinook	\$787,725
Melvin R. Sampson Coho	\$35,010
Total	\$16,663,395