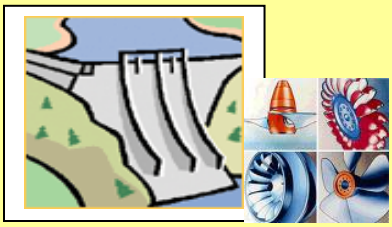

Some Dam – Hydro News and Other Stuff

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4/04/2008

Quote of Note: *"Instead of giving a politician the keys to the city, it might be better to change the locks."* - - *Doug Larson*

Other Stuff:

(Excerpts – you get the feeling who the writer favors for President, huh?)

Presidential Candidates Define Energy Policies

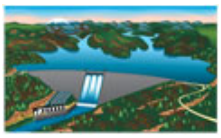
By Darrell Delamaide, March 31, 2008, Energy Biz Insider

On climate change, both Democratic candidates Barack Obama and Hillary Clinton espouse a cap-and-trade emissions program with an auction of 100 percent of emission credits to force emitters to quantify their pollution levels. The objective in both senators' plans is to get emissions 80 percent below 1990 levels by 2050. Sen. John McCain, the likely Republican candidate, pledged a "market-based energy reform" that would rely far less on government subsidies. A speech by McCain on energy issues focuses largely on national security arising from dependence on foreign oil, particularly the vulnerability to a terrorist attack. As far as climate change goes, a utility or industrial plant could generate tradable credits if it cuts pollution thereby offering incentives to deploy new and better energy sources and technologies. McCain cites many of the same solutions as his Democratic rivals - improved light bulbs, smart grid technology, and energy savings - concluding that "government must set achievable goals, but the markets should be free to produce the means." Regardless of which Democratic hopeful ends up with the nomination, candidate McCain will differentiate his energy policy from theirs through the level of government intervention.

Obama's detailed plan, by contrast, ticks off numerous areas in which government will get involved. He plans, for starters, to invest $150 billion over 10 years in energy reform. Part of this money will go to transportation - the next generation of bio-fuels and fuel infrastructure and the commercialization of plug-in hybrids. But the focus is also on development of commercial-scale renewable energy, investments in low-emission coal plants, and transition to a new digital electricity grid. The fund will seek to make sure that technologies developed in the United States are rapidly commercialized and deployed both here and around the world. To speed things along, the Obama plan calls for a clean technologies venture capital fund in which the government will invest $10 billion a year for five years. The fund will partner with existing investment funds and the national laboratories to ensure that promising technologies move beyond the lab. The Democratic hopeful would also establish a federal renewable portfolio standard to require that 25 percent of electricity consumed in the United States be derived from clean, sustainable energy sources by the year 2025. At the same time, he would significantly increase the resources devoted to the commercialization and deployment of low-carbon coal technologies. If that would mean establishing standards that ban new traditional coal facilities, then he would consider that possibility.

The Plans
With regard to energy efficiency, new buildings should be carbon neutral, or produce zero emissions, by 2030, according to the Obama plan. As president, Obama said he would establish a national goal of improving new building efficiency by 50 percent and existing building efficiency by 25 percent over the next decade to help meet the 2030 goal. And he would create a competitive grant program to reward states and localities that implement new building codes prioritizing energy efficiency. Clinton approaches the issue from an environmental standpoint, emphasizing green objectives, but her goals are remarkably similar to Obama's, right down to some of the details, such as the $150-billion investment over 10 years and the 25 percent renewable portfolio standard by 2025. A federal strategic energy fund of $50 billion would fund one-third of that 10-year investment. Some of the other novelties in her plan include doubling of federal investment in basic energy research. That would involve implementing measures to spur the green building industry by investing in green collar jobs and helping to modernize and retrofit 20 million low-income homes to make them more energy efficient. It also would mean launching a new "Connie Mae" program to make it easier for low- and middle-income Americans to buy green homes and invest in green home improvements. While Obama is strangely silent on the issue of nuclear energy, Clinton is not. She believes that energy efficiency and renewables are better options. As she sees it, there are significant unresolved issues about the cost of producing nuclear power, the safety of operating plants, waste disposal, and nuclear proliferation. So Clinton opposes new subsidies for nuclear power. She would strengthen the Nuclear Regulatory Commission and direct it to improve safety and security at nuclear power plants. Furthermore, she would terminate work at the Yucca Mountain site while also convening a panel of scientific experts to explore alternatives for disposing of nuclear waste. But she would continue research, with a focus on lower costs and improving safety.

McCain is less shy about using nuclear energy. He says that the obstacles that have kept a new nuclear power plant from being constructed for more than 25 years are political, not technological. He asks, rhetorically, whether the United States is less innovative or secure than France, which produces 80 percent of its electricity from nuclear power. He suggests providing for the safe storage of spent nuclear fuel by giving host states or localities a proprietary interest so when advanced recycling technologies turn used fuel into a valuable commodity, the public will share in its economic benefits. In spite of his declaration for market-based solutions, McCain doesn't hesitate to suggest government intervention where necessary, noting that public-private partnerships may be necessary to build demonstration models of promising new technologies. That would include helping to move forward advanced nuclear power plants, coal gasification, carbon capture and storage and renewable power.



Dams

LOW gets dam extension

BY DAN MCFARLAND, March 27, 2008, Orange County Review

After years of back-and-forth maneuvering between officials of the Lake of the Woods Association and members of the Virginia Soil and Water Conservation Board, both sides have agreed to a solution in the matter of the main Lake of the Woods dam. At its meeting last Thursday in Richmond, the state board approved a four-month extension to the Lake of the Woods Conditional Operating and Maintenance Certificate for the main dam, leading to the installation next year of a gate in the existing Lake of the Woods main spillway. The extension includes several conditions, largely proposed by Lake of the Woods officials, which include LOWA submitting, by April 7 of this year, hydrology and hydraulics study results updating old assumptions about the way a storm would affect water flow into and out of the lake. Also required will be the submission, by May 1, of data for an incremental damage analysis needed to reduce the spillway capacity below a full Probable Maximum Flood (PMF) event, the maximum called for under the dam safety regulation. This capacity for the Lake of the Woods dam would equate to passing the results of 38 inches of rain in a 24-hour period.

Under the new dam safety regulation currently being proposed by the state, this incremental damage analysis may be used, based on local conditions, to reduce this required capacity to the point where a

further increase in capacity would no longer reduce possible loss of life and property damage downstream of the dam in the event of a dam failure due to overtopping. The required capacity may thus be reduced to not less that 50 percent of the full PMF value. Another condition calls for Lake of the Woods to submit final bid-ready design plans and specifications, an application for a dam alteration permit, and a project schedule through construction completion to the board. Lake of the Woods asked for more time to complete that step, based on advice from its engineering firm that the required documentation could not be produced within that time frame. The Soil and Water Conservation Board, however, insisted that this be completed in time for its next meeting. At-large board member Susan Taylor Hansen, who moved to enact only the four-month extension on the existing certificate, rather than the six-month extension requested, commented, "That's just a matter of overtime. I wanted to hold them to what they originally agreed, because they made the choice to change their submission. I think they are able to make it happen, and I'd like to see them do it. "Lake of the Woods homeowner William Nowers addressed the board during its public comment period. He called into question the validity of the 2001 reclassification of the Lake of the Woods dams from Class II to Class I, starting the process of requiring upgrades. When requesting, under the Virginia Freedom of Information Act, any documentation on record to justify the reclassification of the Lake of the Woods dams, he said, "I received an answer in a letter dated December 12, 2001, from the Department of Conservation and Recreation, Division of Dam Safety stating that 'The hazard classification was changed for both dams due to high traffic volumes on Routes 3 and 20. A sunny day failure of either dam will probably result in loss of life.'" At that time, he noted, dam safety regulations were concerned only with dam failure due to flooding, and the concept of a "sunny day break" was mentioned in none of them. "I could not believe," he said, "that anyone could use the extremely remote possibility of a sunny day break as justification for a multi-million dollar increase in the size of the spillway." "This sounds suspiciously like a trick," he stated, "to force Lake of the Woods to expand their spillway by eight times its capability in the name of safety while knowing full well that expanding the size of the spillway has absolutely nothing to do with a sunny day break - the only reason I was given for changing it to a Class I dam." "I will not insult the intelligence of anyone here," he noted, "by thinking you would actually believe that a sunny day break could be corrected by a bigger spillway. A legitimate concern for a sunny day break would only involve proper monitoring of the dam for water seepage. Lake of the Woods has been doing that for years." The Soil and Water Conservation Board will consider granting Lake of the Woods an 11- month alteration permit at its meeting July 17 in Charlottesville.

Supervisors reiterate opposition to dam removal

By ANDY MARTIN, March 27, 2008, Siskiyou Daily News

YREKA, CA - Siskiyou County supervisors announced on Tuesday they will vote on a resolution next week to oppose dam removal on the Klamath River and may pull out of the settlement agreement that divides water between fish and farmers. The agreement hinges on the condition that Pacific Power remove Iron Gate and the Copco dams. 'Siskiyou County opposes dam removal,' said Bill Overman, chairman of the Siskiyou County Board of Supervisors. The supervisors held a three-hour hearing Tuesday night at Miner's Inn Convention Center to speak with state and federal agencies who were involved in the settlement agreement released in January. More than 200 people crammed the meeting area, with many standing because the room was full. The agreement provides water for farmers in the Klamath Basin and fish in the Klamath River, but also calls for the removal of four Klamath River dams. Three of the dams are in Siskiyou County. The proposed settlement was reached by tribes, irrigators, environmental groups, state and federal agencies, and counties. When questioned how the settlement agreement negotiators were selected, representatives from the Fish and Wildlife Service and California Fish and Game said Siskiyou County was not initially invited, but was able to get a seat at the table. Pacific Power was not included in the negotiations, although the proposed agreement calls for the company to tear down its dams. The settlement agreement group was formed while Pacific Power had its application for dam re-licensing under consideration by the Federal Energy Regulatory Commission (FERC). As part of the re-licensing process, the Fish and Wildlife Service, part of the U.S. Department of Interior, used its authority to require fish passage as a condition of a new license. Fish passage would include fish ladders to allow salmon to access the water above the dams into their historic range.

Fish passage is needed to help Klamath River salmon recover to historic levels, the agency said. The cost of fish passage will likely be more than removing the dams, so the Fish and Wildlife Service is in negotiations with Pacific Power to discuss removing the dams. The negotiations are confidential, but Pacific Power and the Fish and Wildlife Service verified that they are under way. Any decision by Pacific Power will be based on providing the lowest cost to its customers, its officials said Tuesday. When questioned about rates by supervisors, Pacific Power said costs to install fish ladders would be spread over the life of the license, or 50 years, while the cost to remove the dams would be passed on to customers at once. Pacific Power opposes dam removal and fish passage, saying Iron Gate Hatchery, which is funded 80 percent by the power

company, mitigates the loss of habitat above the dams. Residents of Copco Lake were questioned during the hearing. They cited a report by the county assessor and Karuk Tribe that indicated property values would fall 50 percent here if the dams are removed.

The county also questioned an expert on sediment stacked behind the dams, who said the river bed below Iron Gate would rise as the material washed downstream. With much of the Klamath in canyon setting, this could cause some flooding. Representatives from the Karuk and Yurok tribes said salmon are an important part of their heritage and culture, and dam removal is the best option for improving the fish runs. Troy Fletcher of the Yurok Tribe complained about comments from some audience members about Indian fishing practices. Supervisors asked state and federal officials about Shasta and Scott river water use under the agreement, and funding to Siskiyou County to compensate for dam removal, but no clear answers were provided. The Department of Fish and Game would request money from the legislature, an official said. Tulelake irrigators defended the agreement, saying there were things they really disliked about it, but with constant lawsuits over water in the basin were seeking some kind of stability in irrigation for their crops and affordable power rates. Klamath Project irrigators have a lower power rate because they have to pump water up to seven times as water makes it way through a series of canals and locks. During questions from the public, Copco residents were asked about recreation at the reservoir and the trophy rainbow trout fishing above it. The lake has a world-class perch fishery and bass tournaments, property owners said. The fire chief in Copco was asked about water from the lake used to fight fires, but the Karuk representative said helicopters are able to take water from the river as well, as they do near Happy Camp. Costs to remove the dams could range from $80 million to $4 billion, supervisors were told. The unexpected costs to Siskiyou County were unclear. When talking about removing themselves from the settlement agreement because of the dam removal stipulation and possibly losing a seat with the new agency that would be created to manage the Klamath water use, Overman said he found it outrageous the local government responsible for the largest area of the Klamath - 64 percent - could be excluded. The supervisors are responsible for the safety, health and welfare of the residents of the county and the settlement agreement would exclude parties who don't agree with it, Overman said. The supervisors will meet Tuesday to discuss the resolution being drafted this week by the county counsel regarding the dams and settlement agreement.

Fishing for an answer

By Crystal Bozek, March 30, 2008, Eagle Tribune

ANDOVER, MA — Remove the dams and they will come. That's the idea behind a feasibility study set to look at the effects of taking down three almost century-old dams on Andover's section of the Shawsheen River at Balmoral, Stevens Street and Ballardvale. Officials for years have speculated that several species of big fish — everything from striped bass to salmon — would migrate back to the waterway if obstructions were lifted. The dams also cause frustrations to boaters who have to carry canoes a half-mile sometimes to avoid them. "We'd be restoring a fish run that's been inactive for 100 years," Andover Conservation Director Robert Douglas said. "They'd have a full run of it. We'd have a chance to reintroduce migrating aquatic species." Right now, fish get stuck in the 4-mile stretch between the Merrimack River, which the Shawsheen feeds into, and the Balmoral Dam.

Andover officials won a $40,000 study grant from the Massachusetts Riverways Program this month, after being named a "priority river" by the program. Planning Director Paul Materazzo said the distinction will hopefully open up opportunities for other grants as well. The study will examine how the environment and wetlands would change sans dams, as well as effects on the local wildlife and residents who live along the river. Removing the dams would open up 20 miles of river. "I could get in a boat and canoe from the I-93 corridor all the way to the Merrimack, to the ocean even," Materazzo said. "We'd be bringing back the fish and canoeing." This would fit perfectly with the town's vision of creating a riverwalk along the entire length of the Shawsheen — part of the ongoing Shawsheen Renaissance project. Bob Rauseo, president of the Shawsheen River Watershed Association, said his group is waiting for the results of the study before deciding whether removing the dams is the way to go. "Even within our group, we have strong opinions," Rauseo said. "Some want everything man-made out of the river. Others look at what's here now, the wetlands it's created. There's the whole history of the dams to look at. ... We're not 100 percent together as a group yet." Rauseo said he'd personally like to see the Balmoral Dam go. "You have to carry your canoe a good half-mile to get around that dam," he said. "I don't think it was ever used for anything. I think it was aesthetic. Now it's just in the way." Douglas said Andover residents are especially anxious to see what the study says about flooding conditions without the dams. He assumes it would lower the river's level and keep the water moving along, making the area less prone to large flooding events. For the past few years, the condominiums at Balmoral and Washington Park have sustained hundreds of thousands of dollars in water damage. The Mothers Day 2006 floods left many residents there homeless for months. "The flooding issues

will be big," Douglas said. "Will it help us out? If the study shows flooding relief, we'll have all those residents behind us." The study will start sometime in April or May. Douglas and Materazzo plan on holding public meetings around that time so residents can voice their hopes and concerns. The results could show that the dams are needed, and fish ladders could be installed instead. But Materazzo doubts that. These dams served a purpose once, like providing hydropower to mills and providing flood control. "But at this point, they are all degrading. They are all liabilities to their owners," Materazzo said.

While all three dams are private, the dam owners have all signed on to the study. The owners of Atria Marland Place actually started the dam discussion last fall when they began looking at the feasibility of removing theirs on Stevens Street. They thought of retrofitting it for hydropower, but found it too costly. "They've been very helpful," Materazzo said. Andover's stretch of the Shawsheen is home to trout and catfish now. It could be opened up to salmon, American shad, river herring, sea lamprey, American eels and striped bass. Fish like salmon and American shad are anadromous, meaning they are born in fresh water, migrate to the ocean and return to fresh water to reproduce. Materazzo said the Stevens Street dam is the biggest obstacle for them, larger than the other two. "Some residents have told me they're sitting out in their lawn chairs watching these fish try to jump up the Balmoral Dam," Materazzo said, standing by Stevens Street. "The few that do make it, they get to this one and ha! They're not getting up that."

Hydro

Hydroelectric plant OK'd for Potsdam

15 YEARS IN MAKING: With lengthy approval process over, officials aim to break ground soon

By ALEX JACOBS, Watertown Daily Times, MARCH 27, 2008

POTSDAM, NY — The village's second hydroelectric plant has received final approvals from the Federal Energy Regulatory Commission, and officials hope to break ground on the powerhouse this spring. "As soon as the weather breaks, we're 98 percent ready to break ground," Administrator Michael D. Weil said. The lengthy FERC process requires engineering, ecological and financial studies. The project has been in the pipeline for 15 years. Before that, a plant on the Raquette River was discussed during the energy crisis of the early 1970s. Now that the west dam powerhouse has been approved, the village will try to complete the plant within the year. "It took 15 years to come full circle," Mr. Weil said. "We didn't put sticks of dynamite under it or anything to get things going, but we kept plugging away at it. There are a lot of procedures to go through." The powerhouse design includes two 430-kilowatt generators, which are capable of producing 7.5 million kilowatts of energy per year. Mr. Weil estimated that, like the east dam plant on the other side of Fall Island, the generators will often run at around 60 percent of capacity. The plant will be built on village-owned land adjacent to the west dam, next to the former Riverbend Restaurant on Maple Street. It will be housed in a brick building with arched windows and a shingled roof to complement the historic downtown. Mr. Weil said the second plant will become the main generator of power, while the east dam plant will become secondary. The site will also feature a canoe launch site and portage trail, as part of the project's recreation plan, also approved by FERC.

"We expect it to be more efficient due to equipment and being on the 'better' side of the river for flow," Mr. Weil said. "The existing plant will run when the river can handle both plants." The village renovated the west dam in 1990 to accommodate a second plant. It obtained the rights to have the dam licensed by FERC in 2001. The power produced will be sold on the open market. Because hydroelectric power is considered a renewable energy source, the village is trying to obtain "green" status for the project, which would fetch more per kilowatt-hour, Mr. Weil said. The village Board of Trustees approved bonding of up to $3.5 million for the west dam plant in May 2007. It has also paid $100,000 in engineering costs from the hydroelectric fund. James E. Sheehan Contracting Corp. of Potsdam was awarded the $1,456,000 general contract to build the plant, while Canadian Turbines Inc. was awarded a $1,387,432 contract to supply the generators. An electrical contract has yet to be awarded, while contingency and miscellaneous costs remain.

HARNESSING THE POWER IN WATER

Ex-Ford worker invests in old source of hydroelectricity

BY SALLY BARBER • FREE PRESS SPECIAL WRITER • April 1, 2008

ELK RAPIDS, MI -- Bill Stockhausen, a retired Ford Motor Co. engineer who helped develop Ford's hydrogen internal combustion engine, is breaking ground again -- this time in renewable power generation. The near-zero-emission engine was Stockhausen's final project before leaving the company two years ago. Last fall, the Northville entrepreneur used his savings and buyout money from Ford and paid Antrim County $195,000 for a new challenge: the operation of the century-old Elk Rapids hydroelectric dam. His involvement saved the functioning dam from a plan to convert it into an upscale restaurant and ensured that it would continue to produce clean power. "The plant is old, but by the same token, it has a large stake in the future" because of the demand for renewable energy, Stockhausen said. Situated between Elk Lake and East Grand Traverse Bay, the facility's two turbines capture the power of falling water, producing enough electricity to supply 700 homes, most of the households within the village. The dam also controls federally mandated lake levels for Elk, Skegemog and Torch lakes and to a lesser extent Antrim County's chain-of-lakes, the cornerstone of the region's tourism industry. Antrim County purchased the dam from Consumers Power in 1965 for $1 and then used municipal bonds to cover renovation costs. With updates and repairs looming, and Traverse City Light & Power phasing out hydroelectric operations, the county sought fiscal relief in a financial agreement allowing the county to retire the debt. Stockhausen is modernizing the plant by investing an additional undisclosed amount for automated controls, plumbing renovations and a heating system recycling waste heat from generators. He manages it with his son and son-in-law. "We don't expect this to be the goose that laid the golden egg," he said. "But we hope it will allow our son to make a living, cover all expenses ... and to be able to put a little aside for continuous upgrades."

Inspired by Ford

You could chalk this small victory for renewable energy up in part to Henry Ford. Thirty-five years ago, Stockhausen became fascinated with Ford's Village Industries, the nearly two dozen small industrial complexes throughout southeast Michigan that Ford built in the 1920s and 1930s to operate on hydropower. "Virtually all are still in existence and could be restored," Stockhausen noted. Stockhausen's own experiments with hydroelectricity began 35 years ago as a hobby when he and his wife purchased and converted an aging mill. The Bellevue dam near Lansing has since provided electricity to power up to 50 homes. Over the years, he has worked as a consultant on eight hydroelectric dam projects statewide. Today, his hobby is serious business. Stockhausen serves on a newly formed committee of the Michigan Renewable Energy Program, an organization implemented by the Michigan Public Service Commission. The committee's task is to evaluate the status of hydroelectric power in Michigan and assist in developing state policy.

Limitless possibilities

Statewide, there are 80 hydroelectric dams in operation, with a total production capacity of 330 megawatts. More than 700 additional existing dams could be brought into production, Stockhausen said. Stockhausen said emerging technology positions hydroelectric as a viable power source capable of increasing Michigan's renewable energy production by several percent. Especially promising is the new generation of kinetic turbines sited in free-flowing streams, rivers and lakes without the use of dams or other infrastructure. Lakes Michigan and Superior and the Detroit River are good candidates for the technology, he said. According to state estimates, if Michigan continues a business-as-usual, energy-consumption pattern, energy demand will increase 1.3% per year through 2020. No renewable energy source will likely be dismissed as insignificant, said Mark Beyer, a spokesman for NextEnergy in Detroit, which advocates green technology. "Nothing is out of bounds," he said. "The global thirst and demand for energy is so high, and it will keep going up for the next century and beyond."

Potential to create jobs and more

Today, job creation and opportunities in renewable energy are stymied by the state Legislature's hesitation to adopt a Renewable Portfolio Standard, Beyer said. An RPS would mandate utilities use a designated percentage of renewable energy sources such as hydroelectric, wind or solar. One popular proposal suggests a standard of 10% renewables by 2015. Others call for a more aggressive plan. Twenty-six states have already adopted RPS standards. A business climate bolstered by a RPS would unleash activity in the renewable energy industry, Beyer said. Until then, entrepreneurs find opportunity where they can. "There are niches where people like Stockhausen can get a toehold in small-scale energy -- make money and do well," Beyer said.

Water

(Someone forgot to mention to Stanly County that Chelan County PUD IS the licensee, so that's not a good example. And, by the way, every license has a standard requirement that allows use of water for water supply. None have ever been turned down since 1920 when the FPA was enacted. And, the rivers are NOT a local natural resource, they are a National resource.)

Stanly residents to protest in Raleigh

March 31, 2008, The Stanly News and Press, By Jay Almond

Stanly County, NC business and government leaders are asking residents to get on the bus. The call to public support is for residents to join leaders Monday morning in Raleigh to rally support for the county's efforts opposing federal relicensing of the Yadkin River by Alcoa Power Generating Inc. (APGI). Buses will load up and roll out from Stanly County Commons around 8:30 a.m. bound for the state's capital, not to return until 4 p.m. The rally is hoped to encourage Gov. Mike Easley to consider delaying finalization of the Federal Energy Regulatory Commission's (FERC) relicensing agreement with Alcoa for stewardship and management of the Yadkin River watershed for hydroelectric generation. The crux of the matter is that a local natural resource is being tapped for profit but provides what Stanly County government officials consider to be inadequate gratuity. Officials contend the agreement proposed in Stanly County is inequitable when compared to other stewardship license agreements. "In Chelan County, Washington State, the citizens have the water power rights," Tony Dennis, chairman of the Stanly County Board of Commissioners, said in a letter addressing Stanly County residents. "An agreement was reached with Alcoa on Nov. 12, 2007, like we want to have here in Stanly County. "Alcoa agreed that it was a good arrangement that they could not continue to use the water if they did not provide jobs. Are the people of Stanly County and North Carolina due any less consideration for their water resources than the citizens of the states of Washington, South Carolina or Tennessee?"

APGI Yadkin Division has applied to FERC for license renewal for management of Yadkin Hydroelectric Project and three other hydroelectric stations along the Yadkin-Pee-Dee River basin for another 50 years. The current license was granted in 1958 in exchange for capital investment and job creation for area citizens. However, in the face of a changed local, state and global economy, Stanly County leaders believe the license renewal request offers an inappropriate amount of control over local natural resources by private interests. Dennis believes the license overlooks the region's and state's rights to use the local natural resource for local benefit. "It is our duty as local government to put the interest of our citizens' well being first," he said. "In the case of a natural resource that the federal law says belongs to all of us, and in light of the growing demands for water, we are not ashamed to ask that the water resource be returned to the citizens as the law provides." FERC licenses not only the operation of these stations, but also the lake reservoirs that support them. The reservoirs APGI manages include four lakes, High Rock, Badin, Tuckertown and Falls. Alcoa spokesperson Gene Ellis said Alcoa's stewardship of those lakes includes maintaining a readily available local water supply and expressed concern over ideas to the contrary. "The primary concern for us right now is the notion that the water supplies are somehow in jeopardy with the relicensing," he said. "We have procedures in place that are approved by FERC." That federal approval of water flow through the Yadkin-Pee Dee River Basin includes local lake levels as they pertain to the available water supply and necessary output down river. "Municipalities, including Albemarle, have approached Alcoa about new water intakes in our reservoirs and we have worked to get those approved for those municipalities through FERC," Ellis said. "In both those cases they were able to access the water, to treat it and produce it for their citizens." Seeking federal input and approval regarding water intakes along the basin prior to making such accommodations is an aspect of stewardship. In terms of water supply, Ellis said Alcoa adjusts hydroelectric generation and flow volume based on what's available. "The other way we protect the water supply, and this is a very active procedure on our part, is during periods of drought we don't generate as much power and we conserve more water in the reservoirs," he said. "We are doing that right now. We are in a drought and we are conserving more water in the reservoirs for that reason. We have procedures in place that have been effective historically."

Environment

(Mmmmm! Using hydro dams to help fish!)

Pine beetle infestation impacting salmon runs

Derrick Penner, Vancouver Sun, March 25, 2008

VANCOUVER - If the heat of climate change weren't enough of a danger to Pacific salmon, scientists are cataloging how the effects of the global-warming-aided mountain pine beetle infestation are adding to salmon's woes. The grain-of-rice-sized beetles have chewed through interior pine forests covering an area four-times the size of Vancouver Island, a report released Tuesday by the Pacific Fisheries Resource Conservation Council notes. Some 60 per cent of the Fraser River watershed is affected, with loss of forest cover over salmon streams that have led to numerous impacts that "significantly alter the watershed's ecology, threatening already stressed salmon runs." Because the enormous pine forests are dead or dying, the tree boughs don't intercept snow and rain, or shade the forest floor to slow the spring snow-melt. The result is bigger snow packs, more rapid snow melts leading to flash flooding and higher peak stream flows that erode streams. Then rapid runoffs mean more summer droughts, combined with higher summer water temperatures, the report notes. However, while the situation seems dire, Gordon Ennis, managing director of the conservation council said the intent of the report isn't to instill hopelesssness. The council wants to educate the public on the seriousness of the salmon's plight, but also highlight the importance of doing the things that are within humans' control to help the salmon's survival. "We would be very concerned if the message is so negative that people throw their hands up," Ennis said in an interview. Instead, the council wants to encourage efforts such as more careful development, reforestation to put shade trees over important fish habitat and using hydro dams to release temperature-cooling flows on streams that have dams and fish populations. On the public policy front, Ennis added that the B.C. Water Act needs to be updated with a mind to ensuring adequate water is left in streams for ecological purposes including nurturing fish.

Corps will count fish in effort to aid migration

By Terry Hillig, *ST. LOUIS POST-DISPATCH*, 03/30/2008

ALTON — On April 15, 1914, Robert Coker, a U.S. Bureau of Fisheries marine biologist, saw large schools of skipjack herring blocked on their northward migration by a new dam across the Mississippi River at Keokuk, Iowa. "It was the first time in 12,000 years they couldn't move up the river," said Mark Cornish, a biologist with the Army Corps of Engineers.

Before the Keokuk dam, Cornish said, nothing had kept the herring and other migratory fish away from the Upper Mississippi and its tributaries, where they had spawned and fed since the retreat of the last glacier from the Upper Midwest. The Keokuk dam was the first man-made obstacle to fish migration in the Upper Mississippi. But today, 37 dams cross the Mississippi between Cairo, Ill., and the river's source in Minnesota. Now, the Melvin Price Locks and Dam at Alton will be a key player in a project to track the effects of dams on fish and what can be done to restore their migration patterns. Cornish said the skipjack herring was now seldom found upstream of Melvin Price, the first significant obstacle encountered by fish migrating upstream. The species continues to be found downstream of Alton and in other parts of the country, he said.

Since Coker's observations, many researchers and scientists have worried about the effects of the dams on fish migration, but nothing was done until 2005, when the Army Corps of Engineers launched a project aimed at restoring the natural migration patterns. Within the next few weeks, Corps of Engineers researchers expect to activate hydro-acoustic monitors that will measure and record fish movement through the auxiliary lock at the Alton dam. Researchers are focusing on 34 migratory species, including blue catfish, freshwater drum, channel catfish and several varieties of carp, buffalo and sturgeon. "We don't know how many get through" when boats pass through the locks, said Teri Allen, a Corps of Engineers biologist working on the project. That kind of data will be essential in devising potential solutions. Allen said there was no obstacle to migration during "open river" conditions, when the lock gates are out of the water and the river is flowing freely. But "open river" conditions are sporadic and do not always coincide with fish migrations, she said. Last year, there were 43 days of "open river" conditions at the Price Dam. In 2006, there were none, and there were fewer than 10 in 2003 and 2005. "We want to reconnect the river so they can move upstream when they want to," Cornish said. The pilot project at the Price dam will help the Corps determine if there are ways to operate the locks that would help restore old migration patterns. Cornish said that kind of solution would be less expensive than construction of fishways, artificial nature-like channels that allow passage through or around locks and dams.

At Alton, researchers hope to determine if the auxiliary lock can be used instead of — or in conjunction with

— an artificial fishway to promote fish migration. Allen said it might be possible to manipulate water flow in ways that would lure migrating fish into the lock chamber. "We could open the lower gates, close the gates, raise the water level and take them through like a boat," she said. But Allen said some species stay mostly near the Missouri side of the river, not the Illinois side where the locks are situated, and an artificial fishway might be the only way to aid their migration.

At toxic Montana dam, a river now runs through it

By Jeff Hull, March 28, 2008, Environmental News Network

MILLTOWN, Montana (Reuters) - Engineers breached a hydroelectric dam in Montana on Friday, the first time an American dam was removed to clean up toxic sediments captured behind it from years of mining upriver. The intent was the restore some of the pristine beauty of the water as portrayed in "A River Runs Through It," Norman McLean's classic novel about fly fishing later made into a film directed by Robert Redford. In the novel, the Blackfoot, one of the rivers dammed in Milltown, is portrayed as a frontier of unspoiled outdoor recreation. In reality, the reservoir behind the 720-foot-(220 meter)wide, 21-foot-(seven meter)high Milltown dam east of Missoula held 6.6 million cubic yards of sediment laden with arsenic, zinc, copper and other heavy metals. The sediments came from a century of mining at the river's headwaters in Butte, 120 miles upstream. Its breaching represents the first time a dam has been taken out specifically as part of a multiyear process to clean up a toxic river bottom. The lower water level with the dam gone will allow engineers easier access for cleaning. Contractors will spend several years digging up toxic sediments 25-feet-(eight meter) deep in some places. Eventually, the former reservoir is slated to become a recreation area.

In Montana, as in many Western states, cleaning up after mining has become a big business. The Milltown dam's removal is part of a $500 million Superfund clean up project, led by the U.S. Environmental Protection Agency. "They used to say it's jobs or the environment," said Montana Governor Brian Schweitzer. "Take a look at those yellow tractors. Those are jobs restoring the environment." Since 1999, 253 U.S. dams, mostly small irrigation dams, have been removed, 54 in 2007 alone, according to American Rivers, a conservation group. The Milltown dam, spanning the confluence of the Clark Fork and Blackfoot rivers, was one of the largest removed in recent years. Gov. Schweitzer spoke moments before the breaching, which was started when an excavator scooped away the last remaining plug of a temporary dam put up to remove the main dam. The rush of water gradually eroded the rest of the dam. Montana Senator Max Baucus, also speaking at the dam site, noted its importance in the economic development of Montana and the nation. Built in 1907, the dam powered a timber mill owned by William Clarke, one of three mining magnates known as the Copper Kings. Timbers from the mill built mines which yielded the copper that served as the country's first electrical and phone wires networks. "But the jobs of restoration, and also the jobs of hunting and fishing, those are the jobs of the future of Montana," Baucus said. The Stimson Lumber Company closed a timber mill that occupied the same site as Clarke's just 10 days ago as the region focuses more on tourism and recreation. Another large timber producer, Plum Creek, is subdividing its forest land holdings for sale in Montana's lucrative recreational real estate market.

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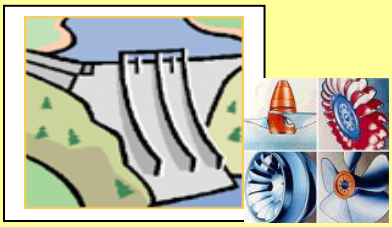

Some Dam – Hydro News and Other Stuff

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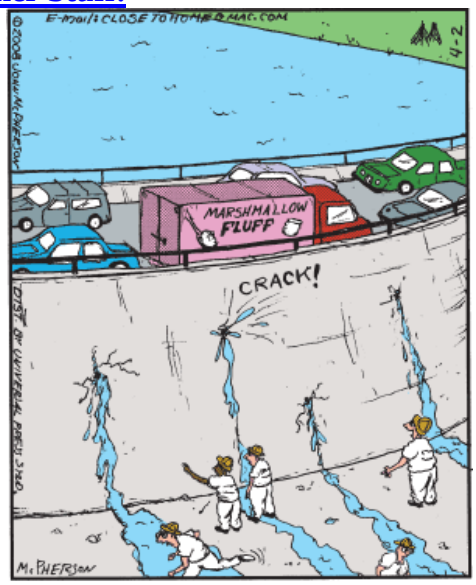
4/11/2008

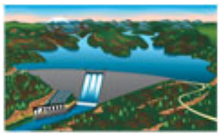
Quote of Note: *"Ninety-eight percent of the adults in this country are decent, hard-working, honest Americans. It's the other lousy two percent that get all the publicity. But then--we elected them." - - Lily Tomlin*

Other Stuff:



With the dam on the verge of collapse and no supplies to patch the leaks, dam maintenance man Clark Wagner has a miraculous brainstorm.

"Sure, it's nice, son, but even humans can build a decent dam with concrete."



Dams

Judge delays settlement in Burlco flooding case

By CAROL COMEGNO• Courier-Post Staff • April 3, 2008

MOUNT HOLLY, NJ — Insurance issues and opposition from several homeowners led a judge to delay action Wednesday on a proposed $1 million settlement of damage claims against the owner of a Medford Lakes dam that failed during a major flood in 2004. Superior Court Judge Harold B. Wells III said he needs to further study the proposed settlement of the class-action lawsuit against Medford Lakes Colony Club, owner of Lower Aetna Dam in Medford Lakes. The suit was filed by more than 150 property owners who suffered home or business damage along Rancocas Creek. However, the judge approved smaller settlements Wednesday with three other dam owners and with the state Department of Environmental Protection totaling $475,000. None of the defendants admitted responsibility for dam breaches or partial failures in a July 12-13, 2004 storm that dumped up to 13 inches of rain on Burlington County, damaging hundreds of homes and businesses. The latest agreements bring total settlements so far to $5.46 million.

There are still three other dam owners who have not settled and who own four dams at the Rancocas headwaters that the judge said are considered to be the most liable for damages. They include the YMCA Camp Ockanickon and Birchwood Lake dams, both in Medford, and Lower and Upper Inawendiwin dams in Tablernacle owned by the Girl Scouts. Wells continued the hearing for the Lower Aetna Dam settlement offer of $1 million until April 18 at 10 a.m. Three homeowners living downstream from Medford Lakes in Lumberton objected to the settlement offer by the Medford Lakes Colony Club, a homeowners association, as too small considering the significant size of the dam. "I concur with the judge's concern over the settlement for Lower Aetna. It was one of the largest (dam) failures," said homeowner Richard Young, one of the plaintiffs who suffered damage to his home. He called the proposed settlement "troubling and inadequate." Young said the Medford Lakes Colony Club also owns other land assets that could be seized for damages. Residents Cheyenne Dienno and David Bjornsson agreed. "It may be sending the wrong message to the remaining dam owners who share in this disaster," Bjornsson said.

Lawyer Carlo Scaramella, one of several representing owners of property damaged by flooding in a half-dozen municipalities, urged the judge to delay a decision for further investigation if he had concerns. The lawyers said Medford Lakes Colony Club has two insurance carriers that have provided total coverage of $2 million for the dam but that one -- Lloyds of London -- could appeal a recent ruling by Wells. Lloyds had contested its liability in this case, but last year Wells ruled the company could be held responsible to pay monetary damages. "Am I happy with $1 million for Aetna? No. Do we want $10 million or $20 million? Yes, but we're not going to get it," said Ed Petkevis, another lawyer for the plaintiffs. Scaramella told Wells there is always a risk of no award at a trial if a jury decides the Colony Club has no liability and blames the dam breach on water from upstream dams that broke. However, he said he believes there is a strong case against the dam owner for not improving a dam which had a spillway deemed to be below standard by the Army Corps of Engineers as far back as 1980. Petkevis said their case could be weakened because there are indications that Lower Aetna held until water from camp dams upstream reached it. Water flooded homes, the Medford Lakes police department and the firehouse within a few minutes of the dam collapsing on July 12, 2004. Wells ordered Colony Club lawyer Nicole Strauss to submit information to him about the history and extent of its liability insurance coverage. She later declined comment. The case became a class action after Wells consolidated several lawsuits filed by property owners in 2004 and 2005 to recoup losses.

The court approved the following settlements Wednesday as "fair and reasonable":

- $250,000 from the Blue Lake Colony Club for Blue Lake Dam in Medford.
- $160,000 from T. H. Budd Cranberry Co., for Fisher Pond Dam in Southampton
- $45,000 from the state Department of Environmental Protection, which regulates dams.
- $20,000 from Oliphants Mill Run Dam owned by Oakwood Lakes Homeowner Association in Medford.

(Regulation can only work if those who regulate do it in cooperation with those who are regulated, and if those who are regulated work cooperatively with those who regulate, and with neither being asked to compromise their respective responsibilities while working together to ensure the public's safety, which is paramount.)

EDITORIALS

Dam safety: Address it

In our opinion

04-03-2008, The Anniston Star

"Regulation" often is characterized as a nasty word that harkens to unnecessary and redundant governmental interference. As if flicking on a bedroom light, lobbyists and politicians can throw out the r-word and cast a negative pall on worthwhile legislation, virtually killing it in the process. It's an old trick that

works. It's politics. And it's happening during this session of the Alabama Legislature. Alabama has thousands of dams on its thousands of miles of waterways; the exact number no one can accurately say. The Alabama Department of Economic and Community Affairs Office of Water Resources believes there may be as many as 6,000. And Alabama is the only state without a dam-safety program. Those disappointing facts led Rep. Randy Wood, R-Anniston, to introduce legislation this session that would address Alabama's woeful inability to track dams. Wood's bill would create the Alabama Dam Inventory and Classification Act, which would allow the state to catalogue its dams and determine which, if any, are potentially harmful to people or property.

The legislation is needed and just. But hold on, say the lobbyists. At least one trade organization — the Coalbed Methane Association of Alabama — told The Star that its members were already regulated by the Alabama Department of Environmental Management, and that "no one" would want to be regulated by two different state agencies. A logical thought. And a misguided one, to boot. Wood's bill isn't regulation. It's good sense. His legislation does not create regulatory powers for any agency; there is nothing to fear. It does not affect those dams operated by the U.S. government or under the authority of the Federal Energy Regulatory Commission. It merely allows the only state in America with no dam-safety program to take baby steps in the direction of dam safety. And yet, fears of regulation have led to Wood's legislation stalling in a House Commerce Committee. Because Alabama has no safety program, the state already is suffering. Unsure how many dams it has, the state can't implement the needed safeguards, nor can it receive federal money earmarked for dam maintenance and replacement. The time to act is now. In recent months, The Star's reporters have detailed the depths of safety-related concerns with Alabama's dams, and this page has strongly advocated the need for Goat Hill to grab this problem by the throat. Chalk the stalling of Wood's legislation in committee as yet another example of why this issue must remain atop the list of our legislators' concerns. Listen again to the words of Jim Miller, chairman of the Alabama Water Resource Commission. "This is about public safety. At this point, we just want to see what's out there … If there is a threat (from a dam), we don't need to bury our heads in the sand — that would be a terrible mistake." Public safety vs. the fear of regulation. There should be no choice.

Dam gets underwater inspection

April 3, 2008, Big Bear Valley

During a routine dive training operation on March 21, a San Bernardino County Sheriff's Department diver observed a crack on one of the arches of Bear Valley Dam. The diver did not have the tools to accurately measure the width, depth or length of the crack. He also did not have time to check the other 10 arches. After hearing the report and confirming that the dam is not leaking, the Big Bear Municipal Water District sent its engineer for a preliminary evaluation of the divers' observations. The crack was reported to the California state dam safety regulators. The engineer's conclusion is that "if the crack is new in the last two or three years, it may have been caused by normal processes including minor dam settlement or seismic activity." He went on to say that "the mass concrete infilling of the arch (in 1988) and the new 24-inch-thick reinforced concrete wall ... were added for just this situation where the original dam continues to degrade over time." According to the engineer, the crack "is inconsequential to the safety of Bear Valley Dam." The state dam safety regulators agreed with the MWD engineer's assessment and provided the MWD with recommendations for a more thorough inspection. The Sheriff's dive team returns to complete a more thorough inspection of all the dam arches on Friday, April 4. Divers agreed to volunteer their service to perform the inspection, which will be videotaped. The videotape will be evaluated by the MWD engineer and engineers at the California State Division of Safety of Dams. As soon as the two agencies review and analyze the video, reports will be formally presented and discussed by the MWD board.

Reservoir Two dam needs repairs

By Eric Monnat, Evening Telegram, Apr 03, 2008

Ilion, N.Y. - The state Department of Environmental Conservation has docked Ilion a $10,000 penalty for not complying with state dam safety standards. The DEC ruled that the village's Reservoir Two dam had an "unsound" rating, and inspections found seeps and sloughing on the face of the dam. A rating of "unsound" means that the safety of the dam cannot be assured. Mayor Mark Cushman said the village brought in a licensed engineer around a year ago who began to aggresively execute the remedial measures imposed by the DEC. The DEC's final determination about what activities will be conducted at the dam and to bring it into compliance will be made following the village's engineering evaluation and with DEC oversight. The agreement calls for all construction to be completed by Oct. 31, 2010. Cushman said the deficiencies at the dam go back to the 1980s. "I'm not upset with the DEC. I am upset at former administrations that didn't take (this issue) as seriously as they should," said Cushman. He added he is happy his administration has stepped up and begun to correct the situation. The $10,000 penalty will come out of the current year's water

budget said Cushman. He said the penalty will be borne by the water rate payers, including water users in and outside the village. “We are pleased that Ilion has committed to the necessary work and we look forward to their completing the necessary actions to restore the situation to one that ensures the safety of the downstream residents,” stated DEC Regional Director Judy Drabicki in a press release. “This is just the latest in a series of actions DEC has taken over the last 15 months to dramatically increase dam oversight.” The DEC has prepared a calendar of tasks for the village to follow. By the end of June this year, the village will provide the DEC with the name of the professional engineer who will investigate, evaluate, plan, oversee and direct the remedial work on the dam, in addition to submitting an Inspection and Maintenance Plan. Then, by the end of October, the village must send DEC an emergency action plan. By Dec. 31, the village will submit a final engineer’s report of the investigation and evaluation of the dam. The remedial alternatives will consist of repair and modification to bring the dam into conformance with all safety criteria and/or a controlled breach of the dam. Reservoir Two holds up to 60 million gallons of water.

(This is long, but deserves a read. The use of the Smethport storm to determine probable maximum precipitation (PMP) is and always has been questionable. There are meteorologists that suggest that the storm is inappropriate for PMP determinations in areas east of the Appalachian Mountains. The approach that can be used is a site-specific study of precipitation, rather than the generalized data from NOAA which has been proven far too conservative in many instances. Fortunately, The State appears to be open to that approach and to dam break analyses that may show a lesser Inflow Design Flood.)

CALCULATED RISK

Philipsburg officials are questioning the DEP’s numbers, pondering their options and enlisting the help of legislators to find a solution for the Cold Creek Dam

Chris Rosenblum and Anne Danahy, The Centre Daily Times, Apr. 06, 2008

RUSH TOWNSHIP — Twice a day, Tom Boyd walks his border collie around the lake behind Cold Stream Dam. The waters are like an old friend to Boyd, a retired science teacher and lifelong Philipsburg resident. He swam and worked as a lifeguard there in his youth. When on the Philipsburg Borough Council, he oversaw repairs to the dam and its spillway. It’s a tranquil spot just outside

Philipsburg, but when Boyd sets out for hikes these days; he’s not entirely at peace. The state Department of Environmental Protection recently declared the dam unsafe, placing its owner, Philipsburg, in a bind. It must increase the spillway’s capacity as much as 12.5 times, a project the cash-strapped borough can ill afford. Failing that, the dam might have to go, and that has Boyd and others worried about losing a historical fixture and popular attraction. “There’s nothing wrong with that dam,” Boyd said. The state disagrees. It contends the dam could not withstand a “probable maximum precipitation” of 30.3 inches in 24 hours, a figure that comes from a National Oceanic and Atmospheric Administration report. Shocked borough officials are questioning DEP’s numbers as they ponder their options, enlist the help of state legislators and search for a solution. “I’m just wondering if somebody didn’t make a mistake in their calculations, that this whole thing is a math error,” John Knowles, a borough councilman, said.

A new yardstick

It’s a destination for all seasons. Although swimming is no longer allowed, anglers cast their lines off Cold Stream Dam, the centerpiece of a 173- acre recreation area. Summer fireworks arc over the lake. Pavilions shelter picnics and concerts, and below the dam, families frolic on a playground guarded by a World War II tank. And come wintertime, residents visit a 37-foot lighted Santa and giant reindeer. “The dam means a lot to the town,” said Jim Simler, borough manager. For years, the state has considered the dam a “high hazard” structure, meaning a breach during a worst-case flooding scenario would endanger homes and other buildings downstream. As required by the state, the borough several years ago commissioned a “dam breach analysis” that showed a breach could flood about 660 people, borough engineer John Clabaugh said. Still, the dam passed annual inspections, including one last year. What changed was the state’s yardstick. Spillways must be able to discharge at least 50 percent of a “probable maximum flood” volume, a figure derived from the probable maximum precipitation

amount. Under old calculations, Cold Stream could pass 51 percent of its PMF ever since the dam was raised almost 30 years ago. This year, however, the state increased its PMF volume for Cold Stream. Suddenly, the spillway's capacity shrank to 4 percent. "They've simply gone to an alternative way of calculating it," Clabaugh said. According to the DEP, Cold Stream Dam's classification as unsafe comes from updated rainfall information and methods for evaluating dams. The updates include a probable maximum precipitation figure of 30.3 inches in 24 hours. Dennis Dickey, chief of DEP's Division of Dam Safety, said the method now being used for calculating the probable maximum flood is more site-specific than the old approach. The model includes factors such as soil types, sloping of the ground and whether surrounding land is paved or forested. As for the probable maximum precipitation number, Dickey said those NOAA numbers came out in the mid-1980s and are based on years of data collection. While the number may seem extreme, Dickey pointed to other instances of monumental rainfall in Pennsylvania. In 1977, Johnstown saw about 12 inches of rain in less than 12 hours that led to dam failure and loss of lives. In 1942, Smethport — 88 miles north of Philipsburg — set a world record for rainfall, getting 30.8 inches in six hours. The commonwealth, according to the Pennsylvania Emergency Management Agency, is "one of the most flood-prone states in the nation." Dickey said the Pennsylvania DEP is using standards that are common nationally. His division, he said, works for the people who live downstream of the dam. "Would it be reasonable for us to not require a dam owner to design a dam so failure was next to impossible?" he asked. David Riley, meteorologist with the National Weather Service in Silver Spring, Md., said the probable maximum precipitation is a value designed never to be exceeded. So a dam built to withstand runoff from that amount of rain should never be overtopped. "In coming up with the rainfall, you don't want a number so high it's just completely unreasonable," he said. "It's based on certain meteorological factors and observed storms." In the case of the East Coast, that would include the infamous Smethport storm. Riley said that is considered a "controlling storm," or reference point, for the East Coast, and could happen anywhere in central Pennsylvania. By their nature, however, he said maximum rainfall events occur very rarely. They also tend to occur in small areas. According to the National Weather Service, the most rain Philipsburg has experienced in one day in the past 10 years is 4.31 inches on Sept. 9, 2004. No other historical rainfall data was available for the borough. In State College, the record rainfall in any single 24-hour period since 1893 is 5.05 inches on Sept. 18, 2004.

Search for a solution

This isn't the first time the Cold Stream Dam was found to be unsafe. That happened about 30 years ago. Dickey said several dam failures across the nation, including the one in Johnstown in 1977, had brought dam safety to the forefront. Enough work was done on Cold Stream Dam to bring it up to the standards of the time. "I do commend the borough for going in periodically and doing rehabilitation projects," Dickey said. Boyd said the borough has rebuilt the dam's side walls and all four spillway bays, most recently in 2003, when the lake was drained. Overall, he said, the borough spent at least $250,000 on the dam during his 28 years as a councilman. "We did everything (the state) asked," he said. Dickey said Philipsburg, as the dam's owner, is responsible for the structure's safety. But he also said DEP understands that meeting the standards is a burden, and his office is willing to work with the borough to find a solution. "We're open to looking at this in much more detail and getting a better feel for what's happening at the dam site," Dickey said. His office has asked the borough to provide a schedule by May 1 of what its officials and engineer think they can do. "We are very willing to work with them," Dickey said. "We understand what we've thrown at them is hard to accept." One possibility for Philipsburg is having a more detailed study of the watershed done that might show not all the water from a massive rainfall would end up at the dam site. "We do understand that the watershed there has a lot of mining that has taken place," Dickey said. "Mine pits can store a lot of rainfall and maybe reduce the amount of rain that makes it to that site." Likewise, an old mine runoff channel next to the dam could be analyzed to find out how much water it channels away from the dam. Boyd said that, save a couple of spillway boards, the dam withstood Hurricane Agnes' deluge in 1972. That storm dropped rainfall amounts averaging 6 to 10 inches in Pennsylvania over several days. Boyd also pointed out that 30.3 inches of precipitation would swell Moshannon Creek and inundate the town, regardless of whether the dam held. Dickey acknowledged that during a flood event there could already be high water in the area. But he said a dam failure would rapidly increase that water, which could mean even more of an impact on homes.

Costly options

At this point, the borough could use a flood of money. Clabaugh estimates meeting the state's new requirements could cost at least $500,000 and easily top $1 million — a daunting prospect for a small town of almost 3,100 with many fixed-income residents. "We can't afford to do what they want," Knowles said. One compromise, Clabaugh said, may be studying Cold Stream as though the dam didn't exist and evaluating hypothetical floods. If the borough can show that a once-in-a-century flood without the dam would affect the same number of people as would a dam breach, it might secure a waiver of the spillway standard, Clabaugh said. The analysis would cost about $20,000, and under the best scenario, the borough would still have to double the capacity of the dam's spillway, Clabaugh said. "Two times is more manageable than 12 times," he said. Of course, the borough could dismantle the dam, but that also may be expensive — from the actual removal to the landscaping of the mudflat left behind. "Every option has a fairly sizable price tag to it," Clabaugh said. "None of the options is simple, quick and cheap." State Rep. Scott Conklin, D-Rush Township, remains hopeful. From his conversations so far with DEP officials, Conklin said, he's optimistic the dam can be saved. State Sen. John Wozniak, D-Johnstown, is also looking into the matter. "We're going to be working with DEP, working with the funding mechanisms in place, and we're going to put this thing on the front burner," Conklin said. Conklin said he proposed a study to pinpoint the precise rainfall amount needed to breach the dam. The figure would determine the extent of the dam renovations. Whatever the project's scope, the dam could be partly financed if Gov. Ed Rendell's proposed budget passes, Conklin said. The budget earmarks $37 million for dam repairs, including $6.6 million for municipal-owned dams — though grants will only cover up to 30 percent of project costs. Nevertheless, Conklin said he'll advise borough officials to send their grant application without hesitation. "I want to get this done as soon as I can so we can be first in line to collect our funding," Conklin said.

Residents: Keep the dam

There's a third option for Philipsburg: Sit tight. Theoretically, if the borough refused to study the situation or work on the dam, the DEP could issue an order to breach the dam. Dickey said that's not the goal. Boyd can't imagine the loss of a dam stretching back at least a century. "To me, it's like a historical gem of Philipsburg," he said. Jim Simler is hearing similar sentiment from local residents. "The majority would like to see the dam remain," he said. "There's a lot of public opinion that it should stay, and for the borough, it's best to try that. Working with DEP, we'll have to find out what we're up against." About a mile downstream from the dam in Rush Township, Yvonne Maruschak knows exactly what she's facing. Maruschak, the township assistant secretary, lives on a flood plain a mere yards from Cold Stream. In 1994, she said, firefighters evacuated her and her husband after the dam sprung a leak and the stream crested. Four years ago, rains from Hurricane Ivan left 4 or 5 inches of standing water in their neighborhood, she said. "Our concern is if the dam breaks, our home is probably gone," she said. Though she's sympathetic to Philipsburg's financial plight, she would like to see the dam enlarged. That way, she and her neighbors get full protection while the town keeps its beloved lake. "If they can get the help and funding they need," Maruschak said, "that would be, I think, the best thing in the world."

(Failure of the dam that wasn't)

Milton Dam Burst

06 Apr 2008, By Christina Leavenworth, My Fox Gulf Coast

MILTON, Fla. - -- Folks in Milton are cleaning up after a dam burst. Saturday's heavy rain caused the dam on the Locklin Lake to give way. Backyards were washed away. Virginia Turner was afraid she was going to lose her home. She said, "Pieces of my fence were washed away, the water line was up to where we are standing… Turner says the water was as high as a fence. She is worried this will happen every time it rains. Robert Dye serves on the Locklin Lake committee. He says homes on the creek will probably flood every time we have a big storm. He says the dam burst because there wasn't one there to begin with. They removed an old wooden damn and were going to replace it, but he says construction stopped because the old damn had historic timbers…Dye said, "They could have had a pretty well dam up, that would have held the water...When you get a force like that, it's got to go someplace." Dye hopes they can resume work soon. He says right now the only thing holding water back is dirt. He said, "All this water we had, the pressure of it, unpacked dirt, pressed it out of the way and it went with it." His fear is the next time it storms, folks will lose their homes. Dye says they are waiting for approval to finish building the dam.

Editorial on Fort Halifax Dam misses key point

04/08/2008, Kennebec Journal Morning Sentinel

The March 28 editorial of the removal of the Fort Halifax Dam once again shows how one-sided and biased these editors are. Again, nothing was mentioned about the clean energy that is currently generated, and which would be generated in the future. A few miles to the north, Benton Hydro recently installed a fishway and was willing to purchase Fort Halifax Dam and install a fishway. Where is the common sense here? The Kennebec Coalition would not agree to let this happen. They are only interested in breaching the dam. Had the Benton Hydro owners been allowed to purchase the dam and install a fishway, this could have been a win-win situation for the town of Winslow and the so-called "valuable" fish could have migrated up the river to the Benton dam and fishway. The Morning Sentinel editors are giving no consideration to the citizens of Winslow, who will lose thousands of dollars in tax revenue and future costs of relocating the sewer line.
Bernard McCaslin
Winslow

Hydro

Corps commander sets the record straight

Edward J. Kertis, April 3, 2008, Anderson Independent-Mail News

As the commander of the organization responsible for the Savannah River System, I carefully gauge the public's understanding of our management of the reservoirs on the upper river. I often read statements perpetuating the belief that hydropower production is the sole purpose for the reservoirs. Let me lay that myth to rest. The reservoirs have multiple purposes: flood damage reduction, recreation, water quality and water supply, downstream navigation, environmental stewardship, fish and wildlife management and hydropower production. At different times and under different conditions, different purposes take the lead. Only flood damage reduction can trump all of the other purposes due to public safety concerns.

As drought reduces the reservoir levels, we reduce the amount of water discharged downstream in keeping with our recently updated drought contingency plan. This reduced discharge also reduces the amount of electricity generated. In November 2007, we reduced outflows from the reservoir system down to 3,600 cubic feet per second (daily average), almost half the flow rate of an average year. The Departments of Natural Resources for Georgia and South Carolina agree that 3,600 cfs must flow downstream to maintain the Savannah River's designated uses. Currently the Southeastern Power Administration, the federal agency which markets the power we generate, spends millions of dollars purchasing needed power from non-hydro sources while we retain as much water as we can in the lakes. Hundreds of thousands of people depend on the reservoirs and the Savannah River for essential daily needs. Millions more visit the lakes for recreation and business. We have no hidden agenda to rob lake residents in order to generate power or to waste water downstream. Instead we hire professional hydrologists, biologists, water managers and other experts to meet water needs in the Savannah River Basin. We meet regularly with the Departments of Natural Resources for Georgia and South Carolina and other state and federal agencies. Together in these meetings we determine the best actions to benefit the most people (boaters, anglers, homeowners, businesses, utilities, cities and counties) while still meeting other project purposes such as fish and wildlife management. The dedicated professionals in the Savannah District of the Corps of Engineers ensure that all stakeholders in the basin get fair treatment as we all suffer together through this regional drought. *Col. Edward J. Kertis is Commander of the Savannah District, U.S. Army Corps of Engineers.*

(Looks like the Governor wants a hand-out)

Easley seeks delay in Alcoa relicensing

April 04. 2008, The Dispatch

Gov. Mike Easley has asked the Federal Energy Regulatory Commission for a one-year delay in the relicensing of Alcoa's Yadkin Project. Easley sent a letter, dated Friday, to J. Mark Robinson, the director of the Office of Energy Projects for FERC, seeking the delay. The Davidson County commissioners passed a resolution last month asking Easley and other legislative leaders to oppose Alcoa's application. Easley's letter notes that William Ross, the secretary of the North Carolina Department of Environment and Natural

Resources, and 21 others signed a Relicensing Settlement Agreement with Alcoa. Davidson County did not sign the agreement.

“However, since the Settlement Agreement was finalized, several local communities whose economies are closely tied to Alcoa’s current and historical presence in this area have raised other concerns about the renewal of this license,” the letter says. “Alcoa’s industrial and hydropower operations had for many years been the primary employer in this area, employing hundreds of people. Indeed, the hydropower facilities were built to provide power to operate the associated smelting operations. “Now, however, Alcoa’s smelting plant has been closed, and Alcoa now employs fewer than 30 people. In light of Alcoa’s changed role, some affected communities have raised complex and important issues about the appropriateness of Alcoa’s ongoing benefit from the hydropower generated from a truly public resource, the Yadkin River. “While these concerns have been raised outside the typical bounds of the relicensing process, I believe they reflect important questions about the use of North Carolina’s public water resources for private gain. Moreover, I believe these concerns are sufficient to merit a delay in the relicensing process so they can be fully vetted and addressed before another 50-year license is granted. “I respectfully request your assistance in this matter by extending the current license for the Yadkin Project for one year so that these concerns can be fully evaluated and so that we may all work toward solutions to serve the long-term economic and environmental needs of these communities.” FERC is expected to announce its relicensing decision later this month.

Water

(Water – water, everywhere!)

Fear of spring flooding drives stepped up dam management

BY NOEL K. GALLAGHER , Blethen Maine Newspapers, April 04, 2008

After catastrophic spring floods the last two years, emergency and town officials along the Mousam River in York County are taking extra steps to manage the waterway through more aggressive dam management. Operators of the 10 dams along the Mousam's 24-mile long path have agreed to keep water levels low and delay raising water levels until after the snow melts, said Bob Bohlmann, director of the York County Emergency Management Agency. Typically, dam operators start to close their gates and allow the water to rise by mid-April or early May. "We talked to (the dam operators) about the best things to do and they volunteered to do it," Bohlmann said. "It's kind of prudent, but it's also gambling because if we don't get a lot of rain, then there is going to be a huge hue and cry because water levels are too low and boaters won't be able to get their boats in the water." The Mousam has more than 120 miles of watershed, which flows through a huge swath of York County before funneling into Kennebunk. "You have untold number of small tributaries that are little babbling brooks until you get that eight inches and then suddenly they are rivers," Bohlmann said. Last year's Patriots Day flooding was aggravated by the historic high tides that "pushed the river back in" and made a bad situation worse. "I know the folks in Intervale are still a little jumpy and I can't blame them," Bohlmann said, referring to the badly flooded Intervale Road neighborhood in Kennebunk. In the wake of the flooding, the town bought and plans to demolish three houses and elevate nine others to avoid future flooding. By keeping the water level behind the dams low through the rainy season this year; emergency officials will have more flexibility to deal with a sudden thaw or a bad rainstorm.

The weather is cooperating, officials said. This week's warm days and cool nights are melting the snow at a pace that isn't saturating the ground. "We haven't dodged a bullet entirely, but we're better than we were three months ago," Bohlmann said. "We are gaining on it every day." Bohlmann said he recently held a meeting with more than a dozen representatives of various agencies and towns abutting the Mousam River to discuss the situation. Topics included the weather, the water content of the snowpack and levels of local lakes. Still, there's no preparing for torrential rainfall, like the 8 inches in 8 hours that fell during the Patriots Day storm, he said. "That is detrimental no matter when it happens," Bohlmann said. Marcel Blouin, the Sanford recreation director who controls the three dams in that town, said he plans to wait until later in the season to raise water levels, and he's confident the heavy snowpack with high water content will be enough

to recharge the lake levels even if it isn't a rainy spring. "This year we're able to keep the water levels down a little longer to allow that spring runoff to take place," Blouin said, noting that the water is currently about 60 inches below summertime levels. "We just kind of know that that's what we need to do." Sanford controls the Emery Mills Dam, about 7 miles upstream from town, the Mill Street dam and the Number One Pond dam. Further downstream, the Kennebunk Light and Power Company controls three dams in Kennebunk, one downtown and two upstream. They, too, have drawn down water levels, General Manager Sharon Staz said. "We've been monitoring the river as best we can visually and we open our gates, but we're at the tail end so we have to deal with whatever comes from upstream," Staz said. For example, one day last week they were down 28 inches one morning, and then the next morning the water was spilling over the flash boards at the top of the dam. "Clearly someone upstream had opened their gates," she said. There is a system in place for informing other dam operators of releases, she said, but it is not 100 percent effective. Like Bohlmann, she is cautiously optimistic that the spring melt is happening at a slow enough pace to avoid flooding. Warmer weather this week had her watching the river, however. "We're a little nervous," she said. "We met with the residents of Intervale after last year's storm and we said that we would do the best we can and that we would draw down earlier than normal if needed, we would remove (flash) boards, we would take whatever measures we could take. That's what we have done."

Flood control plan working

By Donna Clevenger, Branson Daily News, April 2, 2008

How high will the area lakes rise? No one knows for certain. Even locals may not have seen water this high in 25 years. Currently Table Rock Lake is at 926.0 feet above sea level, which is eleven feet above normal power pool. The series of dams along the White River Basin are doing just what they were designed to do — minimize the impact of flooding. The White River System (5-lake chain) was at 64 percent flood storage in use as of Tuesday. According to the U.S. Army Corps of Engineers Tuesday reservoir update, “Concern is very high at this time, as Beaver Lake has more than 100 percent flood storage in use, and Table Rock, Bull Shoals, and Norfork Lakes are all rising as a result of the last three day’s rainfall. More rainfall, possibly heavy, is forecast in the area late this week.”

According to Table Rock lake manager Greg Oller, the five Corps of Engineers dams were built to handle water at this level of inflow. “Beaver Dam with all 10 gates open is running 7,500 cubic feet per second of water today through the gates, and Table Rock Dam is running only five gates at 5,000 cfs. Neither of those dams is releasing water at their full capacity.” Oller said. Even with the large amount of water heading downstream, Bull Shoals Lake is only at 58 percent of its holding capacity. Bull Shoals Dam is holding the water, and may continue to do so for an unspecified length of time. In Forsyth’s Shadow Rock Park, all buildings except the log cabin and one pavilion are now covered which has caused the park to be closed. That low water area is meant to be a holding area for water as part of the Bull Shoals basin. “The Corp is not in panic mode,” according to Oller. “They are, however, delaying the opening of four of the eleven recreation areas on Table Rock until the current high water recedes. “The next 72 hours are what’s most important to see how much rain we get,” Oller said. At full release capacity, Table Rock Dam, with all 10 gates open, is able to release 500,000 cubic feet of water per second.

Environment

(It’s the money – not the fish)

Deal Gives Money to Tribes to Drop Role in Fish Lawsuits

By WILLIAM YARDLEY, April 8, 2008, The New York Times

SEATTLE — The enduring battle over endangered salmon in the Northwest took a new turn on Monday with the announcement of a deal between the federal government and four Indian tribes. The agreement would give the tribes nearly $1 billion to manage fish habitat and hatcheries in exchange for abandoning their opposition to federal fish-management policies in the region. Indian tribes have long joined with environmental groups in their fight against federal agencies over the management of the Columbia and Snake Rivers and an extensive network of hydroelectric dams. The dams, which provide cheap electricity to the Northwest, have caused consistent declines in fish populations and generated court fights. Fishing and conservation groups and the State of Oregon have led court fights, with tribes often filing briefs in support of the plaintiffs. A federal district judge in Oregon, James A. Redden, has repeatedly sided with the plaintiffs,

rejecting proposals by the Bush administration as insufficient to restore and protect salmon and other species that historically have migrated up the rivers to spawn. The deal has opened a rift between the tribes and environmental groups. In return for $900 million over the next 10 years, the tribes must agree to stop their involvement in the lawsuits. "The focus will turn to implementation rather than litigation," said Steve Wright, the administrator of the Bonneville Power Administration, which would pay about $850 million of the settlement. Mr. Wright would not say if he expected electric rates to rise. The other $50 million would come from the Army Corps of Engineers. The four tribes are the Umatilla, Warm Springs, Yakama and Colville of Washington State and Oregon. A fifth involved in the litigation, the Nez Perce, has not joined the agreement. Mr. Wright said the Bonneville Power Administration, part of the Energy Department, would seek public input this month to refine the deal. But the agencies involved have authority to finalize it without outside approval. Environmental groups involved in the litigation said the agreement, which focuses heavily on restoring habitat and expanding fish hatcheries in tributaries of the Columbia, did not directly address the main cause of the declining fish population: hydroelectric dams. Some groups want the dams removed. Oregon wants more aggressive measures to help fish pass over the dams. "We're just saying keep your eye on the ball," said Todd True, a lawyer for Earthjustice, which represents some of the plaintiffs in the case before Judge Redden. "That is, what does the Endangered Species Act say needs to be done? And what does the science say needs to be done?"

Washington State issues Spokane River dam guidelines

By NICHOLAS K. GERANIOS, ASSOCIATED PRESS, April 7, 2008, The Seattle Post-Intelligencer

SPOKANE, Wash. -- The scenic waterfalls over the Spokane River would roar even in late summer under guidelines issued Monday by the state Department of Ecology. The agency has set conditions requiring that Avista Corp., the local power company, release water from its dams to go over the falls between 10 a.m. and 30 minutes after sunset in dry summer months. "Downtown visitors and local residents value the history and social significance of Spokane Falls," said Jani Gilbert of the Ecology Department. The decision is related to Avista's efforts to relicense four dams on the Spokane River, a process it must undergo every 30 to 50 years. This "401 certification" authorizes a state to impose mandatory conditions on a dam license in order to protect water quality. The Ecology Department issued the draft water quality certification for the Upper Falls, Monroe Street, Nine Mile and Long Lake dams.

Avista spokesman Hugh Imhof said the certification is a major step in getting relicensed, a process that has already taken six years. "We're pleased it's out," he said. The utility is awaiting similar approval from the state of Idaho and other federal agencies before the license is issued, he said. Spokane is one of the few large urban areas in the nation with a series of waterfalls through downtown. Footbridges carry people directly over the falls, which are a major symbol of the city. But as river flows drop dramatically in the summer, the falls shrink to a trickle of water among bare expanses of rock. The Ecology Department also ordered Avista to produce a plan to increase the amount of dissolved oxygen in the water, which is needed by fish. Dissolved oxygen decreases in still water. Avista was also told to restore the health of wetlands, improve the fishery in the river and decrease the spread of weeds such as Eurasian Milfoil. Some environmental groups were disappointed by the state's requirements, particularly the call for only a plan to increase dissolved oxygen. "Ecology has long promised the community that they would use the 401 Certification as a mechanism to hold Avista responsible for its contribution to water quality problems. We are disappointed at such weak provisions," said Rick Eichstaedt of the Center for Justice, a nonprofit law firm that represents the Sierra Club on Spokane River matters. Environmental groups also wanted more water released over the falls than Ecology has called for. A public hearing on the Ecology proposals is planned April 22.

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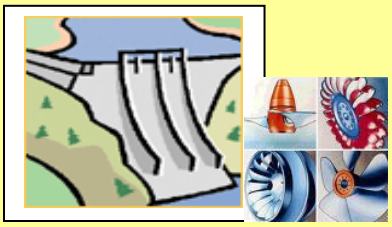

Some Dam – Hydro News and Other Stuff

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4/18/2008

Quote of Note: *"If voting changed anything, they'd make it illegal." - - Emma Goldman*

OTHER STUFF:

U.N. FORECASTERS: GLOBAL TEMPERATURES TO DECREASE

April 04, 2008

Average global temperatures in 2008 are forecast to be lower than in previous years, thanks to the cooling effect of the ocean current in the Pacific, U.N. meteorologists say.

The World Meteorological Organization's secretary-general, Michel Jarraud, said it was likely that La Nina, an abnormal cooling of sea surface temperatures in the Pacific Ocean, would continue into the summer. If the forecast holds true, global temperatures will not have risen since 1998, prompting some to question climate change theory. A small number of scientists doubt whether this means global warming has peaked and the Earth has proved more resilient to greenhouse gases than predicted, but Jarraud insists this is not the case and notes that 1998 temperatures would still be well above average for the century. "When you look at climate change you should not look at any particular year," he told the BBC. "You should look at trends over a pretty long period and the trend of temperature globally is still very much indicative of warming." "La Nina is part of what we call 'variability'. There has always been and there will always be cooler and warmer years, but what is important for climate change is that the trend is up." Experts at the U.K. Met Office's Hadley Centre for forecasting in Exeter said the world could expect another record temperature within five years or less, the BBC reports, probably associated with an episode of El Nino.

(Why does the utility industry give LIHI credibility?)

Appalachian Power seeks renewables, hydro capacity proposals

11 April 2008, International Water Power & Dam Construction

US utility Appalachian Power has issued a call for long-term purchase of renewable energy power.
The company, a subsidiary of American Electric Power (AEP), is seeking 100MW of renewables generation capacity to be available and operational by the end of 2010. Expressions of interest in the call for proposals have to be submitted by 30 April. The hydro proposals must be certified by the Low Impact Hydropower Institute (LIHI). The request for proposals (RFP) is part of the parent group's plan, announced last year, to add 1GW of wind or other renewable energy resource by 2011.

(Excerpts - I guess you take it anyway you can get it)

Senate extends energy tax credits in housing bill

Apr 10, 2008, Reuters UK, By Tom Doggett and Kevin Drawbaugh

WASHINGTON (Reuters) - The U.S. Senate voted on Thursday to include in a housing rescue bill an extension of tax incentives that encourage renewable energy production and investments to reduce energy use. A tax credit would be extended for one year through 2009 for producing electricity from wind, biomass, hydropower and geothermal facilities. ----------. Extending the tax credits would ensure that up to $20 billion in planned renewable energy projects and investments go forward, the measure's sponsors said. "These incentives are necessary for our energy security and to help jumpstart our economy," said Republican Sen. John Ensign of Nevada, who co-sponsored the energy proposal with Democrat Maria Cantwell of Washington. ------. The environmentalist group Sierra Club welcomed the Senate's action, saying it would help the weak U.S. economy. "It would be difficult for taxpayers to find an investment that offers a better return," the group said. "This package of incentives will pay us environmental and economic dividends for years to come." Legislation to extend the renewable energy and investment tax credits for a longer period was approved by the House in a separate bill in February. Unlike the Senate, the House wants to pay for those extensions by taking away billions of dollars in tax credits from big oil companies. ------. The American Wind Energy Association said it would work with House members to win passage of the Senate's bill. "Every day of delay tolls a greater risk on investments in new clean energy projects and manufacturing facilities," the group said.

Dams

112-year-old Black Bass Lake Dam may put city between a rock and a hard place

By Kathryn Lucariello, Carroll County News, April 9, 2008

EUREKA SPRINGS - The City of Eureka Springs may find itself “between a rock and a hard place” concerning Black Bass Lake Dam, as it will have to ponder what action to take following a visit by Carroll County Judge Richard Williams and county, city and state officials Friday. Paying a visit to both Black Bass and Leatherwood dams Friday along with Williams were Carroll County Office of Emergency Management Coordinator Mike Harris; City of Eureka Springs Public Works Director Dwayne Allen; Arkansas Natural Resources Commission (ANRC) Deputy Director Chief Engineer Jon Sweeney; ANRC Dam Safety/Floodplain Management Engineering Supervisor Alvin Simmons; Senator Blanche Lincoln's assistant, Sarah Hartley; and Congressman John Boozman's assistant, John Hicks. “On March 19, we had a family extracted from Black Bass Lake area because of the heavy rains and concerns about the dam's safety,” Williams told the group. “Last week the FEMA people were here, and their comment was, “Not if, but when will something happen.”

The history of the 112-year-old masonry Black Bass Dam goes back to the late 1800s. After four devastating fires between 1883 and 1892, the city of Eureka Springs contracted with the Brownell Company of Chicago, Ill., to construct a 150-foot long, 12-foot high limestone masonry dam in a hollow below Sycamore Spring. Several springs would feed the lake, including Oil, Arsenic and Saucer springs. The plan included a stone boiler house with two boilers; two steam-powered pumps to supply 500 gallons of water each, a 100-foot high standpipe, 6- and 8-inch water mains and 43 fire hydrants, all at a cost of $75,000. After a drought and poor water quality around the turn of the century sparked citizen demands for a better water supply, a new dam was completed on top of the existing dam in 1916. It was 56 feet high and 450 feet long, the “Ozarks' highest dam” at the time, according to the Joplin, Mo., Globe. This new dam, with two more pumps installed, increased the water capacity from 83,000 gallons to 1.5 million gallons per day. The city later discontinued using Black Bass for drinking water when it hooked into the Carroll-Boone Water District.

In 2004, Eureka police officers raised the alarm that the masonry dam was leaking severely, and the department alerted Public Works. The city passed Ordinance 1967 on an emergency clause to effect repairs. Capital funds of up to $40,000 were approved for the work. Holes were drilled through the top deck of the dam, and voids were filled within the dam with pumpable pressure grout. “We reduced the seeping considerably,” said Ron Tracy of Tracy Consulting Engineers of Tulsa, Okla. when questioned in August 2007. “We low-pressure cement-grouted the worst areas.” He said there is no way to assess how long the repair would last, and what was done was a “temporary fix.” “It could have gotten better. The seeps could have filled in with siltation or mineral deposits. Others may get worse due to the erosive effect of the seeps.” There is still some leakage at the dam now. “Every dam does seep and leak,” Tracy said. “It's a matter of

degree. There are ongoing problems with that dam." "The wall to the spillway is too low," said Simmons Friday while inspecting the spillway. "Sometimes when you get a lot of water, it could backflow and eat the foundation out. It looks fairly stable right now, but we have an erosion hole under the wall to the spillway." He said there are two steps for repair, raising the height of the spillway wall and filling in the hole. The dam is not a "permitted" dam, meaning the state does not inspect it for safety. In 1981, on an engineering recommendation, the lake level was drawn down so that flow volume and surface area (under normal conditions) were not a hazard and were then below the levels requiring state inspection. But no one foresaw a rainfall of seven inches in a 24-hour period that has made Carroll one of 44 counties currently declared disaster areas by Governor Mike Beebe. Getting Black Bass Dam permitted is not going to be easy or inexpensive, noted Sweeney and Simmons. "People from the city have asked about getting it permitted," Simmons said, "but no one has submitted an application. If it were permitted, we would have someone come out every year to inspect it." However, before it can be permitted, it has to be brought up to state safety codes. Judge Williams said his first concern about the dam is safety, and secondly, it's historical value to the city and county. He asked about funding. "We have loans," Sweeney said. "Grants, however, are extremely tight. If you get this declared historical and then don't have funds to fix it, you've got yourself in a corner because then you have to fix it. It's going to be hard to fix it. It won't be cheap." Simmons said the dam is serving now in some capacity as flood control. "If you take the dam out and it rains, it could flood that house downstream." Sweeney said the law was changed so that any residents downstream of the dam can petition the state to require it to be permitted even though it doesn't meet the size requirements for inspection. Harris said the county does not yet have complete information on the floodplains of any of the large dams located in western Carroll County: Black Bass, Leatherwood or Beaver. "We have an emergency plan," he said, "but we are working on getting the floodplain maps for both Leatherwood and Beaver. We want to overlay that data from the Corps of Engineers with the data from our 911 mapping and readdressal office so that we know exactly which residents would be affected by flooding." Williams said the county does not have flood insurance from the National Flood Insurance Program because in the 1970s the Quorum Court refused to purchase it. It was his understanding this also means private homeowners cannot purchase flood insurance. "I have asked representatives to come to the next Quorum Court meeting, and hopefully this Quorum Court will pass it," he said. "If we can get it, it will be retroactive six months, which is why I'm pushing so hard for it."

Dam repairs run into millions

County officials say price tag tops $90M

April 9, 2008, Mitchell Vantrease, Daily News-Sun

The price tag to rehabilitate the McMicken Dam is high, but the potential for damage if nothing is done is higher, county officials have concluded. Tuesday night, representatives from the Maricopa County Flood Control District, AZ met at the Dysart Education Center in Surprise with residents in the flood area who share their concerns about dam safety. Three alternatives to improve the dam are under consideration and would cost between $90 million and $140 million, county officials said. Mike Greenslade, project manager for the McMicken Dam with Flood Control District, said the district is looking into federal funds for a large portion of the project. If they're approved, construction would take place in phases over six years to complete many of the necessary renovations.

In the past, the county has made several attempts to shore up the dam, which was originally constructed to protect Luke Air Force Base. Development in Surprise, Peoria and Glendale has increased the number of people living in the potential flood area as well as added to a variety of public facilities such as schools, hospitals and roads, county officials said. A planning study of the dam concluded, among other things:

- High hazard potential dam and property damage during flood events.
- In order for McMicken Dam to maintain its level of flood protection for public, concerns regarding the age of the structure, land subsidence, earth fissuring, urban encroachment and dam safety standards must be resolved.
- New state regulations related to dam design and function has made it necessary to modify the dam to meet those requirements or replace the dam with alternative structures.

Greenslade said the top priority revolves around the rehabilitation or replacement of the earthen dam within Surprise, between Peoria Avenue and Happy Valley Road. It includes the entire dam, principal outlet, emergency spillway, outlet channel and wash. The second alternative would require new basins and channels south of the Bell Road, with a new end constructed at or near the Sun Valley Parkway crossing. Facilities could be added to take care of drainage generated between the new channel and the McMicken Dam. Another option includes segmenting the dam at one or more locations and construct principal water outlets and spillways. Most residents were concerned about the McMicken Dam and how it would affect their

homes and properties. Patricia Rohan, a Sun City Grand resident who lives near the Dam, said the alternatives appear acceptable as long the work doesn't destroy the soil in the surrounding areas. "They have to be knowledgeable about the soil outside of the dam because it's not going to do any good if it's not protected," she said. "The last thing that we want is a flood that destroys not only our homes but the vegetation."

(It's over when it's over. What makes people think that the environmental movement cares about consuming more oil? Their goal is to remove ALL dams. Let's make no mistake about that. Any rhetoric that says otherwise is a smoke screen.)

Letter to the Editor

Surprised that paper urges dam fight to be over

04/11/2008, Kennebec Journal Morning Sentinel

After reading the editorial, "Time to Give Up Fight to Keep Fort Halifax Dam," I have some concerns. Tantamount is the declaration that opponents to the dam removal should not fight further and if they do so would "rightly (be) seen as selfish and obstructionist." I would hope that a newspaper would be one of the last places to suggest that differing opinions, dissent and debate should be discouraged or those doing so chastised. While democracy can be a long and frustrating process, we all need patience to let this particular democratic process continue until an outcome is ascertained. We have irrefutable information about oil prices peaking as demand for oil increases. We can see the results when we fill up our cars or oil tanks or pay the electric bill -- prices over time will only increase. Why would we allow breaching of the dam, losing this renewable energy resource at a time when we will have increasing need for the power that it produces? In the March 31 Morning Sentinel, there was an article about the town of Cambridge considering repairing its dam and putting in hydropower because "it has potential as fossil fuels become more expensive." Mentioned in the editorial is the FPLE decision to breach the dam because the fish lift was too expensive. However, FPLE has had an offer from Essex Hydro, which would, it seems, find it economic to put in a fish ladder and to produce hydropower.
Sally Harwood
Waterville

UPDATE - WAGONER COUNTY DODGES BULLET FROM POTENTIAL DAM BREAK

By:CHRISTY WHEELAND, News Editor, Coweta American, 04/10/2008

COWETA - Officials with the Wagoner County Conservation District, Wagoner County Emergency Management and area law enforcement agencies are breathing a collective sigh of relief this afternoon as flood waters at the Golf Club of Oklahoma continue to recede following heavy rains late Wednesday and early Thursday.

Authorities have been at the golf club on 141st Street for much of the day, monitoring a lake as it spilled from its banks into an emergency spillway. After several hours or roaring water passing over the spillway, the spillway is now completely eroded away. Fortunately, the lake is receding. "I think within another couple of hours it (lake) will have dropped and the lake level will be sufficient to not be a hazard," said Conservation District Chairman George Stunkard. "It's slowed down a lot in the amount of erosion that's eating its way back toward the lake. I think in a few hours we'll hopefully come to equalized levels on water to slow down the flow. I think we're out of the woods already." According to Stunkard, the emergency spillway for the lake is a gradually sloped area that comes to a crest. That crest is normally two feet below the dam. It is designed for flood waters to overflow then flow back into the stream below. "What happened in this flood, because of the amount of rain we got in a short period of time and the ground was fully saturated, it just started an overflow into that emergency spillway," Stunkard explained. "There was so much depth to the water it began to erode on the downhill side. When it started that, it continued eroding backwards from the overflow of water. It came all the way back to the main body of the lake." "The dam at the golf course is 35 feet high and the spillway was 33

The emergency spillway at the Golf Course of Oklahoma continues to erode away beneath the powerful flow of flood waters.

feet high. Now it's nothing. This took out 33 feet of earth," he added. "It (water) was going out in such a depth, I think good sod would have eroded. It was so fast!"

Stunkard said it will be a major undertaking to rebuild a spillway at the lake. "We will probably request funding for rehabilitation of that whole thing. I don't know if that's feasible or not," he said. "If we do not qualify as a high hazard dam, we'll have to go through other channels to try and secure funding to rehabilitate as a low hazard dam, and the funding for that is nearly non-existent." Stunkard said Conservation District officials have been working with the State Legislature this session to try and get a bond package of $30 million just for operation and maintenance of these structures that have problems similar to this." "There were five more structures flowing over the emergency spillway in different areas of the state (due to heavy rains this week)," Stunkard said. "That normally happens in a 100-year storm." Stunkard commended the emergency team that responded to assist with this potentially dangerous situation. "The emergency team - sheriff's office, emergency management, commissioners and others were on the job and responded fast," he aid. "That was great! This could have been a real disaster!"

After 4 years of delays, work to begin on Horse Thief Res.

April 14, 2008, Fort Mill Times

JETMORE, Kan. — After a four-year period that included special legislative action, a bond issue and a threatened lawsuit, construction on Horse Thief Reservoir will soon begin. Ground is scheduled to be broken Saturday on the 450-acre lake, eight miles west of Jetmore. The winning contractor - Max Jantz Excavating in Montezuma - submitted a low bid of $14.3 million. That bid came after Jantz promised to have dam experts on site to supervise construction. Bidders first were required to have completed two $15 million dams in the past six years, but no dams that big have been built in Kansas in 20 years. Powerful western Kansas lawmakers protested the requirement, and new talks led Jantz to agree to hire the experts. Jantz is expected to begin work next month with a target completion date of Nov. 1, 2009.

Hydro

(I wonder if anyone out knows you have to do this to get an FERC license anyway? No water rights – no license. No transmission lines, no market for power output – no license.)

PacifiCorp Presents Challenge to Logan Company's Hydroelectric Project

Apr 11, 2008 by Eric Ray, KCPW, Salt Lake City, UT

(KCPW News) PacifiCorp says if Symbiotics LLC wants to move forward with the Hook Canyon Pumped Storage project on the shores of Bear Lake, they'll have to do business with PacifiCorp first. "PacifiCorp's currently holds the exclusive rights for the storage and use of water at Bear Lake, with the exception of certain water rights held by the state of Idaho," says PacifiCorp spokesperson Jeff Hymas. "These water rights are constrained by Rocky Mountain Power's contractual obligations to certain downstream irrigators on the Bear River." Hymas says Symbiotics would need to work out an agreement with the power giant for water rights at Bear Lake before the project could be built. PacifiCorp representatives made this fact known during a scoping meeting held Wednesday night in Idaho by the Federal Energy Regulatory Commission. Justin Barker, Symbiotics' Project Manager for the Hook Canyon project says the hurdle comes as no surprise to Symbiotics. "We know we have to purchase a water right. PacifiCorp's has a water right. We could enter into negotiations with them if they are willing to do that. We could go out and purchase a private water right. We also need a storage right, we know that," says Barker. In addition to the issue over water rights, Hymas says PacifiCorp does not have any agreements in place with Symbiotics related to the purchase of electricity generated by the proposed project. He adds there would also be challenges in transmission of any electricity generated by the Hook Canyon Project because its projections are far greater than the capacity that PacifiCorp's lines can handle. FERC is accepting public comment on the proposal through May 13th. Local environmental activists have requested that a scoping meeting be held in Salt Lake City sometime before that deadline. FERC is considering that request.

Gibson Dam may produce power for the first time

By RICHARD ECKE, Great Falls Tribune, MT, April 12, 2008

Electricity created by water flowing over dams is among the country's cheapest power sources. However, Gibson Dam, which blocks the Sun River about 15 miles northwest of Augusta, has never produced electricity, but a recent proposal could change that. "It's never had hydro, but the dam was originally designed for it," said Brett Doney, president of the Great Falls Development Authority, of the 1920s-era dam. Now a proposed $25 million project would harness electricity from the existing dam, with the power sold either in Montana or out of state. "This is a nice, benign project," Doney said. It probably also would appeal to companies considering moving to Montana that would like to purchase renewable "green power," he said. The Gibson Dam Hydroelectric Project filed its formal license application with a federal agency Thursday, along with a preliminary environmental assessment prepared by the company, for the proposed 15-megawatt project. Partners in the venture are Toll House Energy Co. of Bellingham, Wash., and the Fairfield-area Greenfields Irrigation District. The Federal Energy Regulatory Commission has issued a preliminary permit for the project.

It's not the first time electrification of the dam has been proposed. Grisdale Hill Company considered such a project in the mid-1980s, but gave up when the project did not appear to be cost-effective, Doney said. The latest proposal would not change water flows in the area, the assessment filed Thursday states. That was one issue of concern because area farmers irrigate about 83,000 acres with Sun River water downstream from the dam via the Greenfields Irrigation District. "The project would simply utilize the existing Gibson Dam water releases for power generation," the assessment states. "Water flow in the Sun River would be the same with or without the proposed project." A 26-mile transmission line is part of the proposed project, an issue that concerns some property owners in the area, including a lawyer for a firm that manages CBS talk-show host David Letterman's ranch west of Choteau. Doney said the developer has been cooperative on the power line front. "I think it has satisfied most of the folks," he said. Stoney Burk, who lives two miles southeast of Choteau, said he is pleased the transmission line's route was moved away from the Sun River Game Range. He said that he wants to make sure the project gives proper weight to the area's wildlife, environment, aesthetics and recreation opportunities. "I don't want anything that will ruin those majestic views," Burk said, adding he is "not totally averse to development." Another issue addressed in the environmental impact assessment is construction, which would not go completely unnoticed, the report said. "Powerhouse and tailrace construction may include the need for some blasting operations," the assessment said. "In addition, several miles of transmission line would be buried within, and just outside, the canyon reach of the Sun River. The remainder of the transmission line would require excavation for pole placement." According to the report, the original transmission line path was changed, with the new route pointed toward Fairfield, so lines could follow existing roads and power line rights-of-way. Power poles would be taller than existing poles along much of the route, but the overall effect on aesthetics would be small, the report states. The project would only create a 0.8-mile stretch of new above-ground power line near Highway 287, the report states. The report also states that using the dam to create hydroelectric power would have a beneficial cooling effect on Sun River water, in part because of more efficient water discharge through turbines rather than the current "turbulent discharge." Fewer fish probably would die from being injured by power turbines — the report estimated fish mortality at 24 percent to 32 percent for those going through the dam — than are killed by being caught in the dam's jet-spray outlets. Water pours from these outlets "at great force," and some 60 percent to 80 percent of fish that go through existing jet-spray outlets in the dam die from the current water-routing method, the report states. The area is rich in wildlife, including game animals, grizzly bears, gray wolves and rare birds, the assessment states. "Project construction would result in a minor irretrievable loss of habitat for wildlife," the report states, noting that more waterfowl probably would die from flying into new power lines than from loss of habitat. The report states that the project would have no significant long-term impacts on grizzlies, wolves, bald eagles or other raptors. "Raptor-proof designs" for the power lines would minimize any danger to bald eagles, it states. The developer hopes to gain federal approval by the end of the year.

According to Doney, the project would generate an estimated $170,000 annually in property taxes. Gibson Reservoir sits primarily in Teton County, on the Lewis and Clark County border. "We already have one company in Great Falls interested in purchasing the green power, though it may be more profitable for the power to be sold out of state," Doney said. He said he hopes the project will get through the licensing and environmental processes to allow construction to begin in 2009. He said the dam work will represent "another step forward to growing the Electric City's trade area." "We're the Electric City and we have the potential to be the Electric Region," he said. Doney added he hopes authorities will approve a new transmission line between Great Falls and Lethbridge, Alberta, to carry power produced by planned Montana wind farms. Not everyone has been enthusiastic about the Gibson Dam project, including the attorney representing Letterman, whose cabin property lies near where the power lines would run. William Massey, an attorney for Deep Creek Ranch and Management, which manages Letterman's ranch, did not return a telephone call made to the Covington and Burling law office in Washington, D.C., on Friday. Earlier, Massey, a former FERC commissioner, said he was looking "for a lot more information" about the project.

Water

(The title for this article is misleading)

Flooding Causes Arkansas Dams To Overflow

TodaysHTV.com, 4/9/2008

Massive flooding has left nearly the entire state underwater. Much of Arkansas already qualifies for disaster relief and with more rain in store we could start seeing the Arkansas dams overflowing. We received record rain in March, but typically the rainy season starts in April and ends in June. More than a dozen dams in Arkansas are nearing capacity and it's expected to get worse. Blake Hogue with Entergy says "There's always that chance. Right now we don't foresee any flooding immediately. With all the recent flooding across much of Arkansas its understandable folks in Hot Springs are worried, Hogue says the Lakes are under control. He adds, “Our goal is to pass as much water as we can to keep Lake Hamilton and Lake Catherine as normal as possible from being flooding on the lakes and houses around those lakes.” Lake Hamilton and Lake Catherine are huge tourist attractions in Hot Springs. What you may not know is they’re owned by Entergy and monitor for flooding at the Carpenter and Remmel Dam. Hogue says, “It's a power generating facility, but it's also an operating dam during times of high water conditions we open the spill way gates.”

The Army Corps of Engineers has 10 flood reduction dams in Arkansas. (See below for the list.) More than half are flowing near or over capacity. "All the dams are operating as they're designed and are safe under conditions like this," Hogue says. P.J. Spaul with the Corp says once the dams are full they don't have the ability to store water. They have to let it all flow through the spillway down stream or it will start flowing over the dam as if it wasn't there. Even though dams might be at capacity both Hogue and Spaul says they will hold. Hogue adds, “We're not seeing historic flooding as of yet, but there's really no telling what the future will hold with the amount of water that we could receive Wednesday and Thursday." People downstream of the dams are most susceptible to flooding and they need to be careful as more rain sets in. Army Corps of Engineers Flood Reduction Dams flood storage:

- Blue Mtn. 100%
- Nimrod 100%
- Norfolk 99%
- Beaver Lake 91%
- DeQueen 79%
- Table Rock 73%
- Greers Ferry 73%
- Dierks 68%
- Gillham 56%
- Millwood 9%

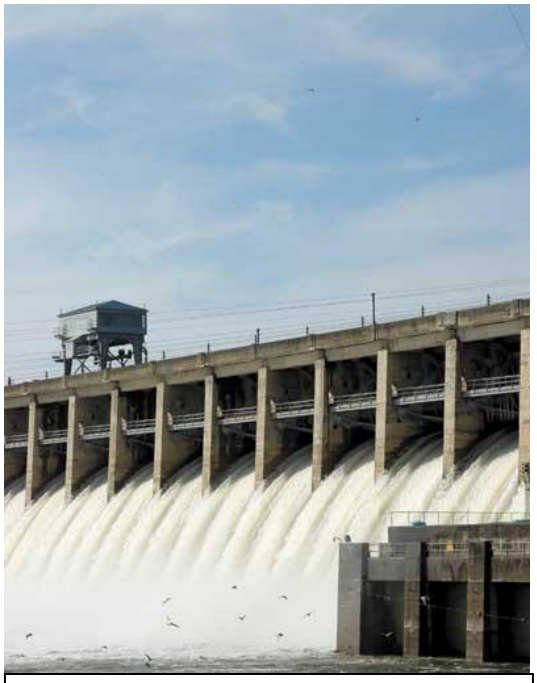
Water on tap: Washington snowpack at 142 percent of average

April 10, 2008, The Seattle Times

A snowy winter and cool wet spring have left the snowpack in Washington in good shape to supply water this summer for drinking, farms and dams. The National Resources Conservation Service says the snowpack around the state is 142 percent of average. A reservoir manager for Seattle Public Utilities, Tom Fox, says the city has a comfortable supply of drinking water. A manager for the Roza Irrigation District in the Yakima Valley, Tom Monroe, says irrigators will have enough water for their crops. A spokesman for the Bonneville Power Administration, Scott Simms, says the agency is encouraged by the amount of water available to generate electricity at Columbia River dams.

Opened up: Truman opens floodgates, Bagnell Dam follows suit as heavy spring rains head downstream

By Joyce L. Miller/Lake Sun, April 14, 2008



Due to heavy rainfall in the Osage River watershed, AmerenUE expects the floodgates may be open as long as through the end of the week.

LAKE OF THE OZARKS - Floodgates at Bagnell Dam should be open this morning to make way for more water heading downstream from Harry S. Truman Dam and Reservoir. On Monday, AmerenUE predicted 11 of the 12 floodgates would be open by midnight as flows into Truman Reservoir increase the Corp's need to let water pass through. The lake level was sitting at 659.51 feet above sea level and is expected to stay somewhere between 658 and 659 through the end of the week. Full pool on Lake of the Ozarks is 660 feet above sea level. Normal pool on Truman Lake is 706 feet above sea level. Truman is sitting at just over 721 feet. Based on projected flows from the Depending on the United States Corps of Engineers, floodgates at Bagnell Dam are expected to remain open for at least a week while engineers at the power plant continue to monitor the water levels. As water continues to pour into the Truman Dam and Reservoir, the lake level there continues to climb. Truman Dam provides approximately 80 percent of the water in Lake of the Ozarks. The remainder comes from rainfall, feeder streams and run-off. In the meantime, the generators at Bagnell Dam and Power Plant are running at full capacity while AmerenUE and the U. S. Corp of Engineers keep a watch on the incoming water.

Last week, AmerenUE shut floodgates down to ease flooding concerns downstream on the Osage and Missouri rivers. Now the concerns have shifted to the water flowing in from Truman Reservoir. The Missouri River crested over the weekend. The Osage River empties into the Missouri River east of Jefferson City, Mo. Although 11 of the 12 floodgates will be open, the flow coming through will be closely monitored to minimize the impact downstream on the Osage River. Recent heavy rains and runoff from tributaries have muddied the water and littered it with trees, limbs and other debris. The Missouri Water Patrol and AmerenUE are warning boaters to keep a lookout for large floating debris that can be a navigational hazard if hit by a boat. Debris littering the lake is to be expected when the lake level goes up and down after heavy rainfalls.

Environment

Montana settles salmon suit with feds

April 11, 2008, Missoulian

HELENA, MT - The State of Montana has entered into a memorandum of agreement with the Bonneville Power Administration, the U.S. Army Corps of Engineers and the U.S. Bureau of Reclamation calling for the BPA to provide Montana with up to $15.5 million for the permanent protection of resident fish habitat. The protection would occur through the purchase of fee title or conservation easements in northwest Montana. In making the announcement, Montana Gov. Brian Schweitzer referred to the latest in a series of agreements as "a new day in the operation of the Federal Columbia River Hydro System where litigation and animosity are replaced by sound, scientific and effective management of the system and the fish and wildlife resources impacted by it." The Umatilla, Warm Springs, Yakama and Colville tribes, and the State of Idaho, recently announced similar agreements with the federal action agencies. As part of the agreement, the federal government also commits to instituting Montana's desired operations at Libby and Hungry Horse dams. When implemented, these operations will stabilize flows out of the dams and keep more water in reservoirs behind them and the rivers below them in the months of July, August and September. These operations provide significant benefits to resident fish above and below the dams. "This is a win-win situation as we can begin to purchase property to mitigate the loss of the riparian areas inundated by Hungry Horse and Libby Dams to improve the health and productivity of our resident fish resources," Schweitzer said. "It is good to know that resident fish and wildlife in Montana are afforded the consideration that the system gives the salmon in the lower Columbia River."

The agreement stemmed from a controversial lawsuit in the Pacific Northwest related to hydro system operations and fish and wildlife recovery. Montana joined the lawsuit in 2006 over concerns related to operations at Libby and Hungry Horse dams. Schweitzer noted that three years ago he directed Montana's members of the Northwest Power and Conservation Council, Bruce Measure and Rhonda Whiting, to get involved in this process and try to bring some sense of collaboration and common purpose to this issue. The governor also commented that if all goes as proposed in the agreement and the proposed biological opinion regarding Columbia River operations, the region will have accomplished the first step in reaching these goals. "This agreement affirms our partnership with the State of Montana on long-term fish restoration," said BPA Administrator Steve Wright. "It supports Montana's interests in operation of the federal hydro system, providing biological benefits for Montana's resident fish and downstream benefits for threatened and endangered salmon."

THIS WEEK

Endangered Salmon: Priceless

April 14, 2008, *by Roddy Scheer. eMagazine.com*

Last week, the federal government announced it had come to terms with four Indian tribes, agreeing to pay some $900 million to spur the recovery of endangered wild salmon runs across the Pacific Northwest. In return for the money, the tribes agreed to back off from a long-running lawsuit faulting dam operations for the decline of the region's once-mighty salmon, and also promised not to join the growing chorus of voices calling for breaching the region's dams. The deal ends years of legal wrangling over the issue between the Bush administration and the Umatilla, Warm Springs, Yakama and Colville tribes. Federal officials consider the agreement a model for how to balance tribal and commercial fishing rights, protection for endangered salmon and hydro-electric energy demands. But environmentalists think the only way to restore the region's dwindling salmon runs is by breaching the dams now preventing the fish from reaching their upstream spawning grounds. "The opportunity to restore these fish is rapidly slipping away," said Todd True, an attorney for the nonprofit Earthjustice, who insists that federal agencies are "more interested in protecting the status quo rather than in restoring wild salmon." Earthjustice is currently representing several environmental groups in a lawsuit calling for federal agencies to increase water flows over Pacific Northwest dams—at the expense of power generation—so as to improve salmon habitat. The groups would like to see the region's dams breached entirely in the long run. A few years ago such a notion seemed preposterous, but 2009 will see the removal of the 210-foot Glines Canyon Dam along the Elwha River in Washington State's Olympic Peninsula. If salmon runs there return like biologists are expecting—and a more progressive White House and Congress takes office—environmentalists could find cooperation in toppling more dams.

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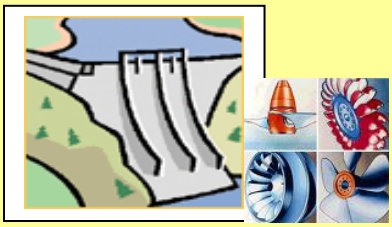

Some Dam – Hydro News and Other Stuff

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4/25/2008

Quote of Note: *"Politics, it seems to me, for years, or all too long, has been concerned with right or left instead of right or wrong." - - Richard Armour*

Other Stuff:

(Recognition long overdue)

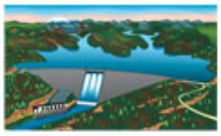
NHA Honors W.B. "Bill" Smith with Henwood Lifetime Achievement Award

Washington, DC, April 17, 2008 , Press Release

The National Hydropower Association is pleased to announce that it is honoring W.B. "Bill" Smith, P.E., with its Dr. Kenneth Henwood Award for lifetime achievements and contributions to the hydropower industry. A civil engineer and chair of the Oklahoma Floodplain Managers Association, Smith currently works with the consulting firm he launched in Tulsa in 2000.

"Bill Smith's passion for advancing hydropower technologies – and bringing its environmental, energy, and economic benefits to people throughout the world -- are unmatched," said NHA executive director Linda Church Ciocci. "Thanks to his determination and drive, people everywhere from small-town Arkansas to rural Guatemala enjoy the benefits of having a reliable, affordable resource like hydropower in their regions." Smith, who once served on NHA's board of directors with Kenneth Henwood, has been involved with NHA and its predecessor industry groups for more than 30 years. He has served as NHA's president, and he founded the organization's international committee, leading trade missions across the globe. "We seek several special qualities when selecting a Henwood winner," said Donald H. Clarke, the Henwood selection committee chair and a past Henwood honoree. "We look for persistence in overcoming obstacles, a deep understanding of how engineering, environmental, and economic factors interrelate, and a fair-dealing, plain-spoken approach to business. But, most of all, we want to see exceptional dedication to hydropower and unflagging enthusiasm and leadership within the industry. Those are qualities Ken Henwood embodied, and they are attributes Bill Smith continues to demonstrate." Smith is a professional engineer who received degrees from both the State University of New York at Morrisville and the University of Missouri at Rolla. After graduation from Missouri in 1974, he joined the Tulsa consulting firm Benham-Holway Power Group, eventually rising to become executive vice president during his 27-year tenure there. Known as a tireless advocate for both his projects and the industry, Smith has led hydropower development projects in more than 26 countries and throughout the United States and he continues to pursue new hydropower projects through his consulting work. The Dr. Kenneth Henwood Award is the hydropower industry's most prestigious individual achievement award. NHA established the award in 1990 in memory of Kenneth Henwood, an NHA board member, engineer, and project developer who died while working on a project in California.

(For your viewing – the new U.S. Society on Dams web site --- http://www.ussdams.org/**)**



Dams

(Dam politics! Sort of turns your stomach – doesn't it? There's probably little here that reflects how any politician really thinks.)

No calls for dam breaching from presidential candidates

ROCKY BARKER THE IDAHO STATESMAN, Apr. 16, 2008

None of the three remaining major-party candidates for president will rule out breaching dams to save Columbia and Snake River salmon. But they don't support dam breaching now, either. Republican John McCain made the strongest pitch for preserving the four dams on the lower Snake River in Washington, citing concerns about energy security and climate change. Democrats Barack Obama and Hillary Clinton say they want to see stronger efforts to restore salmon habitat before removing dams is considered. The candidates recently responded to questions about salmon and dams sent to the campaigns by the Idaho Statesman.

McCain Response

McCain's campaign expressed support for the dams during the Washington GOP primary. But the Democrats have not yet been asked publicly about salmon and dams, despite the fact that both Democrats have campaigned in Oregon in advance of the close May 20 primary election. The lack of attention to the issue is surprising, given the deep divisions created in the Pacific Northwest in the 1990s when 13 species of salmon and steelheads were declared threatened or endangered. Salmon are a tangible and ancient manifestation of the wild character of the Pacific Northwest. They still provide economic benefits to fishing communities and spiritual sustenance to Northwest Indian tribes. The four dams help sustain the economy: the slackwater behind the dams allows shipping 730 miles from the coast to Lewiston; the dams at their peaks generate enough hydroelectricity to power Seattle. Issue hurt McCain in '00. McCain's equivocal answer helped George Bush beat him in the Washington primary eight years ago. Asked whether he supported breaching that year, McCain responded, "I want to see the science first." That was interpreted as leaving the door open for breaching the four dams, which a majority of fisheries biologists say may need to go for Snake River salmon to survive. Bush flatly opposed breaching and made preserving the dams the centerpiece of his Columbia-Snake salmon policy. This time McCain wants to be clear. "Sen. McCain supports preserving the role of the Snake River dams first, for energy security, and second because of climate change," said Crystal Benton, a campaign spokeswoman. "Electric power from these dams is part of the solution for both." McCain doesn't see his position as a change from 2000, Benton said. He supported increased efforts to improve salmon migration. As for the listening to the science: "He's continuing to do that," she said.

Obama seeks balance

Obama said the Columbia and Snake River basins are important economic, energy and ecological resources for the country. "Implementing a meaningful salmon population recovery plan will be a key environmental priority of my administration, and I support efforts to create a salmon recovery plan that balances all of these important environmental, agricultural and renewable energy interests," he said in a statement. As president, he'd work with the region to enact a restoration plan. So what about dam breaching? "Barack Obama believes action must be taken to protect the salmon population and ensure its survival for generations to come," said Nick Shapiro, an Obama spokesman. "To that end, he believes all efforts to restore habitat must be exhausted before dam breaching is considered."

Clinton blames Bush

Clinton said President Bush has done little to help salmon during the past seven years, said Isaac Baker, a Clinton campaign spokesman. "Sen. Clinton will make every effort to restore wild salmon stocks," Baker said. "While she does not at this time favor breaching dams, she will place a far greater emphasis on habitat restoration." Interest groups hopeful the three candidates' responses please Terry Flores, executive director of Northwest RiverPartners. The Portland-based group represents Northwest businesses that get their power from the federal dams and oppose breaching. "It's clear that the presidential candidates understand the issue," Flores said. "In a time of climate change concern, it is ever more important to keep our renewable energy sources like the Snake River dams in place." Nicole Cordan, the policy director for Save Our Wild Salmon in Portland, believes McCain backed off his 2000 stance, and she is disappointed. But she

expressed hope that all three candidates are more open-minded than President Bush. "I think what the salmon community is looking for is someone to listen with an open ear, follow the science and the law, and look for the possibilities across the board on how to resolve this," Cordan said.

Dam dispute persists in Winslow

By Kennebec Journal Morning Sentinel, 04/15/2008

WINSLOW -- The long anticipated removal of Fort Halifax Dam appeared to clear its final hurdle last month when the Planning Board signed off on FPL Energy's breaching plan. But two appeals submitted by residents Monday open the plan to a new round of scrutiny. "Obviously, they have a right to appeal," Town Manager Michael Heavener said. "That is part of the process." Town Attorney William A. Lee said the Zoning Board of Appeals has 35 days in which to hold a public meeting on the appeals and then another 35 days to render a decision after closing hearings on the matter. A group of 38 residents, including Rep. Kenneth Fletcher, R-Winslow, submitted a nine-page appeal of the Planning Board decision, arguing that the board failed to uphold the town's shoreland zoning ordinance in several key areas. Resident Jane Edwards submitted the second appeal, this one concerning a potential public health concern involving chromium. Fletcher founded Save Our Sebasticook (SOS), a group that has fought against Fort Halifax Dam's removal for about seven years. SOS consists primarily of residents, many of them property owners on the Fort Halifax impoundment, including Fletcher. But Fletcher said only about half the people who submitted the nine-page appeal are SOS members and 25 percent don't live on the impoundment. The appeal, Fletcher said, is not him leading an SOS initiative. "I am just purely there to help the people in this community who have come forward -- 35 plus -- and said they don't think the Planning Board decision is consistent with the terms of the ordinance as written," he said. The citizens' group appeal challenges rulings in seven separate sections of the shoreland zoning ordinance. The most notable of the challenges concerns the board's actions regarding the Dallaire Street riverbank and the decision to allow the Fort Halifax powerhouse to remain -- planners insisted the rest of the dam be removed in its entirety, to which FPL Energy agreed. Fletcher said the appeal argues that the Planning Board failed to go far enough to ensure the safety of six Dallaire Street homes that sit on the riverbank. The slope is known to be unstable, he said, and yet planners did not demand that FPL Energy takes steps to strengthen that bank. Instead, he said, they simply required that the energy company monitor the bank for signs of collapsing. "The ordinance says maintain public safety and welfare," Fletcher said. "It doesn't say monitor and hopefully prevent somebody from being injured." The appeal also argues the powerhouse, which protrudes into the river, could present a hazard for those traveling the river, as well as pose a safety issue for people who gained access to the building. In the appeal, the group requests that the Dallaire Street riverbank be secured to eliminate the risk of slumping and that the powerhouse be removed. The group also argues that FPL Energy should submit a detailed dam removal safety plan.

Also called into question in the appeal are decisions regarding erosion control, aquatic and wildlife, historic sites, and public access to the river. Fletcher praised the Planning Board's efforts -- the review process stretched about four months -- but said planners failed to enforce the ordinance fully because FPL Energy submitted incomplete or incorrect information. "Even though the Planning Board worked long hours, they were not given the opportunity to have full advantage of all the facts in their deliberations," the appeal group stated in a release. “The action to appeal the Planning Board decision is needed to ensure that the people of Winslow are protected and that their interests are fully considered." Edwards, who lives on Garland Road, centered her appeal on chromium concerns. She said that both the Federal Energy Regulatory Commission (FERC) and Maine Department of Environmental Protection raised concerns that draining of the impoundment could cause chromium in the sediment to be a public health concern -- especially if exposure to air causes chromium 3 to oxidize into the more dangerous chromium 6. Yet the Planning Board did not address the issue, she wrote. Edwards called for a study to examine the safety implications of exposing contaminated sediments, as well as steps to take to protect residents and those involved with dam removal from such exposure.

(Letter sent to authors re article below:

“Your study has to be incorrect. A similar study of the Smith Mountain Reservoir in VA found that land values increased from $100 per acre to thousands of dollars an acre after the Smith Mountain Dam was built and that the locale went from one of the poorest Counties in VA to among the wealthiest. I don't know the source of your information but it is certainly flawed. All you need to do is look around you in any direction and you will see that reservoirs attract large investments in real estate and in fact create their own economies. It is, for instance, a well-known fact that reservoirs licensed by the Federal Energy Regulatory Commission attract over 100

million recreation visitor days per year. And, small reservoirs really don't change those facts. Get your facts straight before you put out false propaganda.")

Dam removal increases property values

Public release date: 17-Apr-2008

Lewiston, ME – April 17, 2008 – Two new studies appearing in Contemporary Economic Policy explore the impact of dam removal on local property values and find that property values increase after dams are removed. Lynne Y. Lewis, Ph.D., of Bates College and researchers utilized geographic information systems mapping software to examine the effects of small hydropower dams on property values in Maine. The study examined the effects on property values of the Edwards dam in Augusta which was removed in 1999, as well as two other existing dams located elsewhere on the Kennebec River. The study found that there is a penalty for being near the dam sites. Properties near the dams have lower value than properties further away. However, this penalty has shrunk substantially since the removal of Edwards Dam. The penalty for being close to the two existing dams is approximately three times larger than the penalty for being close to the site of the former Edwards Dam. Removal of the Edwards dam has also had significant positive effects on fisheries and recreational value of the Kennebec River. Since its removal, commercially important fish have returned to the river above the dam site. Recreation on the river including fly fishing, canoeing, and kayaking has also increased. A study led by Bill Provencher, Ph.D. of the University of Wisconsin-Madison also examined the impact of small dam removal on property values. His work focused on small dam removal in south-central Wisconsin. The study applied statistical techniques to market sales data to determine the relative contribution to property values. The results are quite similar to those found by Lewis. Residential property by a river but not by a dam is more valuable than identical property located by a dam. "Hundreds of small dams are scheduled to come up for relicensing over the next few decades" Lewis writes. "As this occurs, evaluating the impacts with and without the dam will become increasingly important.

The studies are published in the April 2008 issue of Contemporary Economic Policy. Media wishing to receive a PDF of this article may contact journalnews@bos.blackwellpublishing.net.Lynne Y. Lewis, PhD, is Associate Professor of Economics at Bates College and can be reached for questions at llewis@bates.edu. Bill Provencher is a Professor in the Department of Agricultural and Applied Economics at the University of Wisconsin-Madison and can be reached for questions at rwproven@wisc.edu.

Bagnell Dam clears post-quake inspection

By Joyce L. Miller/Lake Sun Leader, April 19, 2008

LAKE OF THE OZARKS, MO - Shortly after a 5.3 earthquake in Illinois was reported Friday morning, engineers at Bagnell Dam/Osage Hydroelectric Plant were checking for any stress or cracks in structure as a precaution. Phil Thompson, who heads operations at Bagnell Dam, said there are procedures in place to follow in the event of a natural disaster, such as an earthquake. There are different levels of response based on the severity. In the event of seismic activity such as what was reported Friday morning, engineers monitor what is taking place. Although no tremors were reported in the lake area, the procedures called for an inspection of the dam as a safety precaution. It is referred to as a Level One response, Thompson said. Plant personnel conduct a thorough 'walk down of the entire dam,' he said, 'looking for any damage that could have been caused by seismic activity. It is not required, but AmerenUE takes a conservative approach. We found no indication of any problems.' Cursory inspections are completed daily. Each week engineers walk through and do a closer look. Engineering assessments are conducted quarterly and the Federal Energy Regulatory Commission insects annually. Every five years, AmerenUE is required to hire an outside engineering firm to do an independent evaluation of the structure, Thompson said. 'Bagnell Dam is what is called a concrete gravity dam. The type of construction used to build Bagnell Dam is recognized as one of the strongest,' he said. 'No dam should be assumed to be impervious to anything Mother Nature throws at us, but this is one of strongest and best-made dams.'

While there was no aftershock felt, the earthquake did remind many around the lake area that a natural disaster can strike anytime and catch many unprepared. Morgan County Emergency Management Director Rick Bias said it is a good time to take stock of your home or businesses emergency preparedness plan. It's also a good time to stock up on supplies. Camden County Emergency Management Director Denise Russell said everyone should have enough supplies on hand to get by for 96 hours. At a minimum, people should keep a stockpile of essentials such as food, water, medicine and other items to take care of children and pet's needs. 'A lot of people don't think about this, but it is something that should be of concern and people should be prepared for,' Russell said. While residents should take the opportunity to assess what they can do to prepare in an emergency, state and local agencies are doing the same to make sure when a disaster strikes the steps are in place to activate their emergency response plan, she said. 'These types of plans

have to be very flexible and can change because you don't know what kind of damage will happen,' Russell said. 'There is an extensive mobilization of assets that will happen in an event. Federal, state and county agencies have plans in place.'

Hydro

Firm to study hydroelectric power at Newburgh

April 15 – 2008, Indianapolis Business Journal

An Idaho firm is applying to the federal government for a permit to study building a hydroelectric power plant at Newburgh Lock and Dam, which is up the Ohio River from Evansville. Symbiotics LLC is interested in a plant that would generate 80 to 100 megawatts, according to the Evansville Courier & Press. The company hasn't lined up a buyer for the power. Newburgh is among about 100 existing dams in the country that Symbiotics is scouting for power generation. The company looks for locations with economic potential and where environmental damage would be limited. Kentucky's Department of Fish & Wildlife Resources is concerned about the impact on downstream mussels and fish, and whether the project would allow fish to pass, among other issues.

(Even if you don't agree with this comment, you have to admire his passion.)

Hydroelectric Will Ruin Bear Lake

April 16, 2008, Standard Net Live

A preliminary application document has been submitted to the federal government by Symbiotics LLC to build a 240-foot-deep water reservoir/dam and hydroelectric plant on Utah's east side of Bear Lake. This probable multi-billion dollar project is just century-old thinking! We and the nation need to think and innovate to the 21st century: electricity generated by wind, solar energy, water wave action and liquefied coal. Symbiotics plans to suck water out of Bear Lake through a huge 30-foot diameter tunnel, which is room for three cars driven abreast! After filling the reservoir daily, most of the used water will return deep into Bear Lake via the "NASCAR-sized race track" causing daily lake fluctuations. Yet for several years, ranchers, farmers, business people and residents have conserved water from a very low lake. Some scientists state the drought will continue. The bottom of Bear Lake is covered by silt called marl, apparently vital to certain fish. The lake's turquoise-blue color is a cherished tourist attraction and an essential business asset. It's likely only two large lakes with this color exist in the United States. Daily water gushing out of a huge tunnel will adversely impact the lake's silt, increase particle suspension and cloud an exceptionally clear lake. To save a national treasure, e-mail objections about the Hook Canyon Hydroelectric Project FERC P-12707 to the governors of Utah and Idaho, and U.S. congressmen and county commissioners.
Remember: A passive democracy is a crippled republic.
Ken Griffith
Ogden, UT

(And, now the Governor has stepped in to block the project before studies are even done.)

Utah governor stops Bear Lake hydroelectric plant

Associated Press, 04.23.08, Forbes.com

SALT LAKE CITY - A proposed hydroelectric plant at Bear Lake has run into trouble. Gov. Jon Huntsman has told the Division of State Parks and Recreation to drop negotiations over an easement a Logan company needed for access to the project. Huntsman says he's concerned that if the plant is built, Bear Lake's water quality will suffer. Symbiotics LLC wanted to build the pump storage project on Rich County's Hook Canyon. The plant would have pumped water from Bear Lake at night and release it back to the lake during the day to generate electricity. The pumped water would cause the lake to rise and fall at least three inches a day. State officials say that could stir up sediment on the bottom of the lake and alter its unique blue color.

AN AVALANCHE HAS CUT JUNEAU'S HYDRO POWER

Apr 16, 2008, ABC Alaska News

Juneau has been cut off from all of its hydroelectric power. An avalanche that struck Wednesday knocked out more than a mile of transmission lines. Spokeswoman Gayle Wood of Alaska Electric Light & Power said the massive avalanche was about three miles from the Snettisham power house. One transmission tower is down and four are damaged on the Snettisham line, said Wood. The Snettisham line connects hydropower to the service area. Wood said that currently Juneau is running on diesel generators from Auke Bay and Lemon Creek. She went on to say that it will take roughly two weeks before workers can safely begin repairing the line, and that it would be at least three months before hydropower would be restored. As a result of the avalanche, electricity rates are likely to triple on bills for the month of May. Wood said a 50-percent increase would not surprise her. Such an increase could raise the cents per kilowatt hour up to around 30 to 35 cents an hour.

(It seems that the article means the 1st in Colorado to receive the LIHI tag. Once again, nothing is created here but paper and air, yet somehow that changes things and all of a sudden you're "green". Why is there a question as to whether Hydro is "green"? Why aren't you "green" in the 1st instance when you have already passed the agonizing test of getting an FERC license packed with all kinds of environmental protections? In any event, it's all about the money!)

Stagecoach up for 'Green Power' Tag

April 16th, 2008, The Wittemyer Group

Steamboat Springs, CO — The Stagecoach Dam and Reservoir is expected to be the first project in the nation certified by the Low Impact Hydropower Institute to generate "green power," opening up the option for dam officials to charge a premium price for wholesale electricity. The Low Impact Hydropower Institute began accepting applications from hydropower projects last year. It announced early this month that Stagecoach dam probably would be the first to receive the institute's certification of a low-impact hydropower facility. The dam, owned and operated by the Upper Yampa Water Conservancy District, must go through a 30-day public appeals period before receiving the certification on March 27, said Lydia Grimm, executive director of the Low Impact Hydropower Institute. The Upper Yampa Water Conservancy District was one of many organizations that applied for the certification last year. "It was pretty impressive the steps that they go through," conservancy district board member Dan Birch said. Officials at the dam had to supply a description of the project, how it is operated and then go through a review by the institute. "I think what got this for us is the diligence and stick-to-it-ness of John Fetcher," Birch said. Fetcher is the secretary manager of the conservancy district and initiated the application process with the institute. He could not be reached for comment.

The Low Impact Hydropower Institute is a nonprofit agency based in Washington, D.C. It has eight guidelines that a hydropower plant must meet to receive certification. If Stagecoach gets the certification, the dam would be able to market itself as generating "green power," or power generated with low impact on the environment, Grimm said. With the certification, the Upper Yampa Water Conservancy District would have the option to sell its power for a premium price. "That is something we would hope to do," Birch said. The hope of the institute is that the certification's power to give dam owners the ability to charge a premium price for green power is an incentive for running environmentally friendly power plants, Grimm said. Consumers then have an option to pay the premium price, knowing that it is green power, she added. Residents in the Yampa Valley already have the option to purchase green power, generated by wind, through Yampa Valley Electric Association. Jim Chappell, manager of consumer accounts for YVEA, said 366 consumers out of about 22,000 buy 730 blocks (100 kilowatts) of wind power from the company. They pay roughly $3 more a block for the power.

(This is about public safety for people who recreate near dams. Statistics show that more people lose their lives in recreation activities near dams each year than from dam failures.)

Hydro Power Companies Observe Dam Safety Awareness Week April 28-May 3

Gov. Doyle Joins Midwest Hydro Users Group and Wisconsin DNR in Promoting Public Safety at Dams

WEBWIRE, April 15, 2008

The high flows that have occurred on Midwest/Wisconsin rivers due to melting snow during March and April were a stark reminder of how powerful the forces of nature can be and how important it is to stay safe when boating, canoeing, kayaking or seeking other recreation opportunities on rivers. Wisconsin Public Service Corporation joins with the Midwest Hydro Users Group in observing Dam Safety Awareness Week to

promote public safety awareness near dams and prevent accidents throughout the boating season. The Hydro Users Group and Wisconsin Department of Natural Resources (DNR) have been joined in promoting safety awareness by Gov. Jim Doyle who has proclaimed April 28-May 3, 2008, Dam Safety Awareness Week in Wisconsin. The Midwest Hydro Users Group, called HUG, is an association of dam owners whose purpose is to promote safe, efficient, economical and environmentally friendly use of hydroelectric power. The purpose of Dam Safety Week is to heighten the safety awareness of recreational and fishing enthusiasts as they return to the waterways. Many of the accidents and fatalities that occur near dams could be prevented by using common sense, practicing safety, staying clear of dams and understanding the dangers to be found near them.

HUG, DNR personnel and local safety officials offer these common sense tips to stay safe on rivers and near dams:
* Obey all warning signs, barriers and flashing lights, horns and sirens.
* Wear a personal floatation device (PFD), a life jacket.
* Leave your boat motor running to provide maneuvering power.
* Stay clear of spillways. Changing currents and "boiling" waves can make boat control difficult near dams.
* Reverse currents occur below dams; they can pull a boat back toward the dam into the spillway and capsize it.
* Never anchor boats below a dam because water levels can change rapidly.
* Especially in spring, cold water can cause hypothermia that could result in death from drowning.
* Bring a cell phone and contact 911 in an emergency.

HUG members want fishermen, boaters, outdoor enthusiasts and visitors to enjoy the many exceptional recreation resources to be found on rivers and around dams in the region. People are urged to practice safe use of the areas so that they can be enjoyed over and over again.

Feds approve new license for Grant PUD dams

Priest Rapids and Wanapum dams get 44-year renewal

By Christine Pratt, WenatcheeWorld.com, April 18, 2008

EPHRATA — The Grant County PUD got a new license Thursday to operate its Priest Rapids and Wanapum dams on the Columbia River. The 44-year license culminates 13 years of studies, analysis and negotiations with more than a dozen federal, state and local agencies and tribes, PUD spokeswoman Sarah Morford said this morning. "It's a big milestone after so many years of work," she said. The dams are 18 miles from one another, roughly between the towns of Vantage and Mattawa. Both operate under a single federal license. The Federal Energy Regulatory Commission (FERC) approved the license at a commission meeting Thursday in Washington, D.C. The new license replaces the project's original 50-year license, which expired in October 2005. The utility has operated the dams on yearly license extensions since then, Morford said. The 44-year term is designed to "synchronize" the license with other Columbia River dam licenses, so all will expire at the same time, FERC officials explained at Thursday's meeting. FERC Chairman Joseph Kelliher noted the coincidence between the project's clergical-sounding name and the U.S. visit this week of Pope Benedict XVI. "We called the Priest Rapids project for discussion in part to honor the papal visit this week," he joked with commissioners.

The PUD will spend $1 billion over the life of the license on programs to modernize dam turbines and generators, monitor water quality, improve wildlife habitat, protect the nearly 700 archeological sites within the hydro project's boundary and enhance recreation with new campsites, picnic areas and trails. "There's a lot of science be-hind what's going to happen next," Morford said. The PUD just finished building a $30 million "fish slide" at Wanapum Dam to help migrating salmon get past the dam safely. An event to inaugurate the new bypass system is scheduled for April 30. Fish get around the Priest Rapids dam when the utility spills water, Morford said. She said PUD officials knew their dams were up for discussion today and were at their computers listening to the simulcast FERC meeting. "There was a lot of excitement yesterday that grew as the day went on," Morford said.

The two dams together have a capacity to produce 1,893 megawatts of electricity. The larger of the two dams, Priest Rapids generated its first power in 1959. Wanapum followed in 1963. The dams' combined output places them second only to the New York area's 2,755-megawatt Niagara Hydro as the country's largest non-federal hydro project, according to information from Thursday's meeting. This compares with capacities of 1,300 megawatts at Rocky Reach Dam, 624 at Rock Island Dam, 48 megawatts at Lake Chelan Dam — all owned by the Chelan County PUD — and 840 megawatts at the Douglas County PUD's Wells Dam.

(Huh! Why does this make one skeptical? I was always taught that you can't get something from nothing.)

Harnessing the Coriolis Force

by Kate Melville, Scienceagogo.com, 20 April 2008

The force that creates whirlpools and hurricanes could soon be used to boost the output of traditional hydroelectric power stations by 27 percent, says Australian Paul Kouris, inventor of a new turbine that he says harnesses the vortex effect created by the rotation of the Earth. Using the Coriolis force, the turbine is designed to harness draining water's rotational kinetic energy, as distinct from traditional hydroelectric plants which get their motive power from water falling under gravity's influence. Kouris, a barrister and part-time inventor, has just secured government funding to develop a pilot installation at Marysville in eastern Victoria, Australia, after what he describes as an uphill battle to convince academia and government of the merits of his new turbine design. The funding comes after tests conducted by the University of Ballarat, Australia, which showed that the vortex effect did indeed produce additional power beyond that provided by only the gravity-fall of water. Kouris claims that his 2004 small-scale test tank installation managed to extract an additional 27 percent energy over what is produced by traditional turbines. If his figures are correct, refurbishing existing hydraulic installations with the new turbine could radically increase their power output capabilities. Kouris filed for a patent in 1998, but a stoush may be brewing with Austria where the town of Obergrafendorf has had Coriolis turbines operating in concrete ponds on the banks of a river since 2005.

FERC staff supports relicensing

By SETH STRATTON, The Dispatch**,** April 19. 2008, Lexington, NC

The Federal Energy Regulatory Commission issued its final environmental impact statement Friday for the Yadkin-Pee Dee Hydroelectric Projects, recommending relicensing. The relicensing includes Alcoa Power Generating project at the High Rock Lake dam and Progress Energy hydroelectric projects downstream. A copy of the statement can be found at www.ferc.gov under the "What's New" section. "Overall, the measures proposed by Alcoa Generating and Progress Energy under the terms of the Yadkin and Yadkin-Pee Dee settlements, along with the additional staff-recommended and revised measures, would protect and enhance existing water use, water quality, fish and wildlife, land use, aesthetics, recreational and cultural resources," according to a statement in the EIS' executive summary. An e-mail from a FERC staff member stated, "the final EIS does not represent final action on behalf of the commission. The relicensing applications for these projects will now be considered by the five presidentially appointed and (U.S.) Senate-confirmed members of FERC. The date for the commission's consideration of these applications has not been announced."

Alcoa and Progress Energy both applied for relicensing of the projects that impact the Yadkin and Pee Dee rivers and reservoirs and Davidson, Davie, Montgomery, Rowan, Stanly, Anson and Richmond counties. Alcoa applied for another 50-year license for the project. FERC stated the top three environmental concerns for the Yadkin project were "reservoir fluctuations and their effect on aquatic resources and recreational activities, dissolved oxygen in river reaches downstream ... and alteration of sediment transport in the Yadkin River and its effect on sedimentation rates and flood frequency." In the document, measures from FERC's staff recommend Alcoa Generating develop a flood and sedimentation plan to keep Salisbury's water intake from the river clear of sediment and to prevent flooding of the city's Grant Creek wastewater treatment plant. The dredging, upgrades and modifications could cost Alcoa several millions of dollars. FERC is also recommending the company add equipment to "enhance dissolved oxygen conditions in the project tail waters," including adding new equipment to improve the dissolved oxygen levels that would be operational from May 1 through Nov. 30 each year. "Based on our independent analysis of the Yadkin Project and the Yadkin-Pee Dee River Project, including our consideration of all relevant economic and environmental concerns, we conclude that issuing new licenses for the projects ... along with staff's modifications and additions to those proposals, would be best adapted to a comprehensive plan for the proper use, conservation and development of the Yadkin and Pee Dee rivers." The Davidson County Board

of Commissioners has not been supportive of the relicensing agreement. On April 4, Gov. Mike Easley sent a letter asking FERC to delay granting another 50-year license to Alcoa for at least another 12 months for further study.

Water

NHA Recognizes Five Hydropower Projects for Extraordinary Achievement

Washington, DC, April 17, 2008

The National Hydropower Association this week recognized the outstanding practices of five organizations with the hydropower industry's Outstanding Stewards of America's Waters (OSAW) Award. The organizations – Brookfield Power, Chelan County PUD, San Diego County Water Authority, Seattle City Light and Yuba County Water Agency – all developed projects and programs that exemplify industry-leading best practices in producing climate-friendly, affordable and renewable energy.

> "These projects highlight, in the clearest terms, how power production and environmental protection can work hand-in-hand," said NHA Executive Director Linda Church Ciocci.

"The Outstanding Stewards of America's Waters program demonstrates the true innovation taking place in the hydropower industry today," said Linda Church Ciocci, NHA executive director. "These projects highlight, in the clearest terms, how power production and environmental protection can work hand-in-hand."
The following three organizations received the 2008 OSAW Award in Recreational and Environmental Enhancement, which honors projects that provide enhanced recreational opportunities for the general public, institute measurable benefits to mitigate, conserve, preserve, or enhance the natural resources, and/or conserve historical aspects of hydropower facilities integrating them with the surrounding community. The 2008 winners are:

- **Brookfield Power** for work at its School Street facility in Cohoes, NY to enhance aesthetics at this popular scenic destination. Site enhancements included: reconstruction of Overlook Park, a popular recreational destination; exterior building improvements that preserve the facility's look, feel, and historic integrity; and grounds maintenance and access road improvements.
- **Seattle City Light** for its multi-faceted collaborative effort with the Skagit Watershed Council, three Skagit tribes, the Nature Conservancy, and other stakeholders to develop and implement fish recovery plans, complete research to guide recovery actions, acquire and restore critical freshwater and estuarine habitats, and build support for multi-species fish recovery in the Skagit River watershed.
- **Yuba County Water Agency** for the retrofit of a bypass to its existing dam and powerhouse at the Narrows 2 facility. The project maintains optimum flow and water temperature to sustain valuable fisheries in the Yuba River, protecting threatened spring-run Chinook salmon and helping to preserve the last self-sustaining wild steelhead population in California's Central Valley.

Two organizations received the 2008 OSAW Award for Operational Excellence, which honors projects that demonstrate significant technical contributions improving efficiency, safety, security, and/or overall operational effectiveness of hydroelectric assets. The 2008 winners are:

- **Chelan County PUD** for the extensive program of upgrades to improve safety and security at its facilities throughout its system. The effort includes a $3.8 million network that protects dams, transmission lines, distribution infrastructure, water/wastewater systems, fiber-optic lines, buildings, computers, and, most important, people.
- **San Diego County Water Authority** for the construction of the 4.5 megawatt Rancho Penasquitos Pressure Control Hydroelectric Facility. The project improves the flexibility of pipeline operations, eliminating the limitation of unidirectional water flow and increasing the ability to keep water moving to member agencies. The project generates enough clean, renewable energy to power 5,000 homes.

NHA's selection panel, including representatives from industry, environmental, and recreational interests, determined the OSAW Award winners based on their project or program's challenge, innovation,

collaboration with stakeholders, and results. NHA presented the awards Apr. 14 at the association's annual conference in Washington, DC. For more details on the 2008 OSAW winners, see www.outstandingwaters.org.

Environment

Judge refuses to block sea lion killing at Bonneville Dam

4/16/2008, The Associated Press, OregonLive.com

PORTLAND, Ore. (AP) — A federal judge has denied a request by the Humane Society of the United States to block the government from killing protected sea lions at Bonneville Dam. U.S. District Judge Michael Mosman ruled Wednesday that the National Marine Fisheries Service and the states of Oregon and Washington are likely to prevail if the case goes to court. Indian tribes and fishermen say the hungry sea lions are eating threatened salmon. The killing could start by the end of this week. Mosman will hear more arguments, though. The society wants him to limit control measures to non-lethal trapping and removal.

PacifiCorp will shut down turbines at Klamath dam four months each year to help endangered fish

by Gail Kinsey Hill, The Oregonian April 17, 2008

PacifiCorp has agreed to shut down the hydropower turbines at Upper Klamath Lake's Link River Dam for four months each year to help endangered fish, the utility said Thursday. PacifiCorp will turn off the turbines in late summer through early fall so Lost River and Shortnose suckers can more successfully migrate to the southern part of the lake to spawn. The suckers are listed as a threatened species under the federal Endangered Species Act. The conservation group Oregon Wild signed onto the agreement after pressuring PacifiCorp to enhance its restoration efforts. The deal is not part of the long-running and more comprehensive negotiations that have tried to settle differences among the Klamath River Basin's disparate interests, which include power generators, environmentalists, tribes and farmers. Still, PacifiCorp and Oregon Wild say the settlement offers a model for balancing the concerns of traditionally warring factions. Curtailment of the Link River Dam turbines July 15 through Nov. 15 will have little effect on PacifiCorp's overall operations and no effect on customer rates. The powerhouses produce only a small fraction of the utility's electricity supplies. A relicensing proposal for the dam already calls for eventual decommissioning. PacifiCorp also will dedicate 22 percent of the revenue generated from dam operations -- about $100,000 annually -- to sucker restoration projects.

In July, Oregon Wild told PacifiCorp it would sue the utility under the Endangered Species Act because, the group said, the turbines were harming suckers. Lost River and Shortnose suckers spawn near the dam, which spans Upper Klamath Lake's southern tip. "The fish literally were being taken into the turbines," said Ani Kameenui, Oregon Wild's Klamath campaign coordinator. Both parties applauded the settlement. "We always prefer to negotiate rather than litigate to achieve reasonable and balanced outcomes," said Rob Lasich, PacifiCorp's energy president. Steve Pedery, Oregon Wild's conservation director, called the agreement the "best and quickest way to provide increased protection for the endangered fish that call Upper Klamath Lake home." Klamath Basin groups involved in a broader agreement that involves the four larger PacifiCorp dams on the main stem of the Klamath River were supportive but less enthusiastic. "It's a small component of a much bigger blueprint to restore the basin," said James Honey, program director of Sustainable Northwest, a conservation group that has helped broker a proposal known as the Klamath Basin Restoration Agreement. That plan would cost about $1 billion over 10 years and would include removal of four Klamath River dams owned by PacifiCorp. Twenty-six groups, including irrigators, tribes and conservationists, have signed onto the proposal. Though PacifiCorp is not among them, negotiations with the utility continue, Honey said.

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