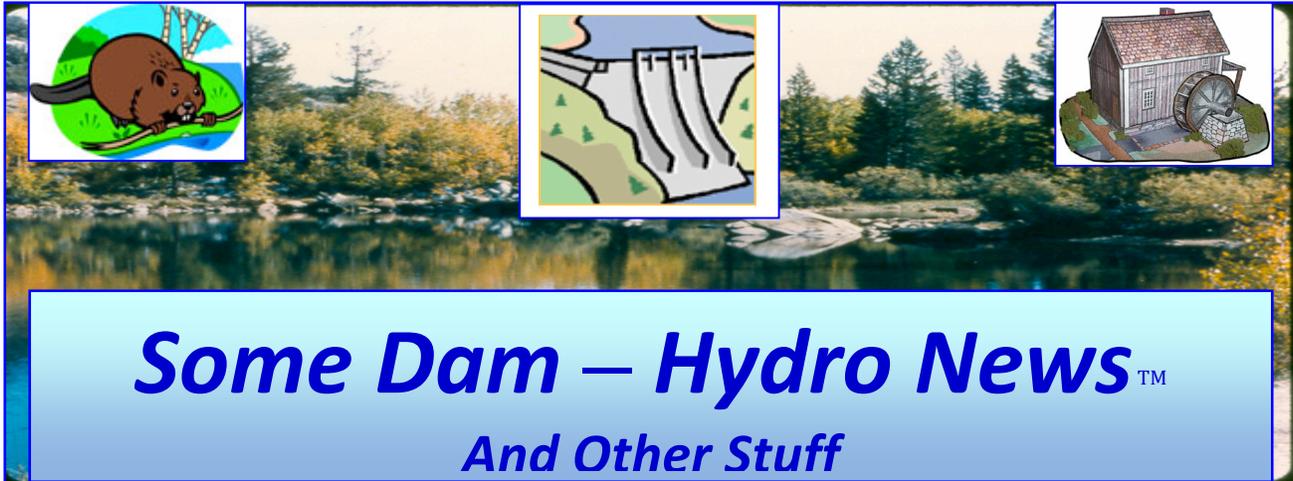


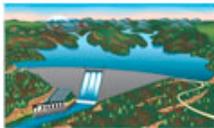
8/31/2018



**Quote of Note:** *“Management is doing things right; leadership is doing the right things.” - Peter F. Drucker*

**Some Dam - Hydro News → Newsletter Archive for Current and Back Issues and Search:**  
*(Hold down Ctrl key when clicking on this link) <http://npdp.stanford.edu/> . After clicking on link, scroll down 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: 2016 Once and Future Mourvedre or Mataro “Oakley Road Vineyard”*  
**“No nation was ever drunk when wine was cheap.” - - Thomas Jefferson**



**Dams:**

*(Too many fingers in the pie.)*

**Oroville Dam: Local oversight committee sends suggestions to DWR**

By RISA JOHNSON | chicoer.com | Chico Enterprise-Record, August 16, 2018

SACRAMENTO, CA — **The local oversight committee spearheaded by Assemblyman James Gallagher and Sen. Jim Nielsen had some suggestions this week for the state Department of Water Resources on its assessment of the Oroville Dam.** This comes about a month after the committee met for the first time on July 18. Gallagher, R-Yuba City, said the committee plans to



send DWR feedback after each of its quarterly meetings. After having time to reflect, the committee wanted to highlight some things, such as recommendations made in the independent forensic report, which aren't currently included in the scope of the department's comprehensive needs assessment.

The forensic report, which was released in January, found that human and organizational factors contributed to the failure of the Oroville Dam spillways in February 2017. Although the comprehensive needs assessment is focused on infrastructure, Gallagher argues that these issues are related and should be considered together. "Infrastructure has to be operated, right?" Gallagher said. "In many cases, it's a human that's going to operate it." In its letter to DWR, the committee raises the concern that the term "comprehensive needs assessment" may be misleading to the public, as the assessment currently includes six specific tasks related to infrastructure. Some of those tasks include looking at possible alternatives to "restore spillway design capacity to pass the probable maximum flood" and considering ways to make the spillway more reliable. Gallagher said he hoped DWR wouldn't be "pigeonholed" into the six tasks.

"We're all working together to ensure this should be as comprehensive as possible," he said. Erin Mellon, a spokeswoman for DWR, said that, as outlined in the charter, the department would respond to the committee's feedback before the next meeting. "As a reminder, the Oroville Dam safety comprehensive needs assessment will identify priorities and appropriate solutions to bolster the integrity and resiliency of the Oroville Dam complex to ensure public safety," Mellon wrote. DWR's John Yarbrough is co-chair with Gallagher and Nielsen, R-Red Bluff, on the committee. Other committee members include: Rep. Doug LaMalfa (R-Richvale), Butte County Sheriff Kory Honea, Butte County Supervisor Bill Connelly, Matt Mentink, Ron Stork, Mike Inamine, Larry Grundman, Sean Early, Rune Storesund and Sandy Linville. The assessment should be complete by the end of 2019. Citizens can send feedback to the committee by emailing [orovilledamadhoc@gmail.com](mailto:orovilledamadhoc@gmail.com).

You can read the Committee comments here: <https://www.chicoer.com/2018/08/16/oroville-dam-local-oversight-committee-sends-suggestions-to-dwr/>

(Everything is OK.)

### 'No concerns' at Almond Dam

By Jason Jordan, The Spectator, Aug 9, 2018, [eveningtribune.com](http://eveningtribune.com)

HORNELL, NY— The Almond Dam is safe, sound and ready for whatever nature can throw at it next, according to engineers. The US Army Corps of Engineers (USACE) Baltimore District is responsible for 15 dams in the Susquehanna River Basin, and is currently on a summer tour of the site, conducting annual inspections. Following the issuance of a report from the New York State Comptrollers Office calling the dams a "high hazard" in June, the US Army Corps of Engineers pushed back, and invited The



Spectator to observe inspections at Almond Dam in the Town of Hornellsville on Wednesday. The annual inspection focused on the interplay between man-placed and natural materials, where seepage can occur through the 1,260 foot earthen wall. A team of a half-dozen geotechnical engineers reviewed the structure for signs of distress, which can include erosion, plant growth and moisture on the embankment, and also checking the seams of concrete and earthen abutments.

"Long-term, large failures of dams are usually over-topping of embankments or seepage through embankments," said USACE Dam Safety Program Engineer Brian Glock. Periodic, five-year inspections scrutinize all aspects of the infrastructure. Wednesday's inspection occurred despite

no noted problems by the dam's day-to-day operators. The dam is overseen by a full-time staff, with engineering and operational support at the base in Baltimore. "We have no concerns at all," said head operator Joe Hess. "I've been here for 20 years, and everything has run flawlessly as designed, and we've had some pretty good high waters here." The crew inspects the dam constantly, and up to three times daily during a high water event, compiling data and reports. Water levels, water pressure and flow through the dam are all closely monitored, as well as environmental factors around the dam.

**The dam relies on simple, time tested machinery to retain and hold back water.** "There's metal gates that hold back water and hydraulics that lifts the gates. It's pretty standard stuff, and as long as we inspect it and maintain systems as needed then you can have confidence in it," Glock described. "It's ancient technology that just keeps working." **While many of the mechanical elements of the dam are original to the 1949 structure, daily maintenance keeps them running well.** "We've had teams from all over the country come in, inspect everything. They're American made and built well," Assistant Dam Operator Greg Boccia said. "These guys are artists for the mechanical stuff," Glock credited.

**For the infrastructure of a dam, age is just a number, as they are built to be permanent structures.** "Unlike a typical office building that may stay there for 50 years, critical infrastructure like this has a design life of 50-100 years," Glock said. In addition to working systems, redundancies are in place for fast or temporary replacement. Should something fail at the dam, a reserve fund known as the Flood Control and Coastal Emergency Fund is in place for immediate needs. Routine maintenance is built into the annual budget request for the site. "When they need it, they typically just give them more through the annual budget process," said USACE spokesperson Christopher Gardner. "People say that the government is slow, but in a genuine emergency it will act immediately."

**During Wednesday's inspection, the dam passed inspection with flying colors, with no noted irregularities.** The embankment, control tower, gates, emergency spillway, runoff channel and stilling basin were reportedly all in good working order. With extreme confidence that the dam will be there for many years to come, engineers hope that the structure will continue to add to the more than \$140 million in estimated damages saved since its construction — far exceeding its \$5.8 million construction cost in 1949. **The Arkport Dam was inspected later in the day on Wednesday.** To learn more about The Almond Lake and the dam, visit the US Army Corps of Engineers webpage at [www.nab.usace.army.mil](http://www.nab.usace.army.mil)

(Gettin' it fixed!)

### **Cooper Lake reservoir dam repair designs expected by year's end**

By Paul Kirby, Daily Freeman, 08/12/18, [dailyfreeman.com](http://dailyfreeman.com)

KINGSTON, N.Y. >> **Final design plans are to be completed by year's end for a \$5 million dam repair project at the city's Cooper Lake reservoir.** Cooper Lake, which is in Lake Hill the town of Woodstock, is the city of Kingston's primary reservoir. Water Department Superintendent Judith Hansen said that Schnabel Engineering, which is being paid up to \$800,000 to design the state-required project, is expected to complete work by the end of December. "Schnabel is working on the design and I expect to have final plans by the end of the year," Hansen said in an email. "Concurrently with the design, they are working on preparing the required permits from state Department of Environmental Conservation and the state Department of Health." Hansen said that the \$5 million estimated repair costs are likely to change as the final design plan takes shape.



"During the design process, the project costs estimates will be refined and we will seek bonding approval from the (Common) Council for the work in early 2019 with bidding to follow so that construction can begin in spring of 2019," Hansen said in her email. In order for the water department to borrow money, it needs permission from the Common Council to do so. In early February, the Kingston Common Council gave the Water Department permission to borrow \$800,000 to pay for the design work for the Cooper Lake dam repairs. Hansen has said the state Department of Environmental Conservation issued dam safety regulations in 2009 that require owners to make a detailed engineering evaluation and bring their dams into compliance with current engineering standards. While the Cooper Lake dam was found to be safe, it needs improvement to comply with the new safety standards, Hansen has said.

(Just another dam removal.)

## Demolition crews chipping away at Danville's low-head dam

08/15/2018 | by Tracy Crane, news-gazette.com

DANVILLE, VA — Demolition crews continue to chip away at the low-head dam on the Vermilion River in downtown Danville. "We are making progress down there," Lindell Loy, construction manager with the Illinois Department of Natural Resources, said about the dam-removal project below and just east of Memorial Bridge on South Gilbert Street. A crew with Halverson Construction Company is using heavy equipment to break up the defunct concrete dam, slowly moving from one side of the river to



the other on a causeway — an earthen platform that can support heavy equipment — they are building as they go. The state accepted Halverson's bid for the project in the spring. Loy said that once the crew reaches the other side and the dam and piers are completely removed, they will stabilize the far bank by placing a wall of loose stones known as riprap to prevent erosion. The crew will then work their way back across the river, removing the causeway, and finally stabilize the other bank. He said some of the causeway material will be used for that.

"The project should be done by the end of the year, if the weather cooperates with us," he said. "But the weather has to cooperate." Right now, the river is naturally at a low level. And Loy said that when they initially broke the low-head dam, which created a pooling effect immediately upstream, the water level underneath Memorial Bridge — which carries South Gilbert Street over the river — dropped, revealing a large section of the former bridge that was removed prior to the current bridge being built in the 1950s. Loy said the arched piece of former bridge, a surprise to everyone, can be seen in the river now but will eventually be removed. Danville Mayor Scott Eisenhauer, a longtime proponent of removing the city-owned low-head dam for safety reasons, said the project started the third week of July. Originally, he said, the plan was for another city-owned but smaller low-head dam on the North Fork of the Vermilion River in Ellsworth Park to be removed first, but contractors were able to start sooner than anticipated on the larger dam. Both dams have had no functional purpose for decades and have been the site of multiple drownings over the last 40 years. A push by city administration to remove both of them ramped up after Sandra Barnett, a 24-year-old University of Illinois graduate from Woodridge, drowned at the larger dam during a canoe trip in July 2003.

Low-head dams have been called "drowning machines" because water spills over them, creating a roller effect just below the dam that can trap a swimmer. A sign posted at the Ellsworth dam warns of the roller effect. Some local fishing enthusiasts and others were against removing the larger dam because it would eliminate the pooling effect upstream, which created popular fishing spots. In several studies prior to the dams' removal, Eisenhauer said, it was indicated that the "pool" created by the larger dam extended only to Memorial Bridge, so it would not affect water levels farther upstream. The Danville City Council approved the removal of both dams in late

2013, and the state agreed to fund the work. But that funding got hung up in the 2-year-long state-budget crisis that began in 2015, and the money was not appropriated again until earlier this year, finally paving the way for demolition. Removal of the Ellsworth structure is expected to be done in-house by state crews, but Loy said an exact date for the start of that demolition has not been set

(Not good! At least the downstream homes didn't get wet...)

### **Dam breaches in Piedmont, homes spared from damage**

By Joe Buettner & Jon Miller, August 15th 2018, okcfox.com

PIEDMONT, Okla. (KOKH) — A dam in Piedmont that was in danger of failing breached Thursday, draining the lake without damaging homes.

The dam, located on a reservoir near Sara and Waterloo roads, was in danger of failing late Wednesday. On Thursday, the dam breached. The Piedmont Fire Department says the breach was narrow enough that it acted as a controlled release of the water.



The owners of the dam had been diggin an emergency relief trench to divert the water. A voluntary evacuation for homes near the dam was in place, but the water had been drained Thursday. Firefighters will be monitoring the dam as more rain comes to the state Thursday and Friday.

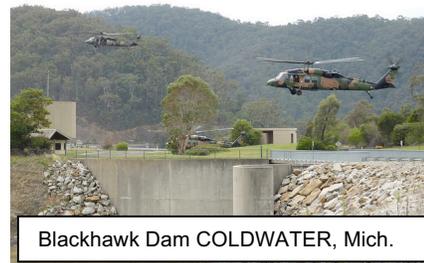
(Some better news. Preventing a dam failure is better news.)

### **Official: Failing southern Michigan dam could cause flooding**

The flood watch for the Coldwater River and the Pilot Knob area is still in effect, but the risk for significant flooding has been reduced.

By Associated Press, August 19, 2018, wzzm13.com

UPDATE, 9:20 p.m.: The Branch County Office of Emergency Management said Sunday night that the emergency repairs on the dam are continuing, but the situation is improving. The repairs to the dam are working to return it to normal operations, however further repairs to the dam will be necessary. The flood watch for the Coldwater River and the Pilot Knob area is still in effect, but the risk for significant flooding has been reduced.



Blackhawk Dam COLDWATER, Mich.

(Dam failures are not good.)

### **'There's water everywhere': Belleville dam overflows, evacuations underway**

Aug 22, 2018, channel3000.com

BELLEVILLE, Wis. - The dam in the village of Belleville is overflowing with water, according to officials with the Belleville Fire Department. Volunteer firefighter Jeff Kankel said the whole community is involved in sandbagging and trying to save anything that is salvageable after the dam was breached. He also confirmed that people on the southeast side of town are being evacuated. "There is water everywhere," Kankel said. Roads that lead to the Belleville park are broken, and the area



'There's water everywhere': Belleville dam breaches, evacuations underway

surrounding the park is flooded with water, officials said. Dane County officials confirm they are monitoring a developing flood situation in Belleville. Initial concern is about levels of the Sugar River and Lake Belleville, according to Dane County Emergency Management spokesman Josh Wescott.

(Everybody doesn't agree.)

## Voices of the Boardman River: the Gibbs Family

By NAINA RAO • AUG 22, 2018, interlochenpublicradio.org

# Opinion:

Old dams are being removed from the Boardman River. That's because they are costly to maintain and harmful to the river's wildlife. **But not everyone is excited about losing the dams.** The Gibbs family has been here for generations

and their ancestors helped build the dams. The Gibbs family thinks the dams along the Boardman River should've stayed in place.

"It still hurts me terribly to go over to Brown Bridge and not see the pond where it used to be," says 92-year-old Edna Sargent, who has lived near the Boardman River her entire life. Brown Bridge Dam, which was removed in 2012, meant a lot to Sargent. Her great-uncle, Lorraine K. Gibbs, was one of the pioneers of hydroelectricity in Michigan. He helped build the Boardman and Sabin Dams. **When Gibbs and his cousins arrived from Wisconsin, they noticed the large amount of water flowing through the Boardman River.** "Right away, they recognized the power you can produce from a stream," says Edna's cousin, Bob Gibbs. Lorraine Gibbs and his cousins started the Boardman River Electric Light and Power Company. **Their dams made power that helped Traverse City boom between the 1880s and 1900. That transformed the remote sawmill village into a regional manufacturing center.** The dams supplied power to several commercial buildings, homes and city streets. **"If they had a dam and had water power, they could do anything"** says Edna Sargent. Sargent and Bob Gibbs lived next door to each other growing up in Mayfield, near Kingsley. As often as they could, they fished for trout on the Boardman River.



In the early 2000s, the license for the dams was set to expire. Traverse City Light and Power and the City of Traverse City had a choice: remove the dams or repair them. In 2005, they stopped power generation from the dams and terminated the contract with the dam owners – Grand Traverse County and Traverse City. **The local governments were left with the task of pulling out the dams.** "And I think Bob and I both squirm when we hear that ... because we like it the way it was," says Sargent. "And we like the fact that our ancestors built the dams, and **the dams ought to stay because nobody else understands what it takes to make one.**" Sargent says the dam areas on the Boardman River provided recreation. They were secluded, so residents could come and observe nature. She says trout fishing on the river isn't as good as it used to be. "Because the river is full of kayaks and canoes and people coming down the river in tubes and stuff," says Sargent. "It has become this touristy thing." **The last dam – the Sabin Dam – is scheduled to be removed this month.**



## Hydro:

(Another project hits the century mark.)

### Foote Dam turns 100, visitors receive tour

By Patricia Alvord, 8/14.18, iosconews.com

OSCODA, MI – The public got a glimpse of the inter-workings of the Foote Dam Hydroelectric Plant, Saturday, during a centennial celebration held over the weekend. Consumers Energy allowed 240 visitors to tour the dam at no cost on Saturday, Aug. 11, for 30 minute guided tours. Built in 1918, Foote Dam was named after William A. Foote, the founding father of today's Consumers Energy in 1886. The dam is responsible for supplying electricity to thousands of people all over the state of Michigan.



At 100 years old, the dam still has original parts including: turbines, generators and the control room devices. The equipment is all original but the methods of how to run the units has changed. "The design life was probably 50 years," said Manager of Renewable Generation Bill Schoenlein. "They continue to operate while being maintained." Schoenlein doesn't have definite answers on how long the original parts will continue to run but he mentioned that they haven't seen anything that would prevent them from running the dam for a long period of time. The explanation for the original parts working almost 50 years longer than predicted as to do with a margin of safety in their construction. "I think some of it is they used a much greater margin of safety in their engineering," said Schoenlein "The design of things because of some uncertainty so they really wanted to have a factor of safety in engineering."

In 1918, operators would operate the dam manually and often need to live close by in case something went wrong. They would receive a signal on a light in their home to make them aware that they were needed at the dam. Schoenlein also explained how moving water is used to generate electrical energy. He explained that the water flows downstream and into a chamber around the unit. He explained that wicket gates are around the unit and they work together edge to edge to control the water flow from the unit. Then the governors control the wicket gates which control the amount of water which will determine the output of electrical energy on the turbine. "More water, more flow, more electric production," said Schoenlein

The dam also has what is called the powerhouse or intake area. There's a section for spillway so anything that doesn't pass through the dam will pass through the spillway. This is important because of what happened in old times when mills were used on rivers. According to Schoenlein, some mills didn't have spillways so the water exceeded the capacity of the mill and the mill got washed down the river. The spillway is created to prevent that from happening to the dam. He said the dam produces 33,000 megawatt hours of energy in a year which equates the power used by roughly 10,000 homes according to Schoenlein. He said the amount of water flowing through the dam varies greatly with the river. Schoenlein believes typically the AuSable river will flow at 1,000 cubic feet per second.

With such a powerful structure, consumers sees the importance of taking safety precautions for residents that visit the dam. The front and back of the dam has a line of buoys that indicate an area of no access to the public. They also have a horn used to signal to people who are downstream that a change in flow or a change in operation is about to occur. Also, all of the hydroelectric projects are required to have recreational facilities so a once narrow walking are along the hillside has been transformed into a handicap accessible fishing site which was a \$2 million dollar project according to Schoenlein They must have affiliated recreation sites for the dam because federal energy regulatory commissioner's requires a recreation facility and Foote Pond serves that purpose as well. "It's a draw certainly for wildlife," said Schoenlein. "We've got nesting eagles and trumpeter swans have been reintroduced as well and they really flourish here versus the non-native species," he added.

(Historic book reprint.)

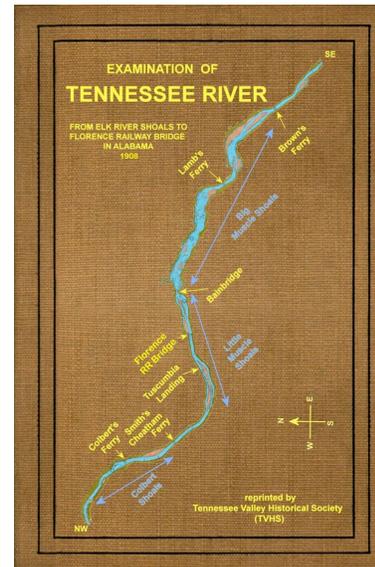
## Historic group reprinting 1908 book on Wilson, Wheeler dams

By Russ Corey, Staff Writer, Aug 16, 2018, timesdaily.com

SHEFFIELD, TN — The Tennessee Valley Historical Society is reprinting a 1908 book, "Hydropower Examination of Muscle Shoals — Tennessee River," which examines the potential for harnessing the hydroelectric potential of the Tennessee River. Local historian Joel Mize said the book was originally published by the U.S. Government Printing Office. It focuses on the power potential of Wilson and Wheeler dams. Mize said the book was being reprinted to recognize the "historical consciousness of our people." He said the book provides original material developed by the U.S. Army Corps of Engineers for consideration by Congress for the development of hydroelectric power in the Tennessee Valley.

"The reprint is from an original copy held by the University of California," Mize said. It's being reprinted by Lambert Book House, which is located in the Florence-Lauderdale Industrial Park.

A number of map-size exhibits are excluded from the reprint, he said, and the reprint will add a color feature double-page modern look of the current Wilson and Wheeler dams, as well as a biographical section on Frank Washburn, who was the overall guiding force in these dams getting through the authorization process. Washburn was the founder of American Cyanamid and was the co-founder of Alabama Power Company in 1907. Alabama Power, Mize said, built a dam across the Coosa River prior to the construction of Wilson Dam.



(Pumped Storage story.)

## Billion-Dollar Hydropower Plant Gets An "Invisible" Makeover

August 17th, 2018 by Tina Casey, cleantechnica.com

Where can you drop a massive new 300 megawatt hydropower plant without anybody noticing? That's a good question these days. Renewable energy can hit the same pushback that nuclear energy and fossil fuel encounter when the topic turns to planning for new generation. New transmission lines can cause headaches, too. Finding new sites for hydropower is an especially taxing endeavor, considering the technical, environmental, and political challenges involved. That goes double for new hydropower projects tricked out with a pumped hydro element for energy storage. With that thing about "pumped" in mind, let's take a look at Duke Energy's latest hydropower project in South Carolina.



### The Hydropower "Water Battery"

For those of you new to the pumped hydro topic, the idea is relatively simple.

When demand for electricity is low, you can use excess generating capacity to pump water from a lower source up to an upper reservoir. When the grid needs more electricity, gravity does the heavy lifting: you release water from the upper reservoir and use it to run turbines in a hydropower plant. In effect, you have a giant water battery, or as some call it, an energy sponge. How giant? Well, as much as we here at CleanTechnica love to enthuse over the latest breakthrough in lithium-ion energy storage and other cutting edge technologies, in terms of sheer volume nothing comes close to the simple water battery — at least, not yet.

**The US Hydropower Association paints this picture:** Pumped storage today makes up 97 percent of utility-scale energy storage in the United States at 42 sites with a total of 23 GW of capacity. Boom! As for the bad news, some analysts are finding evidence that utility scale energy storage creates an economic incentive for extending the lifespan of fossil and nuclear power plants. That's because power plant operators can generate more electricity than they normally could during non-peak hours, as long as they have a place to store it. Then, they can sell it off during peak hours when rates are higher. **That's something to keep in mind, though it's becoming less of a concern as low cost renewables push other sources out of the picture.**

### **Duke Energy's Bad Creek Pumped Hydropower Plant**

That finally brings us around to Duke Energy's Bad Creek pumped hydropower plant. **Somehow this project has been sailing under the CleanTechnica radar, so a bit of catchup is in order.** The Bad Creek facility is located at Lake Jocassee, in South Carolina's Devil's Fork State Park. It was completed in 1991 at a cost of \$1 billion, as one of the first modern hydropower plants in the world with a pumped storage element. Park visitors can take boats on the main reservoir (aka Lake Jocassee), though officials warn boaters to be wary of fluctuating water levels. What visitors can't do, by and large, is view the storage reservoir. It was constructed on top of a nearby mountain and can't be seen from the rest of the park. After a near 30-year run the plant is due for an overhaul, and that presents a major opportunity for Duke. Instead of simply replacing the existing equipment, the company is embarking on an upgrade. The result is that Duke is essentially building 300 megawatts in hydropower capacity without building a new hydropower plant.

#### **How is that even possible?**

Kim Crawford and Randy Wheelless of Duke Energy spent some time on the phone with CleanTechnica last week to explain. As Crawford described, the original facility was constructed with pump turbines designed in the 1970s and 1980s. **In the intervening decades, the technology and materials have improved significantly.** Replacing the plant's four pump turbines with up-to-date equipment is the main part of the project in terms of increasing capacity. If all goes according to plan they will be brought on line one at a time, with the first one in 2020 and the final upgrade in 2023. **Meanwhile, the facility will also get new generators and transformers, and a new output circuit among other refurbishments.**

### **Viva Repowering**

**Doing more within the same footprint was the theme that Crawford and Wheelless emphasized, and you can expect to see more of that as the renewable energy field matures.** In recent years, for example, technology improvements for wind turbines have also made it economical to repower existing wind farms to ramp up capacity. Repowering existing solar farms is also beginning to catch on. **None of this is good news for the US coal industry, or for that matter, nuclear energy fans.** One faint bright spot for coal is the idea that a raft of nuclear power plant closures in upcoming years could force grid operators to rely more on coal, at least temporarily. However, that hope could dim if the repowering market takes off, adding more juice to the renewables.

With that in mind, consider look at the latest AP report about the notorious Navajo Generating Station coal power plant in Arizona (follow the link to support local news!). **Among the top single greenhouse gas emitters in the US, Navajo is on the chopping block mainly due to competition from cheap natural gas.** Its current owners have given up the ghost and voted to close the plant, but there is potential interest from a buyer, Middle River Power. The company is formulating plans to keep it running — but only at half its current capacity. For that matter, it's unclear if Middle River could find anyone to buy electricity from Navajo, so stay tuned. **Part of the plan is to adjust generating hours, which could mean that Middle River is eyeballing an energy storage opportunity, so stay tuned for more on that score.**



## Water:

(Water is valuable in the west.)

### **Mendo County Stakeholders Want to Take Over the Potter Valley Project, Which Diverts Water From the Eel; Local Enviro's Say That Spells Trouble**

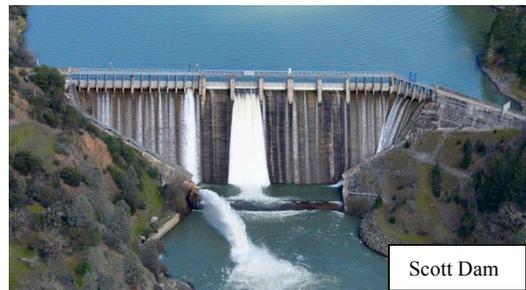
By RYAN BURNS / AUG. 16 / [lostcoastoutpost.com](http://lostcoastoutpost.com)

- PG&E Tells Regional Commission It's Thinking About Selling or Abandoning Potter Valley Dams, Which Take Water Out of the Eel and Send It South
- PG&E to Sell Off Potter Valley Project Dam Project, Which Diverts Eel River Water South; Friends of the Eel Vows to Keep Up Fight
- Friends of the Eel Decries 'Secret Plans' For Future of River-Draining Potter Valley Dams; Board of Supes Meets on Issue Tomorrow
- DC UPDATE: Rep. Huffman Talks DACA, the Farm Bill, Net Neutrality and Eel River Dams; Predicts Warriors in Five

Pacific Gas & Electric has owned and operated the **110-year-old Potter Valley Project** since 1930, the heyday of hydroelectric dams in the United States.

**But now, almost a century later, demand for electricity is down, the project is no longer cost-effective, and PG&E wants out.**

In May the utility company announced plans to auction off the Potter Valley Project. The auction process is scheduled to begin Sept. 3. However, PG&E also indicated that it's open to negotiating with interested parties before the auction, and on July 31 a group of Mendocino County government interests, united as the Mendocino County Inland Water and Power Commission (IWPC), sent PG&E a letter, initiating a discussion about simply transferring the project, rather than holding an auction. Their interest is not in the project's electricity-producing power. (The 9.4 megawatt hydroelectric plant produces enough to supply roughly 6,900 homes.) No, at this point in California's history, electricity is really a secondary commodity, as Congressman Jared Huffman observed earlier this week. **"This [the Potter Valley Project] is a hydroelectric project in name, but in terms of its function it has really become more of a water project,"** he told the Outpost.



Scott Dam

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Indeed, the project uses two dams and a tunnel to divert more than 20 billion gallons of Eel River water each year into the Russian River, supplying precious hydration to cities, vineyards and other agricultural interests in Lake, Mendocino and Sonoma counties.

Janet Pauli, chair of the IWPC, recently underlined the high stakes here, telling the Santa Rosa Press Democrat in no uncertain terms, **"The water supply needs to be protected. It's very serious. There's no way around it."**

Many North Coast locals, meanwhile, argue that the project's water diversions — along with the dams' blockage of historic spawning habitat — have contributed to the precipitous declines of coho salmon and steelhead trout populations in the Eel River basin. Environmental groups, tribes and others have argued that the Potter Valley Project's dams — particularly the larger Scott Dam — should be decommissioned and torn down.

With ownership of the Potter Valley Project now up for grabs, the long-simmering conflict over water use is heating up. Friends of the Eel River, perhaps the most outspoken critic of the project's environmental impacts, worries about the prospect of a takeover by the IWPC.

"This is a bid to maintain the status quo," said Scott Greacen, conservation director at Friends of the Eel. The IWPC, he said, brings together all of the interests that are thirstiest to maintain that status quo. But Friends of the Eel's biggest fear, Greacen said, is that the IWPC will pursue a non-power license for the project, abandoning energy production altogether in a gambit to evade oversight from the Federal Energy Regulatory Commission (FERC). The agency's requirements for hydroelectric dam projects include water quality standards and providing fish passage where feasible. Greacen thinks the IWPC may seek to bypass those rules and monetize the project's water supply. Asked if the IWPC would indeed seek a non-power license for the project, Pauli said, "I don't see that happening at this point in time. ... Currently we would anticipate acquiring the license for power production."

However, at an August 7 meeting of the Mendocino County Board of Supervisors, Pauli admitted to skepticism about the financial viability of that model. "Obviously we do know that if Pacific Gas & Electric Company can't make it making power with that project, probably we can't as well," she said, addressing the board. Until the IWPC gets a look at PG&E's books, revealing the project's profits and liabilities, she said, "we really don't know exactly how we'll be able to move forward." But the stakes — and the objective — are clear. "We're at the beginning of a project that will result in us collectively controlling and protecting our regional water supply resource," Pauli said. In the midst of all this maneuvering, Congressman Huffman has assembled an ad hoc group of stakeholders, including tribes, environmental groups and water interests, in hopes of finding what he calls a two-basin solution — that is, something that could work for both Eel River interests and Russian River stakeholders. The group is exploring ways to improve fish passage on the Eel while meeting the water supply needs on the Russian.

Regarding the IWPC's overtures to PG&E Huffman said he's "not at all surprised" that stakeholders on the Russian River side are pursuing a takeover of the Potter Valley Project. "Whether this goes anywhere remains to be seen," he hastened to add, noting that the financial challenges would likely be daunting for "such a small agency," considering the project's liabilities. Those liabilities, like PG&E's financials, remain mostly hidden from public view, spelled out only in documents available to company employees and interested parties who sign a non-disclosure agreement. However, a couple of documents obtained by the Outpost reveal some of the challenges new owners of the Potter Valley Project will face. A 2017 study from consulting engineering firm Mead & Hunt, for example, found that constructing a functional fish ladder at Scott Dam would likely cost between \$55 million and \$93 million. The study concluded that, "The most feasible and cost-effective fish ladder design would be challenging to build, complicated to operate, very costly, and would have uncertain effectiveness ... ." There are also seismic concerns. Not only are the two dams, like all infrastructure in California, vulnerable to future earthquakes; they've already been impacted. There's a large landslide, active since the 1970s, along Scott Dam's southeast abutment. Perhaps more alarming, in 2016 PG&E workers discovered a "spraying leak" about halfway down the 134-foot face of Scott Dam. In a subsequent letter to FERC, PG&E's chief dam safety engineer, David Ritzman, said, "The leak does not appear to be a dam safety issue." Regardless, his letter noted that Scott Dam has a history of leaks and seepage, and the new spraying leak would require extensive inspections and corrective actions. Asked about the liabilities involved, Pauli didn't sound overly concerned. "We would have insurance for that sort of thing," she said, regarding earthquake risk. "Beyond that," she added, "those dams are inspected yearly by the California Department of [Water Resources Division of] Safety of Dams."

PG&E spokesman Paul Moreno said any agency pursuing a non-power license would have to go through a licensing process very similar to the ongoing relicensing process. (The current license issued by FERC is set to expire in 2022.) The agency would also need to address the same environmental issues and would not avoid requirements for fish passage, Moreno said. Huffman said the bureaucratic hurdles to obtaining a non-power license are substantial, and it likely wouldn't be a viable alternative for Russian River stakeholders like the IWPC because the water rights are ancillary to hydropower production. Plus, he said, any such license transfer would inevitably involve the state water board, which would hold hearings to address fisheries and

public trust issues. "Any way you cut it, no one will be able to buy and convert [the Potter Valley Project] easily into water supply without addressing the fish passage piece," Huffman said. While PG&E prepares for a public auction and negotiates privately with interested agencies, Huffman's ad hoc committee continues to pursue a two-basin solution. From the outside the prospect of compromise — from either side — looks challenging. Russian River interests say the water diverted from the Eel and stored in Lake Pillsbury is absolutely essential to the lives and livelihoods of residents in Lake, Mendocino and Sonoma Counties. Greacen, meanwhile, says there can be no two-basin solution unless Scott Dam is removed. The chinook habitat under the reservoir and the summer steelhead habitat behind the dam are essential to the survival of those populations, he said. Huffman, for his part, remains optimistic. He has developed a set of principles for his ad hoc group that includes fish passage and water supply. "We're trying to see, are there some sweet spots to do both?"



***Environment:***  
(Another opinion.)

### **Guest column: Editorial on dam lawsuit missed vital context**

BY GREG MCMILLAN, AUG. 14, 2018, BENDBULLETIN.COM

## **Opinion:**

On Aug. 10, The Bulletin published an editorial applauding the U.S. District Court's recent decision to dismiss the Deschutes River Alliance's Clean Water Act lawsuit against Portland General Electric. Unfortunately, that editorial, in excusing ongoing exceedances of water-quality requirements at the Pelton Round Butte Hydroelectric Project, is missing some important context. In the lead-up to construction of PGE's selective water withdrawal tower at Round Butte Dam, the company repeatedly stated that the tower would not only return salmon and steelhead to the Upper Deschutes basin, but would also lead to compliance with all water quality standards in the river below the Pelton Round Butte project. The Oregon Department of Environmental Quality issued a Clean Water Act certification for Pelton Round Butte based on these representations.

Now, nearly nine years after the tower began operations, PGE tells a very different story. According to statements made to the court, the company says it simply cannot manage the tower to meet fish passage objectives while ensuring these critical water quality standards are met. Apparently this is good enough for The Bulletin's editorial staff. It shouldn't be. The water quality requirements that PGE says it can't meet were developed and implemented for a specific purpose: to protect aquatic life in the Deschutes River. When these standards are not met, the river's treasured fish, wildlife and aquatic insects suffer. As anyone who has been on the lower river in the last nine years can tell you, it is a dramatically different place than it was before the tower was built. And it is not just the fish and wildlife that are struggling: As the recreation experience on the river has diminished, people and communities who depend on a healthy Lower Deschutes are suffering as well.

It is well past time to re-evaluate the merits of this experiment. The fish reintroduction program, while clearly well-intentioned, has generated very few returning adult salmon and steelhead each year, with little indication that these numbers will improve. In the meantime, the Lower Deschutes river — one of this country's most spectacular rivers, and an economic driver for the entire region — has become a different place altogether. One wonders what it would take for PGE to acknowledge that this experiment is simply not working as planned. Finally, The Bulletin's focus on the cost of the DRA's Clean Water Act lawsuit is curious, given the immense economic toll the construction of the SWW tower has inflicted on PGE ratepayers and the state of Oregon. This experiment has now cost ratepayers well over \$130 million — significantly higher than original

cost estimates. And that does not take into account the ongoing economic harm to Central Oregon communities like Maupin. **The DRA is considering all legal options as we continue our work to protect and restore the Lower Deschutes river.** But one thing is certain: The Deschutes is simply too important to give up on. The DRA will keep fighting to protect water quality and aquatic life on the Lower Deschutes, on behalf of everyone who treasures this remarkable river. — Greg McMillan is president of the Deschutes River Alliance, [www.deschutesriveralliance.org](http://www.deschutesriveralliance.org)



### **Other Stuff:**

(Are you thinking about retirement?)

#### **5 Best, Worst US Cities for Retirees**

**Florida is home to 3 of the top 5**

By Arden Dier, Newser Staff, Aug 14, 2018, [newser.com](http://newser.com)

(NEWSER) – **Florida really is the place to be for retirees.** The Sunshine State is home to three of the top five retirement-friendly US cities, according to WalletHub, which ranked the most populated cities across the nation, based on affordability, recreational activities, quality of life, and health care. Living in top-ranked cities could mean retiring a few years earlier than those living elsewhere. **The best and worst, with a score out of**



**100:**

#### **Best:**

1. Orlando, Fla.: 60.1
2. Scottsdale, Ariz.: 59.4
3. Tampa, Fla.: 58.5
4. Denver: 58.3
5. Fort Lauderdale, Fla.: 57.8

#### **Worst:**

1. Newark, NJ: 33.9
2. Bridgeport, Conn.: 34.8
3. Warwick, RI: 35.7
4. Baltimore: 35.8
5. Stockton, Calif.: 36.4

Click for the full list: <https://wallethub.com/edu/best-places-to-retire/6165/> or see the best and worst states for retirees: <http://www.newser.com/story/254175/this-state-is-the-worst-to-spend-your-golden-years-in.html>



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