

Some Dam – Hydro News™

And Other Stuff



Quote of Note: “Water, taken in moderation, cannot hurt anybody.” - - Mark Twain

*Some Dam - Hydro News → Newsletter Archive for Current and Back Issues and Search:
(Hold down the Ctrl key when clicking on this link) <http://npdp.stanford.edu/>
Under Partners/Newsletters on left Click one of the Links (Current issue or View Back Issues)*

*“Good wine is a necessity of life.” - -Thomas Jefferson
Ron’s wine pick of the week: 2014 Benovia Pinot Noir "Russian River Valley"
“No nation was ever drunk when wine was cheap.” - - Thomas Jefferson*



Dams:

(Now you can see it on video.)

Oroville Dam: New video shows crews rebuilding...

By Paul Rogers | mercurynews.com | Bay Area News Group, August 18, 2017

A video (<http://www.mercurynews.com/2017/08/18/oroville-dam-new-video-shows-crews-rebuilding-wrecked-spillway/>)

released Friday by the state Department of Water Resources shows construction crews at Oroville Dam, the nation’s tallest, continuing to rebuild the severely damaged main spillway and emergency spillway. **Hundreds of construction workers are racing on a \$500 million project to rebuild enough of the main spillway by Nov. 1 so that it can be ready for heavy rains this winter.** The job is scheduled to be finished in 2018. Crews this week are filling in crevices with concrete, in preparation of laying roller compacted concrete on top of that. Water flowing down the main



spillway during raging winter storms in February ripped a huge hole in that concrete structure. State dam officials closed the gates to assess the damage, allowing Lake Oroville to fill to the top. As water flowed over the emergency spillway, it eroded the base of the hill on which it was built, leading authorities to evacuate 188,000 people over fears that it could collapse and possibly send a wall of water onto Oroville, Marysville, Yuba City and other towns below.

After officials reopened the gates on the main spillway, the lake level dropped, allowing the public to return, and averting what could have been one of the worst dam disasters in American history. On Friday, Lake Oroville was 53 percent full. Its water level was 131 feet below where it had been in February. Early investigations show the construction crews that built Oroville's main concrete spillway in the 1960s made it too thin — only four inches thick in some parts — and didn't anchor it sufficiently to bedrock or reinforce it enough with steel rebar. Cracks that developed over the years were not fixed adequately by the state Department of Water Resources. A final investigation report by a team of experts is due out this fall.

(Not satisfied with the repairs. The gates didn't fail. At least, I didn't hear they did.)

Bungled repairs and new concerns at the tallest US dam

By PeakProsperity. August 20, 2017, valuewalk.com

Remember the crisis earlier this year at the Oroville Dam? The overflow from California's winter of heavy rain threatened to overpower our country's tallest dam. A cascading failure of the dam's main gates, its primary spillway AND its emergency spillway had the world watching hour by hour to see if a catastrophic breach was going to occur. Fortunately, the rains stopped long enough for the situation to be brought under control. The dam remains in place and repair crews have been working all spring and summer.

But should we breathe easy at this point? Not at all, says dam safety expert Scott Cahill. Our readers will remember Scott from the excellent technical assessment he provided in the thick of the crisis earlier this year. In our earlier podcast with him, he explained how the real tragedy at Oroville was that for many years, small and affordable maintenance projects that easily could have prevented the crisis were diverted (in his estimation, the cost of making the needed repairs was quite small — around \$6 million. But for short-sighted reasons, the repairs were not funded; and now the bill to fix the resultant damage will likely be on the order of magnitude of over \$200 million. Which does not factor in the environmental carnage caused by flooding downstream ecosystems with high-sediment water or the costs involved with evacuating the 200,000 residents living nearby the dam).

And the pattern appears to be continuing. In this week's podcast, Scott details a number of concerning structural risks visible at Oroville that are again being de-prioritized, or ignored all-together. And as before, straightforward and inexpensive projects that have high potential to prevent a catastrophic failure of the dam are not being pursued:

They've begun the repairs on the bottom half of the spillway, but the tragedy and loss from the bottom half of the spillway failing has already been realized. No one is worried about the bottom half of the spillway. On the other hand, they've done nothing yet with the upper half of the spillway — which is what would cause a catastrophic failure of the dam. It's amazing how much money they've already spent, and yet their priorities are such that they haven't abated the liability at all. So yes, we've made the bottom of the principal



spillway, the concrete sluices, more sound. But it's not the bottom of the dam that will fail, of course, it's the crest — the top of it — where the gates are. That's still highly suspect.

There are additional issues involving the unwanted moving of water through the dam — the so-called "green spots". These are areas where water is migrating through the dam, probably through the indigenous soils adjacent to it. I've walked on these [at Oroville] and you can stick your foot down, and like your backyard after a torrential rain, water actually comes up into the footprint after you remove your foot. This is not a good situation. I believe there is a lot of movement of water through that dam, including at the structure itself that houses the gates that control the flow down the principal spillway.

There's nothing wrong with embankment dams in general, they're wonderful dams. But they rely on the mass of the earthen embankment itself to offset the forces that try to slide or rotate it into failure. When we see water migrating through a dam, it can potentially cause failure of the dam because it offsets the mass all that earth. Plus, there's a lot of river rock and sand in this embankment. River rock, as we all know, is round. Anyone can understand how a pile of round rocks, if the fines have been washed out from between them by water and the rocks then vibrated, for instance, by seismic activity, weakens the system. These concerns are very, very serious. I believe that this situation is occurring in multiple places across the Oroville dam — and yet this is simply not being discussed.

(Lot of press space for one dam removal.)

Dam removal will help bring Raritan River back to life

By Craig Turpin, August 10, 2017, nj.com

MANVILLE, NJ -- The Department of Environmental Protection Thursday announced a plan to remove the obsolete Weston Mill Dam between the borough and Franklin Township. The removal will be completed in cooperation with various partners. The dam removal will open a stretch of the Millstone River in Somerset County to migratory fish, enhance overall river health and improve safety for recreational use, Commissioner Bob Martin said during a press conference held at Lincoln Avenue Park. "This project advances our goal of removing old dams in the Raritan basin and in other parts of the state that are no longer necessary, benefiting fish and the overall ecological health of our waterways, while making them safer for kayaking and canoeing," Martin said. "We are grateful to our partners - including the National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service and the Stony Brook-Millstone Watershed Association - for working with us to make this important project possible."



The removal of the Weston Mill Dam, also known as the Weston Causeway Dam, is the latest in a series of dam-removal projects undertaken by state, federal, nonprofit, and private partners to make waterways in the Raritan River Basin free-flowing again, according to a news release. "The Weston Mill Dam removal illustrates what can be achieved when governmental and non-governmental organizations, citizens, and businesses come together to restore natural resources harmed by pollution," said Eric Schradung, supervisor of the U.S. Fish and Wildlife Service's New Jersey field office. "Through the Natural Resource Damage Assessment and Restoration program, this dam removal -- funded by the responsible party and driven by partners with shared conservation goals -- will benefit water quality, fish, and recreational opportunities for local communities."

According to American Rivers, a national group that has worked on more than 200 dam removal projects across the United States, dams can damage river health. The project will open a 4.5-mile stretch of the Millstone River upstream of the dam to species such as American shad and river herring that spend much of their lives in the ocean and estuaries, but need to return to freshwater rivers and streams to spawn, it was stated in the release. American eel, which spawn in the ocean but spend much of their lives in rivers and streams, will also benefit. "Removal of the Weston Mill Dam is an important step in long-term efforts to restore habitat in the Raritan River watershed," said David Westerholm, director of NOAA's Office of Response and Restoration. "Cooperative resolution of natural resource damage liability benefits everyone - the public, industry, and the ecosystem.

These collaborative efforts lower damage assessment costs, reduce risk of litigation, and - most importantly - shorten the time between injury and restoration of public resources." Funding for the project was secured by the DEP's Office of Natural Resource Restoration, the National Oceanic and Atmospheric Administration, and the U.S. Department of the Interior through a Natural Resource Damage Assessment settlement agreement. The dam removal project takes place in an area purchased by the DEP's Green Acres Program as an addition to the Delaware & Raritan Canal State Park as well as for the purposes of removing the dam, according to the news release. Removal of the dam is the latest in a series of efforts to allow the free flow of water along the watershed, according to the release. The Calco Dam in Bridgewater was removed in 2011, followed by the Roberts Street Dam in Bridgewater and Hillsborough in 2012, and the Nevius Street Dam in Raritan Borough in 2013. The Island Farm Weir, another dam located at the confluence of the Raritan and Millstone rivers, is equipped with a fish ladder. It is not a candidate for removal because the area it impounds supports intakes operated by the New Jersey Water Supply Authority, according to the news release. Jeff Tittel, director of the New Jersey Sierra Club, praised the removal of the dam. He said removal of dams helps prevent future flooding and restores surrounding wetlands. "This is an important project to restore the Raritan River to a free-flowing river," he said in a statement. "The removal of dams helps improve water quality, prevent flooding and for our fisheries."

"By removing dams, we allow the river to return to its natural free flowing state improving water quality and reducing pollution." Structures such as the Weston Mill Dam, which is 5.5-feet high, are known as low-head dams. These small dams were built many decades and even centuries ago to power mills, generate electricity and create lake-like sections of impounded water. However, they have long prevented migratory fish from accessing important spawning habitats. As early as the late 1700s, it was reported that construction of dams and overfishing were causing the shad population in the Millstone River to decline rapidly. The original dam at Weston Mill was built around 1844. The current concrete dam at the same location was built in the mid-1930s. The Weston Mill Dam site today contains the remnants of a gristmill and sawmill. Measures will be taken to protect the remnant structures as well as any artifacts that are found.

(Here's your answer.)

Why do beavers build dams? You asked Google – here's the answer

By Jules Howard, August 16, 2017, theguardian.com

Here is a beaver-based creation myth. It begins thus. God so loved the world that He seeded it with diligent rodents able to do the hard work of habitat creation – damming streams and creating ponds and lakes in which amphibian larvae thrived, providing food for water beetles and dragonfly nymphs and a host of other invertebrates which fed the fish that early humans consumed. God gave us beavers to make the landscapes upon which we depended – that's the myth I want you to imagine for the sake of this piece. It goes on. My creation myth believes that the wetlands that these early



creatures created washed away and purified humanity's poisons. And that these holy creatures, The Beavers, saved us from Biblical floods by slowing the flow rate of sudden aggregations of water. Again and again, The Beavers saved us, but in time, predictably, things changed. We humans came to turn our backs on them. We forgot about Beavers, and God was not pleased about humankind's insolence.

In less than 200 years, the North American beaver went from 90 million to between 10-15 million. Like all good creation myths, this one features a gruesome twist. Like the rosy apple that hung from the tree in the Garden of Eden, in my creation myth God put things on beavers to tempt those first people into sinning. He covered them with thick fur that they would desire as clothing. He put their testicles on the inside, rather than the outside, and gave these mystical and elusive gonads properties that may (or may not) have provided medicinal properties. And, lastly, there beneath their tails, God hung a pair of anal glands that produced a smelly substance that the early humans found irresistible. Those early humans made a choice. They couldn't help themselves. They committed original sin. Upon discovering their unusual glands and delightfully thick fur we humans slaughtered them in their millions to make top hats and well-known perfumes that still sell today courtesy of a deft hint of anal glands that makes them more appealing than the competition. (Also ice-cream flavouring, but that's another story). The rest, as they say, is history. In less than 200 years, the North American beaver went from 90 million to between 10-15 million. In Europe and Asia, just 1,200 beavers remained by 1900. The beavers died, almost totally exterminated. In time, we forgot that they had ever been here.

Like all creation myths, mine would become superseded in time by fact. For we discovered there was a better way to describe the patterns in nature that we see around us. We noticed evolution and we determined the mechanism through which it happened: natural selection. And so we must come back to reality and the crux of this Google question, posed above. The big question then, if you will, is this: if it wasn't for humankind's benefit, why exactly do beavers build dams? The



simple answer is that beavers build dams to deepen watercourses, so that they can create "lodges" that can be better defended from modern predators including bears, wildcats, otters and other mammalian forebears with whom the beavers shared prehistory. It seems that deep water is particularly important to beavers. Lakes and ponds allow for a kind of floating structure of sticks and branches that can be accessed from a secret hole beneath, a key real-estate feature that reduces the need for terrestrial entrances through which land-based predators can climb. Upon

finding shallow watercourses, colonising beavers immediately begin damming, creating canals along which trunks and branches can be dragged along to add to this, their anti-predator superstructure. In these lodges, beavers rear their young and see out winter, safe and sound.

Counting hedgehog homes is one way in which ordinary people are adding to knowledge about our environment, writes ecologist Hugh Warwick. Why and how they hit upon this behaviour is of interest to those who study beavers and their family members, the Castoridae (nearly all of whom are now extinct). It may be an example of a behavioural trait that has "piggy-backed" upon an appetite for bark-gnawing. One imagines that their semi-aquatic ancestors were tree-gnawers that used their spoils for building riverside burrows, with some accidentally hitting upon damming rivers. The truth is we don't yet know. The creation myth eroded, now a new mystery is being gradually exposed based by those that study comparative anatomy, fossils and DNA. One thing is clear. Our original sins now washed away by rushing floodwaters, we have an opportunity to bring beavers back into our lives. In recent years, almost every European country has made steps to re-introduce and restore their wild beaver populations. In Scotland, an introduced population of beavers is doing well – indeed, it is now considered a protected native species. There is a good chance that a small breeding population in England may be granted the

same status. After almost killing them off entirely, we may yet redeem ourselves from the sins of our ancestors. How delicious, therefore, that we should free ourselves from damnation by becoming, once more, a dam-nation.

(More dam letters.)

Lowery letter: Dams and salmon

August 17, 2017, idahostatesman.com



Once again our Idaho sockeye salmon are in danger, only three have returned to Redfish Lake. Once again the reason is the four dams on the Lower Snake River, which hold our Idaho fish hostage. Can you imagine if those four dinosaurs were bypassed and the river restored? An abundance of fish, 144 miles of orchards, vineyards and truck gardens. Can you imagine putting a raft in at Hells Canyon Dam and floating to the Tri-Cities and taking a jet boat back? The Wild River and then wine tasting and great riverside venues. Our fish brought prosperity to our river towns and they brought essential nutrients from the ocean back to our forest and grasslands. I am offering a challenge to our Idaho young people; take up this fight and get your fish back.

ODOS LOWERY, BOISE, Idaho

(People couldn't survive without dams. Dams have been around a long time.)

2,000-year-old mound and dam discovered in Turkey's Çorum

By DAILY SABAH, ISTANBUL, 8/17/17, dailysabah.com

The discovery of an over 2,000-year-old dam and archaeological mound in central Turkey's Çorum is expected to bring in a new influx of tourists to the region. Teams from Hittite University's Archeology Department uncovered the Örükaya Dam in the Alaca district of Çorum. Hittite University archeology instructor, Dr. Emine Sökmen, stated that work at the site began 15 days ago, and that the mound and dam dated back 2,200 years to the Hellenistic period of Örükaya.



Explaining that the site dated back to the Hellenistic to the mid-Iron Age eras, Sökmen said, "It's very interesting that the mound doesn't date back to the time we originally predicted. It was probably established during the Hellenistic period, but we will find more answers as our work progresses." Sökmen added that analysis of stone samples would likely confirm the era, "The stone workmanship will provide important data. At first look, it appears to be Hellenistic." Governor of Çorum, Necmeddin Kılıç, stated that he was ready to support projects at the site. "We have gained a new tourism destination with the work initiated at Örükaya Dam and Mound. Congratulating the university for the discovery, he added, "We are ready to offer any necessary support to make the dam and mound more appealing for tourism." Çorum is known for its wealth of Phrygian and Hittite archaeological sites. The region rose to prominence with the rise of the Hittite Empire between 1650-1200 BC, as arts and local economy began to develop and flourish. The region was also home to capital of the Hittite Empire, Hattusa, during the late Bronze Age, given its strategic geographic position and established "Karum" or "trade post" economic system.

(Hydro to the rescue!)

Letter: Dams save our bacon

By Alex Sundberg, NORTH BONNEVILLE, August 18, 2017, columbian.com



I looked at the Bonneville Power Administration generation graph for the five hottest days in our recent heat wave — very revealing when you consider the afternoon peak loads exceeded 8,000 megawatts for several days. These extreme loads must be matched at any given

instant by sufficient generation or bad things happen. What was most notable was that wind generation was AWOL for the four hottest days and when it did show up its contribution was inverse to the load, decreasing when the need increased. Fossil and nuclear contributed, but their generation was flat and didn't help with the peak loads. Hydropower, as usual, saved the day, covering the high peak demand and more. I know it's politically correct to hate and curse the dams, but for the second time in just a few months they saved our bacon.

We all watched this spring as the Columbia bumped up against flood stage and stayed high for weeks. It doesn't take much imagination to understand what would have happened without the dams. Maybe for a minute we could be thankful to our fathers and grandfathers for building these giant structures. After that you can hate them again until the next crisis comes along.

(Hurry up and fix it.)

Crews begin emergency repairs on Paint Creek dam in Lake Orion

wxyz.com, Aug 18, 2017

LAKE ORION, Mich. (WXYZ) - The Michigan Department of Transportation and Village of Lake Orion crews will begin emergency repairs on the Paint Creek dam under the M-24 bridge on Friday morning. The repairs, according to MDOT, will begin at 9 a.m. and are out of an abundance of caution. Beginning at 9 a.m. on Friday, Aug. 18, crews will perform a detailed underwater inspection at the dam, and repairs will begin Saturday morning. The first part of repairs will include installing a temporary dam along the bank of the Lake Orion dam which will divert water away from the Paint Creek dam. Next, crews will install another temporary dam downstream of the Paint Creek dam.



It's expected that repairs will take about a month, and will include a combination of steel sheeting, concrete and large rocks, plus soil stabilization to ensure safe operations of the dam and spillway. Residents in Lake Orion may see water levels of Lake Orion go down for a few days as they install the temporary dam, and the drawdown is scheduled for Sept. 12. Multiple agencies, including city officials, Lake Orion police, fire, county, state and Homeland Security officials do have a plan in place in case the dam's condition changes. They say it is highly unlikely there will be a change in condition of the dam. Those plans include police and fire going door-to-door for emergency evacuations of residents and pets. M-24 will remain open during the repairs, but there will be lane closures needed at times during the construction.

(If the dams are crucial, why remove them?)

Northwest's Snake River dams remain crucial

By Terry Flores, August 19, 2017, idahostatesman.com

In his article ("A changing electrical grid may make Snake River dams expendable — and help save salmon," Aug. 4), Rocky Barker relates an incredibly simplistic argument that we don't need the lower Snake River dams largely because the federal hydropower system has a power surplus at certain times of the year. But this occasional surplus, to which the four Snake dams contribute, isn't an argument for removing them. It's a reason to preserve them. As experts know, a power system without some surplus is one that goes dark frequently. Without it, our regional system could not instantly meet spikes in energy demand. Just recently we saw the critical importance of a surplus, when energy demand soared



past normal levels across the Northwest along with 100-degree temperatures. Barker quotes anti-dam activists who say dam removal would have no impact on the Northwest power system. The facts don't bear out their claims. Without the flexibility and reliability that the Snake dams supply — and which intermittent renewables like wind and solar cannot yet provide — Idaho and the Northwest would be vulnerable to rolling brownouts or even blackouts in times of peak demand. Like last week, or last winter's stretch of extremely cold weather.

Despite the Statesman's yearslong campaign for dam removal, ordinary Idahoans aren't convinced. They continue to support the dual goals of salmon restoration and preserving the federal hydropower dams that supply nearly 60 percent of the energy produced in the Northwest — and 90 percent of the region's carbon-free renewable energy. We know this because in April, Northwest RiverPartners commissioned a poll of residents in Idaho, Washington, Oregon and western Montana. We hired DHM Research, a long-established, nonpartisan and independent polling firm. They ensured the questions were fair and unbiased no matter whose viewpoint the answers might support. Four out of five Idahoans (84 percent) agreed with this statement: It is critical to the Northwest for dams and salmon to coexist. On the topic of the Snake dams, the best arguments made by dam removal advocates were laid out alongside the best arguments for keeping the dams. A clear majority, 55 percent of Idaho respondents, agreed that removing the dams is an extreme solution that could do more harm than good. And, more than 60 percent of Idaho respondents agreed with this statement: The Snake River dams will remain crucial for the Pacific Northwest for the foreseeable future. While solar and wind power may grow, hydropower is by far the most practical renewable energy source we have.

Regular Idahoans seem to understand a lot more than anti-dam activists (and the Statesman) give them credit for: the need for a balanced approach to helping salmon — without ripping out integral pieces of the hydropower system that powers the Northwest's economy, keeps our skies among the cleanest in the nation, and provides myriad benefits including flood control, irrigation, navigation and recreation. Terry Flores is executive director of Northwest RiverPartners, an alliance of farmers, utilities, ports and businesses in Idaho, Washington, Oregon and Montana.

(Dam removal.)

Group: Dams Holding Back Connecticut River Recovery

By Matt Hongoltz-Hetling, Valley News Staff Writer, August 21, 2017, vnews.com

West Windsor, VT — Even if the Connecticut River's water becomes as pristine as it was before the Industrial Revolution, dams within the watershed prevent it from providing full support to the ecosystem, an Upper Valley environmentalist said on Monday. But there's some good news, Ron Rhodes, river steward with the Connecticut River Conservancy, told members of the Connecticut River Joint Commissions. Behind the scenes, the conservancy is busily working to remove about a dozen dams throughout the Twin States, creating better water flow and removing impediments for spawning trout along hundreds of miles of Connecticut River tributaries.



Rhodes gave the update at the West Windsor Town Hall on Monday afternoon to members of the Commissions, who took breaks in their regularly scheduled meeting to monitor the progress of the solar eclipse, using viewing glasses and a pinhole device made out of aluminum foil and a box of Special K cereal. Commissioners were interested in how to advance the work of taking down more obsolete "deadbeat dams" that are quietly clogging the region's waterways. "It sounds like liability is a big part of what's motivating dam owners to look into dam removal," said Tara Bamford, of Thetford, a member of Vermont's Connecticut River Watershed Advisory Commission. Rhodes agreed. He said that, over the past two decades, the public has become

much more aware of the environmental damage that dams can do. “We’re getting calls from people saying ‘my Realtor is telling me to remove the dam before we sell the property,’ or that they heard from an insurance agent who said ‘get rid of that dam,’ ” Rhodes said. Rhodes said the informed and motivated public helps him to leverage the funds the non-profit uses to physically remove the dams. **The dams have been built for a variety of reasons, but few of them are serving an ongoing purpose, Rhodes said.**

Earlier that day, he said, he had been working on the final stages of a project to remove the Geer Dam from the Ompompanoosuc River in West Fairlee. The small hydroelectric dam was on the property of a farmer who hadn’t used it to produce electricity for more than 20 years. “Since 1994, it was just blocking fish passage” from 17 miles of water, Rhodes said. “The fish were lined up waiting to get upstream.” **Future projects cited by Rhodes include the Clark Pond Dam and the Pine Mill Dam on Clark Brook in Haverhill, a dam downstream of Harvey Lake in Barnard, a dam on the Charles Brown Brook that supported the Old Norwich Pool swimming hole in Norwich before it was washed out by Tropical Storm Irene in 2011.** “If you want to see one, there’s another right across the street on Mill Brook here in West Windsor,” Rhodes said. Rep. David Deen, D-Westminster, who recently retired from a 19-year career as the river steward for the Connecticut River Watershed Council, said that another obstacle facing river liberation is that, on the Vermont side of the Connecticut, no one even knows where some of the dams are. **“We don’t have a register of dams in Vermont.** They do in New Hampshire,” said Deen, who also chairs the Vermont House Committee on Fish, Wildlife and Water Resources. “We have incomplete, insufficient information. We’re trying to rectify that.”

Deen is the sponsor of a bill, H.92, which would require dam owners to register them with the Department of Environmental Conservation, and subject them to a series of regulations and safety inspections. In March, the bill was referred to the Vermont House Committee on Ways and Means. The Connecticut River Joint Commissions is made up of the Connecticut River Valley Resource Commission, and the Connecticut River Watershed Advisory Commission, each of which was created by the Vermont Legislature in the 1980s.

[\(Make sure those high hazard dams are safe.\)](#)

“High hazard” dams inspected in Westfield

By Ryan Walsh, 22News I-Team Reporter, August 22, 2017, wwlp.com

WESTFIELD, Mass. (WWLP) – **Inspectors checked out two “high hazard” flood control dams in the city of Westfield on Tuesday.** The dams- located near Twiss Street and near Lockhouse Road- are considered “high hazard” because if they were to be breached, properties or even lives could be at risk. 22News I-Team reporter Ryan Walsh spoke with the inspectors about some of the issues that cause dams to erode over time, and what that could mean for potential flooding in the future. Hear what they had to say tonight on 22News at 6:00.



[\(Hurry before the dam fails.\)](#)

Harrisonville city workers scramble to save dam amid rushing, rising waters

August 22, 2017, by Sean McDowell, fox4kc.com

HARRISONVILLE, Mo. -- Wait and wonder. That's all most people living in Harrisonville could do on Tuesday, as city workers scurried to prevent a dam from breaking, and adding to high flood waters, brought on by Monday's severe thunderstorms. The shores of Lake Luna might be Harrisonville's busiest spot on Tuesday. The National Weather Service says this side of Cass County took on five inches of rain in seven hours during Monday's storm. It caused a partial failure in the dam at Lake Luna, sending flood waters rushing through Harrisonville City Park and into a nearby neighborhood. Throughout Tuesday's workday, public workers used four pallets of sandbags as well as PVC tubing to try to relieve pressure on the dam. However, for people living nearby, it's too late. Richard McWilliams, who lives about 250 yards from the park's edge, says he checked his yard around 2 am, where he discovered two feet of water. Within an hour, Williams says the rising water was in the house, and it ruined the home's flooding, wrecked a fence and killed the family's flock of chickens.

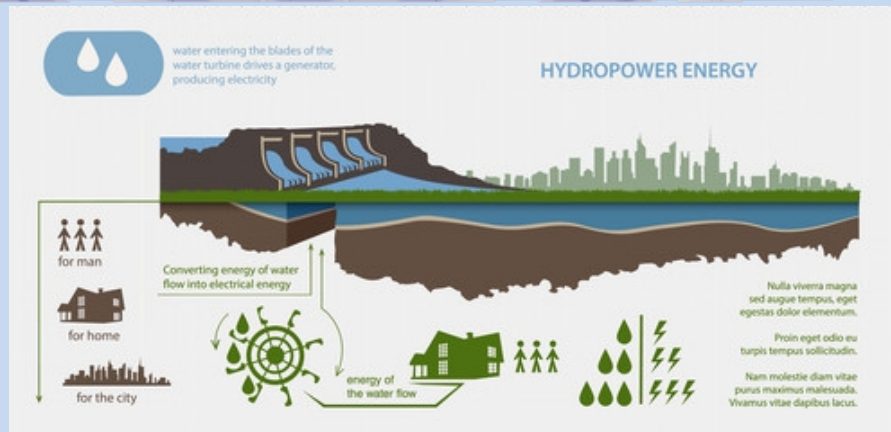


"It looked like a river. It looked like my house was in the middle of a river," Williams told FOX 4 News. "It scared me more than anything because my family was inside." Standing water in Harrisonville City Park has been on a daylong decline. Harrisonville's mayor, Brian Hasek, says a police officer discovered a leak in the dam during the overnight hours. People are now returning to the 20 homes that were evacuated. "It was in lower areas where they knew the water had risen," Hasek said on Tuesday. "I think we're kind of in that state of shock where we don't know how we're going to address it. The sewer lines just got overloaded and they just couldn't take anymore. It's not that they failed. It's just too much water at once."

Hasek says one of the dam's endcaps failed, causing the spillways to overload. He says city workers continue to keep an eye on the dam into Tuesday night to ensure public safety. "We're going to do checks on it. Just to see how everything's holding up. If it looks like things are deteriorating, we'll start making preparations to get more stuff in and just keep citizens informed as to what is or isn't happening," Harrisonville Police Lt. Chris Osterberg told FOX 4 News. Mayor Hasek says once the flood waters recede, he wants to see testing done to help make sure this doesn't happen again. After all, this is the second time Harrisonville has been hit by flood waters this summer. People living here don't want to see a third. School was cancelled for the day at Harrisonville City Schools. Mayor Hasek says the city's Board of Aldermen have decided to waive all permit fees for repairs needed as a result of recent floods.



Hydro:
(Renewable Energy.)



(Even dogs like hydro.)

Hydro Electric Dog Bath



(It makes the rates too high. This could make hydro less competitive.)

Feds reconsidering lease rates for hydropower operators

By [BEN BOETTGER](#), Peninsula Clarion, August 17, 2017, [peninsulaclarion.com](#)

Federal administrators of land beneath six of Alaska's hydroelectricity plants — including the Kenai Peninsula's Bradley Lake plant — are considering claims by hydropower operators that the federal method of valuing this land by comparison with its value as farmland produces inflated lease rates in Alaska, a state with very few farms for comparison.



For Bradley Lake, FERC's current evaluation method has resulted in a 384 percent increase to its federal rent since 2008. Its owner, the Alaska Energy Authority, is one of six Alaska hydropower operators that have protested to the energy infrastructure permittees of the Federal Energy Regulatory Commission (FERC), who serve as the plant's landlord. In a Thursday press release, FERC announced it is considering a different method of evaluating Alaskan hydropower leases and will be taking comments for the next 60 days.

FERC decided in 2013 to assess a per-acre rent for federal land leased to hydropower operators on a county-by-county basis, recalculating the rate every five years based on agricultural land values from the National Agricultural Statistics Service Census, an annual U.S. Department of Agriculture survey of farms. Because Alaska lacks counties, FERC based the state's per-acre rate on farm values in five regions — the Aleutian Islands, Fairbanks, Kenai Peninsula, Anchorage, and Juneau. Previously FERC had based its lease rates on a different Forest Service valuation method used since 1987, based instead on right-of-way values for pipelines and electrical transmission lines.

As a result of the change, the per-acre fee for Alaskan generating plants on federal land rose 179 percent on the Kenai Peninsula — from \$11.48 to \$32.05. Bradley Lake had been paying a \$62,624 bill for its 5,412 acres in 2008; in 2015 it paid \$182,973. According to the Department of Agriculture census, the value of agricultural land on the Kenai Peninsula has increased 384 percent since 2008. FERC's pricing method, which updates every 5 years, has reflected this. Its 2016 land-fee re-evaluation raised fees for Bradley Lake by a further 71 percent to \$312,176. The Swan Lake and Tyee hydroelectric plants, owned by the Ketchikan-area Southeast Alaska Power Agency, experienced rate increases of 816 percent and 889 percent between 2008 and 2015. Each of the six Alaskan six hydropower operators on federal land paid their bills — subject to refund if FERC decides to change its valuation method — and made a formal protest in June

2016, arguing that “there is insufficient (farm) data in any individual Alaska area ... to produce a fair estimate of land values within the area,” according to the petition of the hydropower licensees.

Any assessment of agricultural land values in Alaska would draw on a very small data set. About . 24 percent of Alaska’s 365 million acres is farmland. In their petition, the hydropower licensees compare the Kenai Peninsula’s farmland — about 29,140 acres as of the 2012 National Agriculture Statics Service census — to Washington’s Snohomish County, which is 1,575 percent smaller than the Kenai Peninsula and has more than twice the acreage of farmland. The small farm numbers make any valuation based on them susceptible to large shifts based on the activities of only a few farm-owners, the petitioners wrote. “More fundamentally, the land values (of surveyed farms) simply do not reflect the prevailing economic conditions in Alaska over the past several years,” the hydropower operators wrote. “... There is no basis for concluding that federal lands, during this downturn in the Alaska economy — an economy which is highly sensitive to activities on federal lands — are increasing in value at all in Alaska.”

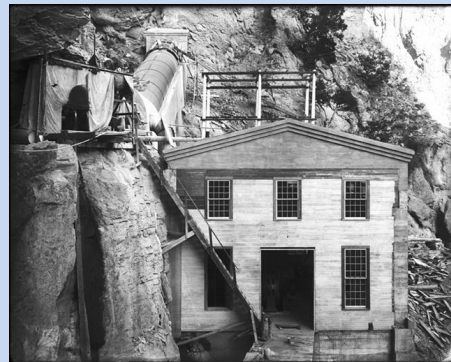
The six licensees requested a statewide rate — excepting Juneau and Anchorage, in keeping with a prior FERC decision that “these areas should not be used to assess federal land use charges as the urban nature of lands in the areas do not reflect the types of land used for hydropower projects,” according to the petition. Licensees on the Kenai Peninsula and Fairbanks argued that “the adjusted statewide average (of agricultural values) is a more accurate assessment of fair market value of federal lands in these areas of Alaska, because it draws on a larger and more robust dataset from across the state.” Murkoswki opposed FERC’s valuation methods of Alaska hydropower leases and argued for a state-wide rate when FERC began considering its current valuation system in 2011 and during the 2016 re-evaluation of lease rates. In March 2016 Murkowski wrote to FERC chair Norman Bay that “significant fee changes on towns and municipalities with low population densities and small rate bases represents a substantial hardship to consumers and jeopardizes Alaskans’ access to affordable and reliable baseload hydropower.”

(Hydro history.)

Hidden History: Perrine's hydropower plant still produces electricity

By MYCHEL MATTHEWS, magicvalley.com, Aug 17, 2017

Twin Falls founder I.B. Perrine first talked about building a power plant at the base of Shoshone Falls in 1900, when he persuaded Harry Hollister of Chicago to invest in the hydroelectric project. Construction of the tunnel for the pipe, or penstock, began the following year. In August 1907, water was released into the penstock, and 500 kilowatts of electricity were produced by the power plant. A second generator was installed in 1909, increasing production to three megawatts, the same as it produces today. “The huge turbine wheel and the massive generator revolve at top speed with a sound like the purr of a satisfied tomcat,” wrote the Twin Falls Times when the Perrine plant came on line. Idaho Power Co. purchased Perrine’s plant in 1916 and built another power house next to the original in 1927. Dwarfed in size and production by its successor, the first power plant still produces electricity.



Environment:

(More water for fish, less kWh.)

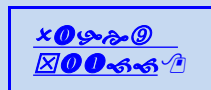


Northwest Scientists Say Spilling More Water Over Dams Helps Fish

By CASSANDRA PROFITA • AUG 17, 2017, nwpr.org

Wednesday, dozens of scientists sent a letter to Northwest lawmakers in Congress. In it, they argue in favor of spilling more water over dams to help fish. In a ruling earlier this year, a federal judge ordered Columbia River dam managers to spill more water by 2018. Several Northwest lawmakers are aiming to block that order with a bill they've introduced in Congress.

But scientists say young salmon need a flowing river to make it to the ocean. David Cannamela is a retired Idaho fisheries biologist. "The best available option for ensuring safe passage for these juvenile salmonids is spill, which is one action we can take that makes the river more like a river and less like a pond," Cannamela said. Spilling more water over dams reduces the amount of hydropower produced and raises the price of electricity. But in their letter, 47 scientists say more spill is critical to protecting threatened and endangered salmon and steelhead.



Other Stuff:

(Where should I retire?)

Thinking About Retirement? Here's the Best State for It

Surprise, surprise, it's Florida

By Evann Gastaldo, Newser Staff, Aug 15, 2017, newser.com

(NEWSER) – If you have the luxury of deciding where to retire, consider WalletHub's list of 2017's best and worst states in which to do so. The site investigated which states "[let] you keep more money in your pocket without requiring a drastic lifestyle change," looking at factors ranging from affordability to health care and quality of life. Here, the five best and worst:



Best:

1. Florida, ranked first in affordability, 11th in quality of life, and 24th in health care
2. Wyoming, ranked fourth in affordability, 25th in quality of life, and 19th in health care
3. South Dakota, ranked 15th in affordability, 33rd in quality of life, and second in health care
4. Iowa, ranked 26th in affordability, sixth in quality of life, and fifth in health care
5. Colorado, ranked 27th in affordability, 17th in quality of life, and seventh in health care

Worst:

1. Rhode Island, ranked 51st (the District of Columbia was included in the rankings in addition to the 50 states) in affordability, 46th in quality of life, and 29th in health care
2. Alaska, ranked 38th in affordability, 50th in quality of life, and 34th in health care
3. District of Columbia, ranked 44th in affordability, 51st in quality of life, and ninth in health care
4. Connecticut, ranked 49th in affordability, 13th in quality of life, and 15th in health care
5. Hawaii, ranked 50th in affordability, 34th in quality of life, and third in health care

Click for the full rankings, <https://wallethub.com/edu/best-and-worst-states-to-retire/18592/> which reveal that the lowest adjusted cost of living is in Mississippi, while the highest is in Hawaii.

(A good plumber is worth more to society than these people. You can do without one or all of these people, but you don't want a commode that doesn't flush right.)

10 of Television's Highest-Paid Hosts

Talk shows, reality shows, and more

By Evann Gastaldo, Newser Staff, Aug 23, 2017, newser.com

NEWSER) – **How much does it pay to be a TV host?**

Whether it's a reality series, news program, talk show, or game show, Variety runs down the salaries of 19 of the highest-paid hosts on TV. **The top 10:**

- Ellen DeGeneres: \$50 million, The Ellen DeGeneres Show (syndicated)
- Judith Sheindlin: \$47 million, Judge Judy
- Katy Perry: \$25 million, American Idol on ABC
- Matt Lauer: \$25 million, Today on NBC
- Kelly Ripa: \$22 million, Live With Kelly and Ryan (syndicated)
- Robin Roberts: \$18 million, Good Morning America on ABC
- Megyn Kelly: \$18 million, NBC News
- Jimmy Fallon: \$16 million, The Tonight Show on NBC
- George Stephanopoulos: \$15 million, ABC News
- Ryan Seacrest: \$15 million for Live With Kelly and Ryan (syndicated); \$12 million for American Idol on ABC



ⁱThis compilation of articles and other information is provided at no cost for those interested in hydropower, dams, and water resources issues and development, and should not be used for any commercial or other purpose. Any copyrighted material herein is distributed without profit or payment from those who have an interest in receiving this information for non-profit and educational purposes only.