Some Dam – Hydro News and Other Stuff

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9/05/2008

Quote of Note: *"The intermediate stage between socialism and capitalism is alcoholism." - - Norman Brenner*

"Good wine is a necessity of life." - -Thomas Jefferson

Ron's wine pick of the week: **Rodney Strong Estates Alexander Valley Cabernet 2004**

Other Stuff:

(Now, here's guy venting on alternatives. Forget the political stuff and he does have some points that make you think. Where are we going on energy? No one seems to have a good answer.)

The Oil Crisis and Alternate Energy Sources

August 29, 2008, By: E.B. Alston, TopSail-Island.info

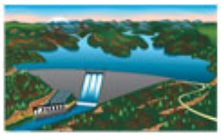
We have been hearing a lot about the energy crisis lately. Not a lack of energy, but it's cost. Every politician, every news media person and every environmentalist has their own unique and politically correct solution if the general public was only smart enough to get it. When I worked at the telephone company, occasionally somebody in public relations, or human resources, or marketing, or accounting would come up with some technological idea that sounded good but, from a technical, cost or managerial perspective was impractical, impossible or silly. Sometimes they were all three. If the person who suggested it was of a high rank, we spent, or rather, wasted, time "studying" the feasibility of their whim. Public comments about what to do about the energy crisis make me feel like I'm living my life all over again.

Indulge me while I go over some basics. Newton's law of motion states that it would require a fixed amount of energy to propel, say a 3000 pound vehicle, from zero to sixty in 3.5 seconds. Or to travel 500 miles. The amount energy used is the same whether its electricity, gravity, wind, gasoline, jet fuel, diesel or political hot air. T Boone Pickens' idea about using wind power to produce electricity is the most wildly impractical I have heard. His 4000KW windmill farm will occupy 8600 acres and it will produce 4000KW only 20% of the time! As any weather forecaster knows, the wind is a fickle thing. Let's say you're buying your household electricity from T. Boone Pickens and the wind chooses to blow its daily 20% at the required velocity for five hours today between midnight and five a.m. The rest of that day you have to pump your own water, cook in a wood cook stove and fan yourself to keep cool in the hot Texas midday. There is no reason to believe enough wind would blow every day, or even every month. That 20% might come during the week you went to the beach. Although it's a boon to corn farmers, it takes almost as much energy to extract usable energy from corn as the energy you get.

But the silliest, most airhead, solution is the electrical automobile. Let's say they invent a battery with enough electrical storage to propel a 3000 pound car 500 miles at normal highway speeds on one charge. (The GM test model is already all the way up to 40 miles.) This will take the same equivalent amount of energy as it would using gasoline. How many people do you know who have free electricity? Let's say you

arrive at your destination, check in at the local Holiday Inn and ask to charge your car's batteries. Folks, they are not going to just give you that energy. As a matter of fact, I bet it would cost more to "fill up" your batteries than to buy a tank of gas. Plus it would probably take all night. You'd have to hire a taxi to take you to dinner. And when you get back home, think how much your electric bill will go up with a $50.00 battery recharge twice a week. But, you say, at least we won't be funding Arab terrorism when we buy Arab oil at exorbitant prices.

True. I'm with you there. But, how will we generate all that electricity? Nuclear power? Environmentalists oppose nuclear power. Obama has said he opposes nuclear power. Coal power? The environmentalists and the Democrats get apoplectic when you mention coal power plants. How about hydro-electric power? We don't have enough waterways that we can reasonably dam. Plus, the environmentalists are pressing the government to stop using hydroelectric power and we have already demolished existing hydroelectric dams. We could use ocean currents and tidal power but that would injure fish, change ocean currents and affect the climate. Where will the energy come from? Not to mention all the taxes from motor fuel sales that build and maintain the nation's highways. If you had an electric car, they would add a meter at your house to measure how much current you use to charge your car batteries and tax you for it. It's time to get real and drill for more of our own oil. Or continue to buy oil from our enemies. Or buy a mule, a water pump with a handle, a wood cook stove and a fan.



Dams

(A list of the world's highest dams with photos – none are in the U.S.)

http://earthblog-roland.blogspot.com/2008/08/worlds-tallest-dams.html

Utility works to repair dam

Wisconsin River lowered around Merrill hydroelectric plant

By DJ Slater • Wausau Daily Herald• August 26, 2008

MERRILL, WI -- Wisconsin Public Service Corp. hopes to restore the water level of the Wisconsin River near its hydroelectric dam to normal by the end of this year. The river has been lowered around the hydroplant at 306 S. Park St. since April, when WPSC officials noticed something was amiss. "They noticed water flowing where it shouldn't be flowing," said Bill Bloczynski, a WPSC regional generations supervisor for western Wisconsin. "That put up a red flag." WPSC found that a concrete slab projecting from the dam roughly 30 feet upstream had been uprooted, with water pressure building beneath it, Bloczynski said. WPSC first lowered the river by a foot several feet around the hydroplant to install weights on the concrete to prevent it from buckling, he said. By June, they lowered the river an additional 3 feet to take concrete samples from the slab. No other water bodies were affected during this process. Now, WPSC is looking to select a contractor to remove and replace a 60-foot segment of the damaged, cracked slab. The utility expects to hire a contractor in early September.

Merrill resident Wallace Touchette would like to see the water level rise again soon for the sake of public safety. Touchette, 60, who lives on Park Street, was sickened with blastomycosis in 1988 after venturing into the shallow river following a drawdown that year. The disease, caused by a fungus found in contaminated soil, forced him into the hospital for several months. Touchette was scouring the river bottom that year with a metal detector. When organic debris, such as dead fish or rotten wood, decomposes, the soil absorbs it. When a person disturbs that soil, the contaminants are released into the air. A person gets blastomycosis by breathing in the fungus, according to the U.S. Department of Health and Human Services. Symptoms mimic those of the flu, consisting of fever, chills, a productive cough and chest pain.

Expert Helps With Dam

27 August 2008, By Tom Standard, Sun-Journal Lewiston, Me

CANTON - The committee working on problems with the Whitney Brook dam met recently to discuss the latest developments with state Department of Environmental Protection Dam and Hydro Supervisor Dana Murch. Canton recently took the dam by eminent domain after the previous owner, Ray Fortier, failed to make repairs demanded by the state. The dam helps regulate the level of water in Anasagunticook Lake. Committee Chairman Malcolm Ray, a professor at Worcester Polytechnic Institute, led the discussion to formalize objectives in replacing the dam. Reasons include public safety and maintaining proper water level for the environmental health of the lake and to protect the Canton water supply. Ray stated that the committee wanted to install a temporary dam that would stabilize the summer level with only the required drawdown during the winter to provide for the spring runoff.

Murch pointed out that the widely fluctuating levels experienced in recent years interfered with loon nesting and fish spawning. Other participants pointed out that the less drastic winter drawdown was not only more environmentally friendly, but it would also reduce erosion in Whitney Brook caused by an earlier drastic and rapid drawdown of the lake. Murch said that demolishing the old dam and building a new dam as proposed by the committee will remove the existing water level orders and dam safety orders issued to Fortier. He discussed the advantages of methods for controlling the level of the lake and the financial impact of each. Dam safety was discussed. It was pointed out that the most significant flooding in Canton was caused by ice jams in the Androscoggin River, not flow from Lake Anasagunticook or Whitney Brook. Ray is providing DEP with a hazard analysis of the proposed temporary dam indicating what would be the effect if it were to fail. His preliminary calculations indicate that it would have minimal effect on the few residents left in the Canton flood plain. The committee expects to receive approval of the permit application in 30 to 60 days. That will provide sufficient time to complete the temporary dam before winter. The committee will draft a letter of understanding to be adopted by Canton, Hartford and other interested parties before work begins.

(Each time an article about this project appears, there is never any information on what the incremental rise downstream would be for floods less than the probable maximum flood. That would good to know because it's difficult to understand what the argument is about otherwise. Is the State standard more conservative than the Federal standard?)

Did state mislead LOW leaders? WHAT'S NEXT

Lake of the Woods manager feels state misled him about buying house to offset dam's impact.
8/31/2008, BY ROBIN KNEPPER, The Free Lance-Star, Fredericksburg, VA

In July, the Lake of the Woods Association voted to buy a house in the inundation zone of its main dam for $230,000, without explaining why. Six weeks later, the Orange County homeowners association learned that its long and expensive efforts to justify a lowered hazard rating for the dam have probably failed. On Monday, at the association's annual meeting, LOW members will hear how these two things relate and how a letter from state Director of Dam Safety William G. Browning to LOW General Manager John Bailey figures in the story. In the event of a dam failure, a technical analysis by LOW dam engineers shows, several structures and six occupied homes in the inundation zone of the dam would be significantly damaged. State law requires that if human beings are in danger due to dam failure, the dam's spillway must have the highest hazard rating and the capacity to discharge the maximum amount of precipitation, called the Probable Maximum Flood, or PMF, for the area. In this area that's 37 inches of rain in 24 hours. The LOW spillway can discharge only half that amount now, but LOW officials have argued that, with alteration, it could discharge two-thirds of the PMF. The remaining hazard to human life, they argue, could be addressed by an evacuation plan that got everyone out of their homes in the inundation zone if the dam failed.

EVACUATION DIFFICULTIES

The June 19 letter from Browning to Bailey, referencing a June 2 meeting between LOW officials and DDS staff, said, "It was agreed that should the evacuation of the occupants in the six homes not be assured" the spillway would have to meet the full PMF. Bailey thought he could assure evacuation and that LOW would be home free. In fact, it was possible that the spillway wouldn't have to be altered at all if no one was in harm's way. Browning went on to write that Bailey should "contact the local sheriff to find out if the Association had the authority to evacuate residents during an emergency." Bailey contacted Sheriff Mark Amos, who said he had no legal authority to remove people from their homes, even during a declared evacuation emergency. Only the governor can issue such an order, LOW learned, and it would go through the local emergency management agency and still be difficult to enact. If the dam failed, water would be in those six houses in an hour and a half. Besides, noted a resident living in the inundation zone when interviewed Thursday, "[State] Route 3 would be flooded first, so we wouldn't be able to get out." So Bailey asked the six homeowners to sign an agreement to voluntarily evacuate if LOW officials asked them to. Five lived in Lake of the Woods and agreed.

DIFFERENT VIEWS

One wasn't a LOW resident and refused to sign. He even suggested that he would talk to the Soil and Water Conservation Board about his situation. He and his wife had had their house on the market for some time. LOW bought it. While LOW board members offered no explanation for the $230,000 purchase at the time, they intimated that it would guarantee a good ruling on the dam. It didn't. And now LOW officials feel betrayed. "What we did was based on that letter," Bailey said last week. "The state is only considering the technical information. Our evacuation plan and our operations and maintenance records should be included." "We have spent more than five years working with Lake of the Woods on this situation," said Department of Conservation and Recreation spokesman Gary Waugh. "In 2005, we approved plans for a new roller-compacted concrete spillway, but they said they had decided they didn't want that, so we gave them more time to come up with an alternative."But the evacuation scenario they submitted was not sufficient to justify a lowered PMF for the spillway. The purchase of the house probably lessens their liability, but in itself is not a solution." The estimated cost for the roller-compacted concrete spillway when it was submitted in 2005 was about $4 million. The cost is now estimated by Bailey to be closer to $9 million.

(The saga continues. Hiring lawyers or going political is not going to change anything.)

Lake of the Woods looks at what's next for dam

Lake of the Woods looks at dam options

9/2/2008, BY ROBIN KNEPPER, The Free Lance-Star

It was the first question for outgoing Lake of the Woods President Eldon Rucker at yesterday's annual meeting of the Orange County homeowners association. "What are our options regarding the dam?" he was asked. "Well," said Rucker, "there's always a legal challenge. We need to look into the pros and cons of that." Now that officials at the state Division of Dam Safety have notified LOW that its attempts to avoid implementation of the state's requirements for the dam on its main lake have failed, the question circulating in the community is "What's next?" Other options include getting access to the legislature, Rucker said, and getting in touch with "our legislators."

This has already started, as LOW officials have once again called on Sen. Edd Houck to intervene on their behalf. In an Aug. 29 letter addressed to Gov. Tim Kaine, which he submitted to LOW board members last week, Houck asked the governor to delay enactment of the new dam regulations. These have been approved by Kaine and are due to become effective Sept. 26. Houck wrote that text that allows "unique characteristics and factors" of dams that was included in the old regulations "should be re-inserted into the [new] regulations" and the state Department of Conservation and Recreation should be directed to consider these separate from the technical aspects of analysis. Both DDS staff engineers and LOW's own dam engineers have determined by technical analysis that, because there are occupied homes and businesses in the inundation zone of the dam, the LOW dam is a high-hazard dam and must meet the state's highest safety requirements.

A dam is considered high hazard if its failure would result in the loss of life or excessive property damage. Lake of the Woods has admitted that there are six homes in the inundation zone of the dam in harm's way but thought it had dealt with that situation by getting five of the homeowners to agree to evacuate in the case of dam failure. The sixth homeowner would not agree but sold his house to LOW for $230,000 in July. After further analysis, DDS staff found that there were three other houses at risk, as well as 32 other, mostly commercial, structures. But even if everyone agreed to evacuate, there is no legal authority available to remove people from their homes. Therefore evacuation cannot be guaranteed. Even other factors, such as a good record of maintenance and operation of a dam and an adequate emergency action plan, are not sufficient to justify a lowered standard for the LOW dam.

Nearly 100 suspected illegal dams discovered in NCW

Property owners have until Sunday to report structures to Department of Ecology

By Michelle McNiel, World staff writer

"We're not absolutely sure they are all dams," Johnson said. "But we're about 90 percent sure." Armed with a strong hunch, the state will begin contacting property owners this fall. Those suspected of having reservoirs that sit immediately upstream from homes will get phone calls. The others will get letters in the mail. The 244 dams and reservoirs identified as "high hazard" because they sit above at least three homes

will be examined by a state inspector, and then the property owners will be required to hire an engineer to provide recommendations on how to bring the facilities up to current safety standards. "Those are the ones that are the biggest concern to us," Johnson said. Owners who fail to correct deficiencies and obtain all needed state permits could face fines of up to $5,000 a day. Ecology can also order dangerous reservoirs to be drained and the dams removed. Johnson compiled a list of the top 20 potentially hazardous dams found in the photograph searches that will be addressed first. They include a large reservoir in Okanogan County that sits on top of a hill above homes in the Salmon Creek area near Conconully. Ecology initially announced in March that it would be examining photographs of farmlands in Central Washington to look for unlicensed reservoirs used for frost control. Farmers build the reservoirs to hold back irrigation water in the summer to be sprayed on fruit trees when the temperatures dip below freezing. Spraying trees prevents damage to buds. Six illegal frost-control dams have failed in recent years, resulting in floods that caused hundreds of thousands of dollars in damage to crops, public roads and other facilities. Johnson said last spring that he expected to find about 100 unlicensed facilities.

But as the agency began looking, Johnson said they found more than they were expecting and decided to expand their search to include all reservoirs larger than two acres statewide. "There was just a huge number of them," he said. "It was overwhelming." In addition to frost ponds, they found sewage lagoons, dairy waste ponds and irrigation ponds. The largest one they found is a 26-acre sewage lagoon operated by the city of Stanwood. The reservoir was built before 1980, when such a structure was not required to have a state permit. The city was unaware laws had changed and the reservoir now requires a license and routine inspections by the state, Johnson said. They also found one near Lake Chelan that sits upstream from homes and a reservoir near Brewster that appears to be held back by a 10- to 15-foot-high earthen dam and is located above homes. The owners of 50 unlicensed dams and reservoirs have contacted Johnson since the state invited property owners to come forward, he said. Chiawana Inc., a Yakima-based agriculture company, admitted to having 25 frost dams in Grant County that were built without permits. Johnson said the company was not aware it needed permission to build them. No other owners in NCW have contacted the agency.

So what if the Hungry Horse Dam broke?

Aug 28, 2008, By CHRIS PETERSON / Hungry Horse News

The Bureau of Reclamation will have a meeting next month and in October to go over Hungry Horse Dam failure scenarios with local emergency management officials. The first is an orientation meeting, scheduled from 9 a.m. to noon on Sept. 10 at the Hampton Inn in Kalispell, said Dennis Philmon, facilities manager for the Hungry Horse Dam. That meeting will get agencies together, take comments on emergency plans and work out the proverbial kinks toward doing a real exercise. The next meeting, held Oct. 16 at the Hampton Inn, will be a "table top" exercise, where managers actually run through a scenario of a dam failure. The odds of the dam breaking are small, Philmon noted, but there is some potential. A large earthquake, for example, could compromise some or all of the structure. Earthquakes in Montana are not out of the ordinary. According to a 1997 report by earthquake expert Michael Stickney of Montana Tech in Butte, in four decades from 1920 to 1960, an earthquake of at least magnitude 6.0 struck western Montana roughly once per decade. The most famous earthquake measured 7.5 on the Richter Scale at Hebgen Lake on Aug. 17, 1959. Twenty eight people were killed -- 26 of them by a 43-million cubic yard rockslide across the Madison River.

James Dean, regional emergency management coordinator for the Bureau of Reclamation, said there's an active capacity of about 3.086 million acre feet of water behind the dam. An acre foot of water is a foot of water spread over one acre. In short, if the dam were to fail, towns like Hungry Horse and lower parts of Columbia Falls would be destroyed. But Dean noted that recent tests of the Hungry Horse Dam itself and its surrounding rock abutments performed well in earthquake tests. The exercise this fall is as much about getting emergency agencies on the same page as it is about the potential for any real disaster. The Bureau has these exercises with local, state and regional governments about once every three years, Dean noted.

(It's the political season. Read the article – "Fish biologist paints different salmon view" in the Environment section on salmon.)

Snake River dams enter political picture

Sep. 01, 2008, By NICHOLAS K. GERANIOS, Tri-City Herald

Spokane, Wash. - As the political season moves into high gear, two members of Congress from Eastern Washington are loudly defending four dams on the Snake River that environmentalists have long sought to breach. The question is, what are they defending them from? Even though no Democrats are currently calling for removal of the dams, U.S. Reps. Cathy McMorris Rodgers and Doc Hastings have gone on offense in the past couple of months, loudly touting the benefits of hydropower. The four dams produce enough electricity to power Seattle, and also allow barges full of grain and fuel to operate as far upstream as Lewiston, Idaho, reducing truck traffic. But they are also blamed for devastating Columbia River salmon runs, and conservationists for years have sought their removal. "At a time of growing energy demand, it makes no sense to throw this energy resource away," said McMorris Rodgers, R-Wash. McMorris Rodgers, who represents the Spokane region, is linking her re-election campaign directly to the dams. Barns in rural areas of the 5th District sport large signs saying "Save Our Dams," with even larger campaign signs for McMorris Rodgers directly underneath. Hastings, from the Tri-Cities, said dams provide 75 percent of what is considered "renewable" energy, and are a necessary backup for wind and solar power systems that are less reliable. "They should be more popular as clean and low-cost power, but there's been little indication that anti-dam activists are changing their tune," Hastings said.

There is no doubt that Northwest environmental groups for the past decade have pushed for removal of the huge dams, and have found Democratic allies in Congress. But with close races for the White House and for Washington governor, the state's Democrats are not rising to the bait. Democratic leaders - who must balance the heavy environmental vote around Seattle against pro-business sentiments else where in the state - are generally ignoring the dam issue, or staking out careful positions calling for more salmon while stopping short of calling for dam removal. U.S. Sen. Patty Murray, D-Wash., who is not up for re-election, declined to discuss the issue. "I think there are a lot of moving parts right now and we are waiting for them to play out," said Alex Glass, spokeswoman for Murray. Even Democratic U.S. Rep. Jim McDermott, who represents the Seattle area, has toned down the dam-removal rhetoric in his latest salmon recovery efforts. A bill he sponsored in 2007 called for a study on all the options available to restore wild salmon runs, but stopped short of calling for dam removal. But critics still feared the study would eventually be used to justify dam removal.

Before global warming and $4 per gallon gas, calling for removal of the dams to save salmon was something of a no-brainer for environmentalists and their political allies. They contended the fish were more important than cheap electricity. But the issue has become more complex. The desire to save an iconic Northwest species from extinction is now pitted against the desire to slow global warming. Ice Harbor, Lower Monumental, Little Goose Dam and Lower Granite dams were built in the 1950s and 1960s to open the lower Snake River to navigation and to make electricity. They also provide some flood control and irrigation for farms. A federal judge in Portland is deciding what steps the government must take to restore endangered salmon runs. But only Congress can order that the dams be breached, so politics will play a huge role. Democratic presidential candidate Barack Obama has not taken a stand on the four dams, while Republican John McCain says he wants to preserve them as power producers. President Bush visited Ice Harbor Dam in his first term and declared the dams would not be removed on his watch. It's the fear of a Democratic White House that McMorris Rodgers and Hastings up in arms, contends Michael Garrity of the environmental group American Rivers, which advocates for tearing down the dams. "They are taking the threat more seriously than in awhile," Garrity said. Luke Esser of the state GOP said Democrats are hiding on the issue because dam removal is becoming less popular with the public. Terry Flores of Portland, Ore., spokeswoman for Northwest River Partners, an association of utilities, barge companies and other river users, said their polling shows strong support among for the dams in the region. "It's really clear that people are connecting the dots between climate change and the value of hydropower that comes from these Snake River projects," she said.

But most environmental groups remain unequivocal. Idaho Rivers United, for instance, continues calling for removal of the dams, saying modest increases in salmon runs this year do not signal that fish species are recovered. "We can have healthy salmon populations, a vibrant economy in Lewiston and Clarkston, fishing opportunities and a reliable energy supply," said Bill Sedivy, director of the group, said. "But we can't have all those things with the lower Snake River dams in place." Hydro provides about two-thirds of Washington's electricity, a major reason the state's carbon footprint is much lower than places where coal or other fossil fuels are used to make power, McMorris Rodgers said. Hastings said removing the dams would require 70,000 more trucks to haul the grain and fuel the barges currently move. It would also require more power from coal and natural gas plants. American Rivers believes the electricity produced by the dams can be replaced by conservation and by renewable resources. They contend that cargo displaced from barges would mostly travel by rail instead of trucks, Garrity said.

Gates Fail at Hebgen Dam in West Yellowstone

Sep 1, 2008, Reporter: Ty Brennan, KPVI.com

Emergency Crews are working to fix two hydraulic gates at Hebgen Dam North of West Yellowstone. The gates failed sometime Sunday afternoon sending 3,400 cubic feet of water into the Madison River. Normally only 900 cubic feet of water is released. Law enforcement say the river has risen nearly a foot because of all the water run-off, but say the river is still well inside its banks. As of Monday morning emergency crews were working to make an emergency bulkhead to slow the flow of water while they work on the hydraulic doors. Emergency personnel have been notified of the situation. No campgrounds or homes in the area have been evacuated.

Hydro

New hydroelectric plant set to open

The Associated Press, 08/27/2008, Salt Lake City Tribune

HEBER, UT - A new hydroelectric plant will be dedicated Wednesday at the base of the Jordanelle Dam. The $21.5 million power plant houses two turbines capable of generating enough energy to supply 9,000 homes per year. The plant is a public-private partnership between the federal government, Heber Light and Power and the Central Utah Water Conservancy District. Tours of the plant were to begin Wednesday afternoon, followed by a dedication ceremony begins at 6.

Water

If Great Lakes drop, hydropower likely affected

Associated Press - September 1, 2008, WTOL11 - Toledo, OH

ALBANY, N.Y. (AP) - A drop in Great Lakes water levels due to climate change could endanger New York's power supply. Studies predict levels will drop over the century as average temperatures creep higher, affecting the amount of water flowing through two state-run hydro facilities which account for about 12% of all the electricity generated in New York. Lower levels are not a certainty and scientists say the decrease would occur over decades. The future of the world's largest fresh water supply clearly is on the radar of New York officials who have entered the Great Lakes-area compact. Michigan is the last state to sign the compact which is designed to protect the lakes from dryer regions elsewhere.

Environment

EWEB closer to finalizing plan for McKenzie River dams

By Susan Palmer, The Register-Guard, August 29, 2008

The Eugene Water & Electric Board may be six weeks away from finalizing a plan to improve fish-passage on some of its McKenzie River dams, but the specifics of the proposal are, for now, being kept under wraps. EWEB has been negotiating for almost 20 months with environmental groups and state and federal agencies as part of the process of renewing its federal license for the Carmen-Smith Hydroelectric Project — three dams and reservoirs, two water tunnels and a pair of power plants near the McKenzie headwaters. The license expires in November. Last week EWEB asked the Federal Energy Regulatory Commission, which oversees hydroelectric projects, to extend to Oct. 15 a September deadline for submitting a settlement agreement that is part of its license application. It marks the third time EWEB has requested a deadline extension.

(This is long, but it's worth a read. A book titled: "The Great Salmon Hoax" which is a very interesting read and written in 1997 came to the same conclusions and here we are again over 10 years later. The writer of the book isn't a fish biologist so it must not be rocket science to see the answers.)

Fish biologist paints different salmon view

PUD hears why salmon recovery is divisive issue

By KATHY GRAY of The Dalles Chronicle, August 29.2008

Why did 500 endangered sockeye salmon return to Idaho this year? Why are upriver salmon stocks doing very well this year, while stocks that spawn below Bonneville Dam aren't? The answers rest to a greater degree in the ocean than in the dammed rivers, says Shane Scott, a consulting fish biologist who spoke to Northern Wasco County PUD Tuesday on the topic "Why differing opinions on salmon recovery?" Scott is a former policy director for Washington Department of Fish & Wildlife, and has worked for the Northwest Public Power Council and Northwest River Partners. He presented a much different picture of the salmon issue than is usually portrayed in mainstream media. The subject is a topic of enduring interest to public utilities like Northern Wasco, which receives more than four fifths of its power from federal hydropower. The federal dams along the Columbia River are at the center of controversies related to the latest biological opinion on salmon recovery produced by the National Oceanic and Atmospheric Administration — Fisheries (NOAA). Oregon Department of Fish & Wildlife is at the forefront of efforts to oppose the opinion, which would significantly change the direction of recovery efforts in the Pacific Northwest. Scott outlined the various perspectives on the subject for the PUD board.

"There are differing opinions between Oregon and the majority of other groups," Scott said. Washington fish and wildlife is notably quiet on the subject, preferring to let their Oregon counterpart take the lead. The reason for that, he said, is because Washington's political focus is more on the Puget Sound area, while Oregon's is along the Columbia. "[Washington] is more likely to let Oregon, the ODFW and the tribes fight that fight," Scott said. The states also don't have the money for recovery efforts, he added, so Bonneville Power Administration revenue is the primary source of recovery funding. Political will and public opinion also play a role in the differing viewpoints on recovery, Scott said. "Some people just believe dams are the cause," he said, noting that salmon numbers have declined since dam construction. "But correlation is not causation. Things happen regularly that contributed to the decline of salmon." The Fish Passage Center, an organization of states and tribes, is at the forefront of the "salmon wars," Scott said. Their study findings, which Scott criticizes as bad science, are based on a study that released tagged salmon in Idaho and counted how many adults returned to the area. NOAA, which is the deciding authority for biological opinions under the Endangered Species Act, concluded that the study is not a functional model that would allow the analysis required by the biological opinion and that it has not received independent scientific review. "The adult return rate was based on very few adults and selective use of data," Scott noted. But those findings are perhaps the most quoted in mainstream media, because they are more aggressive in promoting their findings than NOAA's own researchers. Scott attributed that to NOAA scientists' caution with results, which aren't always very conclusive. "They don't want to be the science police," Scott added. NOAA's opinion, Scott said, is based upon the best available science and a two-year research process outlined by the previous salmon agreement. Its conclusions and recommendations involve a "4-H" approach: harvest, hatcheries, habitat and hydropower.

Scott outlined the migratory cycle of salmon to illustrate mortality rates:

- One fertile female spawning on the upper river lays 4,000 to 5,000 eggs, of which only 200 to 250 fry reach the first dam, the Lower Granite — a 95 percent mortality rate.

- Of those, 165 to 168 female migrants reach the waters below Bonneville Dam, 77 percent through barging, 23 percent in the river — another 30 percent mortality.
- From there, 12 to 13 young reach the estuary and the ocean.
- Of those, 7 to 9 return to the mouth of the Columbia.
- Then, 3 to 5 female migrants return to their spawning grounds over three to five years.

Decline of Columbia River salmon was well under way by the time the first dam was built in 1938. Aggressive commercial salmon harvest and habitat degradation from timber harvest practices had reduced their numbers by two thirds since 1860, Scott noted. "I'm not trying to say dams aren't part of the problem, they're just not all of it," he said. Later, hatchery fish were looked at as a solution, and a means to perpetuate the large salmon harvests. But hatchery fish competed with the wild fish and showed weaknesses in the rivers. In addition, fishermen fishing for hatchery chinook are also catching endangered Snake River sockeye, Scott noted. "Now it's looking like maybe that was not the best idea, but we're living with the legacy," Scott said. Scott also talked about the large amount of work on freshwater habitat, but noted that NOAA's findings indicate adult salmon returns are independent of juvenile survival rates. Poor survival in the freshwater stages can still yield a high rate of return. "The ocean controls the fish population," Scott said. Regarding the dams, Scott noted that most Columbia River Dams are meeting their 95 percent downstream survival rate target. The Dalles and John Day are the two exceptions with survival rates of 91 and 92 percent respectively. The new biological opinion proposes changing the use of dam spill in fish recovery, Scott noted. "Oregon's opinion is that if spill is good, more is better and that it's the safest route of passage," he said. 'NOAA fisheries view is that it's a valuable tool, but not always the safest. "Passage through the blasting water can cause gas bubble disease, he said. Regarding flow augmentation, Oregon view and the NOAA's coincide: Increased river flow yields increased adult returns. But augmentation can't make up the difference between a dry year and a wet year, Scott noted. Scott was also critical of salmon harvest rates, saying that a 60 percent harvest has an unavoidable effect on the population. On the benefits of lowering the John Day reservoir, Scott was skeptical. He said a lowered reservoir could improve survival rates 2 to 3 100ths of a percent, but would eliminate river transportation, affect agricultural irrigation and require reconstruction of fish passages. "Is the survival benefit worth the change?" he asked. Again, Scott stressed that while a multi-pronged approach to fish recovery — including harvest, hatcheries, habitat and hydropower — is worthwhile, 70 percent of the population variation is due to the ocean's temperature. He displayed a chart showing that best salmon runs over the last 10 years have occurred during the coldest part of the Pacific's temperature oscillation. He concluded by saying he believes NOAA's biological opinion should stand. "It's the best science of anyplace in the world," he said. "We know more about these fish than any animal in the world."

(This is not good for dams)

Bad mussels like dams

Invasive species thrive in impounded lakes. From there, it's an easy boat ride to natural waters.
By Steve Graff, *The Denver Post,* 09/02/2008

Colorado boaters can't catch a break from those "dam" invasive mussels. Dreaded, invasive zebra and quagga mussels are more likely to be found in dammed lakes than natural ones, according to a new study. The dammed lakes, the research found, provide an ideal habitat for the foreign, nuisance species — and they have higher boating activity. Lakes closest to impoundments are at greater risk because of "jumping" boats to a new body of water, said the study, co authored by Pieter Johnson, a University of Colorado at Boulder assistant biology professor. The study was published this week in the journal Frontiers in Ecology and the Environment. "These dams act as stepping stones creating corridors for the invaders to make jumps — often jumps into natural lakes," Johnson said. "The more impounds you put on the landscape, the more you create these hub habitats." Dammed lakes are a good environment because invasive species can withstand and even thrive with the changing water levels.

Researchers compiled data from more than 5,000 water bodies in the Laurentian Great Lakes region for five different invaders: zebra mussel, spiny water fleas, rainbow smelt, rusty crayfish and the plant Eurasian watermilfoil. In some cases, invaders were 300 times more likely to be found in lakes with impoundments versus natural ones, the study said. "Zebra mussels were able to make it into Colorado," said Johnson, who says the state is vulnerable to all five species. "I think that potential for those invaders to make rapid

movement in our natural lakes is very high." So far, the zebra mussel and quagga mussel, which some describe as the zebra mussel's "nasty cousin," have been found in the Pueblo Reservoir and Lake Granby, respectively. In an effort to stop the mussels from "jumping" into other water bodies, boats are now inspected coming out of the water at both locations. Inspection programs also have been implemented by the Department of Wildlife and parks officials at the 24 state parks with the highest boat traffic. "We need to get the 'clean, drain, dry' message out to boaters," said Rob Billerbeck, biological programs manager for Colorado State Parks. The agencies also have started tracking boat activity during the inspection process to see which reservoirs and lakes they visit, Billerbeck said. Invaders can clog up boat engines and water-treatment systems. They also disrupt ecosystems, pulling resources out of the food web by consuming the phytoplankton native species need to survive, Johnson said. The Aurora Water Board considered closing Twin Lakes and Turquoise Lake — which are owned by the U.S. Bureau of Reclamation — to ensure invasive species don't infest the waters.

"We've expressed concerns about the potential of invasive species (being introduced) into those lakes," said Alan Ward, a water-resources specialist for the Pueblo water board, which has contracts with the Bureau of Reclamation to store water at those lakes. "We are still a little concerned that we haven't closed that loop," he said. "We just want to make sure those reservoirs aren't at risk."

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Some Dam – Hydro News and Other Stuff

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9/12/2008

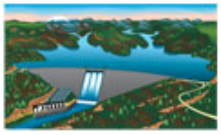
Quote of Note: *"If pro is the opposite of con, then what is the opposite of Progress????? CONGRESS!!! - - Unknown*

"Good wine is a necessity of life." - -Thomas Jefferson

Ron's wine pick of the week: **Pillar Box Red 2006** (very reasonable price and highly rated)

Other Stuff:

The main stream media did not tell us about this recent speech in Congress! Listen, you may find it interesting. I didn't know for instance that the ANWR oil is only 74 miles from the existing Alaska pipeline: < http://www.youtube.com/watch?v=MlfmvwxxgHM>



Dams

(If you need firewood, I know where to get it.)

It takes a big rake to keep Rock Island Dam clean

By Christine Pratt, World staff writer, September 03, 2008

ROCK ISLAND — A brand-new, custom-made crane is at work removing unwanted river flotsam that accumulates at Rock Island Dam. Chelan County PUD commissioners got their first look Tuesday at the dam's new "trash rake," a crane with a 115-foot arm with two specialized claws. The $1.3 million rake is installed at the dam's second powerhouse, close to the Columbia River's Chelan County shoreline. Branches, logs and other river debris tend to collect at this more modern of the historic dam's two powerhouses, engineers told commissioners Tuesday. Rock Island Dam was the Columbia River's first hydro project. Its first powerhouse, which dates to the 1930s, is undergoing $200 million in rehabilitation work to replace its six 1950s-era turbines and generators and update its four 1930s-era generators. Rehab efforts are about 25

percent complete, Brett Bickford, project manager of dam modernization, said Tuesday. The new rake is part of ongoing efforts to improve efficiency, Bickford said, by keeping the dam's underwater trash racks free of debris, which reduces the volume of water entering the turbines.

Together with the newly designed trash racks, the new rake will help Powerhouse 2 produce more electricity with the same amount of water — an estimated 8 megawatts more per hour, Bickford said. Its hydraulic talons give the new rake the look of a horrific river monster. But underwater, when light hits it from the right angle, two of its bolts and nameplate form the beady eyes and mouth of what could be one of cartoon character SpongeBob's undersea buddies. Bickford said the rake was custom-made in Germany. PUD engineers traveled to Germany in April and May to view the new rake in action. It took its place at the dam in mid-August. Working with a remote-controlled underwater camera, dam officials can spot debris trouble spots and guide the rake into position. One of its scoops is a gripper claw, capable of plunging as deep as 115 feet to remove debris, even from the base of the dam. The other has a strip made of special plastic that scrapes the surface of the underwater trash racks to remove debris.

(This is good. Engineers love this stuff.)

Corps to perform tests, analyses on dam

The US Army Corps of Engineers Tulsa Division announced in a press release last week that beginning Sunday, Sept. 7, at 4:30 p.m., "highway traffic on State Highway 151, which crosses Keystone Dam west of Sand Springs, Okla., will be closed for 12 days as drilling crews obtain information required to perform analyses to ensure continuing safe performance of Keystone Dam."
By Ryan Daly, News Editor, 09/02/2008

The closing of Highway 151, a major thoroughfare between State Highway 51 and US Highways 64 and 412, will certainly pose an inconvenience to those who commute to and from work across the dam. Army Corps of Engineers Lake Director Kent Dunlap, however, said the 'analyses' being performed are part of a national Corps project, and are essential to making sure the structure keeps performing as successfully as it has for the 44 years since it's completion. "This is a nation-wide program where they testing all the dams, and this week it's Keystone's turn," Dunlap said. "Keystone Dam was put into service in 1964, so just like with anything that old, you want to keep it tested to make sure that everything is going well. This is kind of like going to the doctor for a check-up physical." Dunlap said the Corps will be testing both the dam's embankment and its foundation. "What they will be primarily working on is the earthen part of the dam," Dunlap said. "When most people think of the dam they think of the structure itself, but that is actually a relatively small part of the dam, most of it is what we call the 'rolled earth embankment' on either side. They will be running core samples in those areas to look at the materials and make sure we aren't showing any signs of deterioration or breakage."

Dunlap said the Corps will also install new equipment that will help the dam's operators more efficiently and effectively safeguard the soundness of the structure. "They'll be putting in some instruments called piezometers, which essentially read the water pressure, and are found in and around all dams," Dunlap said. "It's like having a doctor being able to listen to you with a stethoscope, and he can hear if there is anything wrong with you. Those piezometers allow us to essentially do the same thing." Dunlap explained how the piezometers work. "The instrument goes down until it touches the water in the earthen part of the dam, and measures how much is there," Dunlap said. "The thing about water is that it's always going to try to go either under or around it anything you put in its way, so the earthen part of the dam always has so much water in the soil. What the piezometers allow us to do is to basically tell when the water is starting to go where we don't want it to, and allow us to create ways to control and direct it. "A lot of that knowledge is based on history and knowing how this dam behaves. We know how high the water level should be at a given lake elevation, so if we see that the water is going up or down in the embankments, we can look for where it is going, and try to manage that flow." Dunlap said that while the planned installation of equipment and analyses of core samples is meant to prevent the dam from becoming inoperable, the consequences of which could be disastrous for those downstream, residents had nothing to worry about. "When you shut down the road to work on the dam, people get nervous and worried," Dunlap said. "People should know that this is a good thing, a routine, proactive measure, and that we have no indication of or reason to anticipate any problems. "What should make them nervous is if they don't see us monitoring the dam."

(Oh oh, didn't they rebuild this dam partly because of the recreation use?)

Hope Mills residents weigh in on new dam

Sep. 3, 2008, WRAL.com

HOPE MILLS, N.C. — Hope Mills officials met with residents Wednesday night to discuss the newly reconstructed dam at Hope Mills Lake. About 150 people attended the meeting with Mayor Eddie Dees and an engineer who designed the lake. Residents who live around the lake voiced concerns about the restored lake being lower than before, saying it will have a big impact on docks and swimming areas. Torrential rains on Memorial Day 2003 washed away the lake's earthen dam, and the town spent years trying to finance a new dam. Construction of a $9.8 million concrete dam was completed earlier this year, and the town began refilling the lake in June. The lake was filled up last month when the remnants of Tropical Storm Fay dumped rain in the area. At 750 feet long, the new, zigzagging dam is 600 feet longer than the old one to meet regulations for holding back the lake's water. The engineer said Wednesday there were safety and monetary concerns about putting the lake back exactly where it was.

(The benefits of dams)

Shoals Heritage

Natural disasters made way for TVA

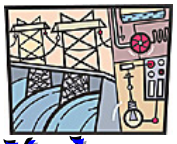
September 7, 2008, TimesDaily.com

On March 29, 1902, in the Nebraska Journal, published in Lincoln, Neb., the headlines read "Family of Seven Drowned - Florence, Ala., March 29". The story went on to read: "Two Days' rain has caused the most disastrous flood ever known in this county. Every bridge in the county is reported swept away except the Shoals Creek bridge. The waters have risen eight feet above the highest mark ever reached. The home of Pat Brahen, a colored man, about three miles from the city was swept away last night and seven of his family drowned." In recent weeks natural disasters such as floods, wildfires, droughts, tornadoes and the devastation caused by them, have made headlines in newspapers across the United States. In 1902, a flood devastated the Florence area. An article of the event appeared in the Atlanta Constitution and the Nebraska State Journal newspapers.

Preventing flood disasters such as this, was one of the main reasons for the creation of the Tennessee Valley Authority and for this, we can thank President Franklin D. Roosevelt and the U.S. Congress. After visiting Muscle Shoals in January of 1933, President Roosevelt made a speech from the steps of the capitol in Montgomery stating "Muscle Shoals is more than a mere opportunity for the federal government to do a kind turn for the people in one small section of a couple of states. Muscle Shoals gives us the opportunity to accomplish a great purpose for the people of many states and, indeed, for the whole Union. Because there, we have an opportunity to set an example of planning, not just for ourselves but for the generations to come, tying in industry and agriculture and forestry and flood prevention, tying them all into a unified whole over a distance of a thousand of miles so that we can afford better opportunities and better places for living for millions of yet unborn in the days to come." On May 18, 1933, during the famous "Hundred Days" of New Deal legislation to jump start the American economy, Congress responded to President Roosevelt's proposal and created the Tennessee Valley Authority. Created primarily for navigation, flood control and the production of electricity in the Tennessee Valley, TVA sanctioned the construction of a series of dams along the Tennessee River. These dams according to an article of scientific research, has prevented more than $ 4.8 billion in flood damages in the Tennessee Valley since 1936, and has transformed the river and its tributaries into one of the most useful river systems in the world. Two of these dams, Wilson and Wheeler, help to control flooding in the Muscle Shoals area. Wilson Dam was completed in 1924 and named for President Woodrow Wilson, who ordered its construction to power two nitrate plants for the production of ammunition and explosives at the outset of World War I. It was later incorporated into TVA's plan for flood control. The second dam, Wheeler, was constructed in 1936 and named for Gen. Joe Wheeler, who had the rare distinction of serving as a general in the Confederate army and later as a general in the U.S. Army. These dams, along with seven others, strategically placed along the main river help to control flooding and prevent disasters such as the one described above.

Dams on the river operate as a unit in connection with reservoirs to control flooding. When water is at normal level on branches of the river dams operate solely to produce electricity. During time of high water, dams act to slow the water flow. The dam closest to the origin of the flood hold back flood water while dams further down stream slowly release water. The floodwater is released to each succeeding dam emptying finally into the river. One source of information summarizes the condition of the Tennessee Valley before the

construction of dams on the river, as follows: "The Tennessee Valley was in sad shape in 1933. Much of the land had been farmed to hard for too long, eroding and depleting the soil. Crop yield had fallen along with farmers' income. Spring thaw and spring rains caused the Tennessee River to overflow its banks causing property damage, loss of lives and erosion of fertile topsoil leading to a depletion of mineral resources necessary for crop growth and production." There are some among us who remember hearing the "old folks" discuss the drowning of members of the Pat Brahen family and other disasters associated with flooding on the river. But for the rest of us it is difficult to imagine a valley so rich and fertile as being anything less.
Doris Metcalf, a retired educator, is the author of 13 resource books on such subjects as computers, African-American history, science, and creative thinking, she received a bachelor's degree at Stillman College, Tuscaloosa, a master's degree at Ohio State University, Columbus; an EdS degree at the University of North Alabama, and gifted education certification at the University of Alabama, Tuscaloosa.



Hydro

(Where have these people been? It's taken almost 30 years for people to stand up and notice the many benefits of pumped storage, so why aren't more being built? It's the NIMBY, BANANA, and Note problem.)

A new technique to make hydropower even better

Posted by David Beard, Boston.com Staff September 1, 2008, By Carolyn J. Johnson, Globe Staff

FLORIDA, Mass. - Deep within a mountain here, the state's eighth-largest power plant kicks into action with a thunderous clatter. A reservoir at the summit drains through a pipe in the mountain, loosing a torrent of water that spins two massive turbines, and then flows into the Deerfield River. At night, the plant flips into reverse and pumps river water back to the top of the mountain, using more energy than it makes. This hydropower system may seem more like a failed attempt at a perpetual motion machine than a power plant. But the Jack Cockwell Pumped Storage facility is state-of-the-art bulk energy storage, an underappreciated technology that will be essential if renewable energy generation is to increase dramatically. While most of the attention to alternative energy focuses on wind turbines and solar panels, actually turning them into mainstream sources of power will require cheap and efficient ways to store large amounts of energy. That is creating a push for new and better technologies everywhere from MIT to local startups that are now maturing. Earlier this year, the US Department of Energy established an Electricity Advisory Committee and directed it to focus in part on research and development of storage technologies.

"Storage is a critical component. As a technology area ripe for innovation and investment, it's huge - it's a holy grail," said Nick d'Arbeloff, executive director of the New England Clean Energy Council, an organization that promotes the renewable energy sector. Windmills and solar panels, icons of the clean energy movement, come with an Achilles' heel: breezes start up or die down unexpectedly, and the sun may be swallowed by a cloud when energy demand is highest. That vulnerability matters far more when renewable energy makes up a significant amount of the power flowing onto the electricity grid - a scenario now mandated by a state law requiring that a quarter of energy come from renewable sources by 2030. Sporadic energy production is a challenge for the grid, because it depends on a delicate balance between supply and demand. As more renewable energy comes online, grid managers need to figure out a way to smooth out the bumps - to take advantage of gusty days, or compensate for cloudy, windless ones. In March, for example, when wind generation hit a high in Spain, the national grid had to cut the output from wind farms because the grid didn't have enough energy from other sources to ensure that its supply would stay balanced if the wind suddenly died down. "Most people think this is wonderful - we're going to make all these windmills and save the planet," but that oversimplifies the problem, said Bradford Roberts, chairman of the Electricity Storage Association, a trade group. Even with more turbines, fossil fuel plants can't just shut down. "Because the wind may go away, you have to keep controllable energy sources running," he said. Energy storage can buffer those fluctuations. For example, the Jack Cockwell plant, owned by Brookfield Renewable Power, is effectively a mountain-sized, 600 megawatt battery that makes on an average day enough energy to power 200 New England homes for an entire year. It "charges" at night when energy is cheap and fewer people are using it; then it discharges during the day when energy prices and demand are higher. It also acts as a reserve, kicking into action to meet a sudden surge in demand. Although Jack

Cockwell and other similar plants were built more than three decades ago, "there have not been any other solutions that have emerged that look better, and people have been trying for a long time," said Philip Giudice, the state's commissioner of the division of energy resources. "I think we're ripe for all kinds of new solutions." Even the new solutions seem a tad antique.

One cutting-edge technology is basically a flywheel, a disc that spins at high speeds using electricity, then generates electricity as it slows back down. "People say, 'How do they work?' and I say 'The concept goes back to biblical times," said Gene Hunt, director of corporate communications for Beacon Power Corp. in Tyngsborough. Others, like General Compression Inc. in Newton, plan to make wind more reliable by using windmills to compress air in an underground space; then let the air out to generate electricity whenever it is needed. That's taking a page from a storage method even a child could understand - blow air into a balloon and later, let it whiz out. "The electric power industry takes a long time to change because you don't want the lights to go off," said Richard Baxter, senior vice president of Ardour Capital Investments LLC. "We are at a point now where a lot of new energy storage technologies are becoming commercial, and they are being rolled out and tested." Storage, some believe, is a key factor that will turn renewables into a mainstream source of energy generation. For example, Daniel Nocera, an MIT chemistry professor, reported recently in the journal Science that his laboratory had devised a new way to store solar energy, by using the sun's rays to split water into hydrogen and oxygen, creating a fuel that could be recombined to generate energy at night in a fuel cell. "If you can only use photovoltaics when the sun's shining, that's not good," Nocera said. "If you can make a cheap, affordable, easy-to-use storage mechanism, then it's a 24-7 industry; then people start investing and driving technology." Batteries, from lead acid to more futuristic types, are being tried, too. But progress has been relatively slow "because of how difficult the problem is," said Donald Sadoway, a professor of materials chemistry at MIT who is working with a graduate student in his lab to develop a battery that could be used for large-scale utility storage. Other types are already being integrated into wind farms and electricity grids. "I don't want to say this is as complicated as getting humans on the moon, but it is a major challenge and we don't have a NASA price-point here," he said. "You've got to get the electricity back to the grid at pennies a kilowatt-hour."

(Selling the family jewels to a company from Belgian? What is going on?)

Small Generator Warily Watching Hydroelectric Plant's New Owner

By LYNN DOAN | Courant Staff Writer, September 3, 2008

Joseph W. Szarmach Jr. knew he was a little guy taking on a big guy when he launched his court battle against FirstLight Power, which operates a hydroelectric power plant upstream from his own smaller one on the Housatonic River. But soon he will be fighting an even bigger guy. FirstLight Power Resources, which is owned by a group of investors based in New Jersey, confirmed Tuesday that all of its assets — including its Stevenson plant along the Housatonic River — are being sold to international energy supplier GDF SUEZ Energy International. FirstLight's 16 power plants in Connecticut and Massachusetts, with a capacity totaling 1,538 megawatts, will bring the Belgium-based electric and gas supplier's capacity to a total of 31,538 megawatts. FirstLight's plants will join six renewable energy and natural gas-fueled power plants that Suez Energy already owns in New England, where it sells electricity to businesses and natural gas to nearly every gas utility in the region, according to a company statement released Tuesday. "FirstLight will solidify our presence in a sizable and growing electricity and gas market," Dirk Beeuwsaert, chief executive officer of Suez Energy, said in the statement. Terms of the purchase agreement between Suez and Energy Capital Partners, which owns FirstLight, were not disclosed. Energy Capital Partners bought the group of plants two years ago for $1.34 billion. Suez Energy has said it plans to retain all 235 FirstLight employees in Connecticut and Massachusetts and keep its headquarters on Church Street in Hartford. For Szarmach, all that matters is how the new owner expects to run the Stevenson plant. Szarmach's grandfather, who built the smaller, family-run hydroelectric plant, signed a water-flow agreement with Connecticut Light & Power Co. when it still ran the Stevenson plant upstream.

When FirstLight bought the Stevenson plant from Northeast Utilities — the parent of CL&P — it broke that agreement, often sending either too much water downstream or too little, said Szarmach, who has filed suit against FirstLight over the water flow issue. When the water is rushing through his plant's massive propellers the right way, it generates enough power for about 6,000 typical homes, Szarmach said. But when the water flow varies, electricity generation can drop by as much as 20 percent, he said. FirstLight has maintained that it has lived up to the terms of all agreements. An international energy giant could prove more difficult to fight, Szarmach acknowledged, but his situation has left him with little choice. "We will put the new owners on notice and make sure they understand how we expect them to run," he said. "And if they don't, it just makes

sense to sue them, as well. With the significant loss to us, we have no choice but to do it." FirstLight declined to comment on Szarmach's lawsuit. But company spokesman Chuck Burnham said FirstLight will "continue to operate the assets as we've been operating" until Suez gets final regulatory approval for the purchase. "Suez will then operate it as they see fit," he said.

(Comment letter on video and article:
"That may be encouraging rhetoric, but we all know that Congress is the problem. They do not even want to recognize hydro as a renewable, especially a project with a new dam. In addition, they are the architects of a law that put in place a regulatory Federal licensing process that crippled the industry all at the behest of the anti-dam and anti-hydro movement. We have a huge hydro potential in the U.S. that is struggling to get developed. The National Hydro Association has been trying to get that message across for years, but it falls on deaf ears in a Congress intimidated by the environmental movement that has done more to run the cost of energy through the roof than the oil countries because that's their plan. A large portion of the hydro potential can, in fact, be developed without building a single new dam by using the thousands of existing dams already out there. Hydro meets opposition at every turn. Furthermore, Congress treats hydro unfairly by not giving it the equal economic stimulus that other technologies enjoy that are far less efficient or dependable than hydro, such as wind and solar. So, to paraphrase the Senator, "are these just words" or does Senator Obama mean what he says?)

Obama tours plant, hosts meeting

Today, the Democratic presidential candidate makes his first appearance in York County.
09/04/2008, Daily Record/Sunday News

You can see the video here and see a part of the Town Meeting and see Dick Fisher.
http://ydr.inyork.com/ci_10375533?source=most_viewed

(Excerpts)

Obama tells turbine workers he won't forget hydropower

September 05, 2008, By Tom Barnes, Post-Gazette Harrisburg Bureau

YORK. PA -- Robert Silknitter has worked for 38 years in the hydroelectric turbine industry here, and he had a pointed question yesterday for Democratic presidential candidate Sen. Barack Obama. When national politicians talk about developing renewable forms of energy to lessen American dependence on foreign oil, he said, why do they always mention wind, solar and biodiesel fuel but not electricity generated by water? "Hydro power hasn't gotten enough attention," said Mr. Silknitter. "It drives me up the walls of my living room. My wife's always telling me to calm down." Mr. Obama smiled and said there's no need for Mr. Silknitter to climb the walls. "You won't hear me forget to mention hydro any more," the candidate said. "That's one good thing about visiting this plant. If you don't hear me mention hydro the next time, I'll give you my card and you can call me, instead of venting at your wife." Mr. Obama spent half an hour answering questions from a group of about 100 workers of the Voith Siemens hydro turbine manufacturing facility in York, a Democratic town within a Republican county. ---------.

(With a number of irrigation district contracts about to expire, PG&E may lose a fair amount of its cheap hydro energy)

Tri-Dam pulls plug on PG&E for more money

Dennis Wyatt, Managing Editor, 9/6/2008, Manteca Bulletin

Tri-Dam Authority - the 100 percent home grown partnership that harnessed the Stanislaus River to generate clean hydroelectric power and to help manage water for hundreds of farmers and nearly 180,000 people - is ending a 54-year relationship with PG&E. The reason is simple. Tri-Dam is in a position to receive significantly more money for its hydroelectric power under a contract inked with Shell Energy. "It makes more sense financially," Tri Dam Authority General Manager Steve Felte said. The Tri-Dam board - consisting of the San Joaquin Irrigation District and Oakdale Irrigation District governing boards that share ownership of the series of three dams, hydro plants and other water conveyances - voted to break a five-year contract with PG&E a year earlier this Dec. 31. The early termination requires Tri-Dam to pay PG&E a $1 million penalty. But Shell Energy is giving Tri-Dam a million dollar signing bonus to essentially wipeout

the termination fee. Because Shell Energy agreed to cut Tri-Dam in on true spot market prices instead of what essentially has been an average under the PG&E contract, Shell is guaranteeing Tri-Dam a minimum of what PG&E would have paid for power plus shares the additional profits of electricity spot market prices. Felte said it could easily generate an additional $2 million to $5 million. That essentially is "extra money" since Tri-Dam will not be investing any money to increase capacity or spend beyond routine maintenance costs.

Tri-Dam in a typical year generates $20 million beyond operational costs and reserve set aside. That means each of the two districts - SSJID and OIFD - pocket $10 million each. The Shell Energy deal will simply put more money into the pockets of each district. SSJID is using the proceeds from the Tri-Dam to put in state-of-the-art irrigation systems to battle salt-water intrusion and reduce water evaporation. They are also using it to upgrade portions of the nearly 100-year-old system as well as using the net proceeds to position the district so they can one day assume ownership of the retail power distribution system currently operated by PG&E in Manteca, Ripon and Escalon with the expressed purpose of lowering of rates a minimum of 15 percent across the board. The two districts have also ironically benefited from the drought that has reduced water available for hydroelectric generation that typically covers peak power needs. Revenues are up significantly even though power generation is done.

Water

Parker water district expands dam to supply growing demands

Associated Press - September 6, 2008, KJCT News 8

PARKER, Colo. (AP) - A dam planned by Parker would be the largest reservoir built on the Front Range in about 40 years. Parker will use the foundation of the small earthen Rueter Hess Reservoir southwest of town to build a dam that will be more than 60 feet high and can store 72,000 acre feet of water. An acre foot is enough water for a year for two to four homes, depending on the size of the household. Frank Jaeger of Parker Water says the project will cost about $180 million. It's expected to take three years to complete. More than 100 people gathered at the site yesterday to dedicate the expansion of the reservoir. Parker will own most of the storage capacity in Rueter Hess, but Castle Rock, Castle Pines North and Stonegate will share in the project.

Environment

Red Bluff Diversion Dam gates to open Wednesday

Special to the Daily News, 09/02/2008

The Bureau of Reclamation will, consistent with the direction of the Federal District Court order, begin lowering Lake Red Bluff on Wednesday. Based on typical operations, the lake generally remains until about Sept. 15 of each year, but this year, an earlier lowering is warranted given lower than usual irrigation demands and the presence of a significant number of out-migrating winter-run Chinook salmon, according to a press release issued by the Bureau of Reclamation. The lake level is expected to decrease about 3 to 4 feet the first day, with lake level adjustments continuing every day until the lake is reduced back into the river channel. All boats affected by the changing levels should be relocated or removed from the lake prior to 6 a.m. on Wednesday. Red Bluff Diversion Dam, on the Sacramento River about 2 miles southeast of Red

Bluff, diverts water from the Sacramento River to the Corning and Tehama-Colusa Canals, which serve about 150,000 irrigated acres south of Red Bluff.

(Let's see - $23.81 per fish for rescue and $37.30 per fish to restock = $61.11 per fish. How about feeding some homeless people, $385,000 would go a long way? It would have been better to give out gift certificates for the Safeway fish counter. The fish rescue/stocking will increase the cost of the dam safety work 20 to 25 %. This is environmentalism run amok.)

Thousands of fish taken from Northern Calif. Lake

The Associated Press, 09/04/2008, The Mercury News

KIRKWOOD, Calif.—More than 6,300 fish have been rescued from a Sierra Nevada lake that is scheduled to be drained for emergency dam repairs this month. Brown, rainbow and lake trout accounted for two-thirds of the fish captured and were released into nearby Silver Lake. The rest were brook trout taken to Red Lake. Some fish were up to 3 feet long. The El Dorado Irrigation District spent $150,000 on the rescue operation. It plans to spend another $235,000 to restock Caples Lake once the dam is repaired. The district began lowering the lake's level in July after discovering the gates on the dam were deteriorating. Caples Lake is in Alpine County about 100 miles east of Sacramento and sits along Highway 88 just west of Carson Pass.

(It makes sense, but sometimes that doesn't matter in the world we live in.)

Utility requests waiver for Smith Dam fish passage

September 04, 2008, By *McKenzie River Reflections* staff

MCKENZIE BRIDGE, Oregon (STPNS) -- MCKENZIE BRIDGE: The Eugene Water & Electric Board (EWEB) has requested a waiver for fish passage at the Smith Dam. EWEB has instead proposed several fish movement improvements and habitat restoration projects in lieu of providing a way for fish to pass the dam. The Oregon Fish and Wildlife Commission will be asked to approve the waiver at its October 10th meeting in Salem. In the meantime, members of the public will have until September 19th to submit written comments on the proposed plan, according to ODFW spokesman Ken Homolka.

EWEB has applied to the Federal Energy Regulatory Commission to re-license its Carmen Smith Hydroelectric Project, which includes three dams on the upper McKenzie River. EWEB submitted its final relicensing application in November of 2006.

Under most relicensing, the Federal Energy Regulatory Commission conducts its own environmental review, which lasts about 18 months. FERC then issues its own environmental requirements, followed by the issuance of a new license. In many FERC relicensing cases, interested parties have challenged those environmental enhancements. Often lawsuits result as a way to resolve disagreements. This is the process that unfolded in the Leaburg-Walterville project relicensing back in the late 1990s. According to utility spokesman Lance Robertson, "EWEB decided that instead of going through that process, it would ask FERC to give us time to reach an agreement with all the interested parties on the environmental conditions of the license, including fish passage, habitat enhancements and stream flows. Those negotiations have been ongoing since late 2006. This is the third extension we've asked FERC for. This one, however, is a short extension because we are close to a final agreement." The Commission can agree to waive the passage requirement if the habitat restoration and other improvements proposed by EWEB would provide more benefit to migratory fish than would a fish ladder or similar passage structure at the dam. The application has triggered a state requirement to consider fish passage as part of the re-licensing process.

ODFW has made an initial determination that the mitigation efforts proposed by EWEB would provide a net benefit to migratory fish compared to providing passage at Smith Dam, Homolka noted. The mitigation efforts could include:

- McKenzie River Upstream of Trail Bridge Reservoir
- Placement of additional gravel in the streambed to increase spawning habitat for spring Chinook salmon with potential benefits for bull trout and other native salmonids.
- Maintenance of large woody debris to protect available habitat for Chinook salmon and bull trout, and habitats for other native fish species and macro-invertebrate forage.
- Smith Reservoir
    - Habitat projects to increase the quality and quantity of fry, juvenile, and adult habitat for fish including native cutthroat and rainbow trout, mountain whitefish, and other native fish

species. This would include adding boulders, stumps/root wads, and brush bundles to the reservoir in both deep and shallow waters.

- Smith River Downstream of Smith Dam
- Habitat projects and improved instream flow management to increase spawning habitat for spring Chinook salmon. The projects are also intended to increase rearing and other habitat for Chinook salmon, bull trout, and other native fish species, and macro-invertebrate forage for these fish.
- Installation of a 1,000-cubic foot per second turbine bypass valve at the Carmen Power Plant. The bypass would protect proposed habitat projects from potential high flow releases into the Smith Bypass Reach.
- Trail Bridge Reservoir
- Forty habitat projects here would be focused on increasing fry, juvenile, and adult habitat for native salmonids, as well as increasing the survival of fry, juvenile, and adult bull and native trout in Trail Bridge Reservoir.
- McKenzie River Downstream of Trail Bridge Dam
- Improve access for trout to the spawning channel.
- Provide access to the McKenzie River from the upstream end of the Carmen-Smith Spawning Channel.

It includes spawning and rearing habitat projects in side channels to increase quality of spawning, rearing, and foraging habitat for native salmonids in the mainstem McKenzie River downstream of Trail Bridge Dam. Installation of a passable culvert on the unnamed fish-bearing stream along the Carmen-Cougar Transmission Line. Overall, ODFW concluded benefits from the mitigation would result in an approximately 252 percent increase in Chinook smolt production compared to passage at Smith Dam, and a lesser, but still net increase in bull trout populations of at least 2 percent, Department staff determined that the mitigation will provide a net benefit to native migratory fish and recommends that a fish passage wavier for Smith Dam be granted. Members of the public can send written comments on the proposed waiver to Ken Homolka at ODFW, 3406 Cherry Avenue NE, Salem, 97303, or by e-mail to Ken.Homoka@state.or.us. Written comments must be received by September 19th. There also will be an opportunity for public comment at the Fish and Wildlife Commission meeting on October 10th at ODFW headquarters in Salem. The waiver application, ODFW's benefit analysis, and the draft waiver agreements regarding mitigation are available at the ODFW Web site a http://www.dfw.state.or.us/news/2008/august/082908.asp. EWEB's current license will expire in November of this year. Robertson said the utility would seek a one-year extension of the current license while the FERC process plays out. "Once the parties reach an agreement, we'll submit that agreement to FERC. FERC will still do its own environmental review, but the goal is for FERC to accept the agreement as negotiated," Robertson said. "The goal of the settlement is to speed up the relicensing process, because it may avoid lengthy legal challenges."

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Some Dam – Hydro News and Other Stuff

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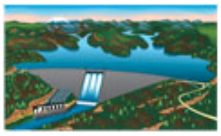
9/19/2008

Quote of Note: *"All that I am or ever hope to be, I owe to my angel Mother."*
~Abraham Lincoln

"Good wine is a necessity of life." - -Thomas Jefferson
Ron's wine pick of the week: **Rodney Strong Estates Alexander Valley Cabernet 2004**

Other Stuff:



Dams

Pa. says 75 dams at greatest risk in heavy rain

MARK SCOLFORO, The Associated Press, Sep. 11, 2008, Philly.com

HARRISBURG, Pa. - Seventy-five Pennsylvania dams pose the greatest risk of causing downstream problems in heavy rains, according to an updated list produced by the Pennsylvania Department of Environmental Protection. The agency distributed its "dams of special concern" list to emergency planners last week in advance of Tropical Storm Hanna. Most dams on the list have spillways that are not considered adequate to handle worst-case levels of rainfall, said DEP spokesman Tom Rathbun. The rest are on the list for other reasons, such as ongoing construction or rehabilitation, seepage problems or doubts about stability. One of the dams on the list, at Ryerson Station in Greene County, developed cracks and required the state to drain the popular 62-acre Duke Lake in July 2005. More recently, the West Leechburg reservoir dam in Westmoreland County has been identified as a potential killer, even though it has been drawn down. Local officials have sought state assistance to address the problem. Several dams have been added to the list, and a few removed, since early May, when the auditor general's office released a report critical of the state's system of dam inspection and safety enforcement. Many people who live downstream from the dams are unaware of the heightened danger, although emergency plans are on file at municipal and county offices and should be available for public inspection. Residents "should be aware," Rathbun said. "Your local emergency officials are responsible for knowing the details of the emergency action plans for these dams."

Auditor General Jack Wagner said his office plans to revisit the subject of dams, and hopes the state will be more vigilant about making sure the emergency plans are updated. "DEP has to keep a very watchful eye on this, and we need to keep a very watchful eye on DEP to see that they are doing what they need to do," he said. When heavy rains are forecast, the owners of dangerous dams, most of Pennsylvania's 3,200 dams are privately owned, have to follow specific procedures, such as drawing down the dam, cleaning out the

"trash racks" that collect debris and clearing the downstream area of trees and other impediments. Thoughts about how much rain could fall changed after the July 1977 Johnstown flood that killed 85 people. Eleven inches of rain inundated the area over 10 hours, leading six dams to fail. Pennsylvania, with its mountains and 83,000 miles of rivers and streams, is among the most flood-prone states in the nation. In July, legislation was approved to dedicate $100 million for projects to decrease the danger from floods.

Dams are safe despite state listing

By JUDY D.J. ELLICH, Daily American Staff Writer, September 13, 2008

Lake Somerset and Indian Lake dams are safe, even though the state has listed them among the 75 dams that pose the greatest risk of causing downstream problems in heavy rain, according to county authorities. “The dams are not going to collapse,” said Rick Lohr, director of the Department of Emergency Services in Somerset County. “They are not going to break. They are not going to fall.” The dams are not as bad as the words “greatest risk” makes them sound, he said. Additionally, there are emergency action plans in place at every dam in case something does go wrong, he said. Those plans are filed at the emergency management agency and 911 by the dam owners, who are responsible for the plans, he said. The plans include such things as notification downstream, evacuation points and traffic control. The state Department of Environmental Protection updates its list of “dams of special concern” periodically during hurricane season. The agency updated the list earlier this week because it anticipates significant rain from Hurricane Ike, which is expected to cross north of Pittsburgh on Monday, said Tom Rathbun, department spokesman.

The department updates the list to put the emergency community and dam owners on alert, he said. The list has existed for 10 years. Indian Lake Dam is on the list because it is under construction, he said. Indian Lake is owned by the municipality. Lake Somerset dam is on the list because it “has a significantly inadequate” spillway. The spillway is not large enough to keep water in the dam from spilling over if there is a heavy rain that drops several inches over a short period of time, he said. Lake Somerset is owned by the state Fish and Boat Commission. The 1977 Johnstown Flood occurred because of an inadequate spillway in conjunction with 11 inches of rain water falling over a 12-hour period, Lohr said. A repetition of such an event is projected to occur only once over many decades, he said. Rathbun said “the vast majority of the dams on the list are there because of inadequate spillways.” One thing those dam owners can do is drain down the lakes if a severe storm is scheduled to hit their location, he said. If a dam is structurally unsafe, the department has the authority to close the dam if the owner doesn't address the immediate danger, he said. Somerset and Indian Lake dams are not in that category, Rathbun said.

Is Hope Mills Lake Too Big or Too Small?

September 15, 2008, FayObserver.com

Over the past several weeks, the Hope Mills Lake water level has been a subject of “heated” discussion among residents in and around the Hope Mills community. With several tropical storms that came though Hope Mills during these weeks, residents witnessed what Hope Mills Lake will look like when the lake is fully impounded of water. Today, size of the new dam/spillway is not the subject of such constant heated discussion; the lake water level is! “We were promised or assured the lake water level would return to the same level as the old dam that washed out in May 2003” is the talk of the town these days. This five-year promise or assurance was made by Mr. Gordon Rose, from McKim and Creed (The Rose Group), who designed and created a $ 9.8 million new dam/spillway. However, several months ago in May, residents were questioning Mr. Rose about the size of the new dam/spillway. Some residents said they thought the new dam/spillway was too large in size, adding they wish it more resembled the old dam. As the walls were being built in May and completion of the project nearing, the design of the new dam/spillway was receiving mixed reviews. Some thought the new dam/spillway was too large in size to the point were they began questioning Mr. Rose and town officials. Out of fairness, we heard little discussion of the lake water level. Town Commissioner Eddie Maynor said he thinks it is crucial for residents to remember that the specifications for the new dam/spillway were established by federal regulators, not by the Town Board of Commissioners themselves. “The size and design was determined by the Corps of Engineers based on their criteria,” said Maynor. “The Town Board of Commissioners didn’t determine the size of the new dam/spillway. That was determined by the powers that be. It was either do it their way or you don’t do it.” Commissioner Maynor should know what he is talking about because he was a member on the 2004 Town Board of Commissioners who selected and approved one of three new dam/spillway designs that were presented by The Rose Group at that time. The new dam/spillway design as it appears today is a scaled back version of what was originally proposed. Still some residents don’t take the reduced size into consideration. For them, the design is still too big (comments in May), a whopping difference from the dam

to which they had previously become accustomed. “I would’ve preferred that it had been much smaller and structured like it had been in the beginning, but that was not to be,” Commissioner Maynor said. “It would’ve been much nicer if we could’ve returned to the design or structure originally. The aesthetics of the lake would’ve been much more appealing that what we have now.” Even Mr. Alex Warner had an opinion in May. “The main thing is to get the water back in the lake,” he said. “But, the design of the new dam/spillway is too modern for me, and its overkill. All we wanted was a mill village dam to restore the historical image that we had before.”

So, in May the talk around town was the appearance of a “large new dam/spillway” and why it was so large; why so much concrete. Today, the discussion around town is that the new dam/spillway is “too small” because of the low lake water level. Remember, the size of the new dam/spillway was determined by the amount of water pressure exerted on the dam/spillway per day. Therefore, the dam/spillway was reduced from 1,500 linear feet to 750. Now I’m no engineer here, but don’t you think if you reduce the size of a dam/spillway, this reduction would also have a direct relationship on the final surface water level around the lakeside? Guess we will all find out on Monday night directly from Mr. Rose, who is an engineer. Also, I suspect we will find out just what was presented and discussed to the 2004 Town Board of Commissioners during numerous discussions for their consideration and approval. I suspect Mr. Rose will present “the rest of the story” to the residents of Hope Mills. Should be very interesting! Yes, as the $12 million (plus) new dam/spillway construction project comes to a close, the lake water level is not what we ordered and we want truthful answers as to why. Can this be fixed? If not, why? If so, how much additional cost and who is going to pay for it? Who is responsible and accountable for this $12 million dollar mistake? And most importantly, is the Town Board of Commissioners going to take action “to get it right” on behalf of the town’s taxpayers? All questions that deserve honest answers. Monday night’s Town Hall Meeting cannot come soon enough!

(Now, this is an interesting discovery)

Study: Miami Fort not a fort, but a dam

Sept. 15, 2008, Science News

CINCINNATI, Sept. 15 (UPI) -- U.S. scientists have refuted a long-accepted historical theory: Miami Fort near Cincinnati was not really a fort but rather an ancient water works and dam. University of Cincinnati researchers discovered the 2,000-year-old site is much larger than previously believed -- one dam was nearly 200 feet high -- and its berms stretch nearly 4 miles in length making it twice as large as any other American Indian earthworks in Ohio, and one of the largest in the nation. "This site was originally described by William Henry Harrison as a great military fort. What we've discovered this summer is that it is not in any way, shape or form a military fort," said Assistant Professor Ken Tankersley who led the study. And physical evidence says it was probably the women of the Shawnees who constructed the earthworks. "It amazes me that when you think of some of the great engineering feats in prehistory, we've always had this male bias that guys must have been doing this," Tankersley added. "But the evidence we have at hand turns this around and suggests that it actually must have been the women who were doing this work."

Hydro

(This could just as well be the story with any hydro project proposed at an existing dam. The obstacles are never-ending.)

Wickiup Dam could see a hydroelectric upgrade

Proposal includes a water turbine that eventually could power 2,000 homes

By Kate Ramsayer / Bend Bulletin, September 04. 2008

Bend, OR - At the base of Wickiup Dam, where water flows out of the reservoir and into the Deschutes River, a company hopes to tap the running water to generate electricity. Instead of going through a spillway, the water released from the dam would be diverted and used to turn a turbine, generating enough electricity to power more than 2,000 homes, said Erik Steimle, director of environmental compliance with Symbiotics, which is proposing the project. And once the water rotated the turbines, it would flow into the Deschutes.

"We would just generate electricity based on normal (water flows)," Steimle said. But some agencies first have to ensure that the project won't damage habitat, disrupt the river's flow or lessen the qualities that make the Upper Deschutes a Wild and Scenic River. So as Symbiotics starts the multiyear permitting process that could lead to the plant's construction as soon as 2013, different agencies and organizations are weighing in about what environmental studies the company needs to conduct. "This is somewhat different from a new dam," said Rod Bonacker, special projects coordinator with the U.S. Forest Service. "The dam's already there. A lot of the impacts are already in place. So we have to look at what, if any, impacts are caused by the turbine … and then see if there's anything that needs to be fixed."

Environmental concerns

The first concern, he said, is that the uppermost portion of the Deschutes River is a federally designated Wild and Scenic River. So the hydropower facility and the electric transmission lines can't be built within that designated boundary, and they can't mar scenic views or wildlife habitat along the river. A couple of pairs of bald eagles nest in the area, and while they probably wouldn't be disturbed by a turbine in the river, new power lines might pose a problem, he said. And spotted frogs live in the Wickiup area, said Nancy Gilbert with the U.S. Fish and Wildlife Service, and they are a candidate species for listing under the Endangered Species Act. Plus, there are a number of fish species that still swim in Wickiup Reservoir and the Upper Deschutes. "We're interested in having them assess the habitat quantity and quality, and the species that are there," she said. Then, the company can look at whether its project would damage those habitats or disturb the species. Fish that currently are sucked through the spillway, Bonacker said, could get chopped up by a turbine — another issue the environmental studies will have to look into.

Potential benefits?

The hydropower project could also potentially benefit the river by changing water flows in certain ways, said Bonacker, the Forest Service's project coordinator. The facility would only use the amount of water normally released from the reservoir. But the Forest Service is considering working with the company, the Bureau of Reclamation, which owns the dam, and the North Unit Irrigation District, which uses the stored water, to make those flows out of the reservoir more consistent. Other hydropower facilities release widely fluctuating amounts of water in order to generate power when customers need it the most, said Tod Heisler, executive director of the Deschutes River Conservancy. But that can damage the riverbanks. "What we wouldn't want to see is too much fluctuation in flow," Heisler said. "No flow is bad, but also highly fluctuating flow is bad. … If you're doing that on a regular basis, you're going to damage the riparian area and the water quality." For the North Unit Irrigation District, the main concern with the project is making sure the water supply to farms and ranches is consistent, said Richard Macy, chairman of the irrigation district's board. But the district is also working on an agreement with Symbiotics that would give the district approval over the project as well as a financial return on any power that's generated. "North Unit's patrons are in favor of creating any good, clean, green energy that we can," Macy said. "Where there's an opportunity with falling water, we're in favor of it, and we'd like an opportunity for the district to benefit." The district had even proposed building its own hydro facility at the site previously, but it didn't pencil out financially.

Using existing dams

Across the country, about 20 hydropower facilities have been built onto existing Bureau of Reclamation dams, and more on dams managed by other agencies, said Robert Ross, regional coordinator between the bureau and the Federal Energy Regulatory Commission, which will ultimately decide whether the project would be built. From the federal government's perspective, he said, it's in the country's interest to generate power from dams that are already constructed. "It is best that we develop renewable resources, and you wouldn't want it to go to waste," Ross said. In 2001, Symbiotics looked at more than 12,000 structures nationwide to see which ones had enough power potential to build a plant, and where it could be generated in an environmentally benign manner. This project could only require about 110 feet of new power lines to connect to Midstate Electrical Cooperative's system, he said. Bill Kopacz, Midstate's general manager, said about seven miles of existing power lines would have to be upgraded to deal with the additional electricity, however. But Symbiotics would have to make sure that the hydropower facility doesn't alter the temperature of the water, cause erosion of the riverbanks or damage the water quality, Steimle said, addressing the questions posed by different federal and state agencies. "A lot of the controversy comes from dams that are built for hydropower reasons," he said. "But in this case, the dam's already built."

PG&E reveals plan to terminate Kilarc

Company would remove dams, drain power project reservoir

By Dylan Darling, September 11, 2008, Redding.com

Pacific Gas and Electric Co. this week rolled out a plan detailing how it would shut down the Kilarc-Cow Creek power project near Whitmore. The power company would remove dams from the creek and drain Kilarc Reservoir, much to the dismay of residents who want to preserve the popular fishing hole. "We are destroying an asset that has value," said Glenn Dye, who has been one of the most vocal advocates for maintaining Kilarc. "We should preserve it." At a Wednesday meeting about its plan that PG&E hosted at the Holiday Inn on Hilltop Drive, Dye wore a baby blue shirt that said "Save Kilarc" and "Since 1903" on the front. The meeting drew about 25 people, while a meeting Tuesday evening on the same topic held at the Millville Grange was attended by about twice as many, said Paul Moreno, a PG&E spokesman. Dye said the evening meeting lasted about two hours, with many of those there saying Kilarc should stay. Those hoping to save Kilarc cite the reservoir's more than 100 years of operation as a reason to preserve it, but PG&E says the hydroelectric project's age is a reason to remove it. The company said the old project simply isn't worth keeping because of the small amount of electricity it produces.

The Kilarc-Cow Creek project puts out five megawatts, or enough electricity to provide for 3,750 homes, Moreno said. In contrast, PG&E's project on the McCloud and Pit rivers produces 368 megawatts, enough for 276,000 homes, said Steve Nevares, a senior project manager for the utility. And because the Kilarc-Cow Creek project had been up for federal relicensing, he said a new license likely would have drawn new environmental restrictions that would keep more water in the creek for the fish. "That's water you can't run through your powerhouse," Nevares said. So the company decided to put the project on the market in 2004 and didn't find any takers, Moreno said. That's when the decision was made to shut it down. "Some people looked at it - including Redding Electrical Utility - but no one filled out an application," he said. A Davis company learned about the project after the window to take over PG&E's federal license had closed. It had aimed to develop fish-friendly hydroelectric projects and now hopes to help locals preserve Kilarc by applying for a new license altogether. Kelly Sackheim, who handles permitting for Davis Hydro, said the company would help the Friends of Cow Creek - a nonprofit group formed to save Kilarc - run the project and keep the lake. She said PG&E didn't look at such an option in its plan to close Kilarc and should have. "It's not complete yet," she said. But Moreno said the time for such an option has passed. "No one applied to take it over so end of project," he said.

(A dreamer)

Hydropower Energy

15 September 2008, redorbit.com

Why are we afraid of have hydropower from our 3,000 miles of rocky coast waters where tides rise 20 feet twice a day? With cheaper electricity we could heat our homes, run hot water heaters, street lights, paper mills and give our college students jobs so they don't have to move from Maine for work. Why is there only one business based in Maine on the Fortune 500 list? It's a VUCA world - volatile, uncertain, complex, and ambiguous. Electricity giant Furnas in Brazil has built 11 hydroelectric plants and is building seven more. Norway knows how to use hydropower with two companies, Norsk Hydro and Statoil Hydro. Let's think about tomorrow, our children's future. All other energy sources will deplete. Hydropower lasts forever. Hydropower will give us inexpensive energy. Hydropower is the answer.

Jane Stark, Winterport, ME

Little old dams could be future energy source

By Ellie Oleson CORRESPONDENT, September 15, 2008, Worcester Telegram & Gazette

Most New England waterways are peppered with small, ancient dams that once powered local flour, grist, woolen or other mills. Some such dams are being reawakened to generate hydroelectric power for present and future generations. Voters at Oxford's Oct. 22 special town meeting

will be asked to approve $10,000 for a feasibility study, a first step toward reawakening old dams along the French River. The hope is that the dams might be retrofitted to generate hydroelectric power to benefit the town, according to David M. Manugian, town engineer-planner. The $10,000 likely would be matched by a $40,000 Large Onsite Renewables Initiative award from the Massachusetts Technology Collaborative, the state's economic development agency for renewable energy. The collaborative also offers design and construction grants that fund 75 percent of projects. Emily R. Dahl, spokesman for the collaborative, said, "We have awarded well over 1,000 grants since 2002 to individuals, towns, businesses, developers and nonprofits. We support clean energy technology for anyone who meets certain eligibility criteria." She said those who have received grants include "people with a little stream in their back yard they want to tap for energy" as well as communities with much greater needs.

Hydroelectric projects that have qualified for awards include:

- Northbridge's Alternatives Unlimited, a nonprofit organization that serves the developmentally disabled. It received a grant to help rehabilitate a former on-site hydropower facility.
- Riverdale Mills Corp., also in Northbridge, a manufacturer of welded wire mesh products, which owns and operates a hydroelectric facility on the Blackstone River and wants to add three more generators.
- Webster Hydro Electric Co.'s grant was to help replace one of two existing hydroelectric turbines on the French River so the company can generate 750,000 kilowatt hours per year.
- In Winchendon, a hydroelectric micro-turbine system at Whitney Pond is being considered in hopes of bringing clean hydropower to Beals Memorial Library.
- In Southbridge, Dexter-Russell, a manufacturer of professional cutlery, is studying the feasibility of installing a hydroelectric generator at the company-owned dam on the Quinebaug River. The project, which could generate 1,580 kilowatt-hours per year, could be in operation by 2014.
- Woven fabric manufacturer William Wright Co. in Warren owns two dams on the Quaboag River and is exploring putting in generators to supply hydroelectric power to its facility.
- The Townsend Historical Society received a grant to explore rehabilitating a hydroelectric generator in the Spaulding Grist Mill at the Townsend Harbor Dam.
- In Athol, both the L.P. Athol Corp., a warehouse and facility rental company, and the L.S. Starrett Co., a manufacturer of precision tools, plan to use their awards to investigate the feasibility of upgrading hydroelectric equipment to increase generation capacity.

Though small mill dams in Oxford might one day be used for power, there is little chance the town's largest dam, the U.S. Army Corps of Engineers-controlled Hodges Village Dam, will be so used. Robert J. Hanacek, operations manager for the Thames River Basin, which includes the dam, said, "It's at cross-purposes to our primary purpose, which is flood reduction. We need as low a pool as possible so we can store water during a flood. A hydropower dam needs high water flow to turn the turbines. If we put in more water, we'd lose flood capacity. It's possible, but not practical." Interest in hydroelectric power is nationwide, according to Celeste M. Miller, spokesman for the Washington, D.C.-based Federal Energy Regulatory Commission, which licenses hydroelectric projects. "We have seen a great increase in interest in small, low-impact hydropower facilities, which are an emission-free, renewable source of energy with low impacts to environmental resources," she said. There is also high demand for the energy created by such "green" methods, according to Larry Chretien, executive director of the Massachusetts Energy Consumers Alliance, a nonprofit organization that buys and sells energy from green sources such as wind, solar and hydropower. "We can't make any more rivers, and we don't want to put up any more flow-impeding dams, but re-powering a dam that is already in existence generates electricity without any environmental impact," he said. He said his alliance buys renewable green energy and sells it to customers, including many in Worcester County, who "pay a small, tax-deductible fee on their National Grid bill." "We're trying to add to the demand for projects like the one in Oxford, to make them workable," Mr. Chretien said.

Mr. Manugian said that in Oxford, a preliminary study for hydroelectric power has been done, looking at flows of the French River and the condition of dams. "Next, we will look at the dams with the most potential, and, hopefully, seek design and construction grants." He said the French River, which runs through Oxford from Leicester to Webster, drops approximately 250 feet as it passes through Oxford, creating pressure that could be used to create electric power. "We could potentially generate thousands of dollars per year to offset the cost of the town's electric power as well as providing improved safety and better maintenance of town dams," Mr. Manugian said.

Water

WATER LEVELS: IJC delay raises shoreline anxiety

By Bill Wolcott, September 12, 2008, Lockport Union-Sun & Journal

The International Joint Commission's plans to regulate water levels and flows on Lake Ontario and the St. Lawrence River didn't fly, but have been kicked upstairs to the Secretary of State. There were three or four plans presented by the IJC, which began the $20 million study in 1999. According to Dan Barletta, of Greece, who served as the chairman of the U.S. Public Interest Advisory Group, the B-plus plan would have benefited hydroelectric power companies and the environment. However, the plan may have serious consequences for shoreline property owners. Plan D evolved into Plan 2007 which was put forth as an alternative to plan B plus. Plan 2007 would capture some of the environmental benefits but would somewhat protect the shoreline owners from flooding and erosion losses, according to Barletta. "Nobody won," said Barletta, who lives on the Lake Ontario shore. "I'm not happy. I put five years into the study and another three years reviewing it. Now the IJC is washing their hands on it. It can't make a decision."

The IJC sent a letter to U.S. Secretary of State Condoleezza Rice and the Canadian Minister of Foreign Affairs on Sept. 4 suggesting a small working group of IJC members and representatives of the governments be formed to advise the commission on a regulation package. "It's been put in hands of bureaucrats in the back room," Barletta said." "That's what it looks like to me," said Tony McKenna, who represents Niagara County on the Public Interest Advisory Group. In the interim, the IJC will stay with the current plan, 1958 D that has been in force for 50 years. That would better appeal to the homeowners for the short term, until June 2009, according to McKenna. Leaning towards B-plus? However, McKenna feels the IJC is leaning towards Plan B-plus, which favors the environmentalists and which homeowners feel endangers their property. Lake Ontario is the only Great Lake with rising water levels. "They say they will protect homeowners, but where will they get the funding?" McKenna said. Will the state pay homeowners for damage?

According to the IJC, it is seeking the concurrence of both federal governments is looking forward to further consultations to develop a solution that is in the best interests of the entire Lake Ontario-St. Lawrence River basin. In the letter to Rice, the IJC wrote, "The hearings and public comments showed serious divisions." The interests are: hydroelectric power, commercial navigation, recreational boat (including charters), environmentalists, homeowners and domestic water supply.

Collected comments

The IJC collected about 1,200 comments and hundreds of pages of testimony. At the meeting in June at the Olcott Fire Hall, land owners complained strongly about the rising levels of Lake Ontario, saying the high levels cause erosion and the loss of property. On the other side, environmental groups handed out green T-shirts and literature promoting Plan B Plus. McKenna and Barletta feel that Congresswoman Louise Slaughter, D-Fairport, has let down the homeowners. Also, land owners along the lake were very critical of the state Department of Environmental Conservation.

Plan 2007 debated

The IJC listened and took notes and concluded: "There was little support for regulation Plan 2007." Barletta disagreed and said that with Plan 2007, "Everybody would have seen a benefit." His main interest is the shoreline landowners, but he said he was working for a plan that was not detrimental to any of the interest groups. He noted that the land owners don't have the lobbying power of the hydroelectric power plants or the environmentalist organizations. Frank Bevacqua, the IJC public information officer, acknowledged that the decision "was not the direction shoreline property owners wanted to go with." Natural flows, highs and lows The IJC wrote that there was also a broad, strong interest in returning to more natural flows. If the U.S. and Canadian state departments go along IJC plan, the decision will be made by the representatives of New York State, the provinces of Quebec and Ontario, the Joint Commission and federal governments. Water levels are primarily controlled by natural water supply. Man-made controls in Montreal and Moses Saunders Dam at Massena can affect Lake Ontario levels by three or four inches, according to Bevacqua. By

controlling the outflow at the power plants in on the St. Lawrence River, the IJC can reduce some of extreme highs and lows, according to Bevacqua.

Stanly County Board and N.C. Water Rights Member Lindsey Dunevant Initiates Monthly Discussions of Yadkin Project on 1010 AM WSPC

2008-09-11 PR Inside

STANLY COUNTY, N.C. - Lindsey Dunevant, a member of both the Stanly County Board of Commissioners and the N.C. Water Rights Committee, has initiated a monthly program on radio station 1010 AM WSPC to discuss the Yadkin Hydroelectric Project, its effect on Stanly's water resources and other related topics. The station invited Dunevant as well as Gene Ellis, licensing and property manager with ALCOA Power Generating Inc. ('Alcoa'), to deliver separate arguments regarding the issues. In his first presentation, Dunevant expressed how he and leaders across the state favor federal recapture with subsequent transfer to the state of North Carolina for the Yadkin Hydroelectric Project. Dunevant argues that because Alcoa has exclusive hydroelectric operations on the upper Yadkin - and will maintain that exclusive status for another 50 years if FERC grants a license - it will allow Alcoa an unfair monopoly of North Carolina water rights for generations. This type of monopoly, according to Dunevant, would allow Alcoa to exploit one of the state's largest natural resources and allow the multinational corporation to make considerable profits selling electricity outside the state. Another major concern echoed by Dunevant and Alcoa opponents is that Alcoa has failed to address environmental concerns from its operations in Stanly County. Dunevant's comments first aired on the Sept. 4 newscasts for WSPC and its sister station WZKY. They can be found on the WSPC Web site here: www.1010wspc.com/WSPCWZKYLocalNews.htm. Listeners can contact WSPC to provide their reaction to the comments. Dunevant's statements will be appearing once a month over WSPC for the foreseeable future.

Regarding the Project's current status, the state's Environmental Review Commission (ERC) will study and develop proposals this fall in connection with the federal relicensing proceeding, which will govern if Alcoa receives an exclusive license for the Yadkin Hydroelectric Project, and report them by Feb. 1, 2009. At stake is an estimated $45 million in annual electric power revenue and water rights that Alcoa's opponents across the state believe should be subject to the control for the people, not for the benefit of a private multinational corporation. The water rights to generate electricity over the next 50 years are conservatively valued in excess of $10 billion. The Yadkin Hydroelectric Project has four hydroelectric stations, dams and reservoirs along a 38-mile stretch of the Yadkin River, one of the longest rivers in North Carolina and one of its greatest natural resources. The four water reservoirs are High Rock, Tuckertown, Narrows and Falls. The Yadkin-Pee Dee Watershed as a whole includes 21 counties and contains 93 state municipalities.

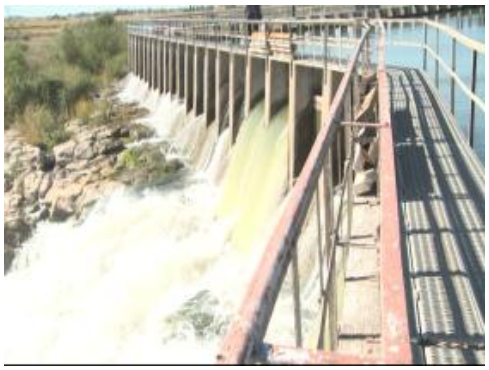
Quotes:
'I am very pleased that our local radio station believes the Yadkin Hydroelectric Project and other water-related issues are so important that they merit several minutes of its airtime for both sides to present their beliefs,' said Dunevant. 'I urge anyone with any interest in the Yadkin River or Stanly County to take time and listen to WSPC or its Web site to hear what we have to say and why it is so important that we act now to preserve our natural resources and regain our state's water rights.'
Related Links:
www.1010wspc.com
www.ncwaterrights.com
www.mmimarketing.com/blog/?c=Yadkin-Hydroelectric-Project

About This Effort:
In 1958, Alcoa, the world's leading producer of primary aluminum, secured a federal hydroelectric license for the Yadkin Project on the Yadkin River in Stanly, Davidson, Montgomery and Rowan Counties in the Central Piedmont. In return, Alcoa promised aluminum manufacturing jobs for Stanly County for years to come. Alcoa has now essentially disappeared as a major employer in the region and shut down its manufacturing plants, but it wants to continue reaping the benefits of the Yadkin River after its license expired in April of this year. In addition, Alcoa discharged hazardous pollutants into North Carolina air and waterways for decades while harvesting immense profits from the Yadkin River, but has yet to finish cleaning up that contamination. It has filed an application with the Federal Energy Regulatory Commission (FERC) to obtain another 50-year license. If Alcoa is successful, one of North Carolina's most valuable water resources will be used to maximize Alcoa's profits, instead of being used to benefit the people of North Carolina, who themselves are in dire need of affordable electricity, local economic development, and clean, adequate drinking water.

About the N.C. Water Rights Committee:
The N.C. Water Rights Committee is a coalition of North Carolina businesses and concerned citizens who have joined this state-wide effort to inform citizens of the critical issues and decisions concerning water rights that affect all North Carolinians now and for many decades to come. For more information, visit www.ncwaterrights.org.

Raising the Minidoka Dam?

Posted: Sep 12, 2008, By Michelle Costa



The Minidoka Dam was completed more than 100 years ago. When it was finished, it cost more than $6 million. Now, the Idaho Water Resource Board is considering raising the dam, a project which could cost more than $60 million. The Bureau of Reclamation will perform a special study to look into raising the water surface of Lake Walcott. Across the Snake River lies the Minidoka Dam. "If you don't capture it, it runs down the river and into the ocean," said Jerry Rigby, Chairman, Idaho Water Resource Board.

The dam is a structure 86 feet high and one mile in length. But, the board is hoping to increase that height. "We're desperately in need of additional storage in the state because we have groundwater users that need storage water and endangered species needs and with climate change on the way, we have a need for additional storage," said Dave Tuthill, Director, Idaho Department of Water Resources. Raising the dam would provide about 55,000 acre feet of additional water storage. Right now, it can hold about 210,000. "There are a lot of possibilities: exchanging with other water that is needed up water or down river. And, obviously, anything that we can do, to help discontinue additional draws from the Aquifer," said Rigby. The majority of this water is used for irrigation. In fact, more than one million acres of land is supplied by the dam. If they get the go ahead, they'll need to replace the spillway first. "If we're gonna raise the water surface 5 feet higher, we'll actually have to accommodate moving that crest up another five feet to allow that five feet increase to water surface," said John Tiedman, Activity Manager, Bureau of Reclamation.

All this will cost a pretty penny. Local News 8 was told most of it would be paid for through power usage. "$60 million might be the cost of the rehab of the existing structure, but to raise it an additional five feet would cost significantly more than that," said Tuthill. The Board will make decisions on whether to raise the dam after it's received the completed study. Engineers would be building a new dam in front of the current dam and when that's completed; they'll remove the old one. The Legislature appropriated about $1.4 million to do this study. It will take about 18 months to be completed. They believe if they do decide to raise the dam, construction wouldn't start for about another year or two after the study is finished.

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Some Dam – Hydro News and Other Stuff

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9/26/2008

Quote of Note: *"Most people assume the fights are going to be the left versus the right, but it always is the reasonable versus the jerks." - - Jimmy Wales*

"Good wine is a necessity of life." - -Thomas Jefferson

Ron's wine pick of the week: **Hayman & Hill Napa Reserve Merlot 2005**

Other Stuff:

(Ike Destruction and from a cat 2 hurricane)
http://boston.com/bigpicture/2008/09/the_short_but_eventful_life_of.html

http://www.seanbuckley.ca/blog/2008/09/15/photos-of-hurricane-ike-destruction/

http://www.foxnews.com/photoessay/0,4644,5029,00.html#18_935

(Every home should have one. If mass produced, the price could be 50 % less I bet)

HOW AN EGGBEATER COULD POWER THE FUTURE
http://www.foxnews.com/story/0,2933,423850,00.html

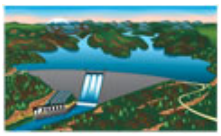
(I have no idea what the stuff about timber payments and college tuition, state and local sales taxes, and research and development for U.S. businesses are doing in this bill)

Senate reaches deal on energy, sales tax deduction

By MATTHEW DALY, ASSOCIATED PRESS WRITER, September 16, 2008

WASHINGTON -- A new tax deal reached by Senate leaders includes several major provisions sought by Northwest lawmakers. The bill would extend a multiyear program that pays rural counties hurt by federal logging cutbacks, and would allow Washington state residents to continue deducting state sales taxes on their federal income tax returns. The bill also extends billions of dollars in tax credits for renewable energy such as solar, wind and hydropower, as well as biomass and geothermal electricity. Sen. Maria Cantwell, D-Wash., who led negotiations on the energy tax credits with Sen. John Ensign, R-Nev., said the credits could mean tens of thousands of jobs. "This is a major step forward to help get us off our dependence on oil and shift over to renewable technologies like solar, wind and geothermal. That is absolutely the direction we need to go in," Cantwell said. "It's good to turn the corner and start saying we're going to focus on doing renewables and (that) will have a major impact on the Northwest and the West generally," she said. Cantwell, a member of the Senate Finance Committee, called the sales-tax provision a matter of basic fairness. Washington is one of at least eight states without an income tax where taxpayers faced the possibility that they could lose the ability to deduct state or local sales taxes from their federal returns.

Sen. Ron Wyden, D-Ore., called the timber payments critical to rural county governments across the West and beyond. The timber payments, which compensate counties stung by dropping timber sales on federal land, would run through 2011, Wyden said. He also is a member of the Senate Finance Committee, which announced agreement on the tax package late Tuesday. The deal breaks a months-long stalemate over a tax break package that would bring billions of dollars in relief to individual and business taxpayers, developers of clean energy resources and people threatened by the alternative minimum tax. The agreement includes some $17 billion in clean energy tax incentives and would also extend targeted tax breaks for a variety of causes, including college tuition, state and local sales taxes and research and development for U.S. businesses. The timber payments expired in 2006 but Congress extended them for one year, helping timber-dependent counties through the 2007-2008 fiscal-year. Congress failed to renew the payments earlier this year, prompting counties in Oregon, California and other states to slash budgets and lay off hundreds of employees. The Senate is expected to vote on the tax bill later this week. If approved, the legislation would go to the House.



Dams

(The rainfall from Ike reached afar)

Dam breaks as flooding hits southern Michigan

by The Associated Press, September 16, 2008, mlive.com

NILES TOWNSHIP — Days of heavy rain across southern and western Michigan caused a dam to fail in Berrien County and led to massive sewage overflows and flooded streets, authorities say. An eight-foot section of an earthen dam gave way Monday night on the Dowagiac River, the Niles Township fire department said Tuesday. It said the Niles Dam break forced the evacuation of about a dozen homes. The dam is about 165 miles west-southwest of Detroit. A number of roads washed out or developed sinkholes in Berrien and Cass counties as well. The National Weather Service issued flood warnings for wide areas of the state.

Macomb County discharged 94 million gallons of sewage into the Clinton River and Lake St. Clair, WWJ-AM reported. The Ottawa County Health Department issued a no-contact advisory for the Grand River after 7.5 million

gallons of untreated sewage and storm water overflowed into the river in Grand Rapids. More than 52 million gallons of partially-treated sewage overflowed into the Grand River over the weekend from a retention basin in Grand Rapids because of heavy rain, The Grand Rapids Press reported. Meanwhile, the Ionia County Health Department issued an advisory Monday for the river after a failure at a pumping station released 749,000 gallons of sewage into its waters, Grand Rapids TV station WOOD reported. The city of Flushing in Genesee County discharged more than 400,000 gallons of sewage into the Flint River, The Flint Journal reported. Oakland County reported sewage discharges on Saturday and Sunday, WWJ said. Despite sandbagging efforts by firefighters and others, flood waters inundated the Livingston County chapter of the American Red Cross building, which stands in Howell near the Grand River. The chapter lost its entire stock of emergency supplies to flooding and the building was left without electricity and telephone service. The Red Cross temporarily relocated to a Brighton fire station, radio station WHMI reported. In Macomb County, an 85-year-old Clinton Township woman was rescued late Sunday from a car submerged in water, township police Chief Fred Posavetz said Monday. At 10:10 p.m., police received a call about the car being stuck on a road in about 4 feet of water. When an officer arrived, he found the woman trapped inside with water up to her chin. "The car was totally submerged except for the roof and the trunk area," Posavetz told the Detroit Free Press. "Her head and arms were the only things visible." There were nearly 200 reports of flooded basements and streets in Lansing over the weekend, according to the Lansing State Journal. Parts of some roads in Berrien and Cass counties were washed out or developed sinkholes. The weather service issued flood warnings for the Grand, Kalamazoo, and St. Joseph Rivers. Allegan County authorities said precautionary sandbagging was taking place in Plainwell, Otsego, and Allegan.

(Is this inexcusable?)

Answer on lake level comes 4 years too late

Myron Pitts, September 16, 2008, The Fayetteville Observer

HOPE MILLS — On Monday night, the Hope Mills town board had the conversation with engineer Gordon Rose that it should have had four years ago. If the questions asked and answered Monday had been raised back then, residents would either have their lake at the right level or they would have been better prepared for a lower, less impressive body of water. At the meeting, Rose and board members jumped into a time machine and read each other minutes from meetings in 2004. They were trying to figure out how Rose and people in town had come to such radically different views as to what constituted a “normal” lake level. Rose showed PowerPoint presentations from that year and 2005, which laid out specifications for the new spillway. Yet, over these long years of anticipation, all of his charts, graphs, aerial photographs, PowerPoints and depth readings would have had less effect on the project than him going out to the lake with a resident, going to a pier on the lake and having the resident point to the pier’s watermark and say: “That’s where the lake should be.” That never happened. In answer to a question from resident Mike Mitchell, Rose says he was never asked to accompany any of the commissioners to the lake to see what was what. “We were estimating where the normal lake level was,” Rose said, adding that his firm went by aerial photographs and measurements related to the old dam’s height

‘Lost in translation’

Hope Mills resident Jessie Bellflowers said during the public forum: “The old water level, the highest water level, the normal operating level — was lost in translation.” Before Rose and the commissioners conducted the postmortem on the deal gone sour, the engineer presented two options for restoring the lake to at least some of its former glory. But he recommended neither. One involved puncturing the concrete spillway and extending it. The second option would install an inflatable bladder that could manipulate the water level. Either one could add millions to the cost of the $12 million project, Rose said. Both could increase the possibility of flooding and might not be approved by the dam safety people, he said. The commissioners had no comments on either option. “We got what we got,” former Commissioner Jerry Legge said later, echoing a sentiment expressed earlier. If one must assign a culprit for what happened, Rose is a better fit than the commissioners from 2004. He’s the expert, they are not. As was pointed out by resident Lisa Waring, it was Rose’s job to make sure the customer understood what was being paid for. In going back over his 2004 and 2005 presentations, Rose pointed out that he and the board were juggling cost and safety considerations as well as looking at the lake level. He told them the water would be at or near the elevation prior to the 2003 breach. He noted back then that the chosen lake level could have a “minor” effect on existing structures, including piers, docks and ramps.

Looking ahead

Commissioner Bob Gorman, who was on the board at the time, asked Rose, “Do you think that you communicated that well enough for us to understand it?” Rose said that last night’s conversation made it clear he had not. Doris Luther, also on the board back then, said, “I’m not an engineer. I had to go by

trusting you." Still, some residents and Mayor Eddie Dees wanted to focus on the road ahead. John Henley, a longtime resident and politician, said the town should hire another engineer to render a second opinion, an idea that Dees wants to look into. The mayor said that a friend of his had handed him just that day a calendar page with a daily quote from President Taft. "We are all imperfect," Taft said. "We cannot expect perfect government." True. But the Hope Mills Lake project would have benefited greatly from communication even a smidgeon more perfect than what occurred in 2004.

Celebrating a dam birthday

By CHRIS GAROFOLO, Reformer Staff, September 19

VERNON, VT -- In the early 20th century, the industrial growth in Vermont and New Hampshire necessitated a major need for abundant, accessible electricity. Enter the Vernon Hydroelectric Dam and Station, constructed in 1909 as the first hydroelectric facility built whose power was carried through transmission lines. It was also the first hydropower plant to transmit electricity across state lines, energizing cities in Massachusetts as far away as Fitchburg and Gardner. One hundred years after the construction of the hydroelectric facility, residents from both sides of the river gathered for the dedication and a cookout for the Vernon dam sponsored by TransCanada, who owns and operates the station. According to Kenneth Alton, external relations with TransCanada, the celebration is a chance for officials to commemorate the history of the station and provide the public with a tour and information of the present output and generating power at the facility. Fifteen guests at a time were able to walk through the station with officials from TransCanada, providing an inside look at a longtime fixture in the communities of Hinsdale, N.H., and Vernon. Tours ran for several hours Thursday afternoon, many of the guests told the *Reformer* it was the first time they entered the station despite having lived in the region their entire lives.

The structure is 956 feet long and contains 10 turbines running at a combined rate of 38,360 horsepower. Sitting a quarter-mile downstream from the Vermont Yankee nuclear plant, the facility has the largest drainage area of any of the company's hydro plants at roughly 6,266 square miles. As guests flocked to the TransCanada Hydro Northeast Vernon Centennial Celebration, the Vernon Historians provided a display table featuring historic photographs of the dam. Residents perused the photos and booklets about the early construction of the dam. The project was quite extraordinary for its day, said Barbara Moseley, founder of the Vernon Historians. The dam changed the history of the town by bringing in massive numbers of workers, many of them stayed in the region and became part of the community, she added. Two video presentations put together by local residents were playing continuously while participants snacked on hamburgers and chips. The celebration was also an opportunity for TransCanada officials to showcase the four new turbine units installed at the dam, which officials highlighted during the first open tours at the facility in the past two years. The four replacement generators, all on the New Hampshire side, were commissioned this spring, increasing the station output by approximately 10,000 kW to the current level of 34,000 kW. These new units are now online generating electrical power into the New England grid, said Alton. TransCanada, based in Calgary, Alberta, purchased the Vernon station and five other hydroelectric facilities on the Connecticut River in 2005 from USGen New England for $505 million. The following year, the company filed an application with the Federal Energy Regulatory Commission to replace four aging turbines to increase the overall electricity output.

In 1903, Malcolm Greene Chace and Henry Ingraham established an electric utility company, which would go on to take over the Vernon project four years later and convinced local investors to sign over their contract in exchange for a portion of the generated power. After acquiring the land on both sides of the river, the partners founded the Connecticut River Power Company and brought in some 450 workers for construction of the facility. Within the first year of the dam's existence in 1909, the power demand at the time was 5,000 kW. The first transmission of power from the station went to the Estey Organ Works in July, 1909. Up until the 1920s, the dam had eight turbines located in Hinsdale before two additional generators were added on Vernon's side of the river.

What's the Story with Lake Saltonstall and Furnace Pond?

By Ben Rayner, Sound Senior Staff Writer, Easthaven Courier, Sept. 18, 2008, BRANFORD, CT

Those who actually drive the speed limit along Route 1 might have noticed some activity along Lake Saltonstall and Furnace Pond below it in the last few weeks. The lower water levels are the preliminary efforts of the Regional Water Authority (RWA) as it begins a major dam improvement project along at the

end of the lake. RWA VP and Chief of Engineering Ted Norris said the project has been through a lengthy approval and permit process through the state Department of Environmental Protection and Department of Transportation. According to Norris, the move is pro-active to address natural erosion and safety issues of dams they control. "We simply wanted to take care of this before it got worse. Route 1 is actually the dam at that point and that needed to be addressed," said Norris. "It should take about six months and we are hoping to get most of this done by winter. It will look quite a bit different when we are done." The RWA will improve infrastructure and dam safety with the project, which basically involves strengthening the earth dam along the lower end of the lake at the East Haven-Branford town line. The lake will still remain open to recreational fishing, though the area known as Furnace Pond has always been off-limits to fishing, according to Norris.

US agency allows dam removal in western NC

The Associated Press, Sept. 19, 2008, The Charlotte Observer

DILLSBORO, N.C. A federal power regulator has refused to block Duke Energy Carolinas from removing a 95-year-old dam on the Tuckasegee River in western North Carolina. The Federal Energy Regulatory Commission denied the request Jackson County officials made in August to stop the destruction of the Dillsboro Dam. County leaders said the dam, built in 1913, is a local landmark that draws tourists. FERC gave Duke Power approval in July 2007 to remove the dam, which would open 10 miles of the river and balance the environmental effects of the company's other hydroelectric plants. River rafting companies and some wildlife scientists liked the plan because it would increase the river's water flow.

THIS IS A DRILL: Bagnell and Truman dams bombed, flooding imminent, evacuation ordered

By Terri Sanders/LakeExpo.com, September 22, 2008

The stage is set - it's the Fourth of July, lake levels are high and there's rain in the forecast. Several boaters are afloat on the lake waiting to watch fireworks displays. Traffic on area highways is at season's peak. Explosions rock Bagnell Dam and Truman Dam. Calls flood into the Emergency Operations Center (EOC) staged in Miller County operated by members of the sheriff's department, Red Cross, Civil Air Patrol and the Miller County Health Department. AmerenUE and the U.S. Army Corps of Engineers manage the emergency exercise from the Capital Plaza Hotel in Jefferson City, MO. Nobody knew how the organized chaos would unfold.

Eyewitnesses and media outlets report explosions at Bagnell Dam quickly associated with similar explosions at Truman Dam. The FBI determines the explosions to be a terrorist attack. An investigation is launched which reveals 50 pounds of an explosive material are missing from the Army base at Fort Leonard Wood. It's believed the missing materials have been used in the attack. The damage to Truman Dam is significant. Water rushes towards Bagnell Dam. Officials estimate the dam will be under water within 24 hours. A mandatory evacuation notice is issued for residents in Miller and Osage counties. Miller County Emergency Management Director Barlow Biggers led the EOC at the courthouse in Tuscumbia during the simulation. Biggers said the event was very informative and there were a few things that would need to be changed in the county's emergency plan. All in all he deemed the exercise a success. A press conference on Thursday gave officials from Ameren Corp and the U.S. Army Corps of Engineers an opportunity to speak about the emergency exercise.

Bill Empson, Civil Works Projects Management Chief with the Corps, termed the event a huge success. One main lesson from Wednesday's drill was a need to improve communication, he said. Alan Sullivan, consulting engineer for Ameren Corp, said they wanted to make the exercise difficult so they could learn and improve. The drill helped Ameren learn more about communicating and coordinating both upstream and downstream, Sullivan said. Empson and Sullivan both gave the emergency exercise a B+ grade.

NYC and nonprofit vying to build hydropower plants

By **Alexa James**, Times Herald-Record, September 16, 2008

The New York City Department of Environmental Protection will compete against a nonprofit rural electric cooperative for permission to install hydropower at four Delaware River Basin Reservoirs. The DEP, which owns the upstate reservoirs, filed a competing application with the Federal Energy Regulatory Commission on Monday, one week before the deadline. Its permit proposal will contend with an application filed by the Delaware County Electric Cooperative (DCEC) in July. The cooperative's "Western Catskills Hydro Project" proposes hydroelectric turbines at the Neversink Dam in Sullivan County, the Pepacton and Cannonsville reservoirs in Delaware County, and the Gilboa Dam in Schoharie County. Having garnered support from a slew of state legislators and the U.S. Department of Agriculture, the co-op had hoped to receive an endorsement from New York City, not a protracted battle against it. "It's very disheartening," said co-op CEO Greg Starheim. "Here is an opportunity for (DEP) to work with a local, upstate nonprofit organization" on renewable energy. DEP Commissioner Emily Lloyd said the city was not comfortable endorsing the co-op's proposal, citing "serious concerns" about dam safety, construction plans and reservoir operations. "At this time there are too many open questions," she said. Starheim said the co-op already addressed the DEP's concerns, in writing. "We got no response," he said, "other than what appears to be a hostile competing application."

(The environmental organizations simply want to kill the project so compromise isn't on their agenda.)

Spearfish revises FERC application

By Brandon Bennett, Black Hills Pioneer, September 17, 2008

SPEARFISH - The city of Spearfish has long maintained that it needs every drop of water it diverts from Spearfish Canyon to run its hydroelectric power plant and satisfy the needs of irrigators downstream. In a surprising move, the city is calling for the release of enough water back into the stream to possibly restore four and a half miles of cold-water fisheries in scenic Spearfish Canyon. The change is contained in a 1,355-page application the city filed Sept. 10 with the Federal Energy Regulatory Commission to license its power plant just south of town. "There are educated, scientific reasons for what the city asked for," Spearfish Mayor Jerry Krambeck said. "We asked for changes (in water release levels) during different times of the year, when irrigation is taking place and when it is not.

"The thing is, I don't feel there is room to adjust or negotiate. We went with what we thought was workable based on what (our application consultants) Devine Tarbell and Associates concluded," said Krambeck. The Spearfish Canyon Society's Jerry Boyer has long lobbied that additional water be returned to the canyon and said he feels the city is not proposing enough water be returned to the creek. "The city's proposal is unreasonable and is not really based on the (previous studies)," he said. Boyer said he thinks more water flow should be returned to the streambed. Spearfish Public Works Director Cheryl Johnson said the permit application calls for the release of water into the streambed from the Maurice Intake down to the old city intake. "This proposed release is for 3 (cubic feet per second, or cfs) during the irrigation season and 6 during the non-irrigation season," Johnson said. She added the decision to release some water is based on the stream flow study funded by the city last November, and was not based just on the needs of fisheries. "This encompasses all uses of the stream, including irrigation and power," she said. "We're also trying to enhance habitat as well. We're trying to strike a balance with the fisheries and the needs of the downstream users. "She stated benefits to fisheries and winter habitat protection will be seen, which is why the city opted to make this release as part of the application process. But she stressed this option may not be reflected in the final decision that comes down from FERC. The application process now enters a 50-day waiting period where the agency reviews the application and related studies and materials. "We have about a 50-day review time. We did get the application in five days early, as it was due on the 15th and we had it in on the 10 of September," said Johnson. Some amendments to the application are possible during the 50-day review. The process continues through July 2009 when FERC reviews the final application. During that time scoping documents will be released in December 2008 and in March 2009 an environmental assessment review will take place. Dick Fort from Action for the Environment, which has long challenged the city's right

to divert any water from the creek, said he remains unhappy despite the city's new position. “I've seen the preliminary report, and aside from some modifications, there's really no change,” Fort said. “Therefore, we are not going to change our position that the power plant be shut down.

”The city bought the hydroelectric plant in 2004 from Homestake Mining Company for $250,000. The plant produced an average of 1.3 million kilowatt hours in 2006, and that's enough to power 2,000 average homes for a year. The electricity is sold to Black Hills Power and Light and it generates about $240,000 annually for the city. The plant itself was built in 1911 to provide power to the gold mine in Lead. The infrastructure surrounding the power plant includes a dam at Maurice, a .32-acre reservoir, four intake gates, a 24,000-foot long aqueduct, two 2,000-kilowatt generators and pertinent facilities. The city had hoped to circumvent the licensing process and to that end officials asked South Dakota's congressional delegation could introduce legislation that could exempt the plant from licensing requirements. But the bill died in committee, and the city was left with no option but to use the traditional licensing process. The reason for the whole thing is that the hydroelectric plant was constructed in 1911, before there ever was a FERC. In 1920, the Federal Power Commission was established and had authority to issue licenses for hydroelectric development on public lands. In 1935, the FPC was given authority on all hydroelectric projects built by utilities engaged in interstate commerce. In 1977 the FPC became the FERC.

NHA Congratulates DOE Clean Tech Water Power Project Winners

September 19, 2008

Washington, DC (September 19, 2008) – The National Hydropower Association congratulates the winners of the U.S. Department of Energy’s (DOE) Research & Development Clean Technology Water Power Project awards. Five of the 14 winning projects DOE selected involve NHA member organizations. “We’re pleased to congratulate all the winners, including those that are members of the National Hydropower Association,” said NHA executive director Linda Church Ciocci. “We also salute DOE’s efforts to further the Advanced Energy Initiative, which provides crucial funding for the development of new water power technologies, as well as other renewable energy resources. Public-private partnerships like these are critical to the R&D we need as an industry to grow.”

Winning NHA members included:

- Electric Power Research Institute (EPRI) – (1) fish-friendly turbine development & deployment and (2) Wave Energy Resource Assessment and GIS database
- Lockheed Martin – Advanced Composite Ocean Thermal Energy Conversion cold water pipe project
- Pacific Gas & Electric Company – Wave Connect Wave Energy in-water testing and demonstration
- Snohomish (WA) Public Utility District #1 – tidal energy in-water testing in Puget Sound
- Verdant Power – Improved structure and fabrication of large, high-power kinetic hydropower rotors

“We’re proud to see our members winning these awards and taking part in DOE’s waterpower R&D program,” said Church Ciocci. “NHA is a strong supporter of DOE’s hydropower initiatives, from advocating for funding on Capitol Hill to encouraging public-private cooperation. We believe expanding water power resources is not only a great service to the country’s energy future, but it supports our economic and environmental goals, too.” Hydropower is America’s largest renewable energy resource, providing 8 percent of all electricity generated in the United States each year. Through better efficiency, by installing hydropower on non-hydro dams, and by deploying new technologies, both the federal government and industry sources project that the U.S. hydropower industry could double in this generation. “Through this awards program and through other efforts, DOE is responding to the mandate Congress has provided in appropriating funds for water power research and development,” Church Ciocci said. “This support, along with other public and private partnerships, will be the key to ensuring that the industry meets its potential for doubling in the next two decades.”

Mill hydro license pulled

Sun Staff Report, The Lowell Sun, 09/20/2008

LOWELL, MA -- The Federal Energy Regulatory Commission has terminated the license of Appleton Trust's hydroelectric plant in the Appleton Mills complex, clearing the way for the property to be developed as part of the Hamilton Canal Redevelopment Project. For the past year, U.S. Rep. Niki Tsongas has been requesting that FERC terminate the hydroelectric plant's license. "This action will help attract investors and

financing for the redevelopment of the property, and is an important victory for the city of Lowell," Tsongas said in a statement. "The FERC license that the Appleton Trust held was a significant hindrance to redevelopment plans for the property." In its ruling, FERC found that the hydroelectric plant, located in the basement of the Appleton Mills building, had not operated regularly since November 1994, and the license to operate should be terminated under the implied surrender rule. "The FERC decision supports what we have believed all along," Lowell's City Manager Bernie Lynch wrote, "that the prior owner long ago surrendered the license to produce power at this site and the lawsuit in federal court against the city, which was based upon a claim of a licensed power plant, is without merit." Downtown property owner James Lichoulas Jr. and his attorneys have alleged that the Federal Power Act of 1920 prohibits the City Council from using its eminent-domain powers to take the nearly 7-acre swath of land in question because a portion of it was licensed by FERC in 1986 for use as a hydroelectric plant. With FERC's decision, that license no longer exists.

(The dam plan)

House approves study for Indian tribe's dam plan

The Associated Press, 09/16/2008 MercuryNews.com

FRESNO, Calif.—A bill to study a proposed new reservoir for a Porterville-area Indian tribe is moving on to the Senate, after the House approved it this week. The proposed dam and reservoir would serve the Tule River Indian Tribe, which has had water problems since the 1856 establishment of its reservation, which now spans 58,000 acres. The tribe wants to collect water from the south fork of its namesake river on its reservation south of Porterville. The proposed dam would contain about 5,000 acre feet of water and would supply existing development and the Eagle Mountain Casino. The House passed a bill to conduct a feasibility study of the project Monday. Even if it clears the Senate too, other obstacles remain, including funding for the study and a debate over water rights.

Planet is running out of clean water, new film warns

By Brandon Griggs, CNN, September 19, 2008

(CNN) -- One sixth of the world's population does not have access to clean drinking water. More than 2 million people, most of them children, die each year from water-borne diseases. Water-related problems aren't restricted to the developing world. A harmful pesticide, banned by many European countries, remains widely used in the United States, where it runs into rivers and streams. And one expert estimates California's water supply will run out in 20 years. These sobering statistics come from "FLOW," a new documentary film about the world's dwindling water supply. The filmmakers and their sources argue a combination of factors, including drought and skyrocketing demand, have created a looming global crisis that threatens the long-term survival of the human race.

After premiering in January at the Sundance Film Festival, "FLOW" opened September 12 in New York and Los Angeles, California, and expands to more cities this week. The New York Times called the documentary "less depressing than galvanizing, an informed and heartfelt examination of the tug of war between public health and private interests." As the film shows, some nations are banking on controversial technology, such as desalination plants that convert seawater into freshwater, to meet future **water needs**. Meanwhile, water has become a commodity that supports a $400 billion global industry -- the third largest behind electricity and oil.

Full article: http://www.cnn.com/2008/TECH/science/09/19/water.crisis/index.html

Environment

(This is a problem where they know the answer, now they're going to prove their right – no matter what. This is absurd.)

Dam good science

Federal study will find real benefits of dam breaching

Sep 18, 2008, Columbia basin Herald, Editorial board

Please put any and all rhetoric about dam breaching aside for the next 3 to 50 years. The U.S. Geological Survey (USGS) is initiating a study of the benefits to salmon of breaching two dams on the Elwha River, but beware; it could be decades before the full impact is known. The Elwha and Glines Canyon dams are slated to be torn down in 2012 and hopefully restore more than 70 miles of spawning and rearing habitat for endangered salmon and steelhead.

The dams have disconnected watersheds within the Olympic National Forest and are believed to have reduced salmon habitat in the area by 90 percent. The dams were built between 1910 and 1913 with the Elwha Dam standing 105 feet high and the Glines standing 210 feet high. The Elwha dams seasonally generate about 40 percent of the power needed at a Port Angeles, Wash., sawmill. Researchers from federal, state, tribal and academic agencies and organizations are working to determine the ecological and hydrological state of the river after 96 years of being dammed. The information will be used to compare with information gathered after the dams are removed. Once concluded, we will have physical evidence on the benefits and drawbacks of breaching a dam for salmon. Once gone, about 270 miles of drainage area will feed back into the fourth largest river on the Olympic Peninsula. It will also release 18 million cubic-yards of sediment trapped behinds the dams.

The studies mean no more guessing by non-government organizations seeking funds to continue their research. No more political grandstanding on the environmental benefits of tearing out dams. No more spinning theories as the truth. We will have scientific data on how positive it will be or how little impact it had on the salmon. We won't really know until after the USGS is done. The USGS has maintained a credibility withstanding the scrutiny of both sides of the environmental war. They stay true to their findings and still approach their work with scientific curiosity, rather than work to prove a politically appealing decision. We applaud their efforts to seek untainted data on such a controversial subject. Too bad it won't take into account tourism benefits or how to recover lost power from hydro-electric power generation, should larger dams be targeted for removal, like the Snake River dams. We still believe the clean renewable energy from dams is more important. But we will at least have more information about smaller dam breaching and salmon habitat restoration than ever before.

The USGS stated there are several areas they plan to study and document, including:

- Downstream movement of sediment and wood, leading to long-term aquatic habitat improvements
- Sediment level stabilization and impacts on increasing nutrient availability for freshwater ecosystems
- Salmon response in establishing self-sustaining populations above where the dams were
- Denning patterns of black bears while taking advantage of a potential increase in salmon populations

The only problem is patience. Many people, who feel passionate about dams versus salmon, are going to feel a bit frustrated by how long it takes to determine the effects. USGS spokespeople state it will take "A minimum of 3-11 years and up to 50 years of monitoring will be required to determine ecosystem responses following dam removal." The goal of removing the dams is to restore habitat and improve the survival of salmon. A noble goal worth committing energy toward. But the USGS is taking additional steps of determining the actual impacts. The information will be useful in determining the cost versus benefit factor in removing other dams throughout the state. We are not talking about Grand Coulee, Wanapum or Priest Rapids, but there are numerous dams remaining long after their ability to generate clean renewable energy

has long been gone, such as Enlow Dam on the Similkameen River near Oroville. The USGS is a federal agency charged with "providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life." With factual data on breaching non-generating dams for improving salmon populations, they will definitely live up to their mission. It will help everyone in making the right determination in breaching the small, old, no longer used dams to benefit everyone.

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