RALEIGH, N.C. (AP) - Alcoa Inc. moved closer to another decades-long license to operate dams on North Carolina's second-largest river system after state environmental regulators said Friday they'd approved a key water quality certification with conditions. The certification, required under the federal Clean Water Act, was necessary before federal energy regulators would approve a new license allowing Alcoa to keep running four dams on the Yadkin River for up to 50 years. Republican Gov. Pat McCrory and his Democratic predecessor, Beverly Perdue, have spent years trying to block Alcoa's license renewal, arguing it would tie up water resources and future industrial development for decades. The dams formerly powered an aluminum smelter where hundreds worked for generations before Alcoa closed it in 2007. The company has collected more than $175 million since then by selling the electricity to commercial customers. The state's conditions include more favorable financial terms but extra conditions beyond a previous version issued in 2009 and later revoked because regulators said Alcoa withheld information.
The state previously required a $240 million guarantee the company would make dam improvements. The latest certification requires a bond of less than $45 million for the upgrades and a second $3 million bond to ensure monitoring of toxic heavy metals, PCBs and other pollutants left by the smelter. The new conditions require "that the bond will cover the entire cost of any upgrades required as part of the certification, even if those costs exceed $48 million from the two bonds," state Department of Environmental Quality spokesman Jamie Kritzer said in an email. Other conditions are more stringent by requiring Alcoa to install new equipment, protect the city of Salisbury’s water intake, and do more testing, Kritzer said. Environmentalists consider the new conditions an improvement over the 2009 version, Yadkin Riverkeeper Will Scott said. Alcoa officials said they were examining the details. "We have been good stewards of the watershed for nearly 100 years and remain committed to meeting North Carolina water quality standards," Ray Barham, the Alcoa executive responsible for securing the federal license, said in a statement. The state’s action appears to meet a deadline set by a state judge last month giving regulators 30 days to decide on the clean water certificate. Last month, a federal judge dismissed a lawsuit filed by the McCrory administration challenging Alcoa’s ownership of the riverbed. Evidence demonstrates that Alcoa holds title to 99 percent of the 40-mile segment of the Yadkin River bed in question, and ownership of the rest should have been challenged decades ago, U.S. District Judge Terrence Boyle said. The state is appealing his ruling.

(What a mess! There’s a dam somewhere among the trees.)

Upstate dams deemed unsafe under emergency deadline

More dams than 600 inspected in South Carolina

By Corey Davis, Oct 23, 2015, wxff4.com

LAURENS COUNTY, S.C. — The South Carolina Department of Environmental Control has issued an emergency order to fix dams across the state. Seven dams in Laurens, Greenwood, Anderson and Spartanburg counties are now considered unsafe by DHEC after the historic flooding slammed the state. So far DHEC records show that they have accessed 645 dams statewide.

Seventy-five of those dams fall under the emergency order where owners must lower water levels in reservoirs and submit a plan from engineers to fix problems by 5 p.m. on Oct. 30. The Lakeside Country Club Dam is one of two in Laurens County on the list. The earthen dam is currently rated by DHEC as having the highest level of risk to life and property if it were to fail. J.R. Hawkins, golf course superintendent, said he believes the 34-year-old structure won’t fail. He said the golf course was slammed with 17 inches of rain when the state was hit with devastating flooding. Hawkins said DHEC wants them to remove all trees off the back of the dam and address a small seepage in the area. He said standards have changed over the years, and they must now replace the trees with turf but said their budget would take a hit if they have to a complete reconstruction of the dam. "We're going to do our best to solve this problem without having to reconstruct the dam, because financially for a small facility, that's not feasible," said Hawkins. Hawkins said they have hired an engineer and will continue to work with DHEC on submitting a plan before the deadline.

(What the heck, another letter.)

Letter: Removing Snake River dams

OPINION, October 23, 2015, dnews.com

Copy obtained from the National Performance of Dams Program: http://npdp.stanford.edu
In his 2015 State of the Union address, President Obama stated that the greatest threat to future generations was climate change. If we accept this assertion, then doing everything we can to reduce greenhouse gas emissions is critical. This can be done by 1) improving the efficiency of energy use to reduce the need for energy sources that emit greenhouse gases and 2) replacing sources of energy that emit greenhouse gases with those that emit either less or none. Given that hydroelectric power (a form of renewable solar energy that uses the ocean as its solar collector) emits essentially no greenhouse gases, it makes no sense to remove the Snake River dams and, hence, eliminate this clean source of energy. Even if our total energy consumption is reduced through more efficient use of energy (a good thing), hydroelectric power will be replaced (at least in the near term) by a source that emits significant greenhouse gases (e.g., coal or natural gas fired power plants).

(You can comment, but they gotta do what they gotta do!)

Public can provide feedback on Boone Dam Environmental Report
By Sydney Cameron, October 23, 2015, wjhl.com

JOHNSON CITY, TN (WJHL)- Tennessee Valley Authority is set to release a draft environmental assessment on the impacts of the Boone Dam Project to the public on Oct. 28. TVA is proposing to fix the dam’s seepage problem by drilling holes in the dam, filling them with grout, and then building a massive concrete wall. But before the major work can begin, an environmental assessment is required by the National Environmental Policy Act. The report will review the potential environmental effects of TVA’s proposal. "It is about the project in terms of the environment," said Mary Ellen Miller, TVA Boone project public relations program manager. "What could or could not happen in terms of the environment as this project moves forward."

The public is invited to provide feedback on the study, which will be available on the TVA website starting Oct. 28. "They'll see a variety of choices our engineers have studied, everything from no action all the way to the remediation of the dam," Miller said. The in-depth report will provide a glimpse into TVA's decision-making process and the environmental consequences behind several of the repair options TVA explored. If someone feels like something was not considered, they can let officials know. But TVA says it is confident it has chosen the right course of action to repair Boone Dam and the report will help validate that. There will be a public hearing about the environmental assessment Nov. 5 at Daniel Boone High School from 5:30 p.m.-7:30 p.m. The public comment period ends Nov. 30. The final report is expected to be released early next year. Major work to repair the dam is expected to begin soon after that.

(It's a national problem with all infrastructure, not a state problem.)

Thousands of dams avoid state inspections in South Carolina
State has 10,000 to 20,000 unregulated dams
Some failed during the historic storm this month
Experts suggest putting some smaller dams under state regulation
By SAMMY FRETWELL, thestate.com, 10/24/15

Copy obtained from the National Performance of Dams Program: http://npdp.stanford.edu
During the historic flooding, as many as 23 dams in the Columbia area buckled under the pressure of rushing water, contributing to the overall flooding that swamped homes, washed out roads and forced evacuations of neighborhoods. State officials acknowledge that at least four of those dams were not regulated by the state, including a northeast Richland dam believed to have sent water gushing down Jackson Creek toward Decker Boulevard and into Cary Lake. The dam holding back water at 56-acre Cary Lake also burst during the storm.

Unregulated dams are a problem in many places, experts say. “There probably are hundreds if not thousands of dams out there (nationally) that are currently unregulated that ought to be regulated for one reason or another,” said Bruce Tschantz, a former chief of the Federal Emergency Management Agency’s dam safety office. Across the state, the S.C. Emergency Management Division estimates there are 10,000 to 20,000 dams that are not regulated by government dam safety programs. The figure is down from the 48,000 estimate the agency once gave, but still significant in light of the number of dams the state does regulate. All told, South Carolina oversees safety on 2,400 dams that fall under its regulatory program because they reach a specific height or hold a certain amount of water. Federal agencies oversee a handful of major dams, such as at Lake Murray, as well as those on the Army’s Fort Jackson training base. In the Columbia area’s Gills Creek watershed, where more than 100,000 people live, a recent consulting report said more than 100 lakes dot the area stretching from northeast Richland to areas southeast of Columbia. But many of the dams holding back those lakes apparently receive no state oversight. The U.S. Army Corps of Engineers’ national dam inventory lists just 112 regulated dams in all of Richland County, nearly one-quarter of which are in the Gills Creek watershed. Not all unregulated dams are dangerous, said Tschantz and Steve Bradley, who led South Carolina’s dam safety program before retiring about four years ago. Like Tschantz, Bradley said some of those dams hold back small farm ponds or aren’t near enough people to be a threat if they broke. Still, Bradley agreed that some dams not regulated and inspected by the state deserve scrutiny. He estimated up to 1,000 unregulated dams in South Carolina could use some level of oversight by government agencies. Bradley recalled that while he was running the dam safety program at the S.C. Department of Health and Environmental Control, he would look at aerial photographs at times and think, “we ought to be regulating this dam.” A DHEC spokeswoman said last week that the department is working with an engineering consultant to determine whether some dams not under its authority should be regulated. That could prove difficult. Bradley said the agency barely has enough people to keep up with the dams it does regulate. At one point during his tenure, Bradley said, he was the only staff member at DHEC specifically overseeing dams. Asked about the possibility of putting more dams under state regulation, Bradley said: “I don’t know how you could.”

Cash-strapped program
DHEC has in recent years had one of the most poorly funded dam safety offices in the country. The state program was robust when it was part of the old Land Resources Commission, former officials say. But when the Legislature restructured government in the early 1990s, the dam safety program was put under DHEC’s control. The program began to suffer from budget cuts and gradually eroded, Bradley and other former dam safety officials said. In 2014, the program had a budget of $260,000, according to the Association of State Dam Safety Officials. DHEC said the agency had $453,000 budgeted for its dam safety program in 2014-15. The lack of resources led to criticism that DHEC wasn’t keeping close track of dams the agency regulates. In the wake of this month’s floods, Gov. Nikki Haley and DHEC officials say they now are reviewing the program.
after more than three dozen dams failed across South Carolina. The agency has hired HDR Engineering, an international engineering and architectural company, to help it assess the dam safety program and any needed improvements. Under South Carolina law, the state only regulates dams that are at least 25 feet tall or hold back at least 50 acre-feet, or 16.3 million gallons, of water. Those that don't meet those requirements are not regulated, unless state officials believe smaller dams and lakes threaten public safety, Read said. When dams are regulated, the state is supposed to inspect the dams periodically and recommend improvements if it finds problems. Without regulation, the maintenance and stability of a dam is up to the people who own them. Sometimes, that falls on property owners associations that don't always have the time or the money to properly manage dams, experts say. That’s the case on parts of Gills Creek, where most dams are privately owned and maintained by people who live along a string of lakes. Gills Creek Watershed director Erich Miarka said the state should consider bringing unregulated dams in urban areas under government oversight because of the potential risk to people and property. Those smaller dams can still have painful impacts on adjacent property if they fail, Miarka and Tschantz agreed. "Every dam should be regulated if you are in what is considered an urban setting, or if you are maybe less than a mile upstream from an urban setting, something like that,” Miarka said. "There should at least be a record of the dam somewhere.” Bradley said he remembers an unregulated dam in the Orangeburg area that flooded a nearby highway. The dam had an emergency spillway, used to carry away excess water after heavy rains, into the highway. After a heavy rain, the excess water caused traveling cars to hydroplane, he said. Bradley said the dam design would not have been allowed if it had been regulated. “That owner should have been responsible for redirecting the flow of water,” Bradley said.

Pine Tree blowout
Among the unregulated dams that failed during the Oct 4. storm was the Pine Tree Dam, a tree-covered earthen structure in northeast Richland County off Trenholm Road Extension. Several property owners who live on Pine Tree Lake said they tried to take care of the dam through the years, but it was not easy. Some of the work included managing water levels in the lake, which involves manually pulling open floodgates to release water. That’s important to keep water from overtopping and eroding the dam during storms. Paul Lawrence, a Yorkhouse Road resident, said lakeside landowners were unwilling to put up money for management of the dam and lake. Lawrence said he is the former president of a lakeside property owners group that recently disbanded. "Everybody wants to live on the lake, but no one wanted to take responsibility for it,” Lawrence said. It was unclear whether anyone tried to lower water levels in the 13-acre lake before the Oct. 4 storm to reduce pressure on the dam. It also is not known when the dam actually broke. Early reports indicated the dam broke the morning of Oct. 4, but some property owners around the lake are now saying the dam broke later in the afternoon. Either way, the failure of the dam sent water pouring out of Pine Tree Lake and down Jackson Creek above Decker Boulevard. One resident who lives just below the dam had extensive damage to her home, although it isn’t known whether the failed dam or water overtopping the structure did the most damage. Decker, a major connection between Two Notch Road and Interstate 77, suffered some of the most significant flooding in the storm. On Decker, people were trapped in cars as floodwaters rose the morning of Oct. 4. Fire and rescue officials saved some of those motorists. Decker Boulevard was closed for two weeks while undergoing repairs. It finally reopened last week. At this point, it remains unclear what impact the Pine Tree dam break had on the breach at the Cary Lake dam, which reportedly occurred in the morning. Property records show that Pine Tree Lake is owned by the Pine Tree Lake Co. LLC. Richland County property records show the land along the lake not owned by individual homeowners is owned by the Pine Tree Hunt Club. That club is a nonprofit social organization, according to a federal tax form. William Haseldon, the treasurer for the Pine Tree Hunt Club, maintained that the lake was kept in good order through the years “by certain residents and the owners.” Asked by The State newspaper about plans for the blown-out dam, Haseldon said in an email that he has “no clear picture as to what we can or cannot do from a regulatory perspective.” He also said the dam broke the afternoon of Oct. 4 after receiving a “large flow of water from the area and upstream Windsor Lake.”

Other unregulated dams

Copy obtained from the National Performance of Dams Program: http://npdp.stanford.edu
The dam at Pine Tree lake isn't the only unregulated dam in South Carolina that might have failed during the Oct. 4 storm. Aerial imagery, compiled by Dayton, Ohio-headquartered Woolpert Inc. and used by state officials to assess damage, show that at least three other lakes in the Columbia area lost water after the storm hit, according to a review by The State newspaper. These lakes were not identified by DHEC in the list of 16 broken dams in Richland County. Empty lakes showing up on the Woolpert aerial photographs, taken two days after the storm, include: an unnamed pond between Clemson Road and Spears Creek Church road in northeast Richland County; a pond commonly called Arcadia Lake, behind North Trenholm Baptist Church in the town of Arcadia Lakes; and a pond near Meadow Glen Middle School in Lexington County.

Sid Havird, whose family owns Arcadia Lake, acknowledged damage to an emergency overflow area at the unregulated dam from the storm, but says he drained the lake after the spillway blew out so he could make repairs. A hole could be seen in the dam structure from a road beside the drained lake, but Havird said the dam remains intact.

Tschantz said he doesn’t know the particular circumstances in Columbia, but some unregulated dams across the country fall into disrepair because of neglect. “Homeowners a lot of times are only interested in their own property,” he said. “Then they finally discover ‘Hey, we are responsible for the darned dam. We are faced with a $300,000 bill to (improve it).’ “I can tell you they are going to find a political solution to deal with the problem first.”

S.C. UNREGULATED DAMS
South Carolina has 10,000 to 20,000 dams that are not regulated or inspected by the state government, officials say. South Carolina regulates 2,400 dams. Here’s a list of regulated dams, ranked by the top counties.

1. Greenville – 151
2. Spartanburg – 147
3. Orangeburg – 142
4. Aiken – 141
5. Lexington – 114
6. Richland – 112
6. Calhoun – 112
8. Edgefield – 105
9. Chesterfield – 95
10. Laurens – 92

SOURCE: U.S. Army Corps of Engineers, National Inventory of Dams

(Townshend wants state, federal help with dam silting, tax issues)

TOWNHEND, VT – Fifty-four years ago, a giant moved into West Townshend, There’s no doubt that the hulking Townshend Dam has provided benefits over that half-century, from large-scale flood protection – a 2011 estimate said the structure had prevented $137.1 million in flood damage – to a popular outdoor recreational area. But, these days, Townshend officials aren’t sure the dam is living up to its billing. A small payment in lieu of taxes for the dam property hasn’t changed in decades, and Townshend Lake’s recreational area is choked with silt, limiting its utility. Local officials are trying to take action on both
fronts through the U.S. Army Corps of Engineers, which operates the dam; the Connecticut River Valley Flood Control Commission, which is supposed to promote cooperation among the watershed’s four states; and Vermont state officials. Selectboard Chairwoman Kathy Hege isn’t convinced that anyone is looking out for towns that play host to big flood-control dams.

“If the state is not going to take action on behalf of the towns, then the towns are going to have to take action from their own perspective,” Hege said. The silting problem is the simpler of the two issues raised by Townshend. The Army Corps website says the Townshend Lake swimming area “is shallow enough for children yet deep enough for those wanting to swim laps,” but things haven’t been that ideal for a while. “They’re telling us that we have a recreation facility, which we do not have,” Hege said. “We have a mud pit.” The issue came to a head after Tropical Storm Irene ravaged the region in August 2011. A side effect of the storm, which caused widespread flooding and property damage, was a significant deposit of silt at Townshend Lake. Tim Dugan, a spokesman for the Army Corps’ New England District, noted that the agency funded a $28,000 excavation/dredging contract in August 2013 to remove about 4,500 cubic yards of sediment from Townshend Lake. However, “this was only a small fraction of what is actually in the reservoir area,” Dugan said. And the problem has not gone away. Though Irene struck the area more than four years ago, the Army Corps is feeling the continued effects of the storm because stream channels remain unstable, said state Rep. David Deen, a Westminster Democrat and a noted Connecticut River expert. “Irene set off such erosive forces, and the rivers are still recovering,” Deen said.

As a result, both the Townshend swimming area and the reservoir as a whole continue to be impacted by unusual sedimentation. “They were able to open the swim area for the season in 2013,” Dugan said. “In 2014, it was still in decent shape, but then siltation continued to come down the system. In 2015, there was a reduced depth in the swimming area, but the swimming area was still open to the public.” Open to the public is not enough for Townshend officials or for state Rep. Emily Long, a Newfane Democrat who attended an Oct. 19 Townshend Selectboard meeting to hear the board’s concerns. “I’ve had several people speak to me well before I heard from the Selectboard about this,” Long said. “Clearly, it is an issue.” Officials say they’ve heard stories of visitors declaring that they would not return to Townshend State Park due to diminished swimming, boating and fishing opportunities at the lake. That’s bad news for Townshend’s economy.

“This has got to impact every business in the town of Townshend and maybe up and down the West River Valley,” Long said. Long told the board she thinks “Townshend has a pretty strong argument with the silt issues.” But there’s no indication that another excavation project is in the works at this point. “The Corps staff is looking at the issue, but right now they don’t have the resources or funding to address the problem,” Dugan said. Larry Rosenberg, a regional Army Corps spokesman, added that recreation – while important – is not the agency’s core mission. “The recreational use of these lands is a secondary benefit of the purpose of the project, which is flood-risk management,” Rosenberg said.

Payment in Lieu of Taxes at issue
That leads to Townshend’s second, more-complicated concern. Flood-risk management was the reason for formation, in 1953, of the Connecticut River Valley Flood Control Commission. Connecticut, Massachusetts, New Hampshire and Vermont joined the commission at a time when the federal government was developing extensive plans to alleviate flood risks on the Connecticut River and its tributaries.

Copy obtained from the National Performance of Dams Program: [http://npdp.stanford.edu](http://npdp.stanford.edu)
In the commission’s original compact, the states recognized that “it is in the interest of their
general welfare that the United States construct in the Connecticut River Valley a comprehensive
system of local protection works and dams and reservoirs to control floods and prevent loss of life
and property.” But the compact also acknowledged that the federal government’s flood-control
efforts “will remove from the tax rolls of local governments of those states such property as is
acquired by the United States and may work other hardships against the people of
Massachusetts, New Hampshire and Vermont.” The states benefiting from the basin’s dams and
reservoirs should “make reimbursement for such loss of taxes and for such hardships,” the
document says.

So there was a structure set up for calculation of annual “tax loss” payments from Connecticut
and Massachusetts to their northern neighbors, where dams had been or would be built. That
structure remains in effect today. But some complain that the system for payments in lieu of
taxes, known as a PILOT program, is outdated. As of 2013, Townshend valued federal property at
the dam at $1.1 million, and that number could go even higher if future assessments factor in this
year’s construction of a new hydroelectric station. But the flood-control commission appears to
use a valuation basis of just $204,780. Townshend is getting just $5,656 annually from the PILOT
arrangement. At the Oct. 19 Townshend meeting, Selectboard assistant Craig Hunt declared that
“we spend more to maintain the road over the dam than we receive in payments in lieu of taxes. It
actually costs us.” Hege put it more simply: “They’re not paying us a fair amount for the land that
we lost.” Town officials’ repeated requests for an more-equitable payment have gone nowhere. A
December 2014 letter to Townshend from Connecticut River Valley Flood Control Commission
Chairman Michael Misslin asserted that “adjustments to tax reimbursements are not mandatory
under the compact.” In 1982, Misslin wrote, the commission decided to “hold reimbursement
amounts to each of the upstream communities constant.” “The commission had experienced
difficulties with tracking revaluations and allocating tax losses among states and towns with
different taxing systems,” Misslin wrote. “No more-suitable solution was identified in that period;
the commission decided it was best to freeze the reimbursement amounts. We concur with the
findings of the 1982 commission members.” As a result, the total amounts paid for flood-control
tax losses throughout the entire basin don’t even reach the $50,000 mark. In 2013, documents
show, Connecticut paid Massachusetts, New Hampshire and Vermont $31,390 for tax losses,
while Massachusetts handed a total of $23,195 to New Hampshire and Vermont.

In the letter to Townshend, Misslin didn’t offer much hope that anything will change. “To modify
the compact, the governors of all member states would have to agree to arbitration and to
increase funding,” he wrote. “Efforts to facilitate changes and increases in the reimbursement
amounts have not been successful in the past and seem unlikely to succeed in the future.”
Nonetheless, Townshend officials are again trying to take action. They’ll send a representative to
the flood-control commission’s next meeting, scheduled for Dec. 4. And officials also are enlisting
legislative help: In addition to contacting Long, the town may get assistance from Deen, who
chairs the House Fish, Wildlife and Water Resource Committee and works as a river steward for
the Connecticut River Watershed Council. The town also has reached out to Vermont’s legislative
dlegation. State Rep. Oliver Olsen, a Londonderry independent whose district includes the Army
Corps’ Ball Mountain Dam, thinks federal muscle may be needed to change the system.
“There is no incentive for the (flood-control commission’s) other member states to agree to an
adjustment to the underlying property valuations,” Olsen said. “A sustainable solution to the
PILOT issue will require congressional action.”

(Sounds like title to a country/western song.)

Going with the flow, 10 years after Taunton’s dam crisis
By Charles Winokoor, Taunton Gazette Staff Reporter, Oct. 25, 2015, enterprisenews.com

TAUNTON — Ten years after a buckling dam and threat of flooding thrust Taunton into the
national spotlight, Joe Rose said it’s good to know the state has since taken steps to prevent a
similar occurrence.
Back then, as Taunton’s interim fire chief, Rose was faced with the task of quickly devising and coordinating a plan to divert the tons of water that had built up, after days of rain, behind the 170-plus-year-old, privately owned Whittenton Pond Dam. Failing to do that, Rose said, would likely have led to a full collapse. And if that were to have happened, he said, damage no doubt would have been profound.

(Back in business soon.)

Construction nears completion on replacement dam
By: FOX 10 Staff, fox10phoenix.com, 10 26 2015

TEMPE, Ariz. (KSAZ) - A new dam is being built at Tempe Town Lake to replace a dam that burst in 2010, spilling nearly a billion gallons of water. Construction is happening on the western edge of the lake and the dam will be the largest of its kind in the country, and possibly the world. The City of Tempe says this is the biggest project ever done at the lake.

(Hate to try to float a canoe in that creek.)

Big Canoe Creek flowing free after 130-year old dam removed in Springville
By Dennis Pillion | al.com, October 28, 2015

For 130 years, the flow of Big Canoe Creek was obstructed by a man-made hunk of rock and mortar called Goodwin's Mill Dam in Springville, AL wreaking havoc on the fish, wildlife and land surrounding it. But after a collaborative effort involving the U.S. Fish and Wildlife Service, Friends of Big Canoe Creek, Coosa Riverkeeper, The Nature Conservancy and several others, the dam came down in November 2013. The waters of Big Canoe Creek have flowed free ever since. To celebrate two years since the removal of Goodwin's Mill Dam and the group's other achievements, Coosa Riverkeeper is hosting an event Wednesday from 6 p.m. to 9 p.m. at Good People Brewing Company in Birmingham. Since the dam came down, local landowners say erosion control has been improved and biologists say that rare species of fish and mussels in the area have a larger suitable habitat to roam free.

Copy obtained from the National Performance of Dams Program: http://npdp.stanford.edu
Back in 2013, heavy equipment crew from the Wildlife Service took down the dam over several days that month and deposited most of the large rocks along the downstream creek bed to help control erosion. Native plants were reintroduced to the banks of the creek as they worked to restore a more natural creek system. The dam was built in the 1880s for a grist mill, but hadn’t served any useful purpose since the mill closed in the 1940s. It was built to last 130 years ago, but had begun showing its age and was becoming a safety hazard. In the meantime, the dam had left a number of negative legacies on the land surrounding it and the wildlife that thrives in Alabama’s creek ecosystems. After any good rain, the waters flowed around the dam, ripping soil away from the steepening banks, causing flooding for local landowner Laura Lovell. "She had lost about 10 feet of her property," said Frank Chitwood, Coosa Riverkeeper. "The creek had just eaten it up and sent it downriver over the years." Lovell said the situation is much better without the dam. She no longer has to worry about the railroad ties that mark the edge of her garden washing into the woods like she used to, and she can plant more fruit trees in her back yard with confidence that the land will still be there in years to come. "Since this was done, it hasn't washed away any of the garden and it's been really great for helping with erosion," Lovell said. "We were losing a half a foot a year at least." In addition to erosion control benefits, the removal opens up new habitat for the 54 species of fish known to inhabit Big and Little Canoe Creeks.

The trispot darter, which has been proposed for protection under the Endangered Species Act, was thought to be extirpated from Alabama waters for 50 years before it was rediscovered in Little Canoe Creek in 2008. It thrives in free-flowing creeks throughout the Coosa River watershed in Alabama, Georgia and Tennessee, and loses habitat when dams turn those creeks into ponds. "Big Canoe Creek is a really special creek that holds a lot of unique species like that," Chitwood said. "It was really important to open up habitat and restore connectivity so that fish can move up and down the creek past that dam, which was the only one on the creek." In addition to darter habitat, Chitwood said about a year after the dam removal, he found an exceedingly rare Canoe Creek clubshell mussel upstream of the dam. "It's only been collected 20 times ever, so that was really cool to find," Chitwood said. "It's actually so rare, and there's so little known about it that it's not listed as an endangered species." Watch the video below to see the dam removal process in action and hear from U.S. Fish and Wildlife biologists and others about the benefits of removing the dam. Also partnering in the project were the Alabama Department of Conservation and Natural Resources, Geological Survey of Alabama, and Alabama Power Company.

Hydro: (I'm baaaack.)

Diamond Mills hydro electric plant proposal is back
By William J. Kemble, dailyfreeman.com, 10/24/15

SAUGERTIES, NY >> Leading Edge Developers is keeping its 13-year-old Cantine Mill Dam hydro electric plant application with the Federal Energy Regulatory Commission alive with a plan that would use the Lower Esopus Creek as an impoundment area for two 750 kilowatt generators. The filing was made for the Diamond Mills Hydro Project in August by Colorado-based Empire State Hydro, which expects to spend about $350,000 on studies to determine if the project is feasible and what environmental issues need to be resolved. Among requests is that federal officials waive some requirements for studies if the dam were new. "The field studies, tests and other activities to be conducted under this permit would not adversely affect cultural resources or endangered species and would cause minor alteration or disturbances of land and any land altered or disturbed would be adequately restored," developers wrote. Leading Edge Developers, which is one of the owners of Diamond Mills, where the dam is located, has proposed to use a 3.3-mile stretch of the Lower Esopus Creek as a reservoir that extends from the village beach to the Mount Marion Bridge along U.S. Route 9W. Efforts to revive the dam date to at least 2002.
when Verde Energy proposed a 5- to 10-megawatt facility, with late former Mayor Robert Yerick at the time saying that project was part of talks arranged by former U.S. Rep. Maurice Hinchey, when village officials were considering options for the then-vacant property.

The dam underwent repairs in 2008 and 2009 in two phases that included rehabilitating a 60-inch gate and repairing piping. Horse Shows in the Sun owner Thomas Struzzieri, who is also an owner of Diamond Mills, in 2009 said an application was being filed for a project that would have John Tabler and Leading Edge Development owner John Mullen as owners. He said they planned to have a smaller project than the earlier application. Neither Struzzieri or Mullen could be reached Friday for comment.

Saugerties village Trustee Patrick Landewe, who is Saugerties Lighthouse keeper, in an email said the application still needs some work. "The only glaring absence is that the application fails to mention the village of Saugerties as an interested political subdivision or (state Department of State) which administers coastal policy, as an interested agency," he said. "Of note, the narrative for the Esopus Estuary designation states ‘development of hydroelectric facilities ... should only be allowed with run-of-river operations,’" Landewe said. "The applicant states that the ‘system will operate in run-of-the-river mode.’ As such, the proposal doesn’t necessarily run afoul of the coastal area designation. Even so, there should be a coastal consistency determination at some point in the process."

While the dam is only 1.3 miles from the mouth of the Hudson River, run off from the electric generating facility would go right past the village waste water treatment plant. The section of the Lower Esopus Creek is also a migratory stopover for birds and part of a bald eagle foraging area. "During the term of this preliminary permit, studies will be conducted to refine the technical, economic, financial and environmental aspects of the Diamond Mills Hydropower Project to protect and enhance natural resources," they wrote. "Several studies may have been conducted on hydrological, environmental, and other characteristics of the site. These studies will be used as necessary to assist in the consultation process." Developers contend the project would not impact properties downstream or municipal infrastructure. "A review of the publicly available information did not indicate any irrigation districts, drainage districts, or similar special purpose political subdivisions in the area of the project that would be interested in or affected by this application," developers wrote.

An electrical cooperative in Southeast Alaska is looking into developing a new hydroelectric power plant in the village of Kake. The Inside Passage Electrical Cooperative this year fired up a new hydro plant in Hoonah and thinks the proposed plant in Kake could be easier to build than that one. That new power source could also cut Kake’s diesel generation in half.

Southeast cooperative looks into Kake hydro project
By Joe Viechnicki, KFSK, October 27, 2015, ktoo.org

An electrical cooperative in Southeast Alaska is looking into developing a new hydroelectric power plant in the village of Kake. The Inside Passage Electrical Cooperative this year fired up a new hydro plant in Hoonah and thinks the proposed plant in Kake could be easier to build than that one. That new power source could also cut Kake’s diesel generation in half. Kake residents and businesses buy their electricity from the Inside Passage Electric Cooperative, a small member-owned cooperative which also has customers in Hoonah, Angoon, Klukwon and the Chilkat Valley. IPEC celebrated the opening of a new hydroelectric power plant in Hoonah this year and CEO Jodi Mitchell said the cooperative is delighted with the performance of that new plant. "That project is saving over 10-thousand gallons of diesel per month, which is just so
exciting,” Mitchell said. “Whenever it starts raining in our beautiful pristine lovely Southeast Alaska, I think about how that turbine is spinning and how that’s saving us so much money or saving the ratepayers so much money.”

Now IPEC is pursuing a similar project for its 300 customers in Kake, another small Southeast town that has depended on diesel generators for power. IPEC used a grant from the state’s renewable energy fund to commission a study this year looking at three different options on Gunnuk Creek, right in the center of the village of over 600 people. Mitchell said the project would provide about half of Kake’s current energy needs. “It would save an estimated 6.2 million gallons of diesel over its 50-year design life. So, it will make a significant dent in the required diesel generation for Kake,” she said. Depending on how the project is funded and other factors, it could lower Kake’s high electrical bills, about five times the cost of energy in larger Southeast communities. Gunnuk Creek already has a dam completed in 2007 and designed to supply a hydro plant. It’s also a site that has housed a hydro plant in the past used to power a cannery. Mitchell said the Kake project would be similar in size to the one IPEC completed in Hoonah. “But it will actually be less expensive to build, because there’s already an existing dam there,” she noted. “And it’s also right in town. We won’t have to build a transmission line to it as we had to for the one in Hoonah.”

IPEC’s reconnaissance study looked at three construction alternatives. The cheapest option, and the one that’s recommended, comes in at five and a half million dollars. The two other alternatives could provide more of Kake’s power needs but have price tags of over 18 million and $39 million.

Kake leaders and residents for decades have been seeking a cheaper source of energy, whether it’s through a new project or connection to the power grid that runs from Petersburg to Ketchikan. That’s another long-term possibility for Kake, a transmission line to Petersburg over 40 miles away. That project is estimated to cost 57-$65 million and is under environmental review. The Southeast Alaska Power Agency would pursue that connection if it makes economic sense. In an email, SEAPA CEO Trey Acteson writes that the two projects are very different. He writes, “The benefits of the proposed Kake-Petersburg Intertie are more comprehensive, providing a catalyst for long-term economic growth and prosperity through access to stable low-cost renewable energy.” Acteson notes that electrical use in Kake is low and business development limited because of the high rates, but that could change with a connection to SEAPA power sources. IPEC’s Mitchell said the cooperative still supports constructing the transmission line from Petersburg. “But that project will probably just be placed on the back burner until the fiscal situation in the state improves,” Mitchell said. In the meantime, IPEC is applying for grant money to build the Gunnuk Creek project. Officials with the city, school district, Kake Tribal Corporation and Southeast Conference have written letters in support of the project and an Alaska Energy Authority grant application. Those letters call this project “low hanging fruit” which will mean relatively quick reduction of electricity rates for the community. Leaders say lower energy costs are needed for Kake to survive or grow, especially for businesses that do not benefit from the state’s Power Cost Equalization program that offset high rates. The IPEC board this year decided to spend up to $250,000 to do design work on the recommended alternative. That’s the next step for the project, besides permitting and securing funding. Mitchell hopes to have the project construction-ready as soon as next July.

(Guess what, another opinion.)
GUEST VIEWPOINT

Hydropower and salmon successfully co-exist
By Roger Gray, Jeff Nelson and Matt Michel For The Register-Guard, OCT. 29, 2015

As noted in the recent Register-Guard article “Critics of Snake River dams say it’s time to remove them,” the idea of breaching dams to save salmon is not new. Local consumer-owned utilities care deeply about the environment, but respectfully disagree with proponents of dam removal. Here’s why: Utilities are tasked with providing reliable, low-cost and environmentally responsible electric energy to our customers. The Snake River dams are critically important to achieving those goals. Energy purchased by utilities from the Bonneville Power Administration is 95 percent carbon free, with 75 percent coming from hydropower — including the Snake River hydro projects.

They help keep our lights on, significantly reduce our carbon footprint, power our businesses and economy, support the Northwest’s power grid in energy emergencies, and enable farmers to put food on our tables and the tables of others around the world. Other sources of renewable energy such as wind and solar, because they are not always available, simply cannot replace the hydropower generated by the Snake River dams. In fact, it’s hydropower that makes wind and solar work in the Northwest, by backing them up when the wind doesn’t blow and the sun doesn’t shine. The four lower Snake River dams are equipped with fish ladders to ensure adults can reach prime spawning habitat. Each has state-of-the-art technologies to ensure young salmon travel safely downstream. Survival levels for young salmon at these dams are astounding, with 97 percent on average safely traversing each dam. This is akin to levels seen in river systems with no dams, according to National Oceanic and Atmospheric Administration Fisheries. According to an independent public opinion poll conducted last February by Portland-based DHM Research and commissioned by Northwest RiverPartners, fully 70 percent of Northwest residents recognize the value of the Snake River dams and support them; only 10 percent said they should be removed. In the Eugene area, 68 percent support the dams, with only 7 percent believing they should be removed. In fact, support for the dams overall increased 10 percent this year. Utilities and the customers we represent understand that salmon and dams are important to our region. In the DHM poll, 77 percent of Northwest residents said it is critical for dams and salmon to co-exist; in Eugene, 85 percent agree with this statement. The good news is, salmon and dams are co-existing. Overall salmon abundance is way up since 2000, with a record-setting return of 2.5 million adults in 2014, the most since Bonneville Dam was built in 1938. This year, while the sockeye salmon have struggled with low river flows and high temperatures thanks to an exceptionally dry spring and summer, we’re seeing tremendous returns for other endangered fish species. In fact, the fall chinook are on track to set another return record. With up to 25 percent of BPA’s power costs going toward fish and wildlife mitigation, including habitat restoration and improved dam operations to aid salmon, our customers have expressed pride — and have invested their hard earned dollars — in environmental stewardship.

It is unlikely that removal of the dams would solve the problem presented by dam-removal proponents. Dam removal would affect BPA investments in fish and wildlife. It also would increase our carbon footprint, adding up to 4.5 million tons of carbon annually, because the loss of hydropower likely would be replaced by electricity generated from natural gas, coal or other sources that produce carbon dioxide, according to an analysis by the Northwest Power and Conservation Council. Responsible environmental stewardship points to keeping the dams in place. We want to protect the fish while also preserving our hydropower — an unmatched source of reliable, renewable energy that fuels our region’s economy, provides a platform for significant investment in environmental habitat, and keeps our skies clean. Roger Gray, Jeff Nelson and Matt Michel are general managers of the Eugene Water & Electric Board, the Springfield Utility Board and the Lane Electric Cooperative, respectively. This statement was also signed by the managers of the Emerald People’s Utility District, Blachly-Lane Electric Co-Op, Central Lincoln PUD, Douglas Electric Co-Op, Consumers Power Inc. and the Coos-Curry Electric Co-Op.
Water:

Environment:
(Bet this was an electrifying experience.)

Rare eel caught near Lawrence’s Bowersock Dam
By: Associated Press; Carrie Larsen, Oct 25, 2015

LAWRENCE, Kan. (WIBW) -- State officials say a Kansas man recently caught an eel near Lawrence that apparently migrated from the Atlantic Ocean. Tim Smith, of Larned, pulled the 30-inch American Eel from the Kansas River near the Bowersock Dam in September. Ron Kaufman, spokesman for the Kansas Department of Wildlife, Parks and Tourism, says the eel spawns in the Sargasso Sea in the Atlantic Ocean. He says the eel would have migrated from the ocean up the Mississippi River and across Missouri to the Kansas River before being stopped by the dam. Kaufman says it’s possible other eels are in the river near the dam. The Lawrence Journal-World reports Smith caught the eel using a rod and reel with a worm for bait. It isn’t clear what he did with the eel.

(Trying to save our National emblem.)

Group effort saves bald eagle in distress at dam
October 27, 2015 6:58 pm | By Jacob Owens. cecildaily.com

CONOWINGO, PA — What could have ended tragically Saturday instead became a testament to teamwork, as a group helped save a bald eagle in distress at the base of the Conowingo Dam. About 2:30 p.m. Saturday, a Tri-State Bird Rescue & Research volunteer was set to return an eagle to the wild in the Conowingo area. Miscommunication between the volunteer and the nonprofit resulted in the bird being released at the top of the dam, however, rather than the usual site at Conowingo Park off Route 222, said Lisa Smith, Tri-State executive director. Perhaps disoriented and confused, the bird did not return to one of the bald eagles’ prime nesting grounds, like nearby Rowland Island in the middle of the Susquehanna River, but instead fell to an outcropping at the base of the Conowingo Dam. Candy Thomson, Maryland Department of Natural Resources Police spokeswoman, said Ofc. Veronica Burns, who

Copy obtained from the National Performance of Dams Program: http://npdp.stanford.edu
was nearby on her usual rounds responded to the base of the dam along with Tri-State Bird Rescue volunteers. The scene drew concern and offers of help from members of the public who were enjoying the pleasant weather at the fishing pier on the Darlington side of the river. “Members of the public gave up their kayaks to allow the rescuers to get to the bird,” Thomson said. “Exelon employees who saw this happening also helped to coordinate the effort to coax the eagle back into its crate. Everyone kept their cool, worked together and it resulted in a positive outcome.” Thomson said that responding near the base of the dam was a routine part of the job for Burns because NRP is the state’s primary maritime Homeland Security agency, meaning officers routinely check things like dams, ports, bridges and power plants. “It was a fortuitous series of events in this case,” she added. “Our hats are off to Exelon for coordinating the rescue of the bird in that difficult spot.”

As of Tuesday, Smith said the bird, a hatching-year female, was doing OK and had returned to the flight cage at the rescue. The Newark, Del., based nonprofit hoped to continue to rehab the bird and try to reintroduce her to the wild once again, Smith added. “We accept full responsibility for this and are deeply upset by this incident,” Tri-State wrote in a message on its Facebook page. “We are working to make sure this kind of miscommunication does not happen again.” The release attempt Saturday is just one of thousands made by Tri-State every year, Smith explained. Of the 2,500 or so birds cared for by the nonprofit each year, they treat and rehabilitate about 40 to 50 bald eagles, roughly two-thirds of which come from Maryland’s Eastern Shore. “Where we try to release an eagle depends on the age of the bird, where it came from and what time of year it is,” Smith said. “If it’s an adult in a breeding season — and we can safely transport it — we try to reintroduce near the nesting site. With this younger bird, we tried to reintroduce near a plentiful food source. Right now, the birds are not as territorial because breeding season has not started yet and many are migrating.” While the release attempt wasn’t a success, Smith said it was “wonderful to get so much help, both from NRP and the public.” “Every day, we hear from people who are rescuing birds in need,” she said. “It’s great when people come to the aid of wildlife.”

Other Stuff:

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