



# *Some Dam – Hydro News™*

## *And Other Stuff*



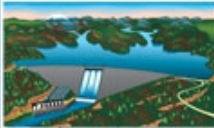
*Quote of Note: "I think in terms of the day's resolutions, not the year's."*  
- Henry Moore

*Some Dam - Hydro News → Newsletter Archive for Back Issues and Search <http://npdp.stanford.edu/>  
Click on Link (Some Dam - Hydro News) Bottom Right - Under Perspectives*

*"Good wine is a necessity of life." - Thomas Jefferson*  
*Ron's wine pick of the week: 2013 Maison L'Envoye Pinot Noir "Two Messengers"*  
*"No nation was ever drunk when wine was cheap." - Thomas Jefferson*

# *Happy*

# New Year!



*(May you all have a healthy, prosperous New Year)*

## **Dams:**

(Everybody is playing defense now.)

### **Corps of Engineers seeks to ease fears over safety of Lewisville Dam**

By JEFFREY WEISS,  
dallasnews.com, Staff Writer, 17  
December 2015

The North Texas staff of the Army Corps of Engineers carried a common message Wednesday about the safety of the Lewisville Dam: **While the dam needs constant maintenance and repair, the likelihood of a catastrophic failure is incredibly small.**

Despite unusual seepage and a huge slide of material during the record spring storms, corps officials in

charge of the dam say that the basic structure did its job. **And that as long as repairs and maintenance continue, the dam should remain sound — absent utterly unprecedented rainfall.** “It would have to be something we’ve never seen before. It would be biblical,” said Timothy MacAllister, chief of operations for the corps’ Fort Worth district. **Even so, the corps will probably recommend long-term fixes next year costing \$50 million to \$500 million, depending on which method or methods are chosen.** Wednesday’s media push was in response to Sunday’s Dallas Morning News story headlined “A dam called Trouble,” which described issues afflicting the 60-year-old dam. **The story described the consequences from a catastrophic failure: a wall of water speeding downriver into Dallas in less than an hour, potentially inundating 431,000 people.** The story said that local corps staffers had considered asking federal officials to raise the dam’s official risk classification to the highest level. Corps officials said Wednesday that after the spring storms, they had in fact discussed whether the risk level needed raising but decided the evidence



Corps of Engineers officials lead a tour of the Lewisville Dam, which they said should remain sound barring unprecedented rainfall. “It would have to be something we’ve never seen before,” said the corps’ Timothy MacAllister. “It would be biblical.”

didn't support that. That means the risk classification remains at 2, second-highest, on a five-level scale.

And in an October interview, the dam safety project manager acknowledged the dam was in worse shape than it had been before the spring slide took place. "I cannot give you an exact order of magnitude how much worse it is," said Sarwenaj Ashraf. Here's how the corps describes a dam with a level 2 risk: "Dams where failure could begin during normal operations or be initiated as the consequence of an event. The likelihood of failure from one of these occurrences, prior to remediation, is too high to assure public safety; or, the combination of life or economic consequences with probability of failure is very high." Most people use "risk" to describe the likelihood of something bad happening. The corps uses a formula that also includes the potential harm caused by a failure. In the case of Lewisville Dam, failure is considered unlikely, but the consequences could be enormous and terrible. That bumps up the risk level. The News' story attracted attention locally and around the country, corps officials said. Leaders in cities downstream from the dam asked for information. Wednesday afternoon, corps officials briefed members of the North Texas congressional delegation. In the morning, corps officials had invited local media to tour the dam and two of its problem areas: the huge slide covered by plastic tarps and a boggy area nearby with what was left of a "sand boil," a bubbling up of ground water on the downstream side of the dam that indicates potentially damaging seepage under it. The slide looks like a 160-foot-long bite taken out of the lake side of the dam. Plastic tarps over the top of the slide protect against further erosion from rainfall and prevent evaporation that could further weaken the clay soil that forms the embankment. Corps officials said Wednesday that the slide needed to be fixed, and soon, but that it was not deep enough to weaken the foundation of the dam.

The discovery of the sand boil set off a frantic series of alerts to downstream cities during the spring storms. Sand boils can be evidence of "piping," a potentially catastrophic internal erosion. Wednesday, corps officials said that the sand boil had been controlled and that there was no evidence that piping had taken place. And while the sand boil was not far from the slide, corps officials said the two were not connected. Jason Vazquez is the Fort Worth division's former dam safety program manager. Sunday's story described his dramatic discovery of the sand boil and the subsequent notification of emergency managers in cities and counties downriver. Had the boil not been stopped, a pipe could have eaten out the heart of the dam. Evacuation plans were quickly dusted off, just in case. And then reshelved once the crisis passed. Vazquez is now a private civil engineer. Asked about what his former corps associates said about the dam Wednesday, Vazquez agreed that the likelihood of disaster was small, even as the potential for terrible damage was huge. "If they didn't have a plan and issues started progressing, it could go bad to worse pretty quickly," he said. "But they do have a plan." Repairs on the slide area will start as soon as the weather allows the corps to lower the lake level enough. Systemic fixes to address the potentially more serious seepage problems are still being developed. A report with recommendations is set to be finished in February. Unless something dramatic changes in the condition of the dam, major repairs are not likely to start until 2020. But corps officials said Wednesday that they were confident the dam would survive just fine until then, as long as stopgap fixes continue. "None of these issues will cause the dam to fail under normal operations," said Col. Calvin Hudson, commander of the corps' Fort Worth district. *Special contributor George Getschow contributed to this report.*

(In this time always be suspicious.)

### **FBI alerted about group of 'Middle Eastern' men asking about Missouri dam**

December 18, 2015, FoxNews.com

FBI officials were reportedly alerted about a group of men asking suspicious questions about a Missouri dam, authorities said Wednesday. Miller County Sheriff Bill Abbot said officials have been in contact with the St. Louis security office after the Camden County Sheriff's Office confirmed a report about suspicious activity. Abbot said there is no reason to believe there's a bigger threat to the Bagnell Dam due to the recent report, according to Lake News. Camden

County authorities told KMIZ-TV the incident happened about two weeks ago at a Golden Corral restaurant in Osage Beach. Restaurant workers told authorities who were eating lunch that a group of men were asking questions about the dam, including if they could rent a boat and tour the dam. The Camden County Sheriff's Office told Lake News they received a tip about "Middle Eastern" men asking suspicious questions about the Bagnell Dam. "With recent things going on in our country and around the world, people are kind of a little bit more alerted. It's everyone's responsibility to watch out for each other. We all live in this community, and we're going to notice things that seem out of place and if we don't notify the proper authorities, who will?" Camden County Officer Corporal Scott Hines told KMIZ-TV. Hines told Lake News they've talked to the FBI among other security officials across Missouri. The Camden County Sheriff's Office is not conducting an investigation.

(Nothing like money to solve a problem.)

### Scoggins upgrade to get more money and flexibility

17 December 2015 17:34 | Written by Jill Rehkopf Smith

Thanks in part to pressure from Oregon's Congressional delegation, provisions for upgrading the seismic safety of Scoggins Dam near Gaston and also for increasing water-storage capacity in the adjacent Hagg Lake reservoir are included in an omnibus spending bill expected to pass the U.S. House and Senate Friday. The bill would reauthorize the Safety of Dams Act, raising the cap on safety-upgrade funding from about \$550 million to \$1.1 billion, to be parceled out to dams across 17 western states, including three in Oregon.

It also includes new language allowing the U. S. Bureau of Reclamation to work with local agencies that aim to increase water-storage capacity by raising the dam's height. Ordinarily, Reclamation isn't authorized to increase storage capacity when upgrading dam safety, but this bill gives it the freedom to work with Washington County agencies on creating conservation storage or other benefits. "This is a major milestone in our ongoing efforts to secure our region's primary water supply and meet the long-term needs of fish, farms and families," said Mark Jockers, public affairs manager for Clean Water Services, which is heading up the dam-raising project. "Scoggins Dam and the waters in Hagg Lake form the heart of the water system in the Tualatin Basin, a region with water needs that could soon outgrow the supply," said U.S. Sen. Ron Wyden. U.S. Sen. Jeff Merkley's seat on the Senate Appropriations Committee might have helped push through the dam-upgrade changes. And U.S. Rep. Suzanne Bonamici noted the urgency of the project, given the danger to dam neighbors when the long-forecast earthquake of 9.0 magnitude or higher strikes. After being voted on Friday by Congress, the bill is due to be signed by President Obama over the weekend.



(Tell us what we don't know! Didn't the ASCE say this 2 years ago in their quadrennial report card?)

### DHS WARNS OF AGING AND FAILING DAM AND LOCK INFRASTRUCTURE

OODA Analyst, 19DEC2015, oodaloop.com

The Department of Homeland Security has issued a report warning of the safety, economic, and transportation impact if the U.S. lock and dam infrastructure continues to degrade over time. According to DHS, much of the infrastructure is already beyond their expected lifespan.



“The Water and

Wastewater Systems Sector critically depends on dams for all steps of potable water production, including intake, distribution, and treatment. In addition, the Water and Wastewater Systems Sector assets depend on electric power provided by dams.

As of 2013, hydroelectric power accounts for nearly 7 percent of electricity generated in the United States, and a few states in the Northwest, including California, Oregon, and Washington, get more than 50 percent of their electricity from hydroelectric sources. The Transportation Systems Sector relies on dams and navigation locks for transporting goods and freight on inland waterways. Typically, dams on navigable waterways have navigation locks close by to allow passage around the dam. Dam failures could result in the extended closure of critical locks, requiring that goods be transported via more expensive routes, such as railways and commercial vehicles. An extended closure of some locks would result in insufficient rail and commercial vehicle capacity to transport some goods.”

### Key Findings

- Fifty-four percent of Inland Marine Transportation System (IMTS) structures are more than 50 years old; 36 percent are more than 70 years old.
- Mechanical breakdowns resulting in lock closures steadily increased from 2000 to 2010.
- The Inland Waterways Trust Fund (IWTF) is an important funding source for lock construction and rehabilitation, but the barge fuel tax that funds the IWTF has not increased since 1995. This tax would need to increase by more than 50 percent to have the same purchasing power today.
- Dam projects are expensive, and funds are limited. As a result, priority projects are often delayed, which leads to more unscheduled lock closures.
- States, localities, and private entities own 82 percent of all high hazard potential dams. The Federal Government owns 4 percent and public utilities own 2 percent of the dams listed on the U.S. National Inventory of Dams.
- States have inspection and regulatory authority over most dams. However, the Dam Safety Act expired in 2011, limiting federal funds available to support state dam safety programs.
- Dam safety incidents can occur at any point during a dam's lifetime, but approximately 31 percent of dam safety incidents occur during construction or within the first 5 years of operation.

Full report: [https://www.oodaloo.com/wp-content/uploads/2015/12/15-0187\\_OCIA -  
\\_Aging\\_and\\_Failing\\_Infrastructure\\_Systems\\_-\\_Dams\\_and\\_Navigation\\_Locks -  
\\_18Dec15\\_U-FOUO.pdf](https://www.oodaloo.com/wp-content/uploads/2015/12/15-0187_OCIA_-_Aging_and_Failing_Infrastructure_Systems_-_Dams_and_Navigation_Locks_-_18Dec15_U-FOUO.pdf)

(Wonder how many others. Probably just a test for bigger targets.)

## **REVEALED: Iranian hackers broke into computer system that controls a New York dam and sparked security concerns all the way up to the White House**

- **Systems operating the Bowman Avenue Dam in Rye were infiltrated in 2013**
- **Hackers gained access to the dam through a cellular modem**
- **It raised worries computer systems around the country are too old**
- **The attack came as U.S. bank websites were also targeted**
- **Was reportedly a response to American spies damaging a nuclear plant**

By Reuters, 21 December 2015, [dailymail.co.uk](http://dailymail.co.uk)

Iranian hackers breached the control system of a dam near New York City, an infiltration that raised concerns about the security of the country's infrastructure, it has been revealed. The computer systems controlling the Bowman Avenue Dam in Rye, around 20 miles from New York City, were hacked from the Middle East in 2013 and could have caused surrounding areas to flood. The hackers gained access to the dam through a cellular modem, the Wall Street Journal reported, sparking worry all the way up to the White House.

Iranian hackers breached the control system of the Bowman Avenue Dam in Rye, NY (pictured), around 20 miles from New York City. It was an infiltration that raised concerns about the security of the country's infrastructure. They cited an unclassified Department of Homeland Security summary of the incident that did not specify the type of infrastructure. The dam is a 20-foot-tall concrete slab across Blind Brook, about five miles from Long Island Sound. 'It's very, very small,' Rye City Manager Marcus Serrano told the newspaper. He said FBI agents visited in 2013 to ask the city's information-technology manager about a hacking incident.

The dam breach was difficult to pin down, and federal investigators at first thought the target was a much larger dam in Oregon, the Journal said. The breach came as hackers linked to the Iranian government were attacking U.S. bank websites after American spies damaged an Iranian nuclear facility with the Stuxnet computer worm. It illustrated concerns about many of the old computers controlling industrial systems, and the White House was notified of the infiltration, the Journal said.



The newspaper said the United States had more than 57,000 industrial control systems connected to the Internet, citing Shodan, a search engine that catalogs each machine. Homeland Security spokesman S.Y. Lee would not confirm the breach to Reuters. He said the department's 24-hour cybersecurity information-sharing hub and an emergency response team coordinate responses to threats to and vulnerabilities in critical infrastructure.

(They just won't let loose of this!)

## **LEWISVILLE DAM: JUST ONE OF AMERICA'S MANY PIECES OF CRUMBLING INFRASTRUCTURE**

By Eric Nicholson, December 21, 2015 | [.dallasobserver.com](http://dallasobserver.com)

You can probably trust the U.S. Army Corps of Engineers on this one. The dam holding back Lake Lewisville probably isn't going to fail in the immediate future. The 180 billion or so gallons of water it holds back probably won't burst free and wash away the half-million people in its path. The recent appearance of a sand boil, which indicates that water has seeped under and potentially weakened the dam, and the portion of the barrier that sloughed off into the lake — a "slide," as they call it — are admittedly worrisome. It's not unreasonable to suspect that the Corps might be massaging the actual risk level to tamp down fears of catastrophe. But it also seems likely that the local and federal government learned something from Hurricane Katrina and would warn people of imminent cataclysm.



Lake Lewisville's dam looks so ... intact from up here. It's not, and it has company across the United States. U.S. Army Corps of Engineers

That's not to suggest that you should trust the government to effectively manage flood risk. Quite the opposite in fact. Our Jim Schutze has noted that much of the risk to life and property that would result from a breach of the Lewisville Dam is the result of decades of awful land-use planning. Maybe the government never should have let so much development happen in the path of devastating flooding, or else created a flood-insurance system that does a better job of reflecting flood risk. There weren't a half-million people in the path of an unleashed Lake Lewisville when the six-mile-long dam was built in 1955. But that's just one of the big, system-wide failures embodied by the Lewisville Dam. Its troubles also reflect the country's chronic inability to adequately fund vital infrastructure. The dam was completed in 1955, though it wasn't until two years later, when the Corps breached the upstream dam holding back comparatively tiny Lake Dallas, that the reservoir filled to something close to its modern volume. This was all happening in the context of what historians term the "big dam era," when the U.S., enamored with its technical prowess, set out to tame nature in service of human progress, the civil engineering version of Manifest Destiny. The initial impetus for Lake Lewisville and its sister projects Lake Lavon and Lake Grapevine was flood control, which The Dallas Morning News opined in a 1950 editorial was vital to both the protection of human life and property and future economic growth:

(Whiskey is for drinking, water is for fighting!)

### **Water wars could return in Northwest as Congress dams deal**

By Dan Springer, December 22, 2015, FoxNews.com

While members of Congress enjoy their holiday recess, the clock is ticking on an issue that could bring the return of an ugly water war in the West.

#### **First, the backstory:**

The battleground is the 13,000-square-mile Klamath River Basin between southern Oregon and northern California. The listing of salmon and sucker fish under the Endangered Species Act in the 1990s touched off years of fighting over water rights, and anger boiled over in 2001 when the feds shut off water to farmers in the region, in a bid to help endangered fish. Thousands protested, and the dispute appeared intractable. Court rulings and state government decisions on water rights only seemed to further muddy the waters. Then something remarkable happened — a compromise. Indian tribes, irrigators, environmentalists, power company PacifiCorp, and local and federal officials eventually hammered out what's known as the Klamath Basin Restoration

Agreement (KBRA) in 2010. The deal, at its core, set rules for sharing the water. And while it didn't guarantee farmers all the water they want, especially in drought years, it did give them more certainty. The Klamath and Karuk Tribes, which were granted senior water rights based on old treaties, agreed to take less water than they're entitled to for the endangered sucker fish in exchange for extensive restoration of the Klamath River. **But here's the rub: the centerpiece of that restoration has become so controversial in Congress it may send the KBRA down the drain.** "I never could have imagined that a bipartisan, locally driven solution to one of the most challenging natural resources in the country would fail to see congressional action," said Chrysten Lambert of Trout Unlimited.

Critics of the deal, though, have real concerns. That's because the KBRA calls for the removal of four hydroelectric dams on the Klamath River. **All told, the dams are 400 feet high and can produce 145 megawatts of carbon-free power – and taking them offline would make this the largest dam removal project in U.S. history, far exceeding the removal of the 210-foot Elwha Dam in Washington state in 2012.** Amid these concerns, Congress has not yet approved the KBRA -- and the deadline for congressional action is Dec. 31. Oregon's lone Republican member of Congress, Greg Walden, wrote a bill that would give 100,000 acres of federal forest land to local counties to be managed for timber revenue. The legislation is designed to compensate Siskiyou County in California and Klamath County in Oregon for the loss of tax revenue from the dams. **Yet Walden's bill does not specifically mention dam removal.** He told Fox News taking out the Klamath dams would set a dangerous precedent. "When all this started, some of the environmental groups said, 'if we can do it here, we can do it on the Snake River and then, you know, on to Moscow,'" Walden said. Several parties say if the KBRA is not approved by Congress, they will back out of the deal and take their chances in court as they challenge the federal re-licensing of the dams. Don Gentry, vice chairman of the Klamath Tribe, had an ominous warning for farmers. **"All the gloves come off," Gentry said, "Yes, there will definitely be shut offs to the agriculture community."**

It's exactly the scenario long-time potato grower Bill Walker feared, even though he admits that for years he opposed the dam removal. Yet he now fears the uncertainty of no deal at all. "We know it's going to be a rougher road," Walker said. "We just don't know how rough it's going to be." Greg Addington, director of the Klamath Water User's Association, blames partisan politics in Congress. "We did the hard work, we handed it to them," Addington said. "So it's frustrating, we need them to do what we did. They need to get in a room, shut the door and work this thing out right now." Oregon's two Democratic senators, Ron Wyden and Jeff Merkley, support the KBRA and the dam removal provision. **They have a bill stamping the KBRA's approval, but it has never passed the full Senate.** "Time is running out and it's urgent that Congress also set aside its differences and act to make local stakeholders' vision a reality," they said in a joint statement. PacifiCorp, which owns all four dams in question, also supports the dam removal plan because it would limit the company's liability during the removal process. The company issued a statement last week when Congress went on recess without approving the KBRA: "We share the concern of many settlement parties that continued inaction could fracture the broad coalition that has chosen compromise over counterproductive confrontation and litigation on these difficult issues." Yet many county commissioners oppose the dam removal. For some, like Tom Mallams who chairs the Klamath County Board of Commissioners, dams are viewed as symbols of progress. "It holds something for a lot of people," Mallams said. "It shows a significant amount of taming the West, taming the rivers, using our natural resources for the betterment of mankind, not just for fish." Environmental groups and tribes disagree. **They point to salmon runs that were stopped in 1917 when the first dam on the Klamath was built. They also argue that the four Klamath dams in question are not used to store water for farm irrigation, are not used for flood control and produce a relatively small amount of electricity.** According to PacifiCorp, the four dams account for about 2 percent of its capacity, enough to power 70,000 households. *Dan Springer joined Fox News Channel (FNC) in August 2001 as a Seattle-based correspondent.*

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(Our dam removal story of the week.)

## **Dam Removal Planned In Southington Along Quinnipiac River**



## Dam Removal Will Help River In Southington And Downstream To Ocean

By Bill Leukhardt Contact Reporter, [courant.com](http://courant.com), 12/23/15

SOUTHINGTON, CN — A dam built in the 1800s for a carriage bolt factory is one of two to be removed from the upper Quinnipiac River next year or in 2017, says an official with Save The Sound, an environmental group working with the U.S. Fish and Wildlife service on the \$317,000 federally-funded project. "We're in the design phase now," Gwen Macdonald, habitat restoration director of Save The Sound said Tuesday of the dam removal plan that the group is involved in as project administrator. Save The Sound is a program run by the nonprofit Connecticut Fund For The Environment. The group worked on the Wallace fish passageway in the Quinnipiac in Wallingford and other natural resource improvement projects in Connecticut. Money for the dam removal comes from settlement funds in the cleanup of the former Old Southington Landfill, which is 1,800 feet from the river. "Fish and Wildlife solicited ideas and dam removal was chosen. We're the project administrator. We'll have some public input sessions as the project progresses," she said.



The removal of the Clark Brothers dam in Plantsville near Route 10 and the Carpenter dam a few miles south on the Cheshire-Meriden border will open the upper parts of the central Connecticut river to migratory fish, blocked by man-made dams for at least 150 years from swimming the length of the 38-mile river. "There will be access for blueback herring, American shad, American eels and other migratory fish" that travel inland from salt water as part of their life cycle, Macdonald said. "It will open 16 more miles on the main stem of the river." The two dams also block passage by kayak and canoe. Recreational use of the Quinnipiac will be easier once the dams are taken out. "It will be a real benefit for the town and people," Town Manager Garry Brumback said. "Removing the dams will help flush the river properly and make it cleaner." Southington Land Trust last year cleared some property it had on the Quinnipiac off Bristol Street to make a put-in spot for paddlers to launch their boats. Removing the dams will give boaters more use of the river. A 2013 watershed report, assisted by state environmentalists, river communities, civic groups and the Meriden-based Quinnipiac River Watershed Council, said the river's watershed covers 166 square miles in mostly urban south-central Connecticut. The study says the Quinnipiac is the fourth largest river in the state, formed in a former glacial lakebed and starts in Deadwood Swamp in Farmington and Plainville and flows southward through portions of 18 municipalities to its outlet at New Haven Harbor in Long Island Sound. Water quality is improving in the river, which was heavily polluted by industry, watershed development, landfills and other impacts by cities and towns, the study noted. Several sewage treatment plants discharge treated effluent into the river. The state's first sewage treatment plant was on the Quinnipiac, built in 1891 by Meriden. Prior to that, raw sewage was flushed into waterways to be carried away.





## **Hydro:**

(A vote for hydro.)

### **Bill Drummond: Hydroelectric power - clean, green and renewable**

By Bill Drummond, Dec 18, 2015, grandforksherald.com.

DENVER, CO—Hydroelectric power has come under recent criticism by some in the environmental community to prevent passage of bipartisan legislation aimed at speeding up the federal review process for licensing new hydroelectric projects. These opponents view the hydroelectric licensing process as the means by which to forestall the construction of any new dams. Unfortunately, the very reasons they give for opposing this legislation are exactly the reasons this country needs additional hydroelectric power. Some of these opponents have argued that electricity generated at dams is not "green" because it impacts land use, fish and wildlife and local economies. Without ever defining the term "green," opponents are usually willing to acknowledge that hydroelectric generation is clean, renewable and non-carbon emitting, and superior to some other forms of electric generation.

Dams provide multiple benefits that can include flood control, recreation, irrigation, navigation, municipal and industrial water and, yes, hydroelectric generation. This multi-purpose aspect to building and operating dams is critical not only to the reasons dams are built, but also to the value they provide. The flood damage prevented from the Pick-Sloan Missouri Basin Program dams versus the pre-dam era are estimated to exceed \$1 billion a year in today's dollars. Tonnage transported on the Missouri from Sioux Falls, S.D., to St. Louis went from 51,000 in 1951 to 3,261,000 in 1979. Lands irrigated by this project produce crops with a gross value of over \$200 million. The almost 3,000 megawatts of hydroelectric generating capacity not only prevented the need to build an equal amount of thermal generation, but also allows for the integration into the grid of thousands of megawatts of wind and solar generation. And more people recreate at Corps of Engineers' facilities than at all of our national parks combined.

Construction and operation of dams definitely have fish and wildlife, land use and societal impacts. Yet, electric ratepayers and the federal government have invested billions of dollars in mitigation, dam modifications, and fish and wildlife projects to mitigate for the dams' impacts. Finally, hydroelectric opponents appear to cavalierly ignore the fact that all electric generation systems have environmental impacts. Even the intermittent renewable wind and solar projects have significant land use, visual and wildlife impacts, to say nothing of the thermal generation necessary to integrate wind and solar into the grid. A Minneapolis Star Tribune's article last year offers an excellent description of a severe environmental impact from a "green" resource. According to the story, federal wildlife officials say a California solar plant "might act as a 'mega-trap' for wildlife, with the bright light of the plant attracting insects, which in turn attract insect-eating birds that fly to their death in the intensely focused light rays." The current hydro licensing process is broken; it can take 10 years or more to get a federal license for a new hydroelectric facility. Two bills currently before Congress, H.R. 8 and S. 2012, would make rational changes to the hydro licensing process while maintaining the important environmental safeguards in the current licensing process. With the current concern about carbon-based generation and the need to integrate additional intermittent renewable resources into the electric grid, taking aim at a clean, renewable, non-carbon emitting resource such as hydropower stands the whole concept of "green" on its head. I urge Herald readers to please contact their U.S. senators and representatives and ask them to support H.R. 8 and S. 2012 to remove barriers to the development of additional hydroelectric power. *Drummond is executive director of the Mid-West Electric Consumers Association.*

(Great photo. Arch dams are picturesque.)

## Hungry Horse Dam looking to modernize its 1950s-era power plant

By VINCE DEVLIN For the Gazette, 12/18/15, [billingsgazette.com](http://billingsgazette.com)

HUNGRY HORSE, MT — The four generating units in the power plant at Hungry Horse Dam are original, and have been in service since the dam opened in 1953. They've already been in use far beyond their intended lifespan, according to the Bureau of Reclamation, and were last upgraded in the 1990s. The bureau, which operates the dam and power plant, is seeking public comments to identify issues and concerns that should be addressed in an Environmental Assessment for a proposed modernization of the plant. The assessment is scheduled to be published next summer.

"We're in the pre-scoping period,"

Lynn Brouger, a public affairs

officer with the Bureau of Reclamation, said. "It's during this time that we'll determine what actually will be included" in the modernization.

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Presently, the bureau proposes two alternatives: The "no action" plan required in all such proposals and against which other proposals are measured, and a second alternative. The latter would "upgrade the power plant, overhaul and modernize the four generating units, conduct major maintenance on the penstocks and selective withdrawal system, refurbish the dam outlet works tubes and spillway, and upgrade the domestic water system." "There's a whole list of things they're thinking about," Brouger said. "The environmental assessment process will determine exactly what will be included." Under the "no action" alternative, the power plant would continue to operate under existing protocols, and the bureau says maintenance and repair costs, production outages and time needed to obtain replacement parts would continue to grow based on the aging technology and the scarcity or unavailability of parts. If the power plant is modernized, Brouger said the condition of the components in the generators would be assessed, and those components needing it would be replaced, refurbished or upgraded, depending on their condition. "The proposed modernization and overhaul project will alleviate safety-related concerns, potential limitations on plant operations, and increased risk to sustained long-term operation of the plant," according to the bureau. The Bureau of Reclamation produces the power at the dam; the Bonneville Power Administration markets it. Preliminary comments should be submitted by Jan. 31 to Chris Vick, Bureau of Reclamation, Pacific Northwest Regional Office, 1150 Curtis Road, Suite 100, Boise, ID 83706. Vick can also be contacted at [cvick@usbr.gov](mailto:cvick@usbr.gov) or by calling 208-378-6547.



(Somebody's building new hydro and a dam on this continent. The jobs issue is a real political football.)

## BC Hydro signs Site C civil-works contract at \$1.75 billion

CEO says amount is on budget, project cost remains on track

By Derrick Penner, Vancouver, December 21, 2015, [vancouver.sun.com](http://vancouver.sun.com)

BC Hydro has signed a \$1.75-billion contract with its preferred bidder to build the main civil works on its \$9-billion Site C dam project in northeastern B.C., which is expected to employ 1,500 people at the peak of activity in 2018, the utility said Monday. The announcement sparked a call from B.C.'s construction unions for Hydro and Premier Christy Clark to make a stronger guarantee that British Columbians will



is

Artist conception of Site C dam in the Peace River region. BC Hydro has signed a \$1.75-billion contract with its preferred bidder to build the main civil works on its \$9-billion dam project, the utility said Monday.

get most of those jobs. "It's time to put B.C. first when it comes to jobs, not other provinces or temporary foreign workers," said Brian Cochrane, an executive board member of the B.C. Building Trades Council. The council pushed the province and BC Hydro to come to an agreement over the project with the council, an umbrella group for B.C.'s construction-sector trade unions, as has been done on Hydro projects in the past.

The civil works portion includes construction of the earth fill dam, foundations for its powerhouse, spillway and two diversion tunnels.

In May, Hydro and the council reached a compromise agreement that would allow union and non-union participation, as well as First Nations and independent contractors, on Site C contracts, giving "greater weight on bids with a mix of labour representation that includes the building trades (unions)." However, the council feels its members were shut out of the first big deal awarded, a \$60-million contract for site preparation this summer, and on Monday bristled that the winning bidder, Peace River Hydro Partners — a consortium of firms including Fort St. John-based Petrowest — doesn't have a relationship with any council-affiliated unions. BC Hydro is heavily promoting job and contracting opportunities in B.C., but in a radio report on CKNW, Hydro community relations manager David Conway said it couldn't guarantee all its jobs would go to British Columbians. NDP opposition leader John Horgan said given that BC Hydro is building the biggest public infrastructure in the province's history, it should be able to give better guarantees. "The argument against project labour agreements in the case of LNG proposals was that it's private investment and government didn't want to constrain investors," Horgan said. "I disagree with that, but I don't know how you make that argument when you're taking public money and not ensuring that the public who provided that money is getting the maximum benefit from it." Hydro said the winning bidder has made a commitment to local hiring.

In addition to Petrowest, the consortium includes Acciona Infrastructure Canada (the Canadian subsidiary of a Spanish infrastructure construction firm Acciona) and Samsung C&T Canada. "Petrowest and Acciona have a proven track record of hiring local workers and contractors" in building a hospital project in Fort St. John, said Hydro spokeswoman Simi Heer in an emailed response to questions. The workforce in the initial months of the Site C project reached 600 workers, and Heer said three quarters of them were B.C. residents. The final amount of the contract is higher than the widely reported \$1.5-billion figure quoted when Peace River Hydro Partners was unveiled as the preferred bidder Nov. 25, but Hydro CEO Jessica McDonald said that was an estimate of "more than \$1.5 billion" to indicate the scale of work involved, without tying itself to a price during final negotiations. "We've had very strong bids for each of the contracts (to date)," McDonald said. "The project is continuing to prove itself to be within budget."

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(Some people oppose everything.)

## Paddlers Oppose Mascoma Dam

vnews.com, by Nora Doyle-Burr, Valley News Staff Writer, December 24, 2015

Lebanon, VT — Five paddling groups say a proposal by a Boston-based hydropower developer to generate electricity from dams along the Mascoma River in Lebanon could prevent continued enjoyment of the river as a recreational resource. Grafton Hydro LLC in October filed for a preliminary permit from the Federal Energy Regulatory Commission to determine if it would be possible, both economically and environmentally, to generate power from two Mascoma River dams — the existing Mascoma Lake Dam and a not-yet-constructed dam proposed behind the Mascoma Village Apartments in downtown Lebanon, between High Street and Route 120.



In their Dec. 18 filing to intervene in the pending petition, the boating groups said the dam proposed for downtown Lebanon effectively would eliminate paddling in the area. Other parties, including the city of Lebanon and the Connecticut River Watershed Council, also have notified FERC that they have a stake in the matter and are seeking intervenor status. “In the downtown Lebanon area, these two uses (recreation and energy generation) are incompatible,” said Bob Nasdor, Northeast stewardship director for American Whitewater, one of the paddling groups. He said the new dam would lower the water to a level that would make it unattractive to paddlers. The section of the river that runs through Lebanon’s downtown is valued highly by members of Dartmouth College’s Ledyard Canoe Club, said Nathaniel Goss, the group’s president and a Dartmouth senior. The section, which includes more difficult Class IV and V rapids, provides club members and the broader community with a convenient and reliable stretch for advanced paddlers. “It’s the bread and butter,” Goss said. “We paddle there whenever we have a little bit of free time.” In addition, the club relies on the river for its annual Mascoma Slalom near the Packard Hill Covered Bridge. The 15-gate course traverses Class I and II rapids. In existence for more than 50 years, the race is the longest consistently run slalom in the U.S., and once was an Olympic trial event, Goss said. The Class I and II rapids also offer beginner and intermediate paddlers a good introduction to paddling. Should a new dam prevent club members from accessing the Mascoma River rapids, Goss said, the more-advanced paddlers would have to make longer trips to find challenging Class IV and V rapids and beginners would lose a learning opportunity. “Part of white water kayaking is to get experience on as many rivers as possible,” Goss said. “Rivers have very different characters.” American Whitewater and Ledyard Canoe Club were joined by the Vermont Paddlers Club, Merrimack Valley Paddlers and New England FLOW in the petition to intervene. “I just want the developers who are proposing to develop a new dam to very clearly understand that there’s very significant interest by the boating community,” said Nasdor, who drafted the groups’ filing.

Thomas Tarpey, the managing member of Grafton Hydro, said he had not yet reviewed the boating groups’ petition, which if granted would allow the groups to participate in the FERC review of Grafton Hydro’s preliminary permit. In the FERC filing, Grafton Hydro said it aims to generate about 1.5 megawatts of power from the downtown dam, and 600 kilowatts from the existing dam. One megawatt of power generates enough electricity to power almost 750 homes, according to the California Energy Commission’s website. But, Tarpey said, he thought recreation could be accommodated within the development. “That would be blended into our operation,” he said. “Storage reservoirs and the dams that create them are sort of allies of white water canoe enthusiasts, rather than enemies.” He said water can be stored and then released when boaters

want to use it. Though he did not see how the downtown dam could be developed without endangering paddling, Nasdor indicated that he could see an opportunity to retrofit the existing Mascoma Lake Dam for energy production without destroying that section's recreational value. Nasdor said his group is "not anti-hydro" and understands that some dams need to remain in place to maintain recreational resources, generate energy or protect property from flood damage. Overall, however, he said the state ought to be looking to remove nonfunctional dams, rather than constructing new ones. Vermont state Rep. David Deen, D-Westminster, a river steward with the nonprofit Connecticut River Watershed Council, said he is concerned about the proposed dam's potential to damage or destroy habitat for aquatic animals. The cobbled stones at the bottom of the region's rivers provide habitat important to insects, invertebrates, crayfish and fish at some point in their lives, Deen said.

All dams trap silt, which can cover river bottoms, destroying the habitat, he said. The watershed council plans to file its comments with FERC. In addition to the paddling groups and the watershed council, the city of Lebanon and the U.S. Department of the Interior — on behalf of the U.S. Fish and Wildlife Service and the National Park Service — have filed to be intervenors in the case. In the city's filing, Lebanon Planning and Zoning Director David Brooks said the city aims to follow the dam project as it progresses to ensure city regulations are followed and the best interest of the city is considered. City officials are concerned that changes to the river could affect the city's water users by altering flows to the water treatment facility, which sits about 3.5 miles downstream from the existing Mascoma Lake Dam, Brooks said. Should the dam reduce flows significantly, it could affect the city's ability to reliably provide water to its users, Brooks said. Tarpey's proposal comes as the city is conducting a study of the downtown, including options to improve views of and access to the Mascoma River. The city's interests may be compatible with Tarpey's, Brooks said in an interview Wednesday. For example, a dam could perhaps be constructed in such a way that people could walk across it and fish from it, he said.



## **Environment:**

(Bet people are jumping over this.)

For Immediate Release, December 18, 2015

Contact: Noah Greenwald, (503) 484-7495, [ngreenwald@biologicaldiversity.org](mailto:ngreenwald@biologicaldiversity.org)

### **Lawsuit Filed to Protect Threatened Oregon Spotted Frog From Damaging Operation of Deschutes River Dams**

PORTLAND, Ore.— The Center for Biological Diversity today filed a lawsuit against the U.S. Bureau of Reclamation over harm to the federally protected Oregon spotted frog from operation of the Crane Prairie and Wickiup dams on the Deschutes River. The 2- to 4-inch long, black-spotted frog, now known to fewer than 100 sites, lives on the margins of both reservoirs and along the river below the dams. Large fluctuations of both the size of the reservoirs and flows in the river alternately flood or desiccate the frog's habitat, in violation of the Endangered Species Act. "If the Bureau of Reclamation keeps operating these two dams like it has, the Oregon spotted frog has little chance of survival," said Noah Greenwald, endangered species director at the Center. "The Bureau has turned the Deschutes River on its head with high flows in late summer and low flows in winter, exactly the opposite of how a natural river should flow. This harms not only the Oregon spotted frog, but salmon, steelhead and people that depend on the health of the river."

The frog, which was protected last year under the Endangered Species Act, was once common from British Columbia to Northern California along numerous rivers and lakes, including the Deschutes and Willamette. But the frog known for the unique clicking sound it makes has undergone massive declines because of loss of its wetland habitats largely due to dam building,

urban and agricultural development and livestock grazing. “The fate of the Oregon spotted frog is intimately tied to the health of our rivers and streams,” said Greenwald. “As we’ve dammed, channelized and polluted rivers across the Northwest and beyond, species like this charismatic frog have suffered. By saving these animals, we’ll almost certainly improve the health of the Deschutes and other Northwest rivers.” The Center is represented in litigation by Laurie Rule and Elizabeth Zultoski of Advocates for the West. *The Center for Biological Diversity is a national, nonprofit conservation organization with more than 900,000 members and online activists dedicated to the protection of endangered species and wild places.*



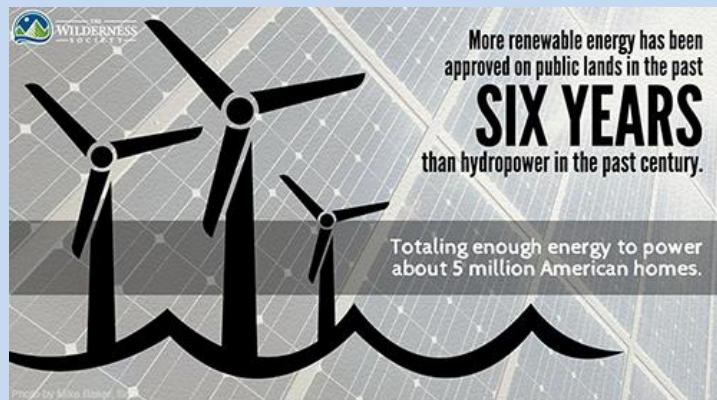
### ***Other Stuff:***

(The push for renewables.)

### **Renewables permitted on public lands surpasses hydropower**

Dec 23, 2015, by Katie Breen, wilderness.org

Recently, an important milestone was reached: renewable energy projects approved on public lands in the past six years will, when built, produce more energy than all of the hydropower projects created in the past 100 years—including the Grand Coulee and Hoover dams. That’s because the Obama Administration has prioritized the deployment of renewable energy on public lands, helping our nation begin to move beyond pollution-causing fossil fuels. In the past seven years, 57 projects have been approved, totaling more than 15,000 MW of power—enough electricity to power roughly 5 million American homes. Replacing the coal, oil and gas found on public lands with appropriately sited renewable energy is setting a course for cleaner air and water and a more sustainable planet.



Despite the forward progress shown by the amount of projects permitted, the process for developing renewable energy on public lands is stuck in the past. In fact, wind and solar projects are being approved with the same type of permit used for roads and telephone poles. Fortunately the BLM has proposed leasing guidelines tailored to the unique characteristics and impacts of modern, large-scale renewable energy projects. This includes not only updating the leasing process to make it more efficient, but also incentivizing development in appropriate places to avoid environmental conflict. Now is the time for the Obama Administration to finalize these “smart from the start” leasing guidelines for wind and solar energy, creating a 21st century energy framework for the clean energy of the future. In the face of climate change, advancing renewable energy alone is not enough to protect wilderness—we must also ensure it is done in a safe and responsible way. A smarter approach to development is needed to help avoid negative environmental impacts. In more ways than one, 2015 has been a historic year for addressing climate change, the greatest challenge in our work to protect wilderness. Let’s keep the momentum up to ensure a future for all of us.







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