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Columbia Basin Bulletin  
Issue Summary No. 1:

Salmon and Hydro: An  
Account of Litigation over  
Federal Columbia River  
Power System Biological  
Opinions for Salmon and  
Steelhead, 1991-2009

This issue summary offers  
a historical account of the  
continual litigation over  
Columbia Basin salmon  
and steelhead biological  
opinions since the first  
Endangered Species Act  
listings and summarizes  
the major issues that  
have dominated Columbia  
Basin Salmon recovery  
since 1991.

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## STUDY IDENTIFIES CONTAMINANTS FROM WASTEWATER TREATMENT PLANTS, STORM RUNOFF FLOWING INTO COLUMBIA

Posted on Friday, May 11, 2012 (PST)

Human activities, such as industrial production, transportation, and day-to-day living, are sources of many contaminants that flow into the Columbia River.

A recently completed reconnaissance study detected hundreds of these contaminants in water samples collected from wastewater-treatment-plant effluent and storm runoff from roads and other urban environments in nine cities that line the Columbia River in Oregon and Washington.

The nine cities, in downstream order, are Wenatchee, Richland, Umatilla, The Dalles, Hood River, Portland, Vancouver, St. Helens, and Longview.

"Many of these toxic pollutants are not removed by normal purification processes in municipal waste water treatment plants, and for that reason it is wise to think twice before washing or flushing anything down the drain that can harm the environment," said U.S Geological Survey Director Marcia McNutt. "After all, the fish from the Columbia River find their way to many dinner plates, thus we want to be sure that their home waters are as clean and healthy as possible."

The USGS study, done in cooperation with Columbia River Inter-Tribal Fish Commission and the Lower Columbia Estuary Partnership, is intended to help water managers and policy makers in the lower Columbia basin make decisions about how to proceed with toxics-reduction activities.

"Hundreds of fish and wildlife species,

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With Big Daily Counts At  
Bonneville; Run Will Fall Short  
Of Estimates

Study Looks At Ecological,  
Behavioral Factors Prompting  
Wild Salmon To Stray From  
Natal Areas

Holistic: Restoring 55 Miles Of  
Kootenai River Habitat For  
ESA-Listed Sturgeon, All Native  
Species

Springers Still Not Moving  
Upstream; River Managers Hold  
Back Flow At Bonneville To  
Prod Movement

Keeping Pike Out Of Salmon  
Country: Pend Oreille Netting  
Effort Puts Dent In Predator  
Population

April-September Basin Runoff  
Predicted To Be 10th Best In  
52 Years; La Nina Dissipates In  
April

Humane Society: Feds Fail To  
Provide 'Cogent' Explanation Of  
How Sea Lion Predation  
'Significant'

'I Think We Need To Take  
Those Dams Down': Judge  
Redden's Interview Comments  
Stir Reaction

Partnering With Beavers To  
Restore Degraded Streams  
Aiding Recovery Of Wild  
Steelhead

Oregon Wants Access To  
'Lethal Management Tools' In  
Reducing Salmon-Eating

including 12 stocks of threatened and endangered salmonids, rely on the Columbia River ecosystem for their food sources and habitat, so toxic contamination is a significant concern in the basin," said Jennifer Morace, a hydrologist with the USGS and principal investigator for the study. "We need to know what's getting into the river and where it's coming from. This study was a first step toward finding out."

Among the contaminants found in samples from wastewater-treatment plants were personal care products, plasticizers, industry-related compounds, pharmaceuticals, polychlorinated biphenyls (PCBs), polybrominated diphenyl ether (PBDEs, which are flame-retardants), organochlorine or legacy compounds, currently used pesticides, mercury, and estrogenic compounds.

The wastewater-treatment plant study analyzed for 210 of these compounds, and 112, or 53 percent, were detected.

Analysis of storm runoff yielded 114, or 58 percent, of the 195 compounds tested for, including PCBs, PBDEs, organochlorine compounds, polycyclic aromatic hydrocarbons (PAHs), currently used pesticides, trace elements, mercury, and oil and grease.

Most of the compounds detected in the treatment-plant effluent were found at all of the plants, whereas the compounds in storm runoff varied among locations. This result is expected given the variety of sources for the runoff.

The amounts found in the study would be small when diluted by the Columbia River, but could be significant locally, near the sources.

"Many of the compounds we detected are assimilated by lower organisms and concentrated up the food chain to top predators, including humans," said Morace.

"Our partnership with the USGS has led to key insights that has helped us understand the scope of toxic contamination in the Columbia River, a key step to reducing contaminants and improving water quality," says Debrah Marriott, executive director of the Estuary Partnership.

Cormorant Numbers

Barges From Lake Mead Contaminated With Quagga Mussels Intercepted At Idaho Border

Colville Tribes' Traditional Fishing Gear Efforts Anticipate Rising Salmon Numbers From New Hatchery

Catch Rates Up, But Low Bonneville Dam Passage Stalls Fishing Until Run Size Recalculation

NOAA Fisheries Proposes Delisting Eastern Stellar Sea Lions; Growing Numbers In Columbia River

Research: Less Major Predators, More Large Herbivores Harms Ecosystems, Diversity

Big Water Moving Through Hydro System: Involuntary Spill, Reservoirs Drafted To Prepare For Melt

Request For Preliminary Injunction Filed As States Continue Trapping, Euthanizing Sea Lions

Not Much Fish, Not Many Sea Lions, But Two 'Individually Identifiable' Salmon Eaters Trapped, Killed

Lousy Per Rod Catch Rates, But Commercial Fishery Suggests Plenty Of Spring Chinook Still To Come

Researchers Discuss Status Of Deschutes Basin Salmon, Steelhead Restoration, Reintroduction

Columbia River High, Cold, Muddy; Spring Chinook Again Holding Back Surge Over Bonneville Dam

WDFW Responsible For Dam Fish Counts For 28 Years; Regulation Requires Corps To Consider Others

Oregon's Catherine Creek:

“Toxics are among the largest threats to the Columbia River ecosystem. This report clearly demonstrates what is entering the Columbia River system. Now that we understand how toxics have made their way in to our river system, we must take immediate action to address the sources of contamination and begin clean up,” said Paul Lumley, CRITFC executive director. “As tribal members, we have always been taught that healthy ecosystems and healthy communities begin with healthy water.”

The results of the study can be viewed in U.S. Geological Survey Scientific Investigations Report 2012–5068, "Reconnaissance of Contaminants in Selected Wastewater-Treatment-Plant Effluent and Stormwater Runoff Entering the Columbia River, Columbia River Basin, Washington and Oregon, 2008–10," at <http://pubs.usgs.gov/sir/2012/5068/>



Research Links Where ESA  
Spring Chinook Spend Time  
With Needed Habitat

Oregon Supreme Court  
Certifies Ballot Titles For  
Banning Non-Indian  
Commercial Gill Netting

Judge Denies Stay For Sea  
Lion Killing; Limits Take To 30,  
With No Shooting Allowed

The Mammals: NOAA Fisheries  
Again Authorizes Lethal  
Removal Of Salmon-Eating Sea  
Lions

Clackamas River Bull Trout  
Reintroduction Project Using  
Metolius Fish Awarded;  
Spawning Documented

Researchers Study How Lake  
Trout Removal In Flathead  
Lake Might Alter Complex Food  
Web

The Birds: Corps Scoping Plan  
To Reduce Avian Salmon  
Predators From Bonneville Dam  
To Lower Granite

Can Earlier Societies Teach Us  
How To Manage Highly  
Productive, Sustainable  
Fisheries?

Connecting Ocean Research To  
Columbia Basin Salmon  
Mitigation: Evaluations  
Continue

February Gives Runoff A Boost:  
April-Sept. Water Supply Now  
Forecasted At 98 Percent Of  
Normal

Bonneville Power's Increased  
Fish And Wildlife Project  
Spending 'Fully Ramped Up'

Court Orders New Biological  
Opinion, Jeopardy Analysis On  
Oregon's Water Temperature  
Standards

Council: Northwest Likely To  
Continue Producing More  
Electricity Than It Needs  
Spring, Early Summer

Idaho Intercepts At I-90 Station  
Two Mussel-Infested Boats