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Lake Roosevelt Forum NEWSletter

SUMMER 2016

<i>Getting to Know the Reardan High School Ag Leadership Class</i>	2
<i>Lake Roosevelt Rainbow and Kokanee Trout Recreational Fishery Continues to Excel</i>	3
<i>Going Whoosh!</i>	4
<i>Long-range Interpretive Plan for Ice Age Floods National Geologic Trail Complete</i>	5
<i>National Park Service Centennial Celebration</i>	5
<i>EPA Remedial Investigation 2016 Sampling and Report Status</i>	6
<i>Additional Residential Soil Sampling Taking Place in Upper Columbia Valley</i>	7
<i>Seven Bays and Keller Ferry Marinas Under New Ownership</i>	9

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Spokane Tribal Hatchery Celebrates 25-year Anniversary

On a clear hot day at the end of June, history was acknowledged.

The Spokane Tribal Hatchery celebrated 25 years of operation, and a new agreement signed with the Bonneville Power Administration (BPA) to support the hatchery for another 25 years.

In 1991, the hatchery was developed to help mitigate the loss of salmon to the upper Columbia River. The lost salmon fishery once supported harvesting over 3,000 salmon daily from the middle of June to the middle of August.

“Historically,” said Spokane Tribal member and Hatchery manager Tim Peone, “the Spokane Tribe was known as a river and fishing people, culturally defined, in part, by the bounty of salmon that returned annually to tribal fishery grounds.”

Pauline Flett, who gave the opening invocation 25 years ago, joined with



tribal elders, drummers, and the Spokane Tribal Business Council led by Carol Evans to remember the past and look forward. The heartache of losing a way of life was poignantly paired with nods toward the collaborative efforts and painstaking work to reconnect the tribe to the river and its fisheries. Other speakers echoed their thoughts and perspectives.

The hatchery consists of 44 indoor/outdoor raceways and employs five full time and four seasonal employees. In cooperation with the Sherman Creek Hatchery and the volunteer net pen program, 250,000 kokanee and 750,000 rainbow trout are released into Lake Roosevelt annually.

As an eagle circled overhead, good will defined the thoughts of the people below. The fish spawn and the future unfolds. 🌟

Getting to Know the Reardan High School Ag Leadership class

Should salmon be reintroduced to the upper Columbia River watershed?

At the Spokane Expo in 1974, Spokane Indian tribal elder Alex Sherwood said, “Sometimes, even now, I find a lonely spot where the river still runs wild. I find myself talking to it.”

And so begins 15 minutes of intense presentation and debate around the question, “Should salmon be reintroduced to the upper Columbia River watershed?” Not from politicians, academic elites, or impassioned stakeholders, but from the Reardan High School Ag Leadership class.

Six juniors and seniors from the Reardan class selected this topic last fall as part of entering a statewide competition sponsored by The National FFA Organization (formerly known as the Future Farmers of America). Said Rick Perleberg, who teaches the class, “We don’t have an angle. They’re here to equitably represent both sides of the argument.”

In May, they won the competition. Said Perleberg, “This really opened their eyes to what’s going on in their own backyard. This topic more than any other ignited their passions and they ended up seeing themselves as being effectors of change.”

Preparation begins at the beginning of the school year with students selecting a topic. Then comes the process of researching the pros and cons of the debate, selecting up to 7 student presenters, writing a script, and then delivering.

Delivery includes creating a portfolio of public presentations to hone the script, their skills, and their knowledge. “The students made over 20 presentations to various groups,” said Perleberg. “With each presentation and the time after for questions from the audiences, the kids get stronger. The competition includes scoring their public presentation portfolio.”

Now it’s on to Indianapolis in October to compete nationally with winning teams from over 40 other states. Said Perleberg, “For most of these kids travel to a different part of the country is a unique opportunity.”

An opportunity that further supports the FFA mission

to make “... a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.”

Said Gene Smith, LRF board member and longtime teacher and coach at Reardan, “It’s really something that they got going. Medical Lake picked the same topic this year and did real well (finishing third).”

If you’re interested in helping the class with travel expenses, (a little over \$7,500 for student travel and related expenses), please mail checks to Reardan FFA Ag Issues Team c/o Reardan High School – 215 E. Spokane Ave, Reardan, WA 99029. 🌐



The winning team: Clockwise from left: Justis Anderson, Kaylene Kuykendall, Lizzie Williams, Josey Anderson, Ruger Lillengreen and Nate Kieffer

Lake Roosevelt Rainbow and Kokanee Trout Recreational Fishery Continues to Excel

When you're catching a rainbow trout or kokanee from Lake Roosevelt, odds are you should be thanking both the fishing gods and the managers of Lake Roosevelt's robust hatchery and net pen operations. Each year, up to 750,000 rainbow triploids and 250,000 kokanee triploids are released from these production efforts intended to mitigate the operational impacts from Grand Coulee Dam.

Said Mitch Combs, manager of the Sherman Creek State Hatchery, "This is a very successful sport fishery. So when we release these fish we want anglers to harvest them." And people do!! Creel surveys show over 30,000 rainbow trout and kokanee being caught annually.

Add to this naturally reproducing rainbow (reband) trout, walleye, smallmouth bass and other fish, and estimates are that over 19,000 anglers are catching over 50,000 fish each year.

Raising rainbow and kokanee

The process starts with the Spokane Tribal Hatchery receiving 1 million triploid eggs from the Washington Department of Fish and Wildlife (WDFW) Spokane Hatchery. Once the fish reach the size of about 90 fish to the pound, or 3" long, 300,000 are transferred to the Sherman Creek Hatchery across from Kettle Falls.

Then in the fall when they are about 15 fish per pound, or 5" long, the 750,000 rainbow triploids are transferred from the two hatcheries to the eight net pen sites within Lake Roosevelt. Together with the volunteer net pen program they are raised until the following spring, when they are released at about 5 fish per pound or 8" long. From beginning to end, the process takes about 16 months.

The 250,000 kokanee triploids are raised in the tribal hatchery for 18 months, then released into the reservoir.

2016 rainbow and kokanee angling

Managers' report that 2016 is shaping up to be an excellent year. Said Gene Smith, long time net pen volunteer and LRF board member, "Guys have been doing good on kokanee and rainbow."

The rainbow trout and kokanee being caught are generally from the classes of 2012-15. A rule of thumb according to Combs is that the fish will grow about an inch a month in Lake Roosevelt. Half pounders were generally stocked the



year before, two pounders are about three years old, and the 4-5 pounders tend to be 4-5 years old.

Managers are also reporting some excellent kokanee fishing in the lower reservoir up to Hawk Creek, with fish being as large as 5 pounds. These fish, however, may or may not be from the hatchery program. Said Brent Nichols, Spokane Tribal Fisheries Manager, "Some research is being done to find out how they got here and if they're naturally reproducing, or if they are a result of the kokanee egg plants in the Sanpoil Arm. You can tell the difference between natural population and hatchery released fingerling because we clip the adipose fin of both the kokanee and rainbow trout being raised. For the egg plants, however, there are no visible marks and we rely on genetics and chemical analysis to identify their origin."

Not all years are the same

Said Combs, "Our goal is for 5 percent of the fish we raise to be caught by anglers. But no two artificial production years are the same."

The biggest variable is when managers can release the fish. Ideally, they like the lake to be at or above 1260' above sea level, water retention (the amount of time it takes water flow to pass through the lake) to be 45 days, and the main spring run-off to be finished. Under these conditions, said Combs, "We see as high as ten times more rainbows caught from our net pen releases!"

CONTINUED ON PAGE 8

Going Whooshh!

Whooshh went the sponges through a 105' tube set up at Two Rivers Marina. Out the other end they flew to the glee of Karen Lyle's students from Davenport Elementary School.

And so began another teachable moment as part of Student Discovery Week. This year, 355 students took field trips to one of 7 discovery zones around Lake Roosevelt to explore environmental challenges and solutions with natural resource managers and researchers.

At Two Rivers, Todd Deligan from Whooshh Innovations demonstrated a unique way to send migratory fish past dams as they head upstream to their spawning grounds. Typically, this is accomplished by fish ladders or trap and haul systems.

What Whooshh has done is develop a soft, flexible tube that can move asymmetrical objects like fish through it. What has come to be known as the Salmon Cannon™, the tube creates a partial seal around the fish and with the introduction of a pressure differential, fish are transported gently and quickly over long distances. This is an update of an old technology that saw pneumatic tubes used to transport small objects short distances, like at drive-up banks when canisters sent cash and documents between cars and tellers.

Explained Todd Deligan from Whooshh Innovations, "In today's world we're working with state and federal agencies, tribes, conservation organizations and others to think about transport of live species in a different manner. In real life, the sponges we shot off with the kids are used to clean the tube, especially when used in seafood processing."

Currently, the Salmon Cannon is being used by the Washington Department of Fish and Wildlife for a third season to move fall Chinook salmon 120' from a trap to a hatchery truck on the Washougal River. It's also

being tested with the Yakama Tribe and U.S. Bureau of Reclamation to transport migrating salmon

1100' feet alongside the Roza Dam on the Yakima River. Successful testing has been completed by the Pacific Northwest National Laboratory through funding by the U.S. Department of Energy.

As the students watch and learn, their questions are the same as adults: What's the effect on fish? How far can you move the fish? How many can you move? How many species can you move? How big a fish can you move? Could this be used at Grand Coulee?

And with these questions begins the discussion of years of testing and research needed to consider moving salmon past a high head dam like Grand Coulee.

Will the students grow up to see such a sight with their kids? Will they tell the story of watching one of the earliest models shoot sponges across the park? At Student Discovery Week, it's okay to dream big. 🌍



Todd Deligan with students



The Salmon Cannon™

Long-range Interpretive Plan for Ice Age Floods National Geologic Trail Complete

Lake Roosevelt National Recreation (LRNA) Area staff led the completion of a long-range interpretive plan for the Ice Age Floods National Geologic Trail. Designated by an act of Congress in 2009, the trail highlights the extraordinary geologic features left behind by a series of huge, cataclysmic floods that swept across the Pacific Northwest 12 to 17 thousand years ago.

The interpretive plan provides general direction for the next ten years, focusing on education, interpretation, and the development of quality personal and non-personal visitor experiences. The ultimate goal is to allow visitors to learn about, explore, and enjoy the natural, cultural, and historical resources associated with the trail. The primary trail themes are Geologic Setting, Cataclysmic versus Incremental, Evidence that Remains, In Search of the Truth,



Drumheller Channels near Othello

and Lives and Livelihoods.

Said Denise Bausch, Chief of Interpretation and Education at LRNA, “We couldn’t have done this without the help of our partners. This plan will provide a good foundation for interpretive development and presentation throughout the entire trail.”

The trail, when fully developed and signed, will encompass several federal and state highways and Scenic Byways, as well as a number of loops and spurs across a vast, varied landscape with more than 350 sites and features created by the Ice Age floods.

Go to www.lrf.org/iceageplan to read the full plan. To learn about the Ice Age Floods, tours and more, go to www.iafi.org or www.nps.gov/iafl. 🌐

National Park Service Centennial Celebration

The National Park Service continues to celebrate its 100th anniversary with media and local park activities that highlight recreation, conservation, and historic preservation programs being offered nationally.

Their popular Find Your Park campaign embraces the simple truth that “Everyone finds their park in a different place and in a different way.” If you visit www.findyourpark.com you’ll discover a myriad of stories, videos and pictures that are both inspiring and breathtaking.

Locally, Lake Roosevelt National Recreation Area (LRNA) continues to host activities that promote both visiting Lake Roosevelt and engendering a lifelong appreciation for the outdoors. “We encourage everyone to get up, get out and enjoy the natural and cultural resources that our public lands protect, preserve, and benefit this nation,” said LRNA superintendent Dan Foster.

Staff has been reaching out to communities at chamber meetings, local fairs, and parades. There are also new

programs and events making their debut during the centennial, including a Junior Ranger Day Camp and BioBlitz.

**FIND YOUR
PARK**

There are also one time celebratory events like the “Inspired by National Parks Quilt Show” that occurred at the beginning of July. On August 25th LRNA will host the “Birthday, Birthday.” This includes a Naturalization Ceremony to watch as new American citizens take their Oath of

Allegiance. Go to www.nps.gov/laro to see the full list of events and activities you can participate in this summer.

Back in 1916, the Park Service was initially tasked with overseeing 45 sites. Today, it has grown to oversee more than 400 sites and more than 45 million acres disbursed across 50 states. Close your eyes for a second ... imagine what the parks might look like when the Park Service is celebrating its bicentennial.

HAPPY BIRTHDAY, NPS!! The Forum wishes you well as your journey continues. 🌐

EPA Remedial Investigation 2016 Sampling and Report Status

Mussel and Crayfish Sampling: The main purpose of this sampling is to investigate possible human health and ecological risks of chemicals concentrating in tissues of fresh-water mussel and crayfish. A Quality Assurance Project Plan (QAPP), which includes a field sampling plan for mussel and crayfish, was conditionally approved by the U.S. Environmental Protection Agency (EPA) in April 2016. Teck American Incorporated's (TAI's) field sampling contractor, AECOM, attempted sampling at 6 locations in the river and reservoir and 2 outside locations in April and May under EPA oversight. Results are likely by fall 2016. A second sampling effort is being planned for September to return to areas where not enough mussels or crayfish were found for tissue collection.

Surface Water: Surface water sampling at several locations from the U.S. / Canada border down to Grand Coulee Dam was performed in 2009 and 2010. After three rounds of sampling EPA work showed Lake Roosevelt and the Upper Columbia River general water quality safe for swimming. Further, surface water concentrations for all metals (e.g., arsenic, cadmium, copper, lead, mercury, selenium, and zinc); and organics (e.g., PCBs, dioxins/furans and pesticides) are within limits protective of aquatic life. The investigation only looked at contaminants, not at bacteria; therefore, it is good practice not to drink water from the Columbia River without treating it first, as it may contain Giardia (which causes beaver fever).

Beach Sampling: Of the 43 beaches sampled since 2005, all but three are considered safe for recreational use.

The exceptions are the recreational locations upstream of Kettle Falls known as: Bossburg Flat beach due to high lead levels; Evans Campground because of lead levels; and the "Swimming Hole" near Sheep Creek because of arsenic levels. As reported in EPA's April, 2012 Beach Fact Sheet, "Because the screening levels for lead and arsenic are set very low, even the 'Swimming Hole' near Sheep Creek and the beach at Evans Campground are not likely to present significant risks to visitors who swim and play in these areas." Copies of EPA's fact sheet can be accessed online (http://www.epa.gov/region10/pdf/sites/ucr/beach_study_fact_sheet_april2012.pdf).

Lead concentrations at Bossburg Flat beach, however, have resulted in beach closure by the National Park Service and the need for additional information (see Bossburg Flats). The historic town of Bossburg included ferry operations to shuttle people, along with various goods and services, back and forth across the river, reportedly including mined ores from the district.

Bossburg Flats: Soil sampling for heavy metals was completed in May, 2015 at several locations between Young American Mine and just below Evans Campground Beach. The purpose is to better determine the extent of lead contamination at the Bossburg Flat beach, which is located adjacent the historic remains of the Bossburg town site. The work also was designed to evaluate if historic ore milling discharge from the now cleaned up Young American Mine mill located in this area may have contributed contamination to the nearby river, or possibly to the

Bossburg Flat beach downstream. A data summary report is being reviewed and findings may be available to the public in fall, 2016. Initial indications are that the highest Bossburg Flat contamination is localized and not due to the historic Young American Mine mill.

Fish: The Washington Department of Health issued an updated fish advisory pamphlet in June 2015. Go to www.lrf.org/fishadvisory to view the advisory and public information materials.



Recreational Use Survey: A survey to assess where, when, what, how, and how long visitors utilize Lake Roosevelt and the Upper Columbia River began in October 2010 and completed in 2012. Over 2300 survey interviews were completed, with results being used to inform key sections of the human health risk assessment. Go to <http://www.ucr-rifs.com/assets/Docs/05-10-13FINALUCR-Rec-Survey-Summary-Report.pdf> to view the report.

Sediment Sampling: Building on sampling done in 2005, additional sediment sampling was conducted in the fall of 2013. Approximately 1,500 gallons of sediment were collected from 136 sites for chemistry analysis; 69 of these samples were selected for toxicity testing and sediment porewater chemistry. The scientific focus is to determine the magnitude of unacceptable risks to benthic invertebrates (sediment dwelling bugs) associated with exposure to metals in sediments. Toxicity tests are complete and a draft data summary report was submitted by TAI to EPA in December, 2015.

Residential Soil Sampling: In 2014 the EPA sampled soil at 74 residential properties in the Upper Columbia River Valley between Northport and the border. The objective of this study was to determine if people could

be exposed to levels of lead and arsenic, as well as other metals in the soil that could cause health concerns. Using EPA's Time Critical Removal Action policy, results led to immediate soil cleanup on 14 properties that was administered and funded by Teck American Incorporated (TAI) and overseen by EPA. See www.lrf.org/publicguide2015 for background information.

EPA also reached agreement with TAI to extend further opportunities for residential soil sampling in 2016. See article in this newsletter for details.

Upland Soil Sampling: In 2014 soil sampling to evaluate if there is unacceptable risk to ecological receptors from exposure to metals in the upland soils took place in a 115 square mile area from the U.S. / Canada border south to approximately China Bend. In general terms, concentrations of lead averaged across approximately 25-acre sampling areas in the more widespread upland soil sampling program were less than in residential samples, which were based on different objectives and sampling design. Findings will be incorporated into the the human health an ecological risk assessment portion of the RI/FS. 🌐

Additional Residential Soil Sampling Taking Place in Upper Columbia Valley

Property owners between Northport and the Canadian border in the Columbia River valley are again being offered the chance to have free soil sampling. In addition, soil sampling opportunities were offered to property owners along the river valley living as far south as China Bend.

A very robust effort was made by EPA, Teck American Incorporated (TAI), the Forum and others to reach out and encourage property owners to participate. In January, 506 access requests were mailed to eligible property owners within the soil study sampling area. The Forum supplemented this effort with newspaper ads and public meetings. In March, a second letter was mailed to property owners who had not responded to give them another opportunity to reply.

274, or 52%, of property owners have responded so far, and 142 have granted access.

This spring TAI, their contractor Tetra Tech and EPA visited properties where owners had granted access. The purpose of these visits was to mark out the areas where samples will be collected, with emphasis being on areas like a yard or garden where residents would most likely be exposed to soil.

Sampling is expected to occur this summer between August 1 and the end of September. Results are likely to be shared with landowners by early 2017. 🌐

Lake Roosevelt Rainbow and Kokanee Trout Recreational Fishery Continues to Excel

CONTINUED FROM PAGE 3



In a year with lots of snow pack and runoff, however, the lake may be drawn down below 1260' at release time because of downstream flood

control needs. If managers were to continue to hold the fish until the lake rises to optimal levels, disease and other issues can become a problem. Other factors affecting success include entrainment (the amount of fish that pass through Grand Coulee Dam to Lake Rufus Woods below), and predation from walleye, smallmouth bass and other species.

It's a balancing act

Supporting a sport fishery that is economically productive for Lake Roosevelt and surrounding communities is a priority. Co-managers from the Spokane Tribe, Colville Tribe and WDFW, however, are equally committed to conservation, enhancement and restoration of native species. In addition, managers support subsistence fishing opportunities for area tribes.

Artificial production of rainbow trout and kokanee are in keeping with native fish that historically populated the area. Although walleye and smallmouth bass fishing are also popular, these are non-native fish (meaning they were introduced to Lake Roosevelt from other areas).

As such, supporting angler desires for non-native fish while restoring and enhancing native species is a balancing act. Creel (fish surveys based on interviewing anglers), tagging and radio telemetry are examples of on-going research and evaluation managers do to strike an effective balance.

Program funding comes from the Bonneville Power Administration (BPA) Fish and Wildlife program as part of mitigating the effects of Columbia River dam operations.

Support the Creel

Accurate and useful data is the key for the continued success of the Lake Roosevelt Fishery. All anglers are encouraged to participate in the creel survey. When creel clerks interview you, they take up as little of your time as possible. The data collected is a valuable tool used by managers to develop strategies to sustain and improve the fishery for all anglers. 🌐

STOP THE SPREAD OF INVASIVE NORTHERN PIKE



Northern Pike (*Esox lucius*) are a Prohibited Species in Washington State. Anglers are encouraged to kill ALL Northern Pike caught. Harvested Northern Pike must be dead before anglers leave the water where they are caught.

No minimum size or possession limit.

Northern Pike are now present in Lake Roosevelt. This fish species is known to have negative impacts on native fish populations and popular sport fisheries. In addition, further spread of Northern Pike into downstream portions of the Columbia River poses a severe threat to Salmon and Steelhead recovery efforts.

It is illegal to transport or release live fish without a WDFW permit.

Penalty includes up to \$5,000 in Fines and A Year in Prison (RCW 77.15.250) and a person found guilty can also be ordered to pay all costs of capturing, controlling or killing those fish or their progeny (in excess of \$100,000).

If you see someone transporting or releasing live fish, please call the Washington State Patrol. They will contact the nearest WDFW officer.

Spokane County WSP Dispatch: 509-456-4101
Stevens County WSP Dispatch: 509-684-7431



Spokane Tribe of Indians



Washington
Department of
FISH and
WILDLIFE



Seven Bays and Keller Ferry Marinas Under New Ownership

Lake Roosevelt Adventures is the new name on Lake Roosevelt. Their operations will include Seven Bays Marina, Keller Ferry Marina, and the Keller Campground. Houseboat rentals, stores and gas will be available at both marinas. The restaurant at Seven Bays will be open weekends and, if demand is high enough, during the week. Small boat rentals are also available at Seven Bays.

In 2015, Guest Services Inc. acquired Dakota Columbia operations at these facilities. Nationally, Guest Services Inc. offers hospitality management services across the United States. Contracts with the Park Service also include operating seven marinas in Washington D.C. and Virginia.

The new manager is Ken Harlan, who has lived in Seven Bays and worked for Guest Services for a number of years. Before this year, he commuted to the west side as a customer service and process management specialist. Needless to say, his commute is now a lot shorter.

Harlan reports that things are off to a good start. "If it keeps going (houseboat rentals) the way it's going, we'll have a record year."

New improvements include repainting the houseboats and upgrading their mechanical systems. In addition, the "fleet"



Seven Bays Marina

has expanded to 14 boats with the purchase and refurbishing of four houseboats previously owned and operated by the Colville Tribe. Next year, plans are to redo the interior of the boats.

With miles and miles of unoccupied beaches, houseboats are one of Lake Roosevelt's most popular attractions. Those operated by Lake Roosevelt Adventures vary from 35' to 60' long, each with a range of amenities up to and including hot tubs and water slides.

Said Harlan, "My message to people is we're here, take a look. We have better white sand beaches than most people can find traveling thousands of miles." 🌊

Save the Date



Photo by J. Foster Fanning

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*charting
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NOVEMBER 15-16, 2016 The Davenport Hotel, Spokane, Washington

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