

Committed to the environmental and economic well being of our community

Lake Roosevelt Forum

NEWSletter

WINTER 2022

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Upper Columbia Salmon Reintroduction: Phase 2 Implementation Plan Guides the Way



Pat Moses of the Spokane Tribe of Indians releases salmon in Little Spokane River

In October the Upper Columbia United Tribes introduced a visionary, 21-year Phase 2 Implementation Plan (P2IP) to reintroduce salmon above Chief Joseph, Grand Coulee, and Spokane River dams. The cost is projected to be \$176 million, or about \$8.4 million annually. The plan neatly concludes with the 100-year anniversary of Grand Coulee Dam being completed, the marker for salmon being lost to upper Columbia tribes in the U.S. and Indigenous Nations of Canada.

Said Carol Evans, Chairwoman of the Spokane Tribe of Indians Business Council, “My ancestors’ relationship with salmon is since time immemorial. It’s in our creation and oral stories. Seeing the salmon across the river ... so plentiful, so large you could just walk across the river on their backs.”

Summer/fall Chinook and Sockeye are the focus of reintroduction efforts. The expanse of the vision includes potentially opening nearly 1,200 river miles of habitat. Imagine adult salmon once again swimming to the Canadian border and beyond; or taking a right from the Columbia to go over 80 miles up the Spokane River before hanging another right and going more miles up Hangman Creek to the Coeur d’Alene Reservation in Idaho; or moving up other tributaries like the Sanpoil and the Little Spokane rivers.

P2IP builds off the successfully completed Phase 1 Report that was released in 2019 and favorably reviewed by the Independent Scientific Advisory Board (ISAB). In addition, cultural and educational releases that began in 2017 have both captured people’s imagination and demonstrated the efficacy of the effort.

John Roland October 25, 1957 to October 10, 2021

The Lake Roosevelt communities lost a great friend and advocate for protecting our lands and waters.

John Roland was a Senior Hydrogeologist with the Washington Department of Ecology's Eastern Regional Office Toxics Cleanup Program. He specialized in Upper Columbia basin activities since 2004. This included taking the lead for state participation in the Upper Columbia River and Lake Roosevelt RI/FS. His knowledge of this complex undertaking was encyclopedic.

As a Forum board member and advocate, John was always known for being resolute with tireless integrity and a gentle manner. An avid outdoorsman, being in nature and with his wife was his happy place.

In 2019, The Forum was fortunate enough to interview John for a Getting to Know article featuring him. Said John of the people in our communities, "They are independent, proud and resilient, all want a better greater upper Columbia, each bringing culture and values that add to the uniqueness of the area. On my best days I'm proud to say we're working together to protect future generations by supporting a healthy, upper



John Roland

Columbia River Valley and river extending through Lake Roosevelt."

John's most recent work included developing options for cleanup of the Northport City Park shoreline area. If all goes well, cleanup will begin in 2023 or 2024. One cleanup option includes creating an overlook with a park bench facing the river. The Forum would like to work with Ecology and the Town of Northport for that bench to honor John's tireless work for a safe, clean environment. 🌱

Yakama Nation and Agencies Team Up to Develop Columbia River Water Quality Framework

EPA is funding the Confederated Tribes and Bands of the Yakama Nation to develop a fish tissue and water quality monitoring framework to track the status and trends of toxics in the Columbia River. The tribe is partnering with the U.S. Geological Survey, Columbia River Inter-Tribal Fish Commission, Oregon Department of Environmental Quality, and Washington State Department of Ecology to develop the framework.

The \$188,378 grant, which is funded through EPA's Columbia River Basin Restoration Program, is the beginning of a multi-year effort to track the status of toxics in fish, water, sediments, and invertebrates in the mainstem Columbia River between Bonneville Dam and the Canadian border. Data that describe previous studies characterizing toxics in the study area have been compiled and will inform the experimental design of the monitoring program.



**COLUMBIA RIVER BASIN
RESTORATION PROGRAM**

Currently, the group has established the project vision and expectations, compiled and evaluated historical data, is presenting to and receiving input from diverse stakeholders, and developing a community engagement and outreach plan. Over the next year, monitoring design considerations and field and laboratory protocols will be developed as part of the long-term monitoring program. 🌱

EPA Conducts Voluntary Soil Sampling Within Northport



Northport, Washington

In the summer of 2021, the U.S. Environmental Protection Agency (EPA) offered voluntary soil sampling to property owners located within Northport town limits. Historically, lead and arsenic have been detected at elevated concentrations in soils surrounding the Upper Columbia River, including Northport, Washington.

Eligibility for the 2021 voluntary soil sampling opportunity was limited to properties within Northport that had not been sampled as part of previous voluntary soil sampling

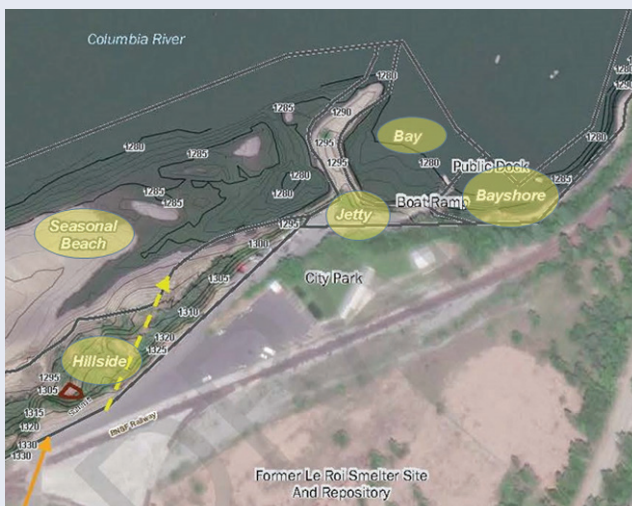
events. EPA began reaching out to eligible property owners in July 2021 to offer participation in the sampling event. In September 2021, the EPA conducted soil sampling at 43 properties where consent for access was voluntarily provided by the landowner.

EPA will assess lead and arsenic concentrations in soil samples. The sampling data will help identify potential properties where unacceptable risks to public health may exist, and where additional actions may be necessary. 🌍

Ecology Continues to Make Progress on Northport Waterfront Cleanup

The Washington State Department of Ecology (Ecology) continues to make progress on plans for cleaning up smelter-related metals contamination in Northport's Town Park and boat launch waterfront area.

Proposed Northport Waterfront cleanup areas



Visit the Forum's summer 2021 newsletter for a summary of cleanup options.

During May 2021, the public had an opportunity to review and comment on the draft Northport Waterfront Remedial Investigation and Feasibility Study (RI/FS). The RI explains the extent and locations of contaminants, and the FS evaluates cleanup options. Since then, Ecology responded to comments and finalized the RI/FS.

The next step is completing a draft Cleanup Action Plan that compares the cleanup options and identifies a final, preferred cleanup remedy. Ecology anticipates this plan will be available for public review and comment in early 2022. The Forum will publicize the comment period via at least or at the minimum our electronic newsletter and social media. After Ecology considers public comments and potentially revises the plan in response, they will publish a final Cleanup Action Plan. If the plan changes significantly due to public input, then another draft will be available for review and comment.

Ecology posts project updates and documents on their website at <https://bit.ly/3xGp2tx> 🌍

Midnite Mine Superfund Site Cleanup on the Spokane Indian Reservation Continues to Progress

Background

The Midnite Mine Superfund site is a 350-acre, inactive uranium mine located on the Spokane Indian Reservation. A legacy of the Cold War, uranium mining from 1954 to 1981 left more than 33 million tons of waste rock, unprocessed ore and low-grade ore (also known as protore) laced with contaminants. Contaminants include radionuclides and heavy metals resulting from mining, transport activities and related operations.

Human health issues such as cancer effected tribal members that worked on the mine or were exposed to radioactive dust brought into homes, lands and other facilities due to poor safety protocols and equipment. Tribal members are currently warned against eating fish from Blue Creek, using creek water in sweat lodge ceremonies, or eating wildlife such as elk and deer.

After mine closure, legacy issues included two large open pits partially filled with water and several pits backfilled with waste rock. In addition, contaminated surface water and groundwater from the pits entered Blue Creek, which flows 3.5 miles to the Spokane River (also known as the Spokane Arm of Lake Roosevelt and the Upper Columbia River).

After years of litigation and regulatory activity, the mine was added to the superfund list in 2000, EPA selected a cleanup plan in 2006, Newmont and Dawn mining companies were found liable in 2008, and cleanup of the site began in 2016.

Cleanup Activities to Date

This is a snapshot of cleanup activities. A tremendous amount of engineering and complex construction is occurring to achieve these results.

- Strategically, mine waste is primarily being consolidated into the two largest open pits (called Pit 3 and Pit 4).
- Pit 4 has been lined at the bottom with drain rock and vertical wells installed. The wells are needed to assure contaminated water from on-going seepage and groundwater can be transferred to a water treatment plant. Currently, contaminated water from the pit is being moved to the south pond. In addition, the pit has been backfilled to about 85%. In 2022, backfilling will be completed and the capping and revegetation process will begin.
- Pit 3, the largest open pit at the mine, will begin to be backfilled in 2022 by placing drain rock, a liner and starting to build the vertical wells.
- The water treatment plant built in 1988 will continue to operate until 2023. This plant will be torn down and placed into the pits along with the waste rock under the water treatment site. Treated water from the plant is currently discharged directly into a tributary to Blue Creek.

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AerialView of Midnite Mine Pits

EPA Releases Draft Strategy to Reduce Lead Exposures

EPA is seeking public comment on a draft “Strategy to Reduce Lead Exposures and Disparities in U.S. Communities.” EPA’s goal is “... to strengthen public health protections and address legacy lead contamination for communities with the greatest exposures and promote environmental justice.”

Of particular importance to the Upper Columbia Valley communities, the strategy includes an objective to reduce exposure to lead in soils. EPA’s 2021 Upper Columbia Human Health Risk Assessment (HHRA) identifies exposure to lead in soils as a health concern in these communities. The Valley is approximately 100 square miles (64,000 acres) east and west of the Columbia River that extends from the U.S.-Canada border to China Bend (about 40 river miles). Lead contamination in this area is linked to historic smelter operations that resulted in deposition of hazardous substances on surface soil.

As explained in the HHRA and EPA draft strategy, children and adults can be exposed to lead through incidental ingestion, e.g.—children touching their mouth with their hands, gardening, or from fine particles of soil dust that gets tracked into homes and contaminates house dust.

Exposure to lead is particularly dangerous to children under six because their growing bodies absorb more lead than adults and their brains are actively developing, which makes them more susceptible to adverse health effects.

Setting New Standards and the Upper Columbia Valley

The draft EPA strategy calls for setting new soil-lead hazard standards as well as adopting new recommendations for screening sites.

EPA’s Upper Columbia HHRA considered a range of thresholds for determining potential soil-based lead cleanup in the Upper Columbia Valley. These thresholds will be used in the future Remedial Investigation Report and Feasibility Study to recommend further action that may be needed to protect public health.

Figure A summarizes the low, medium and high range the HHRA identified for EPA considering action, the number of residential and aerial decision units currently sampled that would be affected, and properties currently cleaned up as part of taking early action to address those in the “high” range.

CONTINUED ON PAGE 11

FIGURE A: ASSESSING UPPER COLUMBIA VALLEY TARGET BLOOD LEAD LEVELS

EPA Benchmarks Evaluated	Blood Lead Level	Corresponding mean/average Soil Concentration Benchmark	Comparative Soil Concentration Values	Residential Decisions Units (DUs) <i>sampling exceeding benchmark</i>	Residential Decisions Units (DUs) <i>cleaned up since 2014</i>	Upland ADAs samples exceeded benchmark
LOW	3 µg/dL	~50 ppm	35 ppm EPA interim estimate of the upper end of background soil lead concentrations in the Upper Columbia Valley	389 of 588		139 of 142
MEDIUM	5 µg/dL	~200 ppm	250 ppm WA State lead cleanup level for soil when action triggered	87 of 588		68 of 142
HIGH	8 µg/dL	~400 ppm	700 ppm Action level used by EPA for time-critical soil cleanup actions on residential properties sampled in 2014 and 2016	40 of 588 Of the 40, 12 DUs currently exceed 400 ppm benchmark after 2015-18 cleanups	28 DUs on 18 properties	15 of 142

DEFINITIONS:

- µg/dL: micrograms of lead per deciliter of blood
- ppm: parts per million
- DUs: Decision Units, also referred to as exposure areas. DU counts exclude tribal allotments.
- ADAs: Aerial Deposition Areas

Upper Columbia Salmon Reintroduction CONTINUED FROM PAGE 1

Go to lrf.org to see summaries of Phase 1 efforts in the summer 2021 newsletter or salmon reintroduction webinar.

P2IP Implementation

Using phrases like “stepwise” and “adaptive management,” P2IP reminds one of how NASA approached reaching the moon. Within the vision were complex tasks and subtasks being carried out over years. With each success or failure, adjustments large and small were made to achieve the end goal. “Fortune,” as the proverb says, “favors the brave.”

The scientific framework for salmon reintroduction is grounded in a life cycle model (LCM) developed during Phase 1. As assumptions in the model are tested with on the ground efforts and additional research, the LCM model will be updated to replace assumptions with validated results. Future efforts will then be adjusted accordingly.

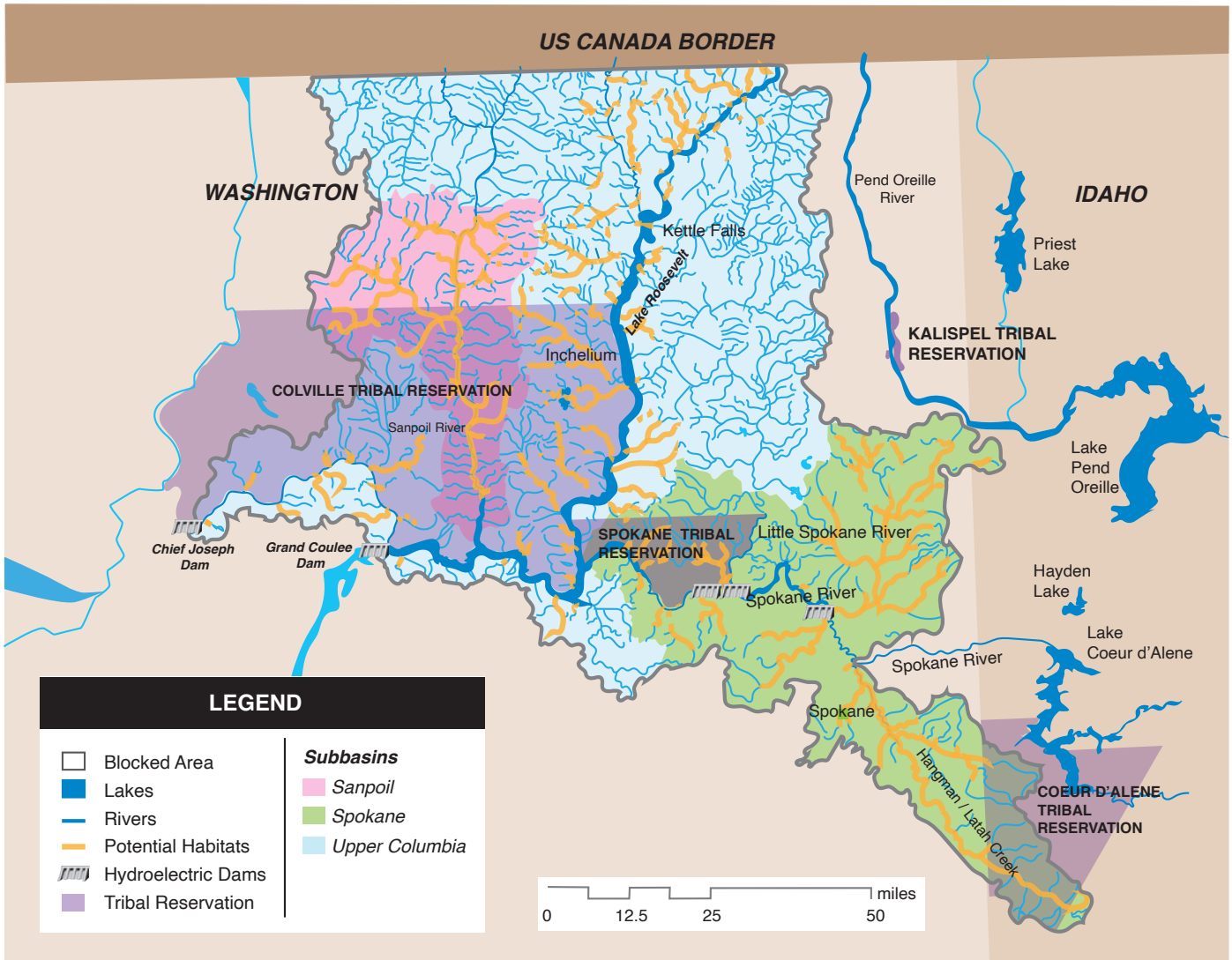
During the first six years of P2IP, activities will focus on baseline research studies and establishing interim facilities.

Some highlights:

- Developing facilities to annually raise and release 50,000 – 200,000 juvenile summer/fall Chinook and Sockeye respectively.
- Using acoustic, radio and passive integrated transponders (PIT tags) to evaluate salmon behavior, survival, and sources of mortality as they migrate downstream as juveniles and then return upstream as adults.
- Using trap-and-haul to move returning adults past one or more dams currently blocking their way (Chief Joseph and Grand Coulee dams on the Columbia River, and Little Falls, Long Lake and Nine Mile dams on the Spokane River).
- In the equivalent of ancestry.com for salmon, using genetic sampling to track generations of salmon families released and where they are returning to.

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SALMON REINTRODUCTION ABOVE GRAND COULEE: POTENTIAL HABITAT AREAS



Lake Roosevelt Updates

National Park Service

WINTER SERVICES

During the winter season, camping is only available in the Kettle Falls, Fort Spokane and Spring Canyon campgrounds. Reservations are required. Throughout the recreation area, no water service is available, and all dumpsters and trash cans have been removed. For more detailed information on available services, visit <https://bit.ly/3Hx8ub2>



Lincoln County

PORCUPINE BAY ROAD SLOPE STABILIZATION

A combination of vegetation, anchors and blankets are being installed over about 13,000 sq. ft. of slope below Porcupine Bay Road to reduce the possibility of the hillside sloughing into the water. Erosion is a key concern after Porcupine Bay Road (which is maintained by Lincoln County and provides public access to the Park Service Porcupine Bay Campground) washed out in 2017 due to a landslide. In 2019, Lincoln County reopened the road as part of a complex project to shore up and stabilize the hillside.



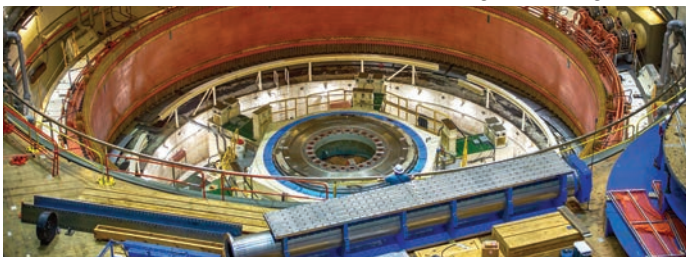
Fisheries

Thanks to the efforts of the Spokane Tribal Hatchery and WDFW's Sherman Creek Hatchery, 600,000 rainbow trout triploids with their adipose fin clipped were raised and transferred to 63 net pens distributed between Keller Ferry and Kettle Falls. 45 net pens are operated by volunteers from the Lake Roosevelt Volunteer Net Pen Program and 18 by WDFW. The trout will be released from the net pens in May for anglers to enjoy.

Columbia River Treaty

The United States and Canada held the eleventh round of negotiations to modernize the Columbia River Treaty on December 9, 2021. The tenth round took place on June 29-30, 2020. "During this round," reported the U.S. State Department, "the United States and Canada discussed ecosystem priorities, post-2024 flood risk management, and Canada's desire for more operational flexibility."

Generating Unit During Overhaul



Bureau of Reclamation

CAYUSE COVE SHORELINE STABILIZATION



BUREAU OF RECLAMATION

The Bureau of Reclamation began phase two of the Cayuse Cove Slope Stabilization project, which is located approximately 8 miles upstream of Porcupine Bay Campground on the Lincoln County side. Construction work includes stabilization of about 300 feet of shoreline with anchors, a cellular confinement system, rock, topsoil and planting. The project will stabilize the shoreline and halt bank erosion to prevent inadvertent exposure and loss of sensitive resources. The staging area was set up at the Porcupine Bay boat launch in December. Phase two construction will continue through May 27, 2022. This includes some access to the Porcupine Bay boat launch being reduced.



Cayuse Cove phase one construction completed in May 2021

GRAND COULEE GENERATING UNITS G22-G24 OVERHAUL COMPLETION

A major overhaul of hydroelectric power generating units 22, 23 and 24 inside the Nathaniel "Nat" Washington Power Plant at Grand Coulee Dam are complete.

Each 805-megawatt hydroelectric unit (enough to meet the power needs of over 600,000 homes annually) was refurbished to ensure the mechanical and electrical surfaces were restored and returned to like-new condition.

Activities included approximately 6.5 million pounds of steel being removed from each unit once every component down to the turbine runner was fully taken apart. Once disassembled, each component was then sand blasted, welded, ground, polished, and repainted before reassembly.

The result of this multi-year, multi-million-dollar effort is that critical power supply is secured for years to come. In addition, the generating units will now operate with less wear and tear, making them more reliable and efficient. 🌟

Reclamation Provides Lease of Power Privilege to Two Lake Roosevelt Projects

The Bureau of Reclamation gave the thumbs up for two separate projects working to bring pumped storage power to Lake Roosevelt. Reclamation selected Daybreak Power, Inc. and Columbia Basin Hydropower to receive a preliminary lease under the Lease of Power Privilege program. A LOPP is a contractual right given to a non-federal entity to use a Reclamation asset, such as a dam or conduit, for electric power generation consistent with Reclamation project purposes. The two preliminary lessees will study the case management of Lake Roosevelt waters and lands associated with operating Grand Coulee Dam and the Columbia Basin Project.

Selection for the LOPP program does not change the need for project proponents to meet complex federal and state regulatory approvals, including consultation with the Spokane Tribe of Indians and the Confederated Tribes of the Colville Reservation.

Currently, the John W. Keys III Pump-Generating Plant at Grand Coulee Dam is the Northwest's only pumped storage facility. The pump-generating plant contains 12 pumps that lift water from the Columbia River up the hillside to a canal that flows into Banks Lake. The lake provides irrigation water to over 670,000 acres in central WA. Six of the units are pump generators that can be reversed to generate clean, renewable hydroelectricity when demand exists.

The interest in building new pumped storage projects relates in large part to climate change. States, utilities, and municipalities are pursuing goals to replace fossil fuel power plants like coal with carbon-free power such as wind and solar. When the wind isn't blowing or the sun shining, pumped storage energy has the advantage of being available to pick up the slack.

Banks Lake Pump Storage Project

In development for about a decade, this proposed project would essentially expand the use of Banks Lake. As additional water is pumped up to Banks Lake, a new inlet would allow water to flow through pipes about 300 feet underground to a subterranean powerhouse. Here, three generating units could produce up to 500 megawatts of power—enough to meet the annual electricity needs of over 300,000 homes. Pipes would be used to return the water to Lake Roosevelt just above Grand Coulee Dam.

The project is being developed by Columbia Basin Hydropower, a company that provides administration, operations, and maintenance for hydroelectric facilities owned by the three Columbia Basin irrigation districts. The projected cost to construct is \$ 1.5 billion.

Halverson Canyon Project

In the last year, Daybreak Power, Inc. came into the picture with a proposal to study the construction of a 399-foot dam in Halverson Canyon. This is about 35 miles upstream of Grand Coulee Dam on the Lincoln County side of Lake Roosevelt.

A new upland reservoir capable of holding 29,000-acre feet of water would be connected to the dam and Lake Roosevelt through 10,000 feet of water conveyance pipes. The force of falling water released from the reservoir would turn up to nine turbines capable of producing 2,650 megawatts of electricity (enough to power about 1.7 million homes annually.) Daybreak estimates the cost of constructing this project to be \$4.9 billion. 🌐

PROPOSED BANKS LAKE PUMPED STORAGE PROJECT: POWERHOUSE TO LOWER INTAKE CROSS-SECTION



Lake Roosevelt Water Rights Begin Adjudication



The legislature approved starting adjudication of Lake Roosevelt water rights. Adjudication will also include the area that drains into Lake Roosevelt between the confluence with the Spokane River and downstream from the mouth of the Colville River.

Adjudication is a legal process that results in all water users receiving certainty about their water rights. This includes both users issued permits by Ecology and claims to water made before the state adopted its water code.

Ecology's 2020 "Water Resources Adjudication Assessment Legislative Report" recommended adjudication. The report states that "The claims of the Colville and Spokane Tribes over the Columbia River pose one of the most profound uncertainties of water management in the state. Adjudication is the only tool to bring tribal water into alignment with state law."

Water Rights in Play

The Bureau of Reclamation holds state issued water rights with an apparent 1938 priority date. These rights are used to irrigate over 670,000 acres of Columbia Basin Project farmland. It's also used to supply water to the Odessa subarea as part of the Lake Roosevelt Incremental Storage Program.

The Colville Tribes claim a senior water right for their land reservation of over 470,000-acre feet with a priority date of 1872. Both the Colville and Spokane tribes claim immemorial water rights to meet fish and wildlife needs.

Ecology notes, however, that "... there is uncertainty and disagreement as to whether the state can protect or regulate these [tribal] rights." In the face of this uncertainty, the Colville Tribes petitioned for adjudication in 2019 and the Spokane Tribe did not object.

Considerations

Ecology believes adjudication would streamline consideration of future large-scale water projects on both reservation and non-reservation land. Such projects, for instance, could be part of irrigating tribal lands or developing new water storage capacity.

Regarding fish passage, Ecology states "The legal assessment of tribal water rights in the Upper Columbia River, particularly Lake Roosevelt itself, has been a missing piece of this entire management system." Currently, salmon reintroduction efforts being led by the tribes are based on continuation of current lake operations.

While the adjudication process plays out over a projected 10-to-20-year time frame, related water issues will also be playing out. For instance, Columbia River Treaty negotiations could significantly impact lake operations and water flows; assumptions will continue about continuing to supply water to the Columbia Basin Project; desires to support downstream municipal, industrial and agricultural users will continue unabated; and new large-scale projects will continue to be proposed (see pumped storage article in this newsletter).

As such, the road to certainty through adjudication will also be weaving through a dynamic path.

What's Next

During the current state biennium ending June 30, 2023, Ecology expects to delineate water sources, identify water users, and prepare a statement and plan. The Attorney General's office will then file a petition with the court to proceed with adjudication.

Continuing the effort into future biennia will rely on the legislature continuing to fund the effort. 🌟



Backfilling the first of two large open pits

- In 2022, a new water treatment plant will begin construction and is expected to be operational in 2023. In addition to operational improvements, the new plant is designed to treat less contaminated water because the need for ongoing treatment will decline as cleanup in Pits 3 and 4 are complete. Newmont Mining will be responsible for operating the water treatment plant in perpetuity.
- In 2021, construction began on a closed pipeline that will move effluent from the new water treatment plant to the Spokane River via a route that hugs Blue Creek. Once discharged into the river, the water quality in “the mixing zone” will meet tribal water quality standards as dilution takes place. Completion of the pipeline is expected in 2022.

Completion of the cleanup activities is scheduled for 2027. After that, on-going monitoring will be used to determine if additional cleanup is needed.

Technical Assistance Needs Assessment

In 2021, EPA also conducted a Technical Assistance Needs Assessment (TANA) for the community near the Mindite Mine site. The goal is to identify additional community outreach and support that EPA can offer.

Tribal members cited overcoming mistrust of the U.S. government, concerns of racial bias, and receiving mixed messages as among their concerns. Providing more robust and regularly updated outreach materials, regularly scheduling in-person meetings, and using “plain language” with graphics to explain information more clearly were among the recommendations. There were also calls for a health study to address ongoing health concerns of tribal members.

The TANA was released in November and available at <https://sempub.epa.gov/work/10/100369943.pdf>.

EPA 2021 MIDNITE MINE CLEANUP STATS

CONSTRUCTION

- Crushed 500K CYDs of material
- Place 1.5 million CYDs of mine waste into Pit #4 WCA
- South Pond and pump station commissioned
- Pumped 22.5 million gallons of water from Pit #3 to South Pond
- Installed 10,500 ft of HDPE pipe
- Paved 2,400 ft of two-lane road
- Awarded \$20 million contract for the construction of the new water treatment plant
- Treated 66 million gallons of water as of Nov. 3, 2021. Discharged 45 million gallons under NPDES permit

WORKFORCE

- Employed 112 people
- Employed ~ 55 tribal members
- 71 construction workers
- Operated:
 - 12 x CAT 745 haul trucks
 - 6 x CAT excavators
 - 2 x fuel trucks
 - 4 x bull dozers
 - 2 x water trucks
- Maintained our equipment at overall operational readiness rate over 90%
- 126,000 hours worked without a lost time accident or fatality

Source: EPA December 2021 Bulletin

Developing the Upper Columbia RI/FS Baseline Ecological Risk Assessment and Remedial Investigation Report

A critical component of the Upper Columbia River (UCR) Remedial Investigation and Feasibility Study (RI/FS) is conducting a Baseline Ecological Risk Assessment (BERA). The BERA evaluates the risk of chemicals (primarily metal contaminants) to plants and wildlife on land and in water.

Under the terms of the 2006 Settlement Agreement between the U.S. Environmental Protection Agency (EPA) and Teck American Incorporated (TAI), TAI is responsible for conducting studies and funding surveys to inform development of the BERA and the Human Health Risk Assessment (HHRA) for the UCR Site. The HHRA is also a key component of the RI and, under the terms of the Settlement Agreement, EPA is responsible for that element of the RI. The HHRA for the UCR Site was finalized in 2021.

In June, TAI sent EPA a document titled draft Interim Partial Upland BERA. This partial BERA report evaluated the upland portion of the UCR Site, not the Columbia River portion of the site. The focus of the upland BERA is exposure of terrestrial plants and animals to contaminants in soil in an approximately 100 square-mile (64,000 acres) area east and west of the Columbia River that extends from the U.S.-Canada border to China Bend. The final UCR Site boundary is determined by the extent of contamination.

In July, TAI sent EPA a document titled the draft Interim Partial Upland Remedial Investigation draft RI report. This draft RI report summarized the activities conducted

to characterize the conditions within the upland portion of the site, including sources of contamination, nature and extent of contamination, and the transport and fate of contaminants identified. The results of the draft upland BERA and the final HHRA will be used to identify focus metals for evaluating the nature and extent of contamination in the upland RI.

The draft BERA and RI for the upland portion of the site are under review by EPA and the Participating Parties (Colville Confederated Tribes, Spokane Tribe of Indians, Washington State represented by Ecology, and U.S. Department of Interior). EPA and Participating Parties review TAI's work with EPA being responsible for approval. Citizens for Clean Columbia will also review the documents and provide comments to EPA.

In 2022, expectations are that the draft BERA and RI for the aquatic portion of the site will be submitted to EPA and the Participating Parties for review. A process will then occur by which the upland and aquatic work products are combined into a site-wide BERA and RI. EPA will update the public with fact sheets and public meetings during the course of document development and finalization.

Once the HHRA and BERA are complete, the RI/FS can then progress to determining what, if any, type of cleanup or other actions are needed. These cleanup actions will be evaluated in the FS. If cleanup is required, EPA will write a Proposed Plan, summarizing the selected cleanup actions, and EPA will announce a formal public comment period and organize at least one public meeting. 🌐

EPA Draft Strategy to Reduce Lead Exposures CONTINUED FROM PAGE 5

Currently, 700 parts per million of lead is the time-critical soil cleanup action level used for properties sampled from 2014 – 2016 and offered cleanup. This is the same action level EPA used to identify additional properties within the town of Northport that received cleanup in 2020.

A new standard in an updated final EPA strategy may result in a lower threshold for action. If the new standard is stricter than the current standard, more properties in the area may fall within the

range of lead levels that warrant potential cleanup. For more background on HHRA findings regarding lead in the Upper Columbia Valley, visit www.lrf.org/environment/2020-public-guide

Public Comments

To read the draft strategy and/or provide public comments, go to www.epa.gov/lead. Comments are due by March 16, 2022. This site will also post listening sessions EPA is scheduling. 🌐

Lake Roosevelt Forum

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Upper Columbia Salmon Reintroduction CONTINUED FROM PAGE 6

Said Conor Giorgi, the Spokane Tribe of Indians Anadromous Program Manager, "Phase 1 involved a lot of tabletop exercises. Phase 2 is research studies to evaluate salmon survival as they migrate out of the Spokane River and upper Columbia, then as adults coming back. This sets us up for Phase 3, which will determine how a permanent reintroduction program can proceed."

While the number of juveniles being raised and released sounds like a lot, it pales in comparison to the millions released from hatchery programs throughout the Columbia River Basin.

In addition, planners are using existing infrastructure. Said Casey Baldwin, senior research scientist with the Colville Tribes, "Taking advantage of some of the staffing and infrastructure that's already in place, it's not a huge build-out."

Said Tom Biladeau, a Habitat Restoration Biologist with the Coeur d'Alene Tribe, "When it comes to restoration, we're trying to take a holistic approach to how all these ecosystems tie into one another."

Funding

Various sources such as Washington state, the U.S. Fish and Wildlife Service, tribes, and Avista Utilities have thus far

pledged \$1.2 million. The tribes are actively working with state and federal partners to achieve the full level of funding necessary to implement P2IP.

"We have always welcomed our neighbors with open arms," said Hemene "Gene" James, Secretary-Treasurer of the Coeur d'Alene Tribal Council. "We cannot get to our ultimate goal without our friends, without our neighbors, without our adversaries. It's going to take a large number of peoples and parties to fix a century's worth of damage." 🌱

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