

6/24/2016



Some Dam – Hydro News™ And Other Stuff



Quote of Note: "כישכך שתי ילית פ ישצ #ת#; #ת%מ\$ששת י # כישכך שתי" -
נישת י ס"ש"ש קתק כישכך

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

"Good wine is a necessity of life." - -Thomas Jefferson
Ron's wine pick of the week: 2013 Josh Cellars Cabernet Sauvignon "Paso Robles"
"No nation was ever drunk when wine was cheap." - - Thomas Jefferson



Dams:

(Sad. More bravery than most of us have.)

MARINE DROWNS AFTER SAVING TWO TEENS TRAPPED IN TEXAS DAM — HUNDREDS HONOR BRAVE SOLDIER WHO HAD WON TWO PURPLE HEARTS

inquisitr.com, June 10, 2016, by Alap Naik Desai

An ex-Marine died while rescuing two teens trapped in a Texas dam. The brave soldier was able to successfully rescue the kids but was unable to save his own life. Hundreds of mourners paid their respect with a candlelight vigil for the brave retired Marine who gave his life trying to save a couple of teenagers from drowning at a dam on the Medina River. Forty-three-year-old Retired Master Sgt. Rodney Buentello was visiting Bandera City Park with his family, reported the San Antonio Express News.



However, when he saw the two youngsters in distress, the man bravely jumped in the strong current and pulled them out one by one, but he was unable to save himself.

The incident happened on Wednesday after a teenage girl tried to cross a dam on the Medina River. It is not immediately clear why the girl decided to walk across the dam during the strong current, but it soon became clear that it was too much for her. The girl was quickly swept away by the strong undertow. A youth who watched the girl taken by the strong current decided to save her and jumped in, but he too got caught in the raging waters.



Buentello, who served three tours in Iraq and one in Afghanistan, then took charge of the situation. Without caring for his life, the soldier dove into the turbulent waters. He was able to get both teens out, but first responders could not get to the scene in time to rescue him, and he drowned, reported Fox News.

Bandera Marshal Will Dietrich later posted about the brave Marine on Facebook.

“Buentello went into the water and managed to save both of the teenagers, but he was dragged under and drowned before rescuers could reach him.”

The region where the incident occurred has become a deathtrap. Swollen waterways from recent incessant rains, as well as the subsequent flooding, had claimed the lives of nine U.S. soldiers last week. The soldiers were stationed at Fort Hood, Texas. They were travelling in a Light Medium Tactical Vehicle, which overturned at Owl Creek. Of the total 12 soldiers, three were rescued, but the rest were caught by the raging waters and drowned. The bodies of the soldiers were recovered after an extensive search that lasted three days, reported the Army Times.

The two-time Purple Heart recipient recently worked as an instructional assistant at John Jay High School, where he graduated from in 1992, reported the Dallas News. Buentello is survived by his wife and three sons. A GoFundMe page has been set up to help his family in this time of crisis and need. So far, almost 700 people have donated more than \$38,000.

(Not much of a dam. Couldn't even find a photo.)

Dam Removal Approved For Quinnipiac River In Southington

By Bill Leukhardt, Contact Reporter, June 9, 2016, courant.com

SOUTHINGTON, CT — An old stone dam across the Quinnipiac River off Route 10 can be torn down to improve water flow and help migrating fish, the town conservation commission decided Thursday. The dam removal plan by nonprofit nature advocacy group Connecticut Fund for the Environment won unanimous commission backing after a quick 5 p.m. tour of the site by the commission and two representatives from the applicant. The dam, built in the late 1800s by the Clark Brothers Bolt Co., spans 70 feet of the Quinnipiac River at its narrow turn by Route 10 in Marion. The area often floods in heavy rains, a chronic condition that would lessen once the 5-foot-tall stone structure is removed, applicants said. Gwen Macdonald, habitat restoration director for Connecticut Fund for the Environment, said the dam could be removed in a week or two. The group also is seeking to remove the Carpenter Dam on the Quinnipiac farther south in Meriden. John Champion, the fund's coordinator of green projects, said the work will likely be done by a Pennsylvania dam removal firm that has removed more than 50 dams, is careful not to damage the watershed and recycles anything deemed useful by state biologists who will inspect the work. Large rocks from the dam will be placed in the riverbed to create ripples and hiding place favored by fish. Champion said placement of these stones will be directed by a state biologist who, he said, is an expert and very precise in instructions on river restoration.

Rocks will also be used to shore up undercut sections of the riverbank. Taking out both dams will open up 16 miles of the river to migrating fish and improve the water flow in the Quinnipiac, which flows 45 miles from its origin in a swamp near New Britain to Long Island Sound in New Haven. "Theoretically, you will be able to paddle from Southington to Hanover Pond," Macdonald told commission members, as they stood on a washed-out riverbank by the dam. Hanover Pond is in Meriden, created by a dam across the Quinnipiac. There are no official canoe put-ins in Southington, but plans are underway to create these. The equipment needed to remove the dam would have to travel only a short distance from the parking area of the nearby Apple Valley Bowl. The project still needs approval from the town planning commission and some state permits are needed before work can start. The commission stood in the bright afternoon sun in the parking lot not far from the dam as chairwoman Theresa Albanese conducted a discussion and vote on the dam project. The applicant is working with the U.S. Fish and Wildlife Service on the project, eligible for a federal grant. Money for the dam removal comes from settlement funds in the cleanup of the former Old Southington landfill, which is 1,800 feet from the river. "There will be access for blue back herring, American shad, American eels and other migratory fish" that travel inland from salt water as part of their life cycle, Macdonald said. The river's watershed covers 166 square miles in mostly urban south-central Connecticut. The Quinnipiac is the fourth-largest river in the state and flows southward through portions of 18 municipalities to New Haven Harbor in Long Island Sound. Several sewage treatment plants, including Southington's, discharge treated effluent into the river. The state's first sewage treatment plant was on the Quinnipiac, built in 1891 by Meriden. Prior to that, raw sewage was flushed into waterways to be carried away.

(Maybe down with the old.)

Historic Warren County dam could be removed

By Will Lewis , Reporter, wfmz.com, Jun 09, 2016

KNOWLTON TWP., N.J. - Columbia Lake in Knowlton Township, Warren County, New Jersey is beautiful this time of year but some want to change the scenery by removing an 18 foot dam. "The dam is where the Paulins Kill enters the Delaware River. The Paulins Kill is the third largest tributary to the Delaware river from New Jersey," Barbara Brummer, N.J. Director, The Nature Conservancy said.



The dam is 100 years old and many use the lake to fish and the rushing waters create enough hydroelectric energy to power 160 homes a year. "A town like Knowlton has a lot of history. Has a lot of beautiful places that people cherish and this seems to be one of them," said Rene Mathez, Knowlton Township Committee Member. The township is placing a referendum question on the November ballot to see what the residents want. The Nature Conservancy is heading up the effort for removal. Electricity will continue to be generated at a water shed down river. And Brummer says opening up the waterway will allow for more activities. "It will be a lot more open passage for people to do boating out to the Delaware River. It's going to improve the fishing when it comes to fish like trout which are more productive and only capable of breeding in cooler waters," Brummer said. It will cost \$4 million to remove the dam. A cost covered by private donations. The land is owned by the New Jersey Department of Environmental Protection, and township leaders hope when it is comes to the peaceful setting, everything is taken into consideration. "I hope the state will listen to the people, whatever the outcome is I hope they listen to it because I think we have the right to be heard frankly," Mathez said.

(Dam saves house.)

Texas man uses dam he found on Web to protect home from flood

USA Today Network Jacqueline Crea, KHOU-TV, Houston, June 10, 2016, usatoday.com

ROSHARON, Texas - Of the thousands of homes evacuated and damaged by flooding in Brazoria County, one family's home is high and dry. When Brazos River Authority warned residents of the potential for massive flooding, homeowner Randy Wagner decided to take a chance on an install-it-yourself dam he found online. "To not know what that level was going to stop at, I needed to prepare for something that no one has seen," said Wagner. Wagner said he drove to Louisiana and purchased an AquaDam. With the help of two men, he filled up the AquaDam's 400-feet of 30-inch high tubes made of plastic and fabric with water. "I was the crazy guy. Everybody was kinda going by, laughing at me. But today they are really impressed with this AquaDam," said Wagner. He and his family stayed, waited and watched as the water rose to 27 inches, but never seeped through the barriers. The product cost him a little over \$8,000, but he told KHOU-TV it was well worth his sanity. "\$8,300 is to me a small investment on a house that could have two feet of water in it and cost me \$150,000 in repairs." he said.



(Good idea.)

State Agencies Promote Low Head Dam Safety

985wbow.com, June 10, 2016 8:29 a.m. EDT

Indiana DNR

Indiana (WIBQ) Three state agencies are working together this summer to promote water safety and alert citizens to the dangers of recreating near low head dams on Indiana river systems.

In recent years, Indiana has been affected by tragic losses of lives at low head dams. Since 2010, a total of 14 people have drowned near low head dams. "What can appear harmless during low water levels can turn into a dangerous situation with little rainfall," said DNR Law Enforcement Director Danny L. East. "When a keeper hydraulic exists at the face of a low head dam, escape is unlikely if not impossible." Low head dams are man-made concrete structures in river systems that pool upstream water for various reasons and create a short drop in downstream water levels. A "keeper hydraulic" is described as a strong backwash that prevents escape. Indiana has 146 documented low head dams. "Anywhere there is water there is a risk of drowning," said Mary Beth Bonaventura, director, Indiana Department of Child Services. "Adults need to actively supervise children in and around open bodies of water. This means, adults must be able to see and hear their child at all times. Do not leave a young child unattended or out of sight, not even for a moment."

"Indiana Conservation Officers continuously train to respond to fast water emergencies, and we find that low head dams present unusually difficult circumstances for our officers," said Maj. Terry Hyndman, operations commander for DNR Law Enforcement. "The backwash from the face of the dam to the boil continuously recirculates an object back into the face of the dam." Untrained rescuers, who may act when seeing another person in trouble, account for 25 percent of low head dam drowning victims nationwide. Shore-assisted rescue is the safest way to assist a person caught in the hydraulic of a low head dam without placing the rescuer at risk. Citizens are encouraged to carry ring buoys, boat cushions, or one-gallon milk jugs half full of water tied to 50 feet of strong rope and use these items to throw to a person. Extending a pole or long tree branch is also a safe and effective way to provide assistance. "Low head dams are deceptively dangerous, and can go from serene to life-threatening in a matter of seconds," said Mary Moran, Recovery Branch Director for the Indiana Department of Homeland Security. "Even during perfect weather, rainfall upstream can raise water levels causing dangerous conditions. This makes already obscured low head dams almost impossible to see and avoid." Canoe and kayak enthusiasts are encouraged to learn the river system and discover the low head dam locations

prior to beginning their trip. From the upriver perspective, the low head dam may not be easily seen until it is too late to avoid, causing an unsuspecting person to go over the dam and placing them in a dangerous situation. "We all promote the wearing of a U.S. Coast Guard-approved life jacket when enjoying Indiana waterways," said Lt. Kenton Turner, boating law administrator for DNR Law Enforcement. "Unfortunately, the hydraulic of a low head dam prevents the lifejacket from keeping a person above water as they are recirculated and pushed under by the water coming over the dam. Low head dams should be completely avoided by our citizens."

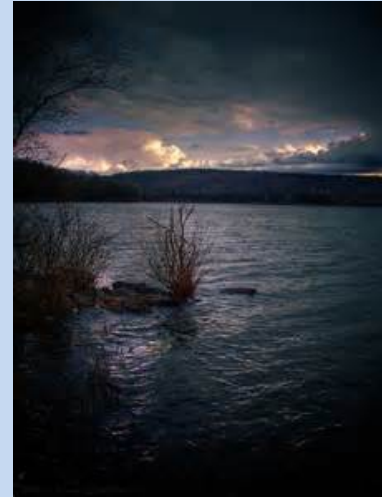
(Sounds like another PMF problem.)

Pa. American Water to start \$21M dam upgrade project

By BILL WELLOCK / JUNE 9, 2016, citizensvoice.com

Pennsylvania American Water will upgrade the Ceasetown Dam and Reservoir in Jackson and Plymouth townships. The \$21 million project will begin this month to improve the dam's stability to comply with Pennsylvania Department of Environmental Protection requirements for dam safety. The project includes rehabilitating the primary spillway and widening the auxiliary spillway, upgrading drainage systems to safely collect and convey seepage from the dam and increasing dam stability by flattening the downstream face of the dam, according to a press release from the utility company.

Work should be finished by the end of 2018. "The dam upgrades will improve its ability to handle severe weather events by creating additional spillway capacity," said Tyson Clouser, a project manager for Pennsylvania American Water, in a press release. "With these necessary upgrades, the reservoir will continue to be a reliable source of water that our customers can count on for years to come." Ceasetown Reservoir holds approximately 2.9 billion gallons of water and is the source of drinking water for approximately 29,000 customers in 15 communities who are served by the company's Ceasetown Water Treatment Plant in Hunlock Creek. The dam was originally constructed 1911.



(Show me the money and I'll get the job done. This is nonsense, ya gotta fix the dam.)

Wohlford Dam project put on hold due to insufficient funds

By Steve Puterski, June 10, 2016, thecoastnews.com

ESCONDIDO, CA — Rehabilitation of the Wohlford Dam is on hold. The city of Escondido was alerted to language "deep" into the State Revolving Fund (SRF) loan program, which federal guidelines prohibit the money from being used for dams or the rehabilitation of dams, according to Public Utilities Director Chris McKinney. The project was slated for completion by the end of 2017. The City Council previously approved the utility department's application for \$25 million in SRF loan funding. However, after reviewing the application, the California Department of Water Resources notified the city the project was ineligible for funding.

"We were hoping to cover some of the rising costs with the State Revolving Fund," McKinney said. "After we got the application submitted, we learned that deep in the language of the federal authorization for this money ... there is a prohibition on dams. That leaves us in a bit of a lurch." Much of the money for the SRF program comes from federal sources and the state administers the funds to qualifying projects.



The total project cost is projected to be between \$45 million and \$50 million, although the cost has risen by nearly \$20 million since the city identified the project about five years ago.

Although the city was awarded \$15 million in matching grant funds from the state and budgeted about \$9 million of available funds for the project, there is insufficient money to move forward with the project. An additional \$21 million to \$26 million is needed, according to a press release from the city. “The cost of the dam has gone up through the design as we learned what the federal requirements, state requirements and also the site conditions dictate on the design,” McKinney said. “We are trying to fill that gap.” Pending permits needed from San Diego County, staff had planned to bid the first phase of project (realignment of Oakvale Road) later this summer. However, additional sources of potential federal funding are presently scheduled for appropriation in one year or later. McKinney said the one-year timeline is because the project would need congressional approval, if funding were secured through those measures.

“We are trying to find other sources of funding,” he added. “Assuming that we are deemed a good project to fund, and congress approves funding, we are looking at a year.” One of the most promising sources of federal funding is a program administered by the Department of Agriculture to fund dam rehabilitation. McKinney said another option is through the Army Corps of Engineers. City staff, meanwhile, has been in communication concerning the \$15 million in matching grant from the state, according to the city’s release. This grant requires project completion by the end of 2017, which is now not possible. The grant administrators in the Department of Water Resources, however, have shown a willingness to extend the term of the agreement as necessary to complete the project. Staff in the Division of Safety of Dams, a division of the Department of Water Resources, also supports this extension so the outlook for the state grant funding remains optimistic.

In 2010, the water level of the lake was lowered by half because a dam assessment showed that the upper portion of the dam wasn’t earthquake proof and could lead to catastrophic flooding of the city. McKinney said those low levels will remain in place. However, since the lower levels produce less water, the city will generate less power from its 1.5-megawatt hydroelectric generator on the pipeline. In addition, it will cost more to treat the water, but McKinney said the cost is not significant. “Having the water level lower means there is more of a treatment load,” he explained. “It costs a little bit more to treat the water. It costs some energy abilities.”

Last year, the city received a state grant from the Department of Water Resources to fund half of the project although it came with stipulations. The city couldn’t receive any other state funds for the project, so McKinney said it took a lot of convincing of the state to become eligible for the loan. Staff had to argue that the loan wasn’t a form of funding, since it is going to be paid back. The state loan is much cheaper than bond alternatives, which is why it was important to qualify for the loan, McKinney told the council in 2015. Another point city staff made to the state was the SRF is largely funded by federal money, so Escondido wouldn’t really be getting additional state funding.

(Science lesson.)

Surprising Science: Dropping Basketballs Off a Dam

6/12/16, mentalfloss.com, by Chris Higgins

Here's a quick thought experiment, before you see the result in a YouTube video.

Let's say you're standing atop a 415 foot high dam, and you drop a basketball.

Barring any major wind, how will it fall?

Will it go straight down? Will it curve?

Okay, now that you have given that scenario some thought—what if you do the same drop, but give the ball a little backspin? Will that change the way it travels to the ground?



Watch the video: <http://mentalfloss.com/article/81275/surprising-science-dropping-basketballs-dam>

(Got to get it right.)

Hope Mills residents concerned new dam will cause flooding

abc11.com, June 14, 2016

HOPE MILLS, N.C. (WTVD) -- Years after the dam in Hope Mills failed, preparation is underway for constructing a new dam, but some residents are concerned about the water level after it is finished. Property owners are worried that when the lake is restored later this year, the water level will be too high and cause flooding. In 2003, heavy rains flooded the lake, collapsing the earthen dam. Seven years and millions of dollars later, a new dam was built.



Residents complained it was too big and the water level too low. It also sprung a leak. It's now being demolished. As construction crews prepare to work on the new dam, members of the Hope Mills Lake Advisory Commission don't think the level will be higher than it was originally. "There was no flooding at the time (of the original water level) on the properties at the end of the lake," said Rod MacLean, a member of the commission. "There was no flooding on the properties along the sides of the lake, so now all of the sudden how it can cause flooding is a bit of a question."

That question will have to be answered before the Army Corp of Engineers will approve a building permit for the new dam. Hope Mills town leaders will hold a public forum to discuss concerns Thursday at 6 p.m. at Town Hall..

(2,000, that's a lotta dams.)

North Texas flood control dams set for repairs

6/15/16, mineralwellsindex.com



TEMPLE, TX — Texas is home to more than 2,000 flood control dams, many of which many were severely damaged in 2015 by extreme rainfall events. As part of the appropriations bill passed by Congress in December 2015, \$157 million was made available to the USDA-

Natural Resources Conservation Service for the Emergency Watershed Protection Program. On June 7, funds were released to TSSWCB from the USDA-Natural Resources Conservation Service as a part of the EWP Program to repair dam structures across six counties in Texas. An estimated \$5.2 million of federal funds will be put towards flood control dams that need vital repairs.

TSSWCB will dedicate an estimated \$1.5 million of its funding from the Texas Legislature to ensure that all of the federal funding is adequately matched and utilized on a local level.

The following counties will receive funding to repair a total of 26 dam structures: Cooke County (six dams); Denton County (one dam); Ellis County (two dams); Guadalupe County (one dam); Montague County (five dams); Williamson County (two dams); and Wise County (nine dams).

The scope of repairs totaling \$6.1 million ranges from auxiliary spillway repair to debris removal and embankment repair. The TSSWCB's flood control programs provide grants to local sponsors of flood control dams to address minor operation and maintenance needs where 90 percent of the cost comes from the state, and more elaborate structural repair grants that are covered by the state at 95 percent. When federal dollars are available through EWP, the state's share is lessened to 25 percent or less.

(No dam removal here.)

Residents vote to keep Orland Village dam

June 15, 2016 by Taylor Bigler on News, News-Featured, ellsworthamerican.com

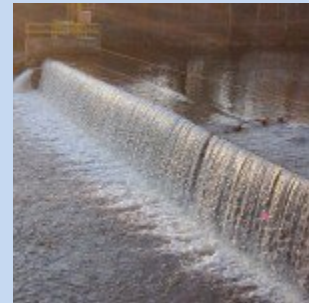
ORLAND — **The Orland Village dam will stay right where it is.**

Residents on Tuesday overwhelmingly voted in favor of keeping the dam, rather than working toward removal of it.

Related Posts There were 433 votes in favor of keeping the dam and 242 votes in favor of removal. **Advocates of dam removal said that option would be beneficial to the alewife run by making it easier for the species to get upstream.** They also said dam removal could

encourage other species of fish, birds and marine mammals to find a habitat on the Narramissic River. **Opponents of dam removal said it would drive property values down, make firefighting in the village more difficult and cause infrastructure issues with the Castine and Upper Falls Road bridges.**

The National Oceanic and Atmospheric Administration and The Nature Conservancy offered to pay the \$500,000 in dam removal costs because those groups said the alewife fishery was high on their priority lists.



Hydro:

(The more the better.)

New West River hydro projects declared operational

JUN. 9, 2016, BY MIKE FAHER, vtdigger.org

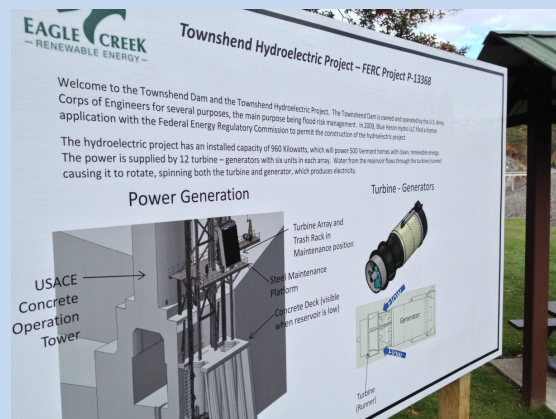
TOWNSHEND, CT — **Eagle Creek Renewable Energy has traveled a long road to get two hydroelectric generation projects up and running in Windham County, the company's CEO acknowledges.** The New Jersey-based company finally has reached the end of that road, as newly installed turbines at Ball Mountain Dam in Jamaica and Townshend Dam are now operational. Crews remain on site to handle a few final details, but the projects have been successfully tested and have met state commissioning deadlines, Eagle Creek Chief Executive Officer Bud Cherry said.

"We would expect that no later than the end of June we'll be in full commercial operation," Cherry said Thursday.

"We're pleased that we're finally in a generation mode," he added. "And we're pleased with what we've seen in the startup testing."

The hydroelectric stations, which were attached to existing West River flood control dams operated by the U.S. Army Corps of Engineers, are capable of producing a combined 3.1 megawatts of power. Ball Mountain is the larger of the two, producing 2.2 megawatts.

Both are relatively small by hydroelectric standards: For example, TransCanada's Connecticut River hydroelectric stations at Bellows Falls and Vernon can produce 40.8 and 32.4 megawatts of power, respectively.



A sign at Townshend Dam explains the workings of a new hydroelectric project installed by New Jersey-based Eagle Creek Renewable Energy. File photo by Mike Faher/VTDigger

But the West River projects' size belied the complexity of getting permits for and constructing new hydro stations that involve multiple governmental jurisdictions. Eagle Creek acquired the projects in 2012; earlier that year, both sites had received 50-year operating licenses from the Federal Energy Regulatory Commission. Also, the state Public Service Board had extended the projects' commissioning deadline to the end of 2013 — a deadline Eagle Creek expected to meet. But it turned out that several more state extensions would be needed, first to October 2014, then to December 2015 and then to June 30 of this year. Meeting Vermont's commissioning deadline is critical, as Eagle Creek — doing business here as Blue Heron Hydro LLC — has a long-term renewable energy purchase contract with the state. Eagle Creek has said several factors slowed its projects on the West River, including weather and "uniquely complicated" technical work. The biggest issue the company cited was a lengthy delay in receiving Army Corps of Engineers permits due to a backlog at that agency.

Hydroelectric construction at Ball Mountain and Townshend began in spring 2015. A year later, "the units are substantially complete," Cherry said. "We have generated electricity. We passed the (state) contract milestone for being in service." Vermont Electric Power Producers Inc., a nonprofit that administers two state renewable energy programs, confirmed that both the Ball Mountain and Townshend projects were considered online as of the end of April. That doesn't mean, however, that the new turbines are generating electricity full time. That's coming soon, but Cherry said Eagle Creek still is "working on 'punch list' items to clean up anything that was of a minor nature." "The units are producing power from time to time as they are available to produce power safely," he said. Cherry said he



Townshend Dam. File photo by Mike Faher/VTDigger

expects that Eagle Creek will hold a public ribbon-cutting event at the sites later this year. If it happens at Townshend Dam, the ceremony could draw further attention to low water levels that have rendered the site nearly useless for public recreation. Town and state officials have lobbied for federal help with the problem, but a regional Army Corps leader has said he can't guarantee that any further dredging to address the buildup of sediment will happen due to budgetary constraints. Cherry acknowledged that the lack of water at Townshend "limits, to a degree, the amount of generation we can put up on the grid. We will not be able to run at full capacity on a steady basis until the water levels come up." But he also said that won't hinder Eagle Creek from putting the hydro projects into commercial operation.

"We're in conversations with the Army Corps frequently about water levels and other aspects," Cherry said. "Right now, our relationship with the Corps is very constructive."

(The most efficient energy storage, but lot of opposition.)

Huge renewable energy project gets hearing in Mountain Home

Cat Creek Energy would build new reservoir

Project would pump water uphill, produce hydro down

Solar, wind plants also draw neighbors' opposition

By Rocky Barker, idahostatesman.com, JUNE 13, 2016

Rancher John Faulkner of Gooding has a grand vision to combine three types of renewable energy into a huge project in Elmore County. But his neighbors are already raising concerns about wildlife, water and scenery. The Elmore County Planning and Zoning Committee will hold a hearing Wednesday on five conditional use permits the developers will need, along with a long list of federal and state approvals. The proposed Cat Creek Energy pump-storage hydroelectric project would be located on Anderson Ranch Reservoir near Pine, east of Mountain Home. The project would add a new 50,000-acre foot upper reservoir with a 3.4-mile-long earthen dam.

Water from Anderson Ranch would be pumped up to the upper reservoir when there are energy surpluses. The power for the pumping would come from a 39-turbine, 110-megawatt wind power plant and from a 40-megawatt solar generation plant. Then, when electricity demand is high, water from the upper reservoir would run down a penstock through a hydroelectric generator, producing more power. "All of this water is going to come from flood water," said James Carculis, a renewable energy developer who said he is acting as a consultant on the project for Faulkner. "The initial water will be literally recycled." The facility also would store 30,000 acre feet of water that will be available for other uses downstream in the Boise River watershed, said David Tuthill, former Idaho Department of Water Resources director who also is a consultant on the project. He estimates this year Anderson Ranch spilled 90,000-acre feet of flood water, more than enough to fill the upper reservoir.

Many Treasure Valley irrigation interests are locked in a fight over who controls the water after the Bureau of Reclamation and the U.S. Army Corps of Engineers releases the water to prevent floods. Tuthill said the project's proposed water right "would not affect" this so-called "second fill" issue either way. The scope of the project is excessive, said Wendi Combs, a homeowner on Anderson Ranch Reservoir who opposes the project. Combs said that's especially true of the wind farm, which is proposed to run from near Lime Creek, which flows into the eastern side of the reservoir, all the way to past Little Camus Reservoir and Anderson Dam, occupying a total of 23,000 acres. "A project of this scale will alter the wildlife and beauty of Anderson Ranch forever," Combs said. Combs said the project would be built in the middle of a key corridor for big game, migratory birds and also in sage grouse habitat. Carculis acknowledged the wildlife issues and said they would be addressed along with concerns about threatened bull trout in the Anderson Ranch Reservoir and the South Fork of the Boise River. The project's applicants already have a preliminary permit from the Federal Energy Regulatory Commission to study its feasibility. They have applied for a Letter of Power Privilege from the Bureau of Reclamation, which they need to use Anderson Ranch. Eventually, they also would need approval from the U.S. Forest Service and the Bureau of Reclamation to build transmission lines and other facilities on federal land.



Anderson Ranch Reservoir east of Mountain Home stores water on the South Fork of the Boise River. The Cat Creek Energy hydro project would draw water from the lake into a new reservoir at a higher elevation and then run it through turbines to produce energy as it returns to Anderson Ranch. Idaho Statesman file

"A project of this scale will alter the wildlife and beauty of Anderson Ranch forever," Combs said. Combs said the project would be built in the middle of a key corridor for big game, migratory birds and also in sage grouse habitat. Carculis acknowledged the wildlife issues and said they would be addressed along with concerns about threatened bull trout in the Anderson Ranch Reservoir and the South Fork of the Boise River. The project's applicants already have a preliminary permit from the Federal Energy Regulatory Commission to study its feasibility. They have applied for a Letter of Power Privilege from the Bureau of Reclamation, which they need to use Anderson Ranch. Eventually, they also would need approval from the U.S. Forest Service and the Bureau of Reclamation to build transmission lines and other facilities on federal land.

The Idaho Department of Water Resources also will have to approve its water right. The Idaho Department of Fish and Game will get to weigh in on several of these processes, as will the U.S. Fish and Wildlife Service. Carculis' Exergy Development Group was forced in 2012 to give up its contract rights to build a 116-megawatt wind farm in Idaho. He said he still has projects in development, though he is only a consultant on this one. The project has no specific customers yet for the power but Carculis said the storage capacity will make the power attractive to utilities and even an independent system operator, which would operate a regional transmission grid. "I think the entire West is going to change dramatically," said Carculis. "There is going to be a lot of overproduction and there's going to be a need for a place to store it," he said.

(Too much rain at the wrong time.)

Ketchikan dam project complicated by high lake level

By - Associated Press, June 14, 2016, washingtontimes.com

KETCHIKAN, Alaska (AP) - A dam project to increase hydroelectric lake storage for three southeast Alaska communities is underway after officials sorted out issues related to water levels that hampered progress on construction.

Crews encountered some difficulties beginning the project due to a warm winter and wet spring that left water levels higher than expected at Swan Lake near Ketchikan, KFSK-FM reported (<http://bit.ly/28AomDH>). While construction continues, the Southeast Alaska Power Agency's hydroelectric plant will continue generating power for Wrangell, Petersburg and Ketchikan.



Eric Wolfe, SEAPA's director of special projects, told the agency's board that the work would result in a 30 percent increase of water storage at Swan Lake and also increase capacity at SEAPA's other plant at Tyee Lake near Wrangell. Crews with the Seattle-based construction company Pacific Pile and Marine will be installing large panels along the top of the spillway at Swan Lake this summer. CEO Trey Acteson said the lake level had made it difficult for crews to begin work. "I mean they've gotta build, put anchors on, put the safety walkways up, and these were all the functions that had planned to be taken at that time," Acteson said.

(Patience is a virtue. Still, an iffy proposition.)

Decision on West Street dam hydro project should come within a year

By Meghan Foley Sentinel Staff, June 14, 2016, sentinelsource.com

It will be at least 10 months before a group proposing a small-scale hydroelectric project in the city says it will know if it's doable.

Kenneth A. Stewart, a board member of West Street Hydro Inc., told city councilors earlier this month that the nonprofit organization would still like to do the project, but needs more time to evaluate the operation's financial model and its design, among other factors. The organization, which is made up of local residents, wants to produce energy by installing a small



hydroelectric generator along the dam that crosses the Ashuelot River just off West Street at Ashuelot River Park. Group members first came to Keene officials with their proposal in 2012. The dam's revenue model is built on net metering, Stewart said during the presentation this month. New Hampshire's net metering law allows renewable energy facilities, such as solar and hydro, to share surplus electricity they produce with other people, and get paid for it. The catch is the people using the electricity have to be customers of the same utility company as the facility's owner.

In May, Gov. Maggie Hassan signed legislation that raised the state's net metering cap from 50 to 100 megawatts, allowing for more renewable energy projects in New Hampshire. The legislation also instructed the N.H. Public Utilities Commission to review net metering and develop a new tariff within 10 months. There is some concern about how these things could affect the project, Stewart said. "That is all under review as we're not sure what the revenue numbers would look like," he said. In addition, more studies of water quality and endangered species have to be performed, as a result of a stakeholder meeting last summer and feedback from federal regulators, he said. The organization would also have to continue studying and monitoring the

area for at least five years after the dam comes online, he said. "This could result in substantial operating changes after construction and startup of the hydro station," he said. If the project turns out to be feasible, West Street Hydro would enter into a long-term lease agreement with Keene to operate the hydropower plant, he said.

The dam was built in 1775 to provide power to nearby saw, grist and woolen mills. The N.H. Department of Environmental Services Dam Bureau said in 2011 the dam was deficient and needed repairs. The city was told all three of the dam's sluice gates had to be operational, trees had to be cut back near the structure, and the dike returned to its original configuration, the state agency said. Since then, Keene officials have been mulling whether to repair the dam or remove it. West Street Hydro has offered to pay for the repairs as part of its quest to produce renewable energy for the local electric grid. The project would also have an educational component, organization officials have said. They're seeking to have the hydro facility produce 96 kilowatts of electricity for local energy customers, according to a July 2015 presentation about the project. The project would include construction of a new powerhouse, addition of flash boards to raise the height of the dam by 1 foot, the installation of two turbines, and installation of a 1,000-foot transmission line, which would be buried. In the meantime, West Street Hydro donated \$8,675 last year to the city to help pay for a \$24,500 study to determine how the river and the area's habitat would be affected if the dam were removed, or if it remains. Peter Walker, an environmental scientist and manager of the West Street dam study, presented the results of that analysis, which was completed in January, to the City Council on June 2. The study used a hydrology model to determine how the river and surrounding wetlands would be affected should the dam remain, be raised by 1 foot, or be removed, Walker, a principal with consulting company Vanasse Hangen Brustlin Inc., said. "Removing the dam or increasing the height of the dam is not going to really have any effects downstream," Walker said. As for upstream, he said, there would be some changes, but no significant losses of wetland areas. Kurt D. Blomquist, Keene's public works director, said the City Council has authorized city staff to work with West Street Hydro officials, and that will continue. The N.H. Department of Environmental Services Dam Bureau has yet to put pressure on the city to move forward with repairs to the dam, so there is some time. The city's Parks, Recreation and Cemeteries Department continues to maintain the dam, and it's inspected annually, he said. "West Street Hydro is supposed to come back in 10 to 12 months with its final decision," he told councilors. "When West Street Hydro makes that decision, we'll come to you with it and what we'll need from you." Councilors had no questions about the project following the presentation.

(Trying to get around environmental laws that Congress enacted. Congress is the problem.)

Bruce Poliquin's Bill Would Exempt Woodland Pulp From Hydroelectric Licensing Rules

By SUSAN SHARON • 6/15/16, news.mpbnet

Maine's 2nd District U.S. Rep. Bruce Poliquin has introduced legislation to exempt a hydro system in Washington County from Federal Energy Regulatory Commission licensing requirements. In a press release, Poliquin says the purpose of the bill is to protect jobs and block what he calls "unfair overreach" by FERC. But others say the bill bypasses necessary oversight. At issue is the

management of three water storage facilities that form East and West Grand Lakes, Spednik Lake and Sysladobsis Lake. They're part of the Woodland Pulp mill's hydro system. They're

also part of the St. Croix River watershed, which includes an international waterway shared with Canada. In his press release, Poliquin says a recent FERC order for the three storage dams would cost the Woodland mill more than \$1 million a year to implement and would force the



company to consider surrendering its FERC licenses. "We would be appalled if they did that," says Paul Bisulca, a member of the Penobscot Indian Nation who has been working with the Passamaquoddy Tribe on a historic project to restore alewives, Atlantic salmon, shad, eel and other native fish to their ancestral spawning habitat on the St. Croix River. Environmental groups and other federal agencies have also been involved in the effort.

"That would be very bad for what we are trying to do. It would make the Canadians uneasy about what's going to happen because Maine hasn't had a good record on the St. Croix River," he says. Neither Poliquin nor a spokesman for the mill responded to request for comment for this story by airtime Wednesday.

In March, FERC issued a new order to Woodland Pulp that requires new fishways for eels at two dams and Farm Cove Dike. The order is also designed to take into account water levels necessary for public access, maintenance of fish and wildlife habitat and water quality downstream. In his statement, Poliquin says the projects could be regulated by the state of Maine in a safe and environmentally responsible way. "FERC's overreach," Poliquin says, "could have seriously negative consequences for the region's environment." "I wouldn't call this unfair overreach at all. In fact, these are very appropriate and standard protections of water resources under federal law," says Dwayne Shaw, executive director of the Downeast Salmon Federation. Shaw says Poliquin's bill would set an inappropriate precedent if were passed. Because it bypasses public protection for the benefit of a single company, Shaw says Poliquin's bill is the real overreach. The Woodland Pulp mill employs 400 workers. Poliquin says if the mill abandoned its storage dams, dam gates would have to be pulled, resulting in the "de-watering" of the impoundments, which would change the region's ecology forever.



Environment:

(Fish doing what they do best – propogate.)

Herring spawn in NY tributary for 1st time in 85 years

By MARY ESCH Associated Press, JUNE 11, 2016 — startribune.com

TROY, N.Y. — A few days after a long-abandoned industrial dam was removed from the mouth of a Hudson River tributary this spring, hundreds of river herring swarmed up into the shallow waters to spawn for the first time in 85 years. The removal of the rusted steel dam on the Wynants Kill near Albany was the first of what ecologists hope will be many barriers removed in Hudson tributaries to restore spawning habitat for herring and other ocean-going species that have been devastated by habitat loss, pollution and overfishing.



The project is part of a larger movement that has dismantled almost 250 dams across the country since 2012, according to the conservation group American Rivers. "There are more than 1,500 dams in the Hudson estuary watershed, most of them no longer in use," said Frances Dunwell, coordinator of the state Department of Environmental Conservation's Hudson River Estuary Program. "One of the key items on our to-do list by 2020 is to remove as many of these barriers as possible." The estuary, which extends 150 miles north from the Atlantic Ocean, is an important breeding ground for several species of

herring including American shad and alewife. In Colonial times, Hudson tributary streams flashed silver with herring during spring spawning runs. Dams built during the Industrial Revolution caused herring populations to crash along the Atlantic coast from South Carolina to Maine, and pollution and overfishing in more recent years made things worse. Herring, especially American shad, are not only highly valued commercial and sport fish, but also are an integral part of the aquatic food chain. In the Atlantic, many species of fish, bird and mammal rely on herring as their primary food source. Striped bass recreational fishing, a major business in the Hudson estuary, uses river herring as baitfish.

In 2013, when the Atlantic States Marine Fisheries Commission required the 15 states it covers to submit plans for restoring historical spawning and nursery habitat, dams and climate change were cited as the largest threats. "Every dam should have an existential crisis," said John Waldman, a biology professor at Queens College and long-time proponent of dam removal. "These are artifacts of the Industrial Revolution that are persisting and doing harm. We should decide which dams still serve a purpose and which should be removed." A precedent for restoring a major river by dismantling a hydropower dam was set recently on Maine's Penobscot River, where the removal of two dams and construction of a fish bypass at a third opened 1,000 miles of habitat used by 11 species of sea-run fish. The dams' owner was able to increase total generation through enhancements at other dams in the watershed. Most dam-removal projects are small dams that have far outlived their purposes. Last spring, shad swam up White Clay Creek in Delaware for the first time since a mill owner built a dam there in 1777. The timber-and-stone obstruction on the Delaware River tributary was removed in 2014 with \$200,000 in federal and conservation group funding. In the Hudson estuary, Dunwell said at least six privately owned unused dams have been targeted as good candidates for removal. The Department of Environmental Conservation will offer the owners grants and technical support for restoration projects. The City of Troy removed the dam on the Wynants Kill tributary last month with a \$12,500 grant from the state Environmental Protection Fund. The dam, long hidden by the ruins of an old iron works, was discovered three years ago by John Lipscomb, who patrols the Hudson by boat for the Riverkeeper environmental group looking for polluters and testing water quality. On a recent tour of the former dam site, Lipscomb said decades of cleanup work have made the river much cleaner, but that's not enough. "Success is not just a fishable or swimmable river," Lipscomb said beside the concrete-lined channel at the mouth of the Wynants Kill. "Now we want to restore the biological integrity to make it a living river again. That's the last step."

(Yeah, leave me alone.)

Eugene officials: Please let beaver dams be at Delta Ponds

By Dylan Darling, The Register-Guard, JUNE 13, 2016, registerguard.com

Busy beavers work hard to build dams, which create better homes for fish, birds and turtles. So, please, do not dismantle the dams, Eugene officials say. "Beavers are playing an important role in our waterways and can do good things," city ecologist Lauri Holts said. At the ponds in north Eugene last month, Holts encountered two young men pulling sticks from a beaver dam near an old boat ramp off Goodpasture Island Road. About a week later, a visitor to the same portion of the 150-acre waterway area came across two young men with fishing poles taking apart a beaver dam. Removing beaver dams harms habitat for beavers and other animals, she said. "If they had taken that (dam) out



it would have drained this whole pond and (left) turtles and fish exposed," Holts said during a recent visit to the ponds. In response, Eugene Parks and Open Space this week posted a message on Facebook: "Beavers are loving Delta Ponds. Unfortunately we've had a bit of vandalism of these dams they work their tails off to create. If you're in the area please keep an

eye out.” Signs by the dams carry a similar message, advising pond visitors to leave them alone. The signs provide phone numbers for people to call if they see anyone damaging beaver dams or lodges. Holts put up the signs after the two incidents.

The ponds, near Valley River Center and Delta Highway, are along a side channel of the Willamette River. Between 2004 and 2012 the city restored the ponds, which were low in water and surrounded by invasive blackberry, Scotch broom and English ivy. The restoration included about \$300,000 in grants to help support beaver habitat restoration at the ponds. The projects included invasive plant removal and the planting of thousands of trees and shrubs next to the water. Beavers use native plants for food and to build dams. Before restoration, the ponds had only a couple of beavers. Reviving Delta Ponds brought back beavers, which pair up and raise young in lodges they build using techniques similar to their dam construction. The industrious animals with brown fur make dams and lodges from sticks, rocks and mud, as well as live willows. About two dozen beavers can be found around Delta Ponds. Holts knows of 10 lodges and eight dams. Lumbering when on dry land but fast movers in water, the flat-tailed mammals build dams in part to create habitat where they can elude predators.

Beaver dams also improve water quality for fish, make shallow mudflats for birds and create deep water for turtles, Holts said. Young salmon, western pond turtles, and ducks and other birds benefit from beaver dams at Delta Ponds. The state Department of Fish and Wildlife lists western pond turtles as a sensitive species, or an animal in need of conservation to prevent them from becoming threatened or endangered. Visitors can help protect the ponds, said Carri Karl, volunteer coordinator for Eugene Parks. “Mostly we are trying to get the word out to the community and have the public be the eyes on the park,” she said. The animals themselves may be on the lookout for people meddling with their dams, said Chris Yee, assistant district wildlife biologist for the state Department of Fish and Wildlife. Beavers can be territorial and aggressive. “If you spoke with some of our fish survey people, they’ve been charged and had beavers try to attack them,” said Yee, who works from Springfield. Officials have dealt with vandalism to waterway habitats in other part of Eugene, Karl said. Someone pulled saplings along Amazon Creek in south Eugene. Volunteers had planted the small trees to strengthen stream banks. They returned about a month later to replace the pulled trees. At Delta Ponds, the beavers quickly patched the dam that had been damaged. Beavers are active at dawn and dusk, and work feverishly when it comes to dam building. Research shows they are driven to build by the sound of running water, Holts said. “Anytime they hear flowing water they will try to plug it up,” she said.

(Much is being made of this dam removal.)

Historic dam removal project celebrated in Carmel Valley

California American Water held a celebration for local dignitaries at the area of the San Clemente Dam removal on the Carmel River on Monday. (Vern Fisher - Monterey Herald)

By James Herrera, Monterey Herald, 06/06/16, montereyherald.com

Carmel Valley, CA >> About 100 people, from stakeholders and supporters to dignitaries and politicians, came out to the former site of the San Clemente Dam on Monday to celebrate the removal of the dam and Carmel River Reroute Project. The mammoth, \$83 million undertaking involved moving silt that had once clogged the dam’s reservoir and rerouting a half-mile section of the river. Rep. Sam Farr, D-Carmel, grew up in the area and remembers visiting the dam. “We came here because there were big fish,” Farr said. “Never did I imagine I’d be at the bottom of (the San Clemente Dam) eating hors d’oeuvres.” Under a sunny sky with the newly-rerouted section of the Carmel River’s step pools, riffles and steelhead habitat nearby, the speakers at the event took to the podium to congratulate all who had a hand in the success of the demolition and restoration project. “Restoring the river is what it’s all about,” said Farr.

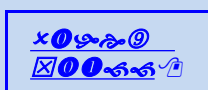
The San Clemente Dam, which was built in 1921, had a reservoir storage capacity of about 1,425 acre-feet but by the time of its removal in 2015, it was 95 percent filled with sediment and could hold only about 70 acre-feet of water. The silt-filled dam was holding back an inordinate amount of mud and was declared seismically unsafe by the California Department of Water Resources Division of Safety of Dams, posing a risk to more than 1,500 homes and other public buildings in the event the dam failed in a flood or earthquake. The original idea



was to shore up the existing dam by adding more concrete and making it 3 feet thicker. And though it would have been cheaper, it would not have solved the problem of silt buildup or diminishing wildlife habitat. But, Farr said, the National Oceanic and Atmospheric Administration's National Marine Fisheries Services thought that "there is a better way to take care of the problem." And so began the challenge of piecing together the players in the collaborative effort that made the project possible. "First, everybody has to agree to make it happen," said Barry Thom, a deputy regional administrator with the National Marine Fisheries Service.

The owners of the dam, California American Water, led the removal project, providing \$49 million for implementation. Cal Am partnered with the state Coastal Conservancy, the state-level lead, and the National Marine Fisheries Service, federal-level lead, to make up the core project team. The conservancy contributed \$9.2 million to the project and led the effort to raise an additional \$25 million. The fisheries service contributed \$1.6 million and oversaw the fish passage restoration portions of the project while assisting with getting the permits required for the project. "This project proves we can get things done for our environment," said Sam Schuchat, the executive officer of the state Coastal Conservancy. The dam's removal has restored returning steelhead trout access to 25 miles of upstream spawning and rearing habitat for the first time in 95 years. The project team said there is already evidence of steelhead taking advantage of the newly-restored habitat since the dam's removal. The dam removal and river rerouting project also allows sediment within the river to move downstream, replenishing sand to the beach and dunes near the mouth of the Carmel River. "This represents a project that defies orthodoxy," said state Sen. Bill Monning. "It brought all stakeholders together to bend, break or create the rules to accomplish a great project — the river restoration." According to Monning, key legislation was Farr's, which allowed public funds to be used for public/private project partnerships like the dam removal and river reroute project.

Cal Am President Rob MacLean said that "Sam (Farr) showed us the road," though it was tough and difficult in places and not everything always ran smoothly. The hardest part was getting a "yes" on the collaboration. But once he understood the importance of going the more costly, but environmentally friendly route, he realized "how beautiful the concept was to restore this river." Granite Construction, led by project manager and Carmel Valley native Bill McGowan, was awarded the contract to deconstruct the dam, which included the design and building of the restoration portion along with post-construction monitoring and maintenance to ensure the project's success — an eight-year commitment. Farr called the removal and restoration project "a model, and I hope Granite Construction gets awarded every bid to take down dams in the U.S."



Other Stuff:
(Human interest.)

Friends form human chain to rescue dog stuck in reservoir

Dog was struggling to stay up in strong current

By Ruth Doherty, Jun 13th 2016, travel.aol.co.uk

The moment a group of friends join together to rescue a dog from a reservoir has been caught on camera. The friends were walking along when they spotted the dog being dragged by the current towards a weir in a reservoir.



According to the Metro, one of them scrambled down the edge of the Sayan reservoir in Kazakhstan to rescue the dog but realised he then couldn't get back up again. So his friends joined together to create human chain to rescue them both. Onlooker Marjana Khadreeva saw what was happening and recorded the scene on her phone. The friends can be seen swiftly saving the pair and everybody has a congratulatory high five at the end of the successful rescue. The Daily Mail reports that the dog is believed to be a stray from the city of Almaty. It's not known what happened to the dog afterwards, but we're really hoping it was adopted by one of its rescuers.

(Terrible tragedy. Included only to remind people that all wild creatures are super dangerous.)

Sheriff: Boy Grabbed by Disney Gator Is Dead

The family 'will no question lose a 2-year-old child'

By Michael Harthorne, Newser Staff, Jun 15, 2016, newser.com

Florida Fish and Wildlife and an Orange County Sheriff's helicopter search for a toddler early Wednesday after the boy was dragged into the water Tuesday night by an alligator near Disney's upscale Grand Floridian Resort. (Red Huber/Orlando Sentinel via AP)(NEWSER) – Fifteen hours after a boy was grabbed by an alligator and dragged underwater Tuesday night at Walt Disney World in Orlando, Orange County sheriff Jerry Demings says the family "will no question lose a 2-year-old child." "We're working on recovering the body of the child at this point," says Demings, per NBC



Miami. Officials say what happened to the boy is "not survivable," USA Today reports. According to WESH, the child was wading in the 200-acre Seven Seas Lagoon at Disney's Grand Floridian when he was grabbed by what witnesses say was a possibly 7-foot-long alligator. The boy's parents tried unsuccessfully to fight the gator off.

The man-made Seven Seas Lagoon is connected to canals and lakes throughout Disney's property in Orlando, making the search difficult. The resort's beaches have been closed since the incident. Five alligators have been pulled from the water and euthanized, but so far there's no evidence any of them were responsible for snatching the child. Fifty or so people are continuing to search for the child's remains, and Demings hopes to find the boy Wednesday to "bring some closure to this family." Only 23 humans have been killed by alligators in Florida since the 1940s.



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