

FALL 2014

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Residential and upland soil sampling nears completion

Residents, property owners and land managers in areas around the Northport community and up to the Canadian border have been getting a lot of attention in 2014 because of two soil sampling studies being conducted as part of the Upper Columbia River (UCR) remedial investigation and feasibility study (RI/FS).

A residential soil study is being conducted by EPA to generate analytical data for soil samples that will be used to refine exposure estimates for residents in the northernmost reaches of the UCR Study Area. This data will support the human health risk assessment (HHRA).

In January, EPA sent letters to owners of 513 properties in the sampling area inviting those with a residence on their property to have their soil sampled. Since then, 84 residences (properties) signed agreements to allow sampling on their property.

All of the properties are unique, rural properties. This required EPA to do site visits in the spring at all of the properties to map them out and decide where to take samples. EPA then came back in August to start taking soil samples. The sampling wrapped up in early October.

On a parallel track, Teck American Incorporated (TAI) under the oversight of EPA is conducting an upland soil study. Here, the objective is to evaluate if there is unacceptable risk to ecological receptors and people from exposure to metals in the upland soils. This study will serve as the foundation for the terrestrial risk assessment.

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Proposed fee increase at Lake Roosevelt National Recreation Area

NATIONAL PARK SERVICE NEWS RELEASE

The Federal Lands Recreation Enhancement Act allows federal land management agencies to utilize recreation fee funds to provide quality recreation experiences for hundreds of millions of visitors every year to some of America's most scenic, iconic, awe-inspiring, historical, and culturally rich lands and resources. Participating agencies use and leverage recreation fees to implement thousands of projects to enhance public safety, maintain recreation sites, provide eye-opening educational experiences, build



Photo by Foster Fanning

informational wayside exhibits, fund interpretive programs, and offer a wide range of recreational and cultural opportunities.

The National Park Service is proposing increases to the camping and boating fees at Lake Roosevelt National Recreation Area to take effect in the spring of 2015. The current fees were established in 1995. These fees have not been revised in relation to inflation and are now lower than the average of the area around the park.

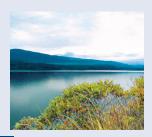
The proposed camping fee for an individual campsite would increase from \$10 per night to \$18 per night. Group site use would increase from \$53 per night to \$55 per night for 1-25 people, from \$78 per night to \$80 per night for 26-50 people, and from \$103 per night to \$105 per night for 51-75 people.

The launch fee would increase from \$6 to \$8 per week. The reduced boat launch annual permit would change from the varying fee structure of \$30 from January 1 through April 30, \$40 from May 1 through September 30, and \$20 from October 1 through December 31, to a single yearly fee of \$45.

Federal regulations permit discounts for holders of America the Beautiful-The National Parks and Federal Recreational Lands Senior and Access passes. This includes nightly camping and weekly boat launch permit fees, but does not allow discounts on already discounted items such as yearly boat launch permits.

Lake Roosevelt National Recreation Area is permitted to retain and utilize fees collected for improvements to visitor services. In recent years visitor fee dollars have been used to design and install wayside exhibits, replace picnic tables, improve and make accessible comfort stations, enlarge the Porcupine Bay and Kettle Falls boat launch parking lots, and to improve/repair and install new boat docks at launch sites. Planned projects include, but are not limited to, continued improvements to comfort stations, enlarging the parking lot at Fort Spokane boat launch, improving the Crescent Bay launch and day use areas, improving the Fort Spokane water system, interpretive planning and exhibits, and control of invasive species.

Comments were accepted until October 31, 2014. For further information, contact Mary Jay, 509-754-7889, mary_jay@nps.gov. •











Ice Age Floods National Geologic Trail begins to take shape

Much of the Northwest's natural DNA traces back to the end of the last Ice Age, some 12,000 to 17,000 years ago. Our landscapes still bear the markings of cataclysmic floods released from Glacial Lake Missoula, a body of water as large as some of the USA's Great Lakes.

As waters broke through a lobe of the Canadian ice sheet, a debris field covering 16,000 square miles was left in parts of Montana, Idaho, Washington and Oregon. To the naked eye, you can see high water lines, dunes, massive boulders in the middle of farm fields, giant coulees, dry falls, gravel bars, scablands, and more. For those meandering through these landscapes, "What's that?" is a common phrase.

Thanks to legislation enacted by Congress in 2009, public and private partners are collaborating to tell the story by developing the Ice Age Floods National Geologic Trail. Coordinating this effort are staff from the Lake Roosevelt National Recreation Area (LRNA).

Said Dan Foster, LRNA's superintendent, "We're turning things upside down a little bit. Commonly, trails tell the story of people and events, tying them to the natural history and landscape of the area. But this is first and foremost a geologic trail with culture and events being told through that prism."

Partners include Department of Interior agencies, the U.S. Army Corps of Engineers, the U.S. Department of Agriculture, state agencies, Indian tribes, the Ice Age Flood Institute and local stakeholders.

Project Scope

What's currently envisioned is a trail that is 1,600 miles long. Interpretive signage will provide connective tissue that can be accessed via roadways and various loops and spurs. Some places will be as easy to see and access as getting out of your vehicle, while others will be walks and hikes.

Interpretive themes will include the geologic setting; contemplating cataclysmic vs. incremental changes; distinguishing between easily seen vs. subtle changes etched $\frac{1}{2}$

CONTINUED ON PAGE 9



Dry Falls State Park



Steamboat Rock State Park



West Bar 9 Giant Current Ripples

Marina enhancements help improve recreational experience

Enhancements at Kettle Falls and Keller Ferry marinas are making Lake Roosevelt recreational opportunities that much easier and better.

At Kettle Falls Marina, an expanded parking area will accommodate an additional 50 boat trailer rigs. And either this fall or next spring, a mast staging area for sailboats will be added. Said Jim Brown, the Lake Roosevelt National Recreation Area Facility Manager, "These projects will help

relieve congestion. In addition, we're adding some additional vault toilets."

Downstream at Keller Ferry Marina, improvements are also being made. The park service is replacing the long term moorage docks. In addition Dakota Columbia, which runs the concession, has remodeled the store.

"Basically," said Brown, "it's about finding ways to improve the user experience. We feel like working with partners is a great way to maximize what we all can contribute." •

New laser light show graces face of Grand Coulee Dam

For millions of people, the iconic laser light show that graces the front of Grand Coulee Dam is a fond and endearing memory of the "time we visited Grand Coulee."

After 25 years, the Bureau of Reclamation introduced a new laser light show, "One River, Many Voices" in May of 2014. At a cost of \$2.3 million, the new show is a great leap forward in both technology and content. The old show used four colors and 4 large ion gas lasers for projection. The new show comes with 14 colors projected from 4 smaller lasers that each emits multiple beams. The sound system was also replaced. Said Lynne Brougher, Grand Coulee Dam Public Affairs Officer, "The images projected are more intense and much clearer and the sound is much better with the new show."

In developing the new show, Reclamation worked with 14 stakeholders and area tribes to include the cultural effects of building the dam and creating Lake Roosevelt, including loss of the salmon fishery. Narration and voices from those who helped build the dam, farmers and others provide



Grand Coulee's new laser light show

historical context for why the dam was built and how it's become a daily influence in the fabric of our lives.

Said Brougher, "The creation, maintenance and future of Grand Coulee Dam really is about finding balance between many voices. We are thankful to the many people who helped bring this new show to fruition."

To view the laser light show on line, go to: http://www.youtube.com/watch?v=KfQQjSxhh9c •

Residential and upland soil sampling nears completion

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Because the sampling areas overlap, some residents volunteered to have both residential and upland soil sampling conducted on their property. In the case of residential sampling, the focus was on collecting samples where humans would most likely interact with the soil, e.g.—gardens, the drip line of a house, animal pastures and children play areas.

With upland soil sampling, the focus is on areas of deposition, either from UCR sediment deposition on relict floodplains, from smelter stacks, or re-deposition of windblown sediments during low water (drawdown) conditions.

Said Kris McCaig, the Teck manager overseeing the effort, "Working with a lot of partners, we were very pleased with the response from numerous private landowners, companies and State and Federal land managers that volunteered to have their soil sampled. Approximately 120 different land owners on 275 different parcels participate. This included large land owners who agreed to have multiple parcels sampled."

Both studies use a methodology called incremental composite sampling for soil collection. For the upland soil sampling program, each soil increment sample is collected using hand-held tools which go to a depth of approximately three inches. In each sampling area (about 25 acres in size) approximately 30 increments of soil are collected and combined in a container to create one composite sample which is submitted for laboratory for analysis. In some of the sampling areas, three composite samples will be collected which means 90 increments of soil are collected.

For the residential soil sampling program, the 84 properties had a total of 561 increment composite samples and 413 discrete samples. This resulted in approximately 17,243 holes in the ground.

Preliminary data will start coming in this winter. For residential sampling, Laura Buelow, an EPA project manager, said "We'll be contacting each homeowner with results specific to their property. If we get results that are of concern, we'll contact them as soon as possible and begin considering potential early actions."

RI/FS 2014 Sampling and Report Status

Surface Water: After three rounds of sampling (completed in 2009 and 2010) the U.S. Environmental Protection Agency (EPA) show Lake Roosevelt and the Upper Columbia 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 RI/FS 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 recreational locations upstream of Kettle Falls known as Bossburg Flats 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. 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: A Quality Assurance Project Plan (QAPP) is under final review to determine if historic ore milling discharge from the now cleaned up Young American Mine mill may have contributed contamination to the river, or possibly to the Bossburg Flat beach downstream. In the Bossburg and Evans Campground area, the current plan is to conduct sampling at several locations between Young American Mine and Evans Campground Beach. Sampling is planned for this spring when the lake level is drawn down.

Fish: The Washington Department of Health issued an updated fish advisory. 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 if there are unacceptable risks to benthic invertebrates (sediment dwelling bugs) associated with exposure to metals in sediments. Toxicity tests are on-going and upon completion, a draft data summary report will be submitted by Teck to EPA for review possibly in the summer of 2015.

Residential Soil Sampling: A Quality Assurance Project Plan (QAPP) was written by EPA to conduct soil sampling at residences north of Northport and in the Columbia River Valley to the Canadian border. The objective of this study is to generate data to help determine if there is unacceptable risk to people associated with exposure to smelter metals in soils. Sampling started in August and wrapped up in early October. See soil sampling article in this issue for more information.

Upland Soil Sampling: EPA has approved the Upland Soil Study Quality Assurance Project Plan (QAPP) to gather information to help evaluate potential human health and ecological risks from exposure to metals in soils that may have been deposited from smelter emissions, windblown sediments and former flood plains on upland areas around the Upper Columbia River. Soil sampling began in September, 2014. See soil sampling article in this issue for more information.

Student Discovery Week and Lake Roosevelt Water Fe a destination attraction for education



Do you have fond memories of school field trips? Each year agency ar lifelong memories for children living around the Lake Roosevelt area.

Each May the Forum offers Student Discovery Week. Each Discovery 355 students attended this year. This exciting event is an opportunity and teachers to explore the ecological, social and economic complexi

The Lake Roosevelt Water Festival is held in mid-September and offer year's event included 384 students from 10 schools. Over 30 volunted students: National Park Service, US Forest Service, Avista, Spokane Tribes, Ferry County Conservation District, Stevens County Conservation & Wildlife.

Thank you to all the volunteers who make these events possible! ②





LRF bus tour rolls through upper Columbia

The Forum celebrated the beginning of October by taking 43 people on a bus tour of the upper Columbia. Starting at a student run fish hatchery in Colville that is a unique partnership between Stevens County, the

school district and the WA Department of Fish and Wildlife, participants traveled as far north as Black Sand Beach above Northport.

Said one participant, "The information obtained is always valuable in communicating with others in our community as well as people visiting the area. There is a lot going on behind the scenes people have no idea of and this is a great way to get informed."

From RI/FS updates to lake operations, participants learned from presentations and networked with each other to consider their common interest: the health and well-being of Lake Roosevelt and the upper Columbia.



stival keep Lake Roosevelt

d community volunteers create these

Zone is staffed by local resource specialists. for elementary and middle school students ties of Lake Roosevelt's watershed.

es a day full of activities for students. This ers from the following organizations taught ribe of Indians, Colville Confederated ration District, Washington Department of















Council Fish and Wildlife Program explores reintroduction of salmon and steelhead above Chief Joseph and Grand Coulee dams

The Northwest Power and Conservation Council has taken a very significant step toward the vision of reintroducing salmon and steelhead above Chief Joseph and Grand Coulee dams. October adoption of their 2014 Fish and Wildlife Program, which directs more than \$250 million per year to mitigate the impacts of hydropower dams on fish and wildlife in the Columbia River Basin, calls for studies to investigate passage and reintroduction of these fish that previously traveled to and from the Pacific before these two dams were built.

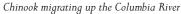
The Council envisions a phased approach that begins next year with studies to:

- evaluate what's been learned from other blocked passages as well as previous passage assessments for reintroduction into the Upper Columbia;
- investigate habitat and other needs necessary for survival;
- consider the costs and feasibility of possible upstream and downstream passage options.

This approach is similar to a proposal from Columbia Basin tribes and Canadian First Nations (see newsletter article below). When studies are completed by the end of 2016, the Council will consider how to best proceed.

Said Tom Karier, Washington Council Member, "The Council has decided to pursue a science-based approach as we investigate the feasibility of reintroduction." 😯







Steelhead

Tribes propose restoring anadromous salmon runs past Grand Coulee

One of the most remarkable outcomes in discussions to modernize the Columbia River Treaty is whether to embrace and support anadromous salmon and other fish once again migrating the Columbia past Chief Joseph and Grand Coulee dams and into Canada.

To further the discussion, last February Columbia Basin tribes and Canadian First Nations jointly released a proposal providing a path forward. In the near term, the proposal calls for "... a series of preliminary planning, research, and experimental pilot studies designed to inform subsequent

reintroduction and passage strategies." In the long term, think next generation, imagine chinook, sockeye, steelhead and other species making their way through fish passage facilities, finding suitable habitat and flows, and restoring their place in the life cycle that existed for thousands of years.

Based on feedback, the proposal was updated and distributed in time for the October transboundary Columbia River Basin Conference. Go to http://lrf.org/Env/FishPassageJointPaperUpdateDraft101514.pdf to view proposal.

The new and old of Grand Coulee Dam captured in video

The Grand Coulee Dam web site, www.usbr.gov/pn/grandcoulee, now includes a couple of videos taking you to the future and past.

A three minute video, "Revitalizing and Managing the Nation's Powerhouse," includes time lapse video of generators undergoing a \$118 million upgrade to help preserve power benefits for another generation.

Begun in 2013, the Third Power Plant upgrades are expected to take another 10 years to complete. The first part of the project has included the overhaul of the three largest generators in the world at 805 megawatts each. The overhaul of these units is expected to be completed in 2017. A contract will be issued for the three 600 megawatt generating units and work is expected to begin in 2018. The overhaul brings about 30 - 50 contract workers into the area at any given time. Said Lynne Brougher, the Grand Coulee Dam Public Affairs Officer,



Refurbished turbine runner ready for installation

"It's certainly helping to keep the local economy strong." The second video, "Grand Coulee Dam: A Man Made Marvel," is a 42 minute piece filled with historical images and a narrative that places building of the dam and what it meant to the Columbia Basin in context. Said Brougher, "It includes never seen before video of the dam under construction."

Ice Age Floods National Geologic Trail begins to take shape

CONTINUED FROM PAGE 3

into the landscape; efforts to continue to unravel mysteries that continue to this day; and the cultural and human history relating to the landscapes.

The guidance for bringing the vision to reality is laid out in a 35 plus page "Foundation Statement" that was finalized in July, 2012. Said Denise Bausch, Chief of Resource Education for LRNA, "It's like trying to open a time capsule for folks, but it can't be understood by standing in one place or being an expert in one thing. For those traveling the trail, there will be surprises and "oh wow" moments throughout."

The Foundational Statement can be found at www.iafi. org/pdf/nps_foundationstatement.pdf.

Moving Forward

Although the 2009 legislation galvanized the effort, it also came without funding. As such, partners are developing both capacity and looking for funding in multiple places to move things along.

These efforts are now bearing fruit. In addition to the Foundation Statement, \$76,000 of funding has been secured for a firm to develop a long range interpretive plan for trail. Said Bausch, "We're hoping to develop that

plan over the next eighteen months. This will include meetings with stakeholders to get their input."

And while this is occurring LRNA has hired Colin Bloom,



White Bluffs, Hanford Reach

a geoscientist who will develop a transportation plan for the trail. This will include things like identifying major trail geological features, available roads, loops and hiking opportunities, signing needs from both a transportation and interpretive perspective, and ways to tie in with existing resources.

For Colin, peering into the past will provide an interesting contrast to his previous job, where he worked on a team tasked with characterizing the geology and safety of prospective InSight landing sites on Mars.

To participate in stakeholder meetings or continue to get project updates, e-mail Denise Bausch at denise_bausch@nps.gov. •

Tribes propose restoring anadromous salmon runs past Grand Coulee

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Said Brent Nichols, Fisheries Program Manager with the Spokane Tribe, "It's not just about the upper Columbia. The vision extends to once again seeing salmon return to the Spokane River. When Matt Wynn from the tribe talks about the heritage and cultural values tied to this fishery, it's inspiring."

The paper was a center piece of a March symposium at Northern Quest Casino. Energy behind the proposal only grew at an April conference in Portland, "The Future of Our Salmon—Restoring Historical Fish Passage?"

The Columbia Basin tribes note that the proposal would fulfill a key regional recommendation that was submitted to U.S. State Department representatives charged with the possibility of modernizing the treaty. The recommendation states, "The United States should pursue a joint program with Canada, with shared costs, to investigate and, if warranted, implement restored fish passage and reintroduction of anadromous fish on the main stem Columbia River to Canadian spawning grounds."

To read the full regional recommendation and background information on the Columbia River Treaty, go to www.crt2014-2024review.gov. •

Spokane hosts transboundary conference

The Columbia River Basin 2014 Conference, Learning From Our Past to Shape Our Future, took place in Spokane, Washington on October 21—23. Hosted by the Columbia Basin Trust and the Northwest Power and Conservation Council, over 300 people representing diverse Canadian, American and tribal interests participated.

Conference organizers used a non-traditional format that featured quick presentations on core issues, followed by questions and dialog. Said a participant to the Forum's Executive Director, "At times the engagement feels more like being in the English parliament. Most of these presenters are wonderfully quick on their feet."

Using this approach, topics like ecosystem based management, reintroduction of salmon, the Columbia River Treaty, energy, water flows and governance were addressed. As the days unfolded, a transboundary tapestry featuring threads of hope, frustration and dogged determination to make progress were woven together. Equally strong commitments to assuring college and young professional participation, cultural and artistic perspectives, and a "think wall" to capture participant thoughts made for quite a mix of activity.

If you go to the conference web site, columbiabasin-2014conference.org, there's an excellent and extensive

reading list associated with topics covered. In coming weeks, conference organizers will be sharing a conference report and participant commentary. These materials will be "must read" items for those interested in taking the pulse of transboundary Columbia River Basin thinking and advocacy.

The Forum has committed to working with conference organizers to follow-up on key conference outcomes and interest areas at our April, 2015 conference. •



Participants at the Columbia River Basin Conference

Cell towers, service and view sheds

For anyone who has visited Lake Roosevelt, they know that spotty cell service is the norm. As over 90 percent of U.S. adults have cell phones, making it the most quickly adopted consumer technology ever, that introduces both inconvenience and safety concerns.

In Lincoln County, cell gaps are expected to narrow with construction of up to five cell towers made possible by the Federal Communications Commission (FCC) Connect America Fund. Siting and construction of these cell towers is not, however, without controversy. Said Ben Wyborney, a property owner adjacent to a proposed tower north of Wilbur, in a letter to the editor, "... this cell tower will constitute a distasteful corporate eye-sore in the form of an antenna-strung silver tower during the day, FAA required flashing red anti-collision lights at night, and a vicious scar of a road leading up to it."

Other proposed locations are in the Creston, Harrington, Hawk Creek and Odessa areas. After comments and Wyborney contesting an easement across his property, the application for the Wilbur cell tower was withdrawn.

Said Lincoln County commissioners Scott Hutsell, "The Wilbur site taught us that cell tower developers, property owners, stakeholders and county planners need to actively get on the same page of the book. There are some lessons learned, and everyone is clear we need to do more than go through the bureaucratic motions."

Often referred to as "Not in My Back Yard" (or NIMBYs),



Cell towers are becoming more common in rural areas

the issues affecting Lincoln County are the same as residents and others who don't want wind turbines and other types of modern day infrastructure dotting the landscape. Be it view sheds, property values or public health concerns, passions are aroused.

Hutsell encourages Lincoln County residents with concerns to contact the planning department to learn more about proposed projects and opportunities for public comment as sites are considered. Said Hutsell, "Even in rural America 85 percent of the population has cell phones. So the question isn't whether we need or want service, the question is the best way to build out the infrastructure." \diamondsuit

SAVE THE DATE

Lake Roosevelt Forum Conference

April 21-22, 2015

Davenport Hotel, Spokane, Washington



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