"No nation was ever drunk when wine was cheap." - - Thomas Jefferson
Ron's wine pick of the week: Maipe Bonarda Mendoza, Argentina 2008

**Other Stuff:**
(Oops, a funny thing happened on the way to the office, they forgot about or don’t know about pumped storage hydro, the ideal backup solution. They got it right on the other points though.)

**Getting real on wind and solar**

Why are we ignoring things we know? We know that the sun doesn't always shine and that the wind doesn't always blow. That means that solar cells and wind energy systems don't always provide electric power. Nevertheless, solar and wind energy seem to have captured the public's support as potentially being the primary or total answer to our electric power needs. Solar cells and wind turbines are appealing because they are "renewables" with promising implications and because they emit no carbon dioxide during operation, which is certainly a plus. But because both are intermittent electric power generators, they cannot produce electricity "on demand," something that the public requires. We expect the lights to go on when we flip a switch, and we do not expect our computers to shut down as nature dictates. Solar and wind electricity are available only part of the time that consumers demand power. Solar cells produce no electric power at night, and clouds greatly reduce their output. The wind doesn't blow at a constant rate, and sometimes it does not blow at all.

If large-scale electric energy storage were viable, solar and wind intermittency would be less of a problem. However, large-scale electric energy storage is possible only in the few locations where there are hydrotlectric dams. But when we use hydrotlectric dams for electric energy storage, we reduce their electric power output, which would otherwise have been used by consumers. In other words, we suffer a loss to gain power on demand from wind and solar. At locations without such hydrotlectric dams, which is most places, solar and wind electricity systems must be backed up 100 percent by other forms of generation to ensure against blackouts. In today's world, that backup power can only come from fossil fuels. Because of this need for full fossil fuel backup, the public will pay a large premium for solar and wind — paying once for the solar and wind system (made financially feasible through substantial subsidies) and again for the fossil fuel system, which must be kept running at a low level at all times to be able to quickly ramp up in cases of sudden declines in sunshine and wind. Thus, the total cost of such a system includes the cost of the solar and wind machines, their subsidies, and the cost of the full backup power system running in "spinning reserve." Finally, since solar and wind conditions are most favorable in the Southwest and the center of the country, costly transmission lines will be needed to move that lower-cost solar and wind energy to population centers.
centers on the coasts. There must be considerable redundancy in those new transmission lines to guard against damage due to natural disasters and terrorism, leading to considerable additional costs. The climate change benefits that accrue from solar and wind power with 100 percent fossil fuel backup are associated with the fossil fuels not used at the standby power plants. Because solar and wind have the capacity to deliver only 30 to 40 percent of their full power ratings in even the best locations, they provide a carbon dioxide reduction of less than 30 to 40 percent, considering the fossil fuels needed for the "spinning reserve." That's far less than the 100 percent that many people believe, and it all comes with a high cost premium. The United States will need an array of electric power production options to meet its needs in the years ahead. Solar and wind will have their places, as will other renewables. Realistically, however, solar and wind will probably only provide a modest percentage of future U.S. power. Some serious realism in energy planning is needed, preferably from analysts who are not backing one horse or another.

James R. Schlesinger was the first secretary of energy and established the National Renewable Energy Laboratory. Robert L. Hirsch is senior energy adviser at Management Information Services Inc. Previously he managed the federal renewables program at the Energy Research and Development Administration, the predecessor to the Energy Department.

Upgrade planned for dam on Lake Byllesby
Shared by Dakota and Goodhue counties, it must be ready for worst-case floods.
By KATIE HUMPHREY, Star Tribune, April 21, 2009, St. Paul-Minneapolis, MN

The dam that hems in the Cannon River, forming the biggest lake in the south metro area, needs an update if it's going to stand up to a worst-case flood. The Byllesby Dam, on the border between Dakota and Goodhue counties near the town of Randolph, is safe and holds water just fine, but the Federal Energy Regulatory Commission has said it should be upgraded to handle 100 percent of a "probable maximum flood." Even one-quarter of such a flood has never been seen there. To reach the worst-case scenario, the area would need to get the equivalent of 24 inches of rain over a 10-square-mile area in six hours. "There's a ridiculously low possibility that that's ever going to happen," said David Swenson, Dakota County's water resources director. "But it's still a good idea to do [updates]." Dakota and Goodhue counties, which share ownership of the dam, would split the estimated $4.8 million cost of the upgrade. The counties will apply for a dam safety grant from the Minnesota Department of Natural Resources to cover up to 50 percent of the bill.

A study that will reevaluate the magnitude of a worst-case flood -- last calculated in the 1980s -- will be finished in June and the counties will base their construction plan on that new measurement, starting work in 2011. Dam updates could include changes that would allow water to flow over the perimeter dam, just north of the hydroelectric main dam, and higher gates on the top of the dam to better control water flow. The hydroelectric Lake Byllesby Dam was constructed in 1910 as Henry Byllesby expanded his electrical empire, Consumers Power Company. It was donated to Dakota and Goodhue counties in 1969 and in the early 1980s began producing hydroelectric power for about 2,400 homes. Previously, the dam needed to meet standards for 50 percent of a probable maximum flood. The federal commission increased the requirement to 100 percent because of additional development downstream. The calm waters in the reservoir, 3.5 miles long and covering 14,800 acres, draw boaters each summer, and people often fish at the base of the dam. It also draws visitors to the Lake Byllesby Regional Park. "The dam is safe and can handle levels we've seen over the last 100 years, but it's just a precaution," Swenson said. The calm waters in the reservoir, 3.5 miles long and covering 14,800 acres, draw boaters each summer, and people often fish at the base of the dam. It also draws visitors to the Lake Byllesby Regional Park.

Feds to strengthen Boca Dam for quakes
By Jeff DeLong • jdelong@rgj.com • April 22, 2009

Concerned the structure could suffer serious damage during a major earthquake, U.S. Bureau of Reclamation officials announced Wednesday studies will be made strengthening Boca Dam. While they say failure of the dam is only a slim possibility, recent safety evaluations suggest significant improvements are needed to protect one of the Truckee River system's major dams, said Doug McElhinney, project manager for the bureau. "Our understanding of what could happen there is quite a bit more than
what it used to be,” McElhinney said. “The possibility of any failure is extremely remote but since our requirements are so stringent, it puts us in the range of justifications to take corrective action.” He said the danger is that foundation materials beneath the dam could substantially lose strength during a major quake through a process known as liquefaction. Similar concerns led to significant changes to Northern Nevada’s Rye Patch Dam about a decade ago, McElhinney said. He said what should be done at Boca and how much it might cost won’t be known for at least two years.

The 116-foot-high Boca Dam, completed in 1939, has a capacity of about 40,000 acre-feet of water. It is in California about 5 miles northeast of Truckee in a seismically active area, west of the center of a cluster of quakes that rattled the Reno area last year. The largest in April 2008 collapsed a wooden water flume in Mogul. Potential failure of upstream dams is among the “catastrophic scenarios” that must be planned for, said Aaron Kenneston, Washoe County emergency manager. “One of our concerns has always been the safety of upstream dams,” Kenneston said. “That is always a concern because Nevada is so seismically active.” Were Boca Dam to fail while the reservoir was full, “it would make a mess” and inundate parts of Reno and Sparks, McElhinney said. “My understanding is it could be fairly severe in terms of the amount of water coming quickly down the canyon,” agreed Naomi Duerr, director of the Truckee River Flood Project. “I’m very encouraged the bureau is going to take these steps. I think it will make the whole community feel safer.”

Earthquake safety issues have also been identified at Martis Creek Dam, a flood storage facility near Truckee owned by the Army Corps of Engineers.

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**Boca Dam receives governor's support**


The governor’s office has endorsed the Milltown Hill Dam project, according to an e-mail from Gov. Ted Kulongoski’s natural resource policy adviser to Douglas County Commissioner Doug Robertson. “I have reviewed the project with agencies and assuming that the fish passage and other accommodations that were agreed to previously with (the Oregon Department of Fish and Wildlife) are still a part of the project, we can fully support the project,” Carrier wrote in a March 26 message to Robertson. The Board of Commissioners sought the governor’s support to promote the project with the federal Bureau of Reclamation. That agency is set to receive $500 million in federal stimulus funding and is looking for projects to fund. “We’re pleased with the state’s response,” Robertson said during Wednesday’s meeting of the Board of Commissioners.

The Milltown Hill Dam, to be constructed on Elk Creek east of Yoncalla, has been planned for decades. It was one of a series of dams to be built throughout the county. The county bought up property on Elkhead Road and was moving forward on the project before hitting a roadblock in 1998. The County unsuccessfully sought a waiver of a state law that mandates inclusion of fish passageways on all new dams built in the state. The 1997 Oregon Legislature passed a law giving the state Fish and Wildlife Commission permission to grant a waiver of the requirement if other mitigation efforts provided a net benefit to fish. Elk Creek is home to coho salmon, winter steelhead and the Umpqua River cutthroat trout. The dam would provide fish enhancement, flood control, recreation and additional water for irrigation and for home and industrial use. The project was mothballed after inclusion of fish ladders would have more than doubled the original $44 million cost of the dam. Federal grants and loans would have only covered $31 million of the cost. The county has already spent more than $10 million on the project. Over the past four years, following the prompting of then-Commissioner Marilyn Kittelman, the county updated several needed studies. But further work was stopped after the Bush administration made it clear it was not willing to finance construction of a project that could now top $100 million.

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**Dix Dam doomsday not likely**

By Charlie Pearl, 4/26/09, The State Journal Frankfort KY

A Kentucky Utilities official - responding to concerns about the safety of Dix Dam - says recent inspections revealed “no conditions which indicate any threat to the structural integrity of the dam.” Jim Daniel, the dam’s local watchdog, says he’s satisfied with KU’s position. In a recent letter to Deron Rambo, local emergency management director, KU says it is “fully committed to properly maintaining Dix Dam both from the standpoint of protecting public safety and preventing disruption of our operations … “The Company has diligently conducted routine inspections, as well as periodic engineering evaluations and appropriate repairs of the dam throughout its history.” The letter is from Jeffrey Fraley, general manager of E.W. Brown Generation Station at Dix Dam.
KU owns the 84-year-old dam, 53 miles upstream from Frankfort on the Dix River, a Kentucky River tributary. Rambo met with KU officials in January and sent a follow-up letter in mid-March, requesting additional information. Last week Rambo said, "They answered my questions and this is not the only correspondence I'm going to get from them. I've talked to them several times on the phone. "It's an ongoing process, and it takes time when you're working through companies, government and attorneys." Fraley says starting in May there will be an "in depth inspection and engineering evaluation," a "potential failure mode analysis study," and a "third party engineering review of past inspections and analyses of past engineering reviews." In 2010, there will be a "planned remote operated vehicle underwater slab inspection." Major inspections, engineering evaluations and repairs also occurred in 1980, 1987-89, 1990-91, 1998, 2003, 2005 and 2008. Fraley says KU also "performs daily visual inspections and continuously monitors leakage rates," which are reported quarterly to the state Division of Water. Fraley says, "We review our lake level control plan and spilling procedures annually ... In 2007 the U.S. Geological Survey installed a flow gauge between the powerhouse and the spillway outlet on the Dix River to monitor flows." KU employs the engineering firm, Arcadis, as its consultant for the dam. Rambo requested a copy of the emergency action plan for Dix Dam. Fraley says KU "anticipates providing the pertinent parts of the plan that are needed to develop local emergency action plans within the next 60 to 90 days, after we complete updates of the inundation maps. That updated plan will include appropriate surge time information." To ensure timely notification to Frankfort, contact information for Frankfort and Franklin County has been updated in the Dix Dam emergency action plan, Fraley says. "In the unlikely event of a breach, the procedure identifies several agencies (including Frankfort/Franklin County) to be notified as soon as the incident commander initiates emergency protocol procedures ..."

“We at Kentucky Utilities strive for excellence in everything we do and safety is no exception. We take safety very serious and the safe operation of Dix Dam is extremely important to us. We continually monitor Dix Dam and make repairs to ensure the safe reliable operation of the facility." Daniel, a retired enforcement agent for the state Division of Water, gave a presentation this month to the City Commission on the dangers of the dam. He's a spokesman for Kentucky Council for Dix Dam Safety. U.S. Corps of Engineers’ studies in the late 1970s determined there were numerous serious structural-integrity deficiencies, Daniel said. "There are no records available that indicate that any of those deficiencies have been corrected," Daniel said. On Friday, regarding KU’s letter to Rambo, Daniel said, "basically we’re satisfied. KU has now put itself in a position where it is committed to performing things we think are very essential. "Drawing that structure completely wouldn’t prove really a thing," Baldwin said. "You don’t want to go through with that unless it’s necessary." Daniel said Friday he worked in state government with Baldwin and respects him, "but quite frankly his expertise was in wastewater treatment facilities. He’s entitled to his opinion." "I don't have to be an expert. I’m just the messenger, repeating the opinions (from studies and reports) of world-class dam experts - L.F. Harza, the man who designed and built the dam in 1923-1925, and Lewis Schmidt, a world-class engineer and assistant to Harza.” At the April City Commission meeting, Daniel said Dix Dam is the highest and one of the most dangerous dams in the state. "Whether or not it is the most dangerous dam is open for debate," Daniel said. "But one for certain is it's the most dangerous one for us."

(I only show this article because I liked the name of the place, although I think they spelled it wrong, the “i” should have been an "o".)

Stimulus dollars at work
Local dams to get $3.3 million in repairs
By Janet Jacobs, April 26, 2009, Corsicana Daily Sun
(Excerpts)
Navarro County will receive $3.3 million in federal stimulus money to repair dams on Chambers Creek and Richland Creek, according to the Natural Resources Conservation Service, a part of the U.S. Department of Agriculture. -------
http://www.corsicanadailysun.com/local/local_story_116210944.html
(A nice dam story from Loveland, CO)

The Dam Store still brings smiles after more than 100 years
By Pamela Dickman, Loveland Reporter-Herald, 4/26/2009
(Excerpts)
The Dam Store has been a stopping point for travelers in the Big Thompson Canyon for more than 100 years.

The first Dam Store was a small wooden shop built in 1906 near where the city of Loveland’s water plant now sits.

In 1969, Les and Roberta Olmstead bought the Dam Store from then-owners Ray and Dorothy Black. They moved here from California with two daughters and a son. The same year, Les built the store’s trademark tower that allows people to climb 40 feet to view the beauty of the region and the Big Thompson River tumbling down the dam.

http://www.reporterherald.com/features/Feature-Story.asp?section=Focus&ID=22815
http://www.bestdamstore.com/store/

Hydro

(This stimulus nonsense is something that causes a deep love/hate relationship. The jobs are all temporary and then what?)

Federal stimulus funds jumps Elwha dams removal date ahead a year
By Paul Gottlieb, Peninsula Daily News, April 23, 2009

Federal stimulus money will hasten removal of the Elwha and Glines Canyon dams by about one year after years of delays and will begin providing hundreds of jobs to the North Olympic Peninsula starting this summer, the National Park Service said Wednesday. The $308 million removal project west of Port Angeles will receive $54 million from the American Recovery and Reinvestment Act of 2009 for mitigation projects that will begin this summer. Actual removal of the dams to restore salmon habitat will start in 2011 instead of 2012 -- a date the park service had set earlier -- and will be completed in 2014 as a result of the new funding, said U.S. Rep. Norm Dicks, chairman of the House Subcommittee on Interior, Environment and Related Agencies. "We just didn't have the money before," said Dicks, whose 6th Congressional District includes Clallam and Jefferson counties, Wednesday morning. "We've been doing $20 million a year, and now we'll have the money to go forward. This is a big deal because we are able to accelerate the project," he said. "It's good for the park service, too, to get the thing moving. We've been waiting a long time." The $54 million allocation is the largest single appropriation from among hundreds of Park Service projects funded with $750 million in Department of Interior stimulus money, Olympic National Park spokeswoman Barb Maynes said.

Largest in U.S. history
Stimulus money will fund nine mitigation projects that will start this summer in preparation for removing the dams, the largest-ever dam removal project and the second largest restoration project next to the park service’s revival of the Everglades. The projects include maintaining water quality at the Nippon Paper Industries USA mill on Marine Drive in Port Angeles, and taking measures to protect private property. Dicks said the Park Service will issue a request for bids by mid-2010 for removal of the dams.
Joint effort
To secure the stimulus funding, the Lower Elwha Klallam tribe worked with Dicks, government agencies and the Puget Sound Partnership, of which Clallam County Commissioner Steve Tharinger is a member. "We are really happy all the agencies and departments came together in seeing this as having an important impact and need in salmon runs," tribal Chairwoman Frances Charles said. "Of course we always wanted to see it happen sooner rather than later." Construction was first scheduled to begin in 2004. This is the first time the time line has sped up instead of slowed down. Removal of the dams was authorized in the federal 1992 Elwha Act to restore salmon habitat on the river once fabled for its dense runs of large salmon. The construction of the 105-foot Elwha Dam in 1913 and the 210-foot Glines Canyon Dam in 1927 blocked the salmons' progress up the river and prevented the return of fish to breed. The cost of the project to remove the dams has more than doubled since 2001, and could end up costing more, Maynes said. The $308 million budget was established in 2008, and by 2014 could rise to $354 million to cover inflation and potential unanticipated, higher costs. The park will receive a total of $57.8 million for projects that will include replacing historic roofing throughout the park, replacing the Hoh sewer system, rehabilitating four bridges and replacing electrical cable conduit on Hurricane Ridge Road.

Jobs impact
But the project to remove the dams will have the most impact on jobs. In March, Clallam County's unemployment rate climbed to 11.3 percent, and Jefferson County's to 9.5 percent. Under the aegis of the federal Davis-Bacon act, the jobs linked to the dam removal will pay prevailing occupation-specific wages, which are "generally the union wage or higher," Maynes said. More than 100 people already are employed building two mitigation projects --- the Elwha water treatment plant downstream from the new Elwha Bridge and the Port Angeles water treatment plant at the Port Angeles solid waste transfer station west of downtown. Of 117 workers building the Elwha plant, 76 are from Clallam County and one is from Jefferson County. Maynes said, The stimulus-funded mitigation projects will employ 150 to 200 more beginning this summer and lasting through 2011, she said. The number of jobs created by removal of the dams won't be known until the removal contract is awarded. The Elwha Dam will be dismantled by drilling holes in the facade followed by controlled blasting. The Glines Canyon Dam, which is inside the park, will be dismantled by workers wielding diamond-studded saws and conducting controlled blasting. During removal, the park will set limits on public access to the Elwha Valley and to Olympic Hot Springs Road, down which trucks will rumble with giant chunks of concrete dam. "There will be mitigation for all that truck traffic," Maynes said. Traffic has already increased for construction of the treatment plants, which will clean the sediment-laden water from the Elwha River the dams are removed. The city of Port Angeles gets its drinking water from the Elwha. On the floor of Lake Mills behind the Glines Canyon Dam, 13 miles from the river's mouth at the Strait of Juan de Fuca, sit 18 million cubic yards of sediment. The Elwha Dam, eight miles from the river's mouth, created Lake Aldwell.

Sediment released
Fine sediment will be released as the dams are dismantled and the lakes drained, while heavier, denser sand will take eight to 10 years to inch down the river. The Department of the Interior predicts salmon will start returning in abundance within 20 years, and that up to 400,000 will return within 30 years. Their habitat includes 75 miles of river and tributaries. "The sooner the system restores itself, the sooner the salmon can get up there and the river can heal itself," Tharinger said. Charles recalled tribal elders walking paths along the Elwha River when the dams were built without fish passages. "They didn't really approve of it when the dams were put in," she said. "They had concerns about fish runs and habitat area. Those above are sort of smiling down now."

(Is this the Park Service’s contribution for tearing down Elwha and Glines Cangyon?)

Wyoming: Cheyenne – Yellowstone National Parky Hydro
USAToday, April 23, 2009

Yellowstone National Park will use most of its $14.7 million stimulus money to replace wastewater treatment plant and install a small hydroelectric unit. The treatment plant at Madison Junction will cost $9 million: a hydroelectric system at Mammoth Hot Springs will cost $1.65 million. Grand teton will get $18.8 million to upgrade buildings.

Hydropower not in new energy bill
NEW STANDARD: Congress wants boost in renewable sources like wind and solar
By MARC HELLER, Watertown Daily Times, APRIL 23, 2009

Copy obtained from the National Performance of Dams Program: http://npdp.stanford.edu
WASHINGTON — As Congress considers ways to boost renewable energy, one big source in Northern New York — the St. Lawrence-FDR Power Project in Massena — does not count. Lawmakers are closing in on legislation that would largely leave out hydroelectric production as a renewable energy source, a move that would encourage less-established sources such as wind or solar but give New York and other states a steeper climb to meet new federal standards. About 19 percent of New York's electricity comes from hydroelectric plants, Gov. David A. Paterson's office reported. Hydro accounts for a big share of the renewable energy in the state, perhaps as much as 90 percent, proponents say, "It's a renewable resource," said Jeffrey Leahey, senior manager of government affairs for the National Hydropower Association, which is pressing as big a role as possible for hydro in the mix of alternative energy the federal government is seeking. "Frankly, that balance can be difficult."

Excluding hydro from the standard will drive up the cost of electricity in the state, say critics of the legislation drafted in the Senate and House. Committees could vote on the bills in the next few weeks, setting up debates this summer on a final package. The House Energy and Commerce Committee is holding hearings this week on the legislation, which attacks climate change and energy. The bills' defenders say the point is to encourage a wider range of electricity sources, and including existing hydro production detracts from the goal. But Congress does give hydro plants a nod by letting officials exclude those plants' production in a state's "base" of electric production to meet the new standard; a smaller base means a state does not have to generate as much power from alternative sources to meet the new standard, which is 20 percent renewable in the Senate bill and 25 percent renewable in the House version. And new hydro plants could be counted toward the standard. Another question, Mr. Leahey said, is how lawmakers will treat existing dams that do not generate electricity. If hydroelectric plants could be added, he said, that would help states meet the standard. The New York Power Authority, which operates the St. Lawrence-FDR project as well as the Niagara Power Project, has not lobbied heavily on the issue in Washington but has invested heavily at those facilities in recent years in advance of federal relicensing. The Power Authority spent $254 million upgrading the St. Lawrence project, which obtained a new 50-year license in 2003. Depending on the outcome of legislation, the new renewable electricity standard could be in place by 2025. However, skeptics in Congress say that timetable may be too fast for states to meet.

The legislation reflects Democrats' efforts to act quickly on global warming and on President Obama's pledge to reduce the nation's reliance on fossil fuels and imported oil. Republican critics say the reductions are too costly. Rep. John M. McHugh, R-Pierrepont Manor, is waiting for a bill to come into better focus before taking a position, said his spokeswoman, Stephanie Valle. Mr. Paterson's office is making the case to lawmakers that the proposed federal standard and the state's own renewable energy standard should match as closely as possible. On the hydro issue, they do not; New York counts existing hydro toward its renewable portfolio standard of 25 percent.

(Firm eyes N. Springfield hydro-power possibilities)

By Susan Smallheer, STAFF WRITER — Rutland Herald, April 24, 2009

NORTH SPRINGFIELD, VT — A Plainfield hydroelectric development firm wants to study turning the North Springfield flood control dam into a power-generating facility, Blue Heron Hydro LLC has filed a preliminary permit request with the Federal Energy Regulatory Commission to study the hydro potential of the dam, which was built in the late 1950s. Blue Heron, which has filed similar applications for flood control dams in Jamaica and Townshend, estimates it could install three turbines at the North Springfield dam, with a capacity of 0.65 megawatts, which could generate 2,200 megawatt hours of power. But Blue Heron's preliminary filing has already prompted concerns from the Connecticut River Watershed Council, which said the proposal by Blue Heron would raise the level of the lake impoundment behind the North Springfield dam by 8 feet, flooding recreation areas and affecting the fisheries in the lake.

The town of Weathersfield, where most of the lake is located, has filed for intervenor status in proceedings before FERC, according to Weathersfield Town Manager Larry Melen, who said Thursday the town was simply seeking information and to be kept informed about the project. Melen said he learned about the project from Springfield Town Manager Robert Forguites, who said he learned about it when he got a letter from the Connecticut River Watershed Council and not from the developer. Forguites said Thursday that it was too soon for the town to take any stand on the project, and he noted that the town was on the official service list and would be receiving any information about the project. The town of Springfield at one time wanted to build its own hydroelectric dam on the Black River in the town of Weathersfield, several miles upstream from the flood control dam, with most of the 800-acre impoundment flooding land in neighboring Cavendish. The town also proposed using the flood control dam as a generating station as well. The town's plans died in the mid-1980s after more than 10 years of study and fighting with neighboring towns.
Lori Barg, the principal behind Blue Heron Hydro, couldn’t be reached for comment Thursday, but according to the FERC Web site, Blue Heron has filed similar pre-applications to study putting generating facilities at U.S. Army Corps of Engineers’ dams at Ball Mountain in Jamaica and Townshend Dam in that town. David Deen, river steward with the Connecticut River Watershed Council, said that his organization has requested intervener status in the North Springfield project. Deen, who is a state representative from Westminster and chairs the House Fish and Wildlife Committee, said he knew Barg, who is a regular in the Statehouse, lobbying for hydro issues. He said at first impression it seemed like a small amount of electricity to be generated, considering the potential environmental and recreational impacts. Deen said by increasing the size of the lake, the larger surface would lead to an increase in thermal heating and would affect the temperature of the Black River as well. Deen said the proposed biomass plant in North Springfield is considering using the Black River as well for cooling water and water for steam generation. Additionally, he said the historic Crown Point Road, which cuts through the North Springfield recreation area, could be affected by Blue Heron’s plans. The watershed council is asking for an in-depth study of the affects of the 8-foot water level increase will have on wetlands and river habitat. He also said that he believed that the only “car-top” boating access point on the North Springfield Lake would be inundated by the Blue Heron proposal. He said it was the only area where canoeists can get their boats in the water. Blue Heron, which also operates as Community Hydro, has filed for a similar project on the Westfield River in Massachusetts at the Littleville Dam, according to FERC. John Ramer, a FERC staffer in Washington, D.C., said that requests for intervener status must be filed within 60 days of last week’s official notice in the Federal Register.

Study to begin on possible Tenn-Tom hydroelectric plant

APRIL 25, 2009, JOHN MOTT COFFEY, The Commercial Dispatch

JACKSON, Miss. – The federal government has given a Utah-based company permission to study the feasibility of operating a small hydroelectric plant at the Tennessee-Tombigbee Waterway’s Stennis Lock and Dam near Columbus. Symbiotics received the preliminary permit from the Federal Energy Regulatory Commission to assess the TTW site and decide whether to go forward in seeking a FERC license. The permit issued in September doesn’t authorize construction, but it gives the green light for the company to take up to three years to study the environmental and financial impact of running the hydropower facility. “We’re still thinking about it and what it has and what issues that can be anticipated and whether the value of the energy is sufficient to cover the costs of the project,” said Dave Boyter, Symbiotics’ director of engineering and operations. He said it’s still in the “pre-preliminary” phase of a lengthy process that could take about five years before a license is issued.

If the facility is built, Symbiotics would sell water-generated electricity produced from a powerhouse and three turbine-generators at the Stennis Dam. Estimated to cost about $25 million, the TTW hydropower project is among at least 40 the company had on the drawing board last year to consider adding to its current inventory of facilities at 10 river dams and waterfalls in the United States. FERC is responsible for licensing the construction and operations of all hydroelectric facilities in the country. The agency notified the public in May 2008 of Symbiotics’ plans for the Stennis Dam. The dam and Tenn-Tom Waterway are operated by the U.S. Army Corps of Engineers. The use of the 234-mile canal is promoted by the Columbus-based Tennessee-Tombigbee Waterway Development Authority. Both agencies support Symbiotics’ plans. “The TTWDA does not oppose such projects as long as it does not interfere with the navigability of the waterway,” said TTWDA Administrator Mike Tagert.

(Does anybody understand this would remove 3 million kW of cheap, efficient hydropower?)

Groups want Snake River dam removal on Obama’s table

by The Oregonian, April 27, 2009

The Sierra Club and six other big environmental groups are asking the Obama administration to consider major changes to federal dam management on the Columbia and Snake rivers, "up to and including removal of the four lower Snake River dams." The letter, addressed to Nancy Sutley, chairwoman of the White House Council on Environmental Quality, is signed by the leaders of American Rivers, Defenders of Wildlife, Earthjustice, the Endangered Species Coalition, Friends of the Earth, National Wildlife Federation, and the Sierra Club. The letter says Snake River fish, which reach higher and cooler altitudes, are better equipped to survive global warming. The electricity produced by the Snake River dams, which is greenhouse gas free, is "relatively minor," the groups say.
Rivers shrinking: Flow of many rivers in decline
By RANDOLPH E. SCHMID, 04.21.09, Associated Press

The flow of water in the world's largest rivers has declined over the past half-century, with significant changes found in about a third of the big rivers. An analysis of 925 major rivers from 1948 to 2004 showed an overall decline in total discharge. The reduction in inflow to the Pacific Ocean alone was about equal to shutting off the Mississippi River, according to the new study appearing in the May 15 edition of the American Meteorological Society's Journal of Climate. The only area showing a significant increase in flow was the Arctic, where warming conditions are increasing the snow and ice melt, said researchers led by Aiguo Dai of the National Center for Atmospheric Research in Boulder, Colo. "Freshwater resources will likely decline in the coming decades over many densely populated areas at mid- to low latitudes, largely due to climate changes," Dai said. "Rapid disappearing mountain glaciers in the Tibetan plateau and other places will make matters worse." Added co-author Kevin Trenberth, "As climate change inevitably continues in coming decades, we are likely to see greater impacts on many rivers and water resources that society has come to rely on." While Dai cited climate change as a major factor in the changes, the paper noted that other factors are also involved, including dams and the diversion of water for agriculture and industry. Nonetheless, he said, "long-term changes in streamflow should be a major concern under global warming." Indeed, the researchers wrote that "for many of the world's large rivers the effects of human activities on yearly streamflow are likely small compared with that of climate variations during 1948-2004."

"This is an important paper with new findings that are relevant to the health of river ecosystems and the people who live near or rely upon rivers to meet water needs," said Margaret A. Palmer, director of the Chesapeake Biological Laboratory of the University of Maryland Center for Environmental Science. "What is important from this study is these authors show that these decreases are due to a changing climate, not human activities like extractions or dam building, yet these changes will have impacts on humans and ecosystems because many of these regions have large populations and drought-stressed ecosystems," said Palmer, who was not part of the research team. Among the rivers showing declines in flow, several serve large populations. These include the Yellow River in northern China, the Ganges in India, the Niger in West Africa and the Colorado in the southwestern United States. On the other hand, areas with rising streamflow near the Arctic Ocean tend to have small populations. There was considerable year-to-year variation in the flow of many rivers, but the overall trend over the period showed annual freshwater discharge into the Pacific Ocean fell by about 6 percent, or 526 cubic kilometers of water. That's close to the 552-cubic kilometer average annual flow of the Mississippi, the researchers reported. The annual flow into the Indian Ocean dropped by about 3 percent, or 140 cubic kilometers. In contrast, annual river discharge into the Arctic Ocean rose about 10 percent, or 460 cubic kilometers. There was little change in inflow to the Atlantic Ocean, where increases in the Mississippi and Parana rivers were balanced out by decreases in the Amazon River. A cubic kilometer is a cube one kilometer on each side. A kilometer is about six-tenths of a mile. Discharge of river water into the oceans deposits sediment near the river mouth and also affects worldwide ocean circulation patterns, which are driven by variations in water temperature and salinity. In the United States, the flow of the Mississippi River increased by 22 percent over the period because of increased precipitation across the Midwest. On the other hand, the Columbia River's flow declined by about 14 percent, mainly because of reduced precipitation and higher water usage. Major rivers showing declines in flow included the Amazon, Congo, Changjiang (Yangtze), Mekong, Ganges, Irrawaddy, Amur, Mackenzie, Xijiang, Columbia and Niger. Declines in the Niger River in the 1970s and 1980s in particular reflected the Sahel Drought, the paper said. In addition, the periodic El Nino cooling of sea surface waters in the tropical Pacific led to lower flows in the Amazon and higher ones in the Mississippi when the phenomenon was in effect. The research was supported by the National Science Foundation.
Environment

(Missed this one earlier! It looks like someone has loaded the deck against the Snake River Dams. Not a word about losing all that hydro generation. Oh well, it's just renewable energy and the most efficient out there. We can replace it with inefficient wind power — so they say!)

Dr. Lubchenco and the Salmon

EDITORIAL, April 10, 2009, NY Times

Jane Lubchenco, the new leader of the National Oceanic and Atmospheric Administration, will have more to say than anyone else in Washington about the health of fish species in America’s coastal waters. A career marine ecologist, she is widely regarded as tough, smart, respectful of science and deeply committed to the survival and growth of America’s fisheries. She will need all of those qualities and more when she confronts what could be her first major test — possibly the most vexing of her tenure — devising a workable and broadly acceptable solution to the grave threats facing the salmon runs of the Pacific Northwest. In a matter of weeks, a federal judge in Portland, Ore., will rule on the adequacy of the Bush administration’s last recovery plan for a dozen or so endangered or threatened salmon runs in the Columbia-Snake River Basin. Judge James Redden has already rejected two earlier plans. He tossed out a Clinton plan because he found its prescriptions too vague and predictions about the recovery rate for salmon species too speculative. He then tossed out a Bush plan because it did too little to increase water flows over the dams to help move young salmon downstream to the ocean. It was also illegal: The Endangered Species Act requires the recovery of a species, whereas the Bush plan promised little more than allowing the fish to go extinct at a slower rate.

This latest plan is an improvement, but it asks only that the fish be “trending toward recovery” — which could mean almost anything, and certainly does not point toward full recovery. It is opposed by environmental groups and the state of Oregon, from which Dr. Lubchenco hails. It also is unlikely to pass muster with the judge. That would set the stage for intervention by the Obama administration and, one hopes, a much better recovery plan. As part of that plan, we urge the administration to consider removing the four dams on the Lower Snake River, which many scientists see as critical to the species’ recovery. The Clinton plan held open that possibility; the Bush plan did not. Encouragingly, Dr. Lubchenco has already shown a capacity to confront tough problems. Last week, she asked the hidebound and suspicious fishermen of New England to entertain a radical shift in the way they manage their fisheries. Instead of the current race to catch the last fish, Dr. Lubchenco is calling on them instead to submit to an ownership system known as “catch shares” under which they would be given a fixed share of the fishery and, with it, a strong financial interest in having the fishery survive and grow. The idea has worked well in several countries, like Australia. It also captured the attention of Congress and the Bush administration. Getting New England’s traditionalists to accept a new idea will not be easy, but it is necessary. New England’s fisheries suffer from overfishing, the Pacific Northwest’s from habitat loss. What both places suffer from is a failure to act.

Expanded environmental study for Merced Irrigation District dam might force higher water flows

Aqua Blog Maven on April 25, 2009, From the Merced Sun-Star

Two dams on the Merced River may be forced to flow a little more in line with Mother Nature if changes in their licensing go through. Merced Irrigation District’s two dams — the New Exchequer and McSwain, whose licenses expire in 2014 — could be forced to release more water because of their cumulative impacts on endangered fish downstream. Both were licensed in 1964. In April, the Federal Energy Regulatory Commission, which licenses dams, issued a document that could massively expand the environmental study area required for the relicensing. Now it may reach all the way to the Sacramento-San Joaquin Delta. If the studies find that the dams hurt endangered fish populations, MID may be forced to release more water to keep those fish healthy. The commission document expands the impact area of the dams north to the Sacramento Delta because of endangered fish species. “At this time, we have tentatively identified the upper and lower Merced River, including the San Joaquin River, between confluences with the Merced and Sacramento rivers as our geographic scope of analysis for federally listed species,” noted the report. The commission document also concluded that the direct impacts of MID’s two dams are to some degree limited by a diversion dam, the Crocker-Huffman, which lies downstream from both. Nonetheless, it reported that “the project may contribute to a cumulative impact downstream.”

http://www.mercedsunstar.com/167/story/808878.html
This compilation of articles and other information is provided at no cost for those interested in hydropower, dams, and water resources issues and development, and should not be used for any commercial or other purpose. Any copyrighted material herein is distributed without profit or payment to those who have an interest in receiving this information for non-profit and educational purposes only.
Quote of Note: “The purpose of life is not to be happy. It is to be useful, to be honorable, to be compassionate, to have it make some difference that you have lived and lived well” - - Ralph Waldo Emerson

“Good wine is a necessity of life.” - -Thomas Jefferson

Ron’s wine pick of the week: Layer Cake Shiraz 2008

**Other Stuff:**

**10 US Energy Facts**
Prudent Investor Newsletters, April 28, 2009

From American Institute for Economic Research

1. New York State’s per capita energy consumption is among the lowest in the nation due in part to its widely used mass transportation systems.
2. California imports more electricity from other states than any other state.
3. Iowa is the largest producer of ethanol in the United States and is a leading state in electricity generation from wind turbines.
4. Montana is one of the top hydroelectric power producers in the United States.
5. Colorado’s oil shale deposits hold an estimated 1 trillion barrels of oil—nearly as much oil as the entire world’s proven oil reserves. However, oil production from those deposits remains speculative.
6. Florida is a leading producer of oranges, and researchers are attempting to derive ethanol from citrus peel waste.
7. North Carolina is one of the top nuclear power producers in the United States.
8. Oregon is one of the nation’s leading generators of hydroelectric power, which accounts for more than one-half of state electricity generation.
9. The Henry Hub in Louisiana is the largest centralized point for natural gas spot and futures trading in the United States, providing access to major markets throughout the country.
10. The Powder River Basin, most of which lies in northeastern Wyoming, is the largest coal-producing region in the nation, accounting for approximately 40 percent of all coal mined in the United States.

**Book Review: Workers who built Seaway remember monumental project**

Claire Puccia Parham chronicles the creation of an engineering wonder of the world, a wonder that is about a five-hour drive from here. When it was constructed, between 1954 and 1958, The St. Lawrence Seaway

Copy obtained from the National Performance of Dams Program: [http://npdp.stanford.edu](http://npdp.stanford.edu)
and Power Project was the largest public works project in North America. It is the largest power and navigation project ever constructed by two nations.

The Seaway was the realization of nearly 100 years of plans to link the Great Lakes and the world beyond by a large canal and to generate hydropower to bring industry and comfort to a remote stretch of the New York-Ontario border. Parham, a Clifton Park resident who hails from Watertown — on the western edge of the Seaway — uses oral history to show the reader what a political, engineering and construction triumph the Seaway was. The project included work over 114 miles of the St. Lawrence River. Its several locks lifted ships nearly 600 feet as they steamed from Montreal to the west. It included several large hydroelectric dams. The Eisenhower Lock, near Massena, was so large and such a presence on the landscape that engineers tunneled a highway beneath it. To accommodate the higher water levels when the project was finished, builders relocated eight villages, with contractors moving many houses from their old foundations. In addition to these physical features, it took a Canadian/American force of 22,000 workers to complete the work. The seven largest construction contractors in America participated in the project, as did the Army Corps of Engineers, Ontario Hydro, a skilled Canadian agency developing hydroelectric power and the Power Authority of New York State.

Sweep, complexity
To capture the sweep and complexity of this work, Parham follows a partly chronological and partly topical format. The first chapter, for example, is a history of how Canada and the United States decided to build the Seaway. The last describes the experience of “Inundation Day,” when construction workers removed the cofferdams that enabled the dams and locks to be built on dry land and the water returned to generate power and to sustain the locks that would move the ships. The topical parts include chapters on the experiences of engineers and workers, worker safety and women who came to the area with their husbands. Parham has a really big story and thoroughly researched it, and she lived near the project growing up. In such a situation, a lesser writer might be tempted to do all the talking or dominate the narrative. Parham avoids this. She lets 55 men and women who worked on the Seaway tell the story in their own words. She writes transitions and organizes the excerpts from her oral history interviews but she stays in the background and lets a chorus of voices from people who were there tell the story. Along with the oral history, the book has 40 black-and-white illustrations and a map of the project. Many of the photographs were taken by Alfred Mellett, the official photographer for the Power Authority. However a significant number came from Parham’s interviewees. So much is going on, in terms of amazing construction work, that choosing a few anecdotes is a challenge. I was impressed that for the locks and dams the builders built cofferdams in fast-flowing water so they could dig down to bedrock and build on land that was, at least temporarily, dry. The locks and dams are enormous and it is amazing to me that the cofferdams were almost as strong and extensive as the permanent dams themselves.

For several decades before Congress and the Canadian Parliament authorized construction of the Seaway, the Army Corps of Engineers took soil borings to determine where the glacial till and the river sediment ended and the bedrock needed for a safe construction base began. They took tens of thousands of borings and still were often surprised by how much material had to be removed. And, the material was being removed in every season — from blazing summer to freezing winter. Barbara Hampton, who came to Massena with her husband, Robert, a Union College grad, said, “I realized the weather had a personality of its own and I had to learn to deal with it.” It was so cold that motor oil would freeze in the engines of equipment left outside on winter nights.

Technical terms
In a few places, the author and the people interviewed used design and construction terms that I did not understand. In a few other places, I had difficulty figuring out how the various dams and locks related to each other. This confusion, however, was the exception rather than the rule. There is so much fascinating politics, design, construction and slices of everyday life in this book that it is worth reading. In the 50 years since the Seaway opened, ships have gotten larger, the economics of cities have changed and fewer ships use the Seaway. However, Parham’s combination of narrative and oral history vividly shows how the building of the Seaway was indeed “the greatest construction show on earth,” an event that transformed individual lives and the communities along the St. Lawrence and the Great Lakes.

Claire Puccia Parham will appear at 7 p.m. Wednesday, May 13, at the Clifton Park-Halfmoon Public Library, Clifton Park, and at 12:15 p.m. Wednesday, May 20, at William K. Sanford Library, Colonie
(And more stimulus money – too many articles to include all)
http://www.dailymail.com/News/200904300376 (Bluestone Dam)

(You gotta give them an A+ for a catchy title)

**Update: River Of Cash**

Posted By: Meredith Mitchell, today'shtv.com, Little Rock, Ark.

Millions of dollars is headed to Arkansas to help repair aging dams and hydropower plants. After last year’s devastating floods many aging water systems around the state were tested. P.J. Spaul with The Little Rock District of the Army Corps of Engineers says the money couldn’t have come at a better time. "The flooding in 2008 certainly put a lot of strain on the dams and going into it we had some concerns that things could break and not work properly." Through the years the Little Rock district of the Army Corps of Engineers has tried to keep up with repairs but many projects went unfunded. Spaul says the stimulus money will aid much needed repairs. "A lot of our dams are getting old now, some of them are more than 60 years old and even the newest ones are 40 years old now. Almost $137 million will soon begin pouring into the repair and modernization of the Corps' aging infrastructure. Spaul says the money came into play at a very critical time. "We certainly didn’t foresee this coming a year ago. A year ago we were really concerned about how we were going to keep these projects operating properly," says Spaul. The money will go to a backlog of maintenance projects that were on the back burner till now. Spaul says there are a total of 57 projects. "We're looking at making some critical repairs to many of the dams. The gates are aging and require repairs and painting." Not only will these projects help protect life and property they will also create jobs. Spaul says contracts will be awarded next month. "The funding to the Little Rock District is enough to support an estimated 1200 jobs or even a bit more than that," adds Spaul.


**New poll shows Pacific Northwest voters oppose breaching Snake River dams by wide margin**

Two-thirds of voters in the Pacific Northwest oppose breaching dams on the lower Snake River, viewing it as an extreme measure to improve salmon runs on the Columbia and Snake Rivers. "Dam removal would be economically devastating to the Northwest's energy picture and use of the rivers as an economic highway" said Terry Flores, executive director of Northwest RiverPartners. "It also runs completely counter to the goal of reducing carbon emissions and would pose a serious setback to meeting the reduction targets set by the states", she added. "The most dramatic impact would be eliminating 1,100 megawatts of clean hydroelectric power from the region - enough to power a city the size of Seattle - combined with sharp increases in electric rates that will further hurt the Northwest's economy already reeling from job losses," Flores said. Two-thirds of citizens surveyed recognized that fossil fuels contributing to climate change would replace the energy if the clean and renewable dams were removed. An overwhelming majority - 88% - identified hydro as renewable - similar to wind and solar resources. And 69% acknowledged that hydro is more reliable than wind because no electricity is generated when the wind doesn't blow. More than two-thirds recognize that hydro does not contribute to global warming. "The public really 'gets it', Flores noted, "and it is critical that our legislators and policy-makers understand how highly valued hydro is so they can incorporate that into their energy and climate change policies." Citizens showed overwhelming support - 79% - for states and the U.S. Congress to declare hydro as a renewable resource. "Given that current efforts to improve salmon runs are paying off, extreme and economically damaging moves like removal of Snake River dams should not even be on the table for discussion," Flores said. Flores noted that the poll results are consistent with polling since 2005 and reflect the high awareness in the region of the importance of hydroelectric power with 93%
describing electricity production as an essential or important use of the river. 

Northwest RiverPartners is a partnership of individuals and businesses that supports the region’s working rivers and salmon recovery policies based on sound science.

A change in current? Some Klamath advocates begin to see Power Company in new light

John Driscoll/The Times-Standard, 05/02/2009

Ever since billionaire Warren Buffett ended up in control of four dams on the Klamath River, tribal representatives, fishermen and conservationists have made an annual pilgrimage to Omaha to push for the removal of the structures. This year that group is there again at the Berkshire Hathaway shareholders’ meeting – but this time the company is a potential ally. Berkshire Hathaway owns Mid-American Energy Holdings, which bought dam owner Pacificorp in 2005. The group of Klamath advocates had already been dogging Pacificorp's prior owners, and only stepped up the pressure when Buffett's company assumed ownership. In November, the state and federal governments reached a tentative agreement with Pacificorp to remove the dams starting in 2020 in an effort to revive flagging salmon runs. That decision has changed the tone of the Klamath group's trek to Omaha. "This is a huge change from last year," said Eureka fisherman Dave Bitts. "The company has committed to doing the right thing, but the deal is not done with." Bitts said that it will be important now to focus on the state and federal governments to ensure that an entity is set to assume the responsibility of tearing out the dams, and that there will be funds available to perform the task. Pitfalls are many, one of which is that many Klamath advocates are concerned the funds will be tied to money for new dams in the Central Valley or the ever-controversial peripheral canal to channel water from the Sacramento River to south river delta pumps. Bitts said that kind of trade would be unacceptable.

Pacificorp spokesman Paul Vogel said the parties involved in the talks continue to work toward a June 30 deadline for a final agreement. "I think it's safe to reiterate that we're all still at the table with the numerous stakeholders," Vogel said. The deal would need agreement among the stakeholders, and require legislation. A cost-benefit study would have to be complete by 2012. Pacificorp would put up $200 million through surcharges, and California would contribute $250 million. Some type of liability protection would be provided to Pacificorp, though how that is hashed out is a sensitive part of ongoing talks. Humboldt County 5th District Supervisor Jill Duffy said that she believes the Klamath group in Omaha is doing the right thing by continuing its visible push on decision makers. She said that Pacificorp remains engaged in the talks, and that progress is promising since the agreement in principal was reached. "Once you have someone willing to say yes," Duffy said, "it's pretty hard for them to stand back and change their mind."

Klamath dam removal advocates meet with shareholders in Nebraska

Siskiyou Daily News, May 04, 2009, Yreka, CA

Omaha, Neb. - Klamath dam removal advocates met in Omaha, Neb. on Friday to call on Berkshire Hathaway’s shareholders to close the deal to remove four dams on the Klamath, according to a press release. The release stated that the group of removal advocates, which includes the Karuk tribe, Klamath Riverkeeper and the Pacific Coast Federation of Fisherman’s Associations (PCFFA), intended to advocate a solidified deal to remove the dams, but also to offer “measured praise for entering into dam removal talks with local stakeholders.” "We are impressed with PacifiCorp’s efforts since last fall to work out a mutually beneficial agreement to remove the dams. "We are here to give PacifiCorp's new management the credit it deserves for backing real solutions to restore this major river, once the third largest salmon-producing river in the nation, as well as to urge them to continue with us all down this new path toward final settlement," Dave Bitts, president of PCFFA, said in the release.

Rep. Tony Cornish Uses Birthday To Draw Attention To Dam

May 4, 2009, 12FoxNews, Mankato, MN

The Rapidan Dam, and the Dam Store, are both considered to be landmarks in Southern Minnesota, but these landmarks are struggling. News 12's Jennifer Hudspeth has more about a local lawmaker who is using his birthday to draw attention to the dam at the state capitol. The Rapidan Dam has been running for close to 100 years, and the historic value along with the scenery has captured the heart of Jim Hruska. Jim Hruska
Hruska has owned the nearby Dam Store for the past 37 years and manages the campground. He hopes to draw more people to the site...but when the county owned campground limited camping to tents, Hruska saw a drop in business. Ruska says, "Probably a third of the business was families that come here to camp and they want to come back." The lower number of visitors caught the attention of State Representative Tony Cornish who has been coming to the site since he was a little boy. Tony Cornish says, "I think it's a little crown jewel of a place here for tourism and we'd just like to draw people into it and just let people know we're here and need help." Cornish is on a mission to promote both the dam, which produces renewable hydroelectric energy, and economic development for the store...and he's using his birthday to do it. Jennifer Hudspeth says, "Representative Cornish has his hands full today, he is bringing 11 of these pies up to the state capital with hopes that once legislators try a slice, they will be willing to help." Cornish says, "I encourage you to all go back into the retiring room and have some dam pie...." Pie that Hruska hopes will stimulate business and help keep them around...Hruska says, "Maybe we could keep it going another 97 years...Years that would keep the local history alive.

Free Flow takes step toward hydropower plan
Associated Press, April 28, 2009, Gloucester Daily Times, From Staff and Wire Reports

A federal regulatory agency is holding meetings in seven cities on a plan to harness the flow of the Mississippi River to generate electricity from St. Louis to New Orleans — and a Gloucester-based company is at the heart of the project. Free Flow Power Corp., based at 33 Commercial St., wants to place 180,000 small turbines in the Mississippi River below navigational channels to generate as much as 1,800 megawatts of power. The potentially $3 billion system, known as a hydrokinetic project, would use river currents to spin the turbine blades, which then turn a generator shaft to produce electricity. Cables would transmit the power to sites on land.

While Free Flow has received permits to study sites where it would like to place the turbines, the project is in its early stages. The company said it could be 2011 before it applies for licenses that would allow for equipment installation. The Federal Energy Regulatory Commission is hosting 10 public meetings. Government agencies and outside organizations that could be affected by the project such as groups with ties to river navigation or its wildlife, also are invited to the meetings. Ramya Swaminathan, Free Flow's vice president for project development, said the Gloucester Company has already worked to address some obvious concerns in its plans, such as creating turbines that could be placed away from barge and boat traffic, and that turn with the river current at a speed that won't damage fish. "The turbine was designed with fish friendliness in mind," she said. A spokesman for Free Flow Power said yesterday that the Gloucester company's top officials are visiting New Orleans, Baton Rouge, La., Memphis, Tenn., and other sites connected with the project for the series of Federal Energy Regulatory Commission meetings and talks over the next two weeks. After those meetings, FERC does an environmental review, said Energy Regulatory Commission spokesman Celeste Miller. Free Flow also wants to place turbines in the Missouri and Ohio rivers, but the current meetings and talks relate only to the Mississippi River plans.
MT Renewable Power Projects Could Lose Energy
Public News Service – MT, April 28, 2009

Butte, MT – Montana's renewable power projects could lose energy - literally - if Governor Schweitzer approves a bill now on his desk. Conservation groups are concerned about the major changes HB 343 would make to the state's landmark renewable energy standard. Currently, Montana requires energy companies to generate or buy power from renewable sources. The change would allow upgrades at hydroelectric dams to qualify, even if these updates don't generate any "new" energy. In the view of Dave Ryan, a mechanical engineer at the National Center for Appropriate Technologies in Butte, the bill would gut the state’s progress on renewable energy developments, such as wind farms and solar projects. Instead, he says, hydropower would be used to fulfill the state's renewable requirement.

"We want to build new industry. We don't want to pay incentive to existing industry that is doing very well. Those incentives should go to the new industry." Backers of expanding the renewable standard say it's only fair to allow hydroelectric dam upgrades to qualify. Ryan disagrees, pointing out that it is hardly fair to give credit for upgrades already done, and to allow the energy industry to scoop up all the credits, edging out wind and solar. Truly “new” projects bring jobs to rural areas and help local economies, Ryan says, which is part of the reason the state had set up incentives for growing alternative power industries. "They're basically killing the goose that laid the golden egg. They're not going to have anything at the end of the day, and it's going to kill these new industries at the same time." The governor's decision on the bill could come this week.

Aquamarine Power's tests on the Oyster wave energy converter have been declared a success. The device has now produced and exported electricity to the grid at the New and Renewable Energy Centre (NaREC) near Newcastle, for the first time. By producing electricity onshore on a full scale test rig, Aquamarine has proven that Oyster can deliver electricity on a commercial scale. The output from a single pumping cylinder delivered more than 170 kilowatts (kW) of electricity proving that a full scale device, with two pumping cylinders, will deliver well in excess of the modeled output of 350 kW. Testing commenced at NaREC in March this year and will continue until the end of April. During this phase, the company is optimizing the system settings, testing different components in terms of performance and fatigue and obtaining operational experience while producing predicted quantities of electricity. The test rig is being driven by a hydraulic power pack hired from Pelamis Wave Power. The hydraulic rams drive the Oyster cylinder to produce high
pressure water which is fed into a Pelton wheel that is connected to a generator to produce electricity. Installation of the full scale machine at the European Marine Energy Centre in Orkney is scheduled for this summer. Aquamarine already has an agreement with Airtricity, the renewable energy division of Scottish and Southern Energy to develop sites capable of hosting 1,000 megawatts of marine energy by 2020 suitable for deployment of Oyster.

(This letter to the editor should have been sent by everyone in the hydro industry. Trouble is – we’re too silent when it counts. Where is everyone?)

Classifying hydropower
tricityherald.com / Opinions / Letters to the Editor, Apr. 30, 2009

The April 21 story, "Classifying hydropower becomes hot topic," was depressing. The most intelligent creatures on Earth, living in the most powerful country in the world, can't determine if hydropower is a renewable energy source? If Washington's political leaders can't get in a room and in one hour figure out what is renewable and what is not, our democratic system of government has become a failed political concept. If the same people who stopped the growth of nuclear energy and have put this nation's energy security at risk dominate our politicians with the ridiculous proclamation that hydropower is not renewable, our democracy is doomed. Consider this. Replacing all of the hydropower capacity in Washington with wind power would take between 8,000 and 16,000 windmills, if the wind blows. We'd have to cover the Columbia River's gorge with windmills to substitute wind for hydropower! All renewable energy sources come with environmental impacts. I suggest that in order to determine the true will of the people on hydropower, we shut down all hydropower for one week and see how fast our politicians can make a simple decision.

ROBERT BENEDETTI, Richland, WA

(Followed up by this opinion piece. It seems everybody, but the legislature gets it!)

Hydropower is a renewable resource
EPHRATA — Nearly 90 percent of Northwest voters agree with the Commission of Grant PUD and value hydropower as a renewable resource like wind and solar.
By Terry Brewer, President, Grant County PUD, Apr 30, 2009, Columbia Basin Herald

A recent poll of 700 registered voters in Washington, Oregon and Idaho echoes the long-time sentiment of the commission, that people of the Northwest recognize the importance of hydropower to our region. Some 69 percent know that hydro is more reliable than wind because no electricity is generated when the wind doesn't blow. Further, 79 percent want state legislators and Congress to recognize hydropower as renewable in energy and climate change policies. Additional information and poll results can be found at www.nwriverpartners.org.

With our two hydropower projects on the Columbia River, it may seem odd that hydropower is overlooked or taken for granted in legislative discussions. As your elected commissioners, we agree. Just this week, my fellow commissioners and I unanimously adopted a resolution reinforcing our support for the inclusion of hydropower electric generation as a qualifying renewable resource in federal and state legislation. Lawmakers in Olympia recently got it right when the House passed a bill declaring all hydroelectricity — old and new — as “renewable” and qualified under the state renewable energy standard. This action echoes what nearly 90 percent of Northwest voters want.

Unfortunately, common sense was lost among the politics as the Senate did not agree with the House. Today hydro is still not considered a renewable resource under Washington State Initiative 937. We know that our customers are among the most committed hydro supporters in the country and we will continue to fight for hydropower to be seen as clean and renewable in state and federal legislation.

N.J. water agency considers harnessing hydropower
by Veronica Slaght/For The Star-Ledger, April 30, 2009

While wind and solar power are getting all the hype, hydropower -- the biggest and oldest source of renewable energy in the world -- is getting another look in the Garden State. One group considering hydropower is the New Jersey Water Supply Authority, an independent agency under the state Department of Environmental Protection. The authority provides water to about 1.5 million people in Somerset and Middlesex counties through private companies. That water starts out in the Round Valley and Spruce Run reservoirs in Hunterdon County, and in the D&R Canal, which connects the Delaware and Raritan rivers. The 10 locks on the D&R Canal, this one in South Bound Brook, may become a source of electricity when the New Jersey Water Supply Authority converts the energy into hydropower.
Hydropower, which works by converting the energy of flowing water into electricity, is usually associated with big dams out West. But proponents say it could work on the East Coast, too, if done on a small scale, using existing dams. They argue enough small-scale generators would add up to a significant amount of energy. The authority is asking engineering firms to submit plans for retrofitting three dams at the reservoirs -- Spruce Run’s dam and Round Valley’s north and south dams -- with hydropower generators. Turbines would be installed downstream from the dams and locks, where the water moves fastest. The turbines would be turned by the flowing water. At the reservoirs, the authority would construct new powerhouses at each dam, which would likely be the only visible part of the systems. According to New Jersey Sierra Club director Jeff Tittel, "small-scale" hydro, the proposal for the reservoirs, yields a couple of megawatts of electricity; "micro hydro," proposed for the canal, yields less. A megawatt, the unit of power which measures the rate of energy, is equal to 1 million watts, the unit used to measure a light bulb's output. Altogether, he said, the generators would produce enough electricity to power the town of Clinton, a community of about 2,600 people.

At Rutgers Energy Institute, professor Ying Fan Reinfelder said she was surprised to hear anyone is looking into hydropower in New Jersey. "Hydropower just hasn't been on our radar on the East Coast," she said. The East has smaller rivers and flatter land than out West, but probably has more water overall. Reinfelder said she'd be interested in the results of the study. Harnessing the energy of moving water isn't a new idea; it dates to water wheels used in ancient Greece. Hydropower was first used in New Jersey at Paterson's Great Falls -- the second-largest waterfall, by volume, east of the Mississippi. In 1791, Alexander Hamilton and investors hired an engineer to design the largest, most significant power system at that time, according to the Paterson Friends of the Great Falls. By 2005, hydroelectricity accounted for about 19 percent of the world's energy, according to the Renewables Global Status Report. That year, hydro accounted for more than 63 percent of the world's electricity from renewable sources. The world's largest power plant, the Three Gorges Dam in China, was just completed in October. It can generate 22,500 megawatts, or 3 percent of China's electricity. According to the U.S. Department of Energy, about 7 percent to 12 percent of the United States' electricity is generated by hydropower. It is the largest renewable energy source in the country. But state Board of Public Utilities spokesman Doyal Siddell said very little of New Jersey's electricity is generated by hydro. The BPU knows of only three hydro plants in the state: the 3-megawatt Great Falls; the 0.5-megawatt Great Bear hydro projects in Passaic and Warren counties; and the Yards Creek facility in Warren County, which produces 453 megawatts. Siddell said the BPU does not fund hydropower, which has been designated a "class two" form of renewable energy by state law. The agency's New Jersey Clean Energy Program funds only "class one" power, like solar or wind. The projects at the Hunterdon reservoirs and on the D&R canal wouldn't generate huge amounts of electricity, but they might offset the cost of pumping and filtering water, or decrease rates for the water authority's customers. Of course, there's a chance that the project would cost more than it saves. When the authority conducted a similar study in 1982, it found that installing hydropower plants would not be cost-effective.

**So, what's changed?**

A lot, according to Ed Buss, chief engineer for the New Jersey Water Supply Authority. For one, the cost of electricity has gone up. The price of fuel has gone up, too. And, the desire to be environmentally friendly has increased. The authority, which makes money selling water, would fund the project, so "no tax dollars would be involved," Buss said. The 66-mile canal could be more complicated than the reservoirs, said Buss, because changes must be approved by the state Historic Office of Preservation and the D&R Canal Commission. Hydro's supporters, like Tittel of the Sierra Club, think it should be on the radar in New Jersey - - researched at places like Rutgers and designated class one, which would allow the electricity to be sold back into the grid, as well as qualifying it for state funding. "Hydro from existing dams is an untapped resource that can help us get clean energy and deal with greenhouse gases," Tittel said. "It's something that needs to be developed much further, something that we need more of in New Jersey."
**Water**

(Maybe, they should build a hydro pumped storage project and hide the water supply in a license)

**S. Fulton reservoir proposal criticized**
By Stacy Shelton, The Atlanta Journal-Constitution, April 28, 2009

A proposed drinking water reservoir in south Fulton County is in the crossfire of criticism from upstream and downstream neighbors. And for now, it’s not even legal. Unless the city of Atlanta releases Fairburn and Union City from its water service area, the state will not permit the Bear Creek reservoir. That’s unlikely, since Atlanta has invested millions in pipes and pumps to serve south Fulton and is counting on revenues from those communities to help pay for its $4 billion water and sewer overhaul. Florida doesn’t like it either, because the 440-acre reservoir would stick another straw in the Chattahoochee River. In a letter to the U.S. Army Corps of Engineers, which would have to OK the project, Florida raised concerns about the biological and economic impact of reduced water flows into the Apalachicola River and Bay.

In the meantime, the South Fulton Municipal Regional Water & Sewer Authority, which includes the city of Palmetto, hopes to get a needed permit from the U.S. Army Corps of Engineers. The public comment period ends May 18. Harold Reheis, former director of the state Environmental Protection Division and now a lobbyist and consultant who is representing the authority, said because of droughts and the uncertainty of the tristate water war over the Chattahoochee, the metro region needs more water supplies like the one proposed. The estimated cost to construct this one, not including land acquisition, is $8.5 million. “I think it’s a good thing to hedge the bet and say well, what if we don’t get all the water that’s assumed in the Metropolitan North Georgia Water Planning District plan? A judge in the federal court system may not give us all that water even if it’s there,” Reheis said.

The proposed pump-storage reservoir would dam Bear Creek, a tributary of the Chattahoochee, and flood 30 1/2 acres of wetlands. According to the application, water withdrawn from the Chattahoochee would be pumped into the creek just below the dam to maintain a steady flow in the creek for water quality purposes until 2050. By 2050, when the reservoir is expected to yield 16.4 million gallons of water a day, the authority wants to be able to pump up to 6.4 million gallons a day from the Chattahoochee into the reservoir during droughts. That’s for a population expected to top 130,000 in a high-growth scenario. The authority calculated the reservoir would reduce the amount of water in the Chattahoochee by less than 1 percent on an average annual basis. That number could be much higher during severe droughts, when the river is carrying far less water. Rob Hunter, commissioner of Atlanta’s Department of Watershed Management, says the reservoir isn’t needed. Atlanta, which provides water for 1.2 million people, withdraws about 100 million gallons a day from the Chattahoochee during peak months. Hunter said the city has a master plan for providing Atlanta, south Fulton and Sandy Springs with water through 2060. The plan includes converting an old quarry into a reservoir.

**Environment**

$250,000 in stimulus funds for Matilija Dam demolition
By From staff reports, April 30, 2009,

The project to tear down Matilija Dam received $250,000 Wednesday in economic stimulus money. The planning for the removal of the 200-foot-tall dam on the Ventura River has received more than $5.5 million in recent years. It will cost an additional $144.5 million to tear it down and build a series of flood mitigation measures downstream. “I am pleased to announce this critical funding for these important infrastructure projects,” said Rep. Lois Capps, D-Santa Barbara, who secured the funding. Once the dam, which is choked with sand and silt, is removed, it will help replenish sand on beaches and allow the
endangered steelhead to migrate upstream. The federal stimulus funds have also found their way to other environmental projects in the county, including $11 million to the two national parks and $7.5 million used in part to build a fish ladder on Santa Paula Creek.

(An ominous sign! Looks like code words for goodbye Snake River Dams. Let’s hope not! But, the new head of NOAA backed dam removal when a State official.)

**Obama administration reviews salmon strategy**

*Activists hopeful that letter sent to judge will lead to changes in Bush plan*

Associated Press, May 4, 2009, MSNBC.com

WASHINGTON - The Obama administration is reviewing a Bush administration plan for balancing the needs of people and salmon in the Pacific Northwest’s Columbia River Basin — a plan that has been criticized by a federal judge as doing too little to help salmon. The Bush plan was sent to U.S. District Judge James Redden in Portland, Ore., last May. Redden had set a Friday deadline for the government to respond as it explores options in the case. In a letter Friday to Redden, the Justice Department said top officials in the Obama administration want a delay of up to two months to “more fully understand all aspects” of the plan. Redden heard arguments in March in a long-running dispute over how to balance Columbia Basin energy and utility needs with imperiled salmon and steelhead.

**Activists want some dams removed**

Environmentalists have argued that salmon populations cannot recover without removing some dams, especially the migration bottleneck to Idaho created by four dams on the Lower Snake River in Washington state. Redden told the NOAA Fisheries Service at the March 6 hearing that their plan for balancing endangered salmon runs against electricity production on 14 federal Columbia Basin hydroelectric dams still needs work, particularly in the area of habitat improvement. Federal agencies have acknowledged that the dams threaten the survival of fish, but said that extensive habitat restoration, changes in salmon hatchery operations and plans to let more water pass through Columbia and Snake River dams should mitigate the problem. The National Oceanic and Atmospheric Administration submitted a 10-year plan last year after others were rejected by Redden. Officials said the plan, called a biological opinion or bi-op, would help fish passing through the dams survive. Environmentalists sued, saying the plan did too little to restore salmon populations. Todd True, an attorney representing the National Wildlife Federation and other environmental groups, called the delay request encouraging.

**NOAA chief shows interest**

Witt Anderson, a spokesman for the U.S. Army Corps of Engineers in Portland, said the delay would give officials of the new administration time to familiarize themselves with all the issues in the complex case. Jane Lubchenco, the new administrator of NOAA, was among those attending high-level meetings on the case in recent days. At the March court hearing, Obama’s Justice Department defended the Bush plan, saying it will help the survival of fish. The plan has been backed by state governments in Idaho, Washington and Montana and by most Columbia River tribes — a new development in the long-running argument. Four Northwest Indian tribal governments — Yakama, Warm Springs, Umatilla and Colville — agreed to the plan, which committed the federal agencies to giving the tribes $900 million to spend toward salmon. The state of Oregon and the Spokane and Nez Perce Indian tribes have not backed the federal plan. Redden warned last year that he would give the job of restoring Columbia Basin salmon to an independent panel if the government failed again.

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Some Dam – Hydro News

and Other Stuff

5/15/2009

Quote of Note: 'He who refuses to do arithmetic is doomed to talk nonsense.' - - John

“Good wine is a necessity of life.” - - Thomas Jefferson
“No nation was ever drunk when wine was cheap.” - - Thomas Jefferson
Ron’s wine pick of the week: Three Families Mendocino Merlot 2004

Other Stuff:

(Too much news this week – more links to other articles just in case you need more reading material)

Company eyes pumped storage project for two dams on Little Potlatch Creek

New England's fish struggling to survive

The Big Lie of Schwarzenegger and Corporate Agribusiness: Fish vs. Jobs
http://sacramentofordemocracy.org/?q=node/view/29378

Some think dam is a dirty word, but PUD wants new ones
http://www.heraldnet.com/article/20090510/NEWS01/705109903&news01ad=1

Hydro power projects targeted for $4.6 billion
http://pepei.pennnet.com/Articles/Article_Display.cfm?Section=ARTCL&SubSection=Display&PUBLICATION_ID=6&ARTICLE_ID=361704

UPDATE: Yuba County Water Agency wins national honor

Dams

Hole discovered below Wills Creek Dam in Ohio
May 5, 2009, Coshocton Tribune

Copy obtained from the National Performance of Dams Program: http://npdp.stanford.edu
HUNTINGTON, W.Va. - During a routine inspection at Wills Creek Dam, U. S. Army Corps of Engineers staff discovered a 13-inch diameter hole adjacent to the concrete wall downstream of the dam, just above the tunnel outlet. There is no indication that the hole threatens the integrity of the dam. The Huntington District is doing exploratory work, which will include future excavation to help determine if any corrective actions will be necessary. Part of this work includes a non-toxic dye test to determine any seepage paths. The dye may be visible immediately downstream of the tunnel outlet, but this is not cause for concern.

(Excerpts)

Applegate, Lost Creek Benefit from Stimulus
Corps officials say Applegate Dam will receive maintenance work and Lost Creek Lake is slated for recreational upgrades
May 04, 2009, By Mark Freeman, Mail Tribune

TRAIL — New waterskiing docks, spruced-up hiking trails and other improvements are being considered as potential projects at Lost Creek Lake to be paid for with part of nearly $1.4 million in federal stimulus money headed to the Rogue River basin. The U.S. Army Corps of Engineers has identified $775,000 worth of maintenance work at Applegate Dam and $590,000 worth of largely recreational improvements at Lost Creek Lake for part of the Corps' stimulus money. "So many of these things wouldn't happen without the stimulus money," he said. "The bulk of the money — about $775,000 — is earmarked for spillway-related work at 29-year-old Applegate Dam. Initial plans call for a structural analysis, a strengthening study and upgrades to spillway parts," Buck said. A separate project will replace seals on the spillway gates, which rise and fall along runners to adjust flow out of the dam. Plans also call for replacing the gear boxes used to operate the gate and painting it, Buck said. The spillway gates now on Lost Creek and Applegate dams are of the same design as the one that failed at Folsom Dam in 1995, when a broken gate caused an uncontrolled gush of water into California's American River, according to the Corps. About 40 percent of the lake drained before $20 million in repairs could be made. Since then, Corps crews have been tending to these gates at other, older projects throughout the West, Buck said. "Now, it's time to do that at Applegate," he said. Plans also are in the works to replace security systems at McGregor Park's visitor center and to replace the leech field for the bathroom at River's Edge Park along the strip of fly-fishing-only water between the dam and the hatchery. "These are things that would be back-logged and unfunded," Buck said.

Experts call for plans for coal ash spills
By Linda B. Blackford and Bill Estep - Herald-Leader, May. 06, 2009

One of the far-reaching lessons of the massive spill of fly ash and sludge at the TVA plant in Kingston, Tenn., is that states like Kentucky need to be prepared to deal with waste from coal combustion, experts said Tuesday. "We have to look at what needs to be done in case of such emergencies," said Kingston's program manager, Michael Scott, who spoke at the biennial World of Coal Ash conference in Lexington on Tuesday. Cleanup of the Tennessee spill, which occurred nearly six months ago, could reach as much as $1 billion. But the Kingston disaster — and a huge spill from a coal slurry pond in Martin County in 2000 — hasn't been enough to persuade Kentucky lawmakers to pass a law requiring coal companies to develop plans in case of such emergencies.

Kentucky remains one of only 11 states that do not require the owners of high-hazard coal slurry and coal ash dams to prepare emergency action plans, according to a December 2007 survey by the Association of State Dam Safety Officials. The latest move for such a requirement, House Joint Resolution 119, was tabled during the most recent legislative session after language was added to take away state oversight of the plans, said Tom FitzGerald, head of the Kentucky Resources Council, who spoke at the conference. No one was hurt in Tennessee or Martin County. But people still point to the 1972 collapse of a coal-waste dam in Buffalo Creek, W.Va., which killed 125 people and injured more than 1,000. "I would hope for the coal companies' sake that we don't have a high-hazard impoundment break between now and when we can put the regulations in place," FitzGerald said. Bill Caylor, director of the Kentucky Coal Association, said the industry didn't want state officials to review the plans because the state doesn't have enough people to do so. "We just want to file the plan," he said. "It would have been a first step. Rep. Robin Webb, D-Grayson, filed House Joint Resolution 119 and has filed similar resolutions in past sessions. Utilities did not object to the requirement for action plans, but the coal industry changed its stance from the original agreement with Webb to support the resolution and tried to "dumb it down." "It kind of took me aback," Webb said. Webb recalled that industry representatives had some concern that when a state agency began writing regulations
to put the resolution into effect, the rules could become more burdensome than it envisioned. Webb said she didn’t see that concern as realistic, however.

There are 91 coal-company impoundments in Kentucky where a break could kill people or cause significant damage to facilities such as schools and power substations. Kentucky also does not require emergency plans for nearly 400 water dams that are rated as high or moderate hazards. The U.S. Mine Safety and Health Administration has recommended emergency action plans for coal-slurry and water impoundments since 1994. For years, the Federal Emergency Management Agency and dam-safety experts have urged such plans for all high- and moderate-hazard dams. Tuesday’s speakers also pointed out that impoundments soon might be coming under stricter federal oversight. The new director of the U.S. Environmental Protection Agency, Lisa Jackson, told Congress that in the wake of the Kingston disaster, she would move forward to assess coal-combustion impoundments and the use and disposal of coal-combustion residue. "We clearly are going to have national regulations that deal with the dam stability issue," said Matt Hale, director of the EPA’s Office of Solid Waste and Emergency Response, who also spoke Tuesday at the conference, sponsored by the University of Kentucky's Center for Applied Energy Research and American Coal Ash Association.

(LGood decision for dam safety)

Lake owners in Greene County lose state Supreme Court case
by KY3 News, May 5, 2009

JEFFERSON CITY, Mo. -- The Missouri Supreme Court ruled against a couple who own Rainbow Lake in northern Greene County near Ebenezer. Paul and Marilil Olive, who bought the lake in 1995, argued that they aren't subject to state dam safety rules because Rainbow Lake Dam was built in 1974, five years before the state enacted its rules. The Missouri Department of Natural Resources has been trying to get the Olives to comply with the rules since at least 1997. Greene County Circuit Judge Miles Sweeney, now semi-retired, ruled in the Olives' favor. He said the Olives didn't have to have certain permits under Missouri dam and reservoir safety act. In a unanimous ruling, the Supreme Court reversed Sweeney's ruling and sent it back to trial court. The judges said requiring the Olives to have permits showing the dam is operating safely does not violate the state's constitution. They also said state law doesn't exempt the Olives from having to get a registration or safety permit and a construction permit to make the dam comply with safety laws. The dam is 40 feet high and 500 feet long. It's on the west side of Farm Road 167 and north side of Farm Road 48, about five miles northeast of Ebenezer, or about eight miles southwest of Fair Grove.

(The unthinkable!)

Exercise simulates collapse of Lake Oroville Dam
Inland News Today, May 6, 2009

LAKE OROVILLE--An emergency exercise Wednesday will simulate a catastrophic failure of the Lake Oroville Dam, the main reservoir of the State Water Project. The exercise calls for the simulated collapse of the dam, sending water over more than a million acres in eight Northern California counties. At 770-feet, the dam is the tallest in the nation. Lake Oroville has enough water to supply 40 percent of California’s urban water needs for a year.

(This is a new wrinkle. A company is in the business of tearing down dams to earn environmental credits which it then proposes to sell to make a profit. Why would anyone want to tear down a nice little picturesque dam?)

Scott County Dams Controversy
by Greg Stotelmyer, 07 May 2009, WTVQ-TV

Folks are stirred up about dams, actually the proposed removal of dams, in Scott County. At issue is the idea of removing several dams from one popular creek to help lower the price tag that goes along with damming another stream. Let's begin with the background, which forms the story's backdrop. For two decades government leaders have been trying to build a 285 acre reservoir in the far northwest part of Scott
County to secure the county's shaky water supply. The project would require damming a creek, forcing more than 66,000 feet of that creek and its tributaries under a lake of water. The project comes with a cost to mitigate the environmental damage, estimated at nearly nine million dollars. Enter the Raleigh, North Carolina Company, Restoration Systems, which specializes in eco system restoration. Company representatives have been spending a lot of time in the Georgetown area trying to sell Scott Countians on a way to trim a million dollars from the reservoir’s mitigation costs. But, most folks aren’t buying the idea.

Restoration Systems proposes removing some of the eight dams from North Elkhorn Creek to gain environmental credits. Those credits could then be sold to the county to help mitigate the costs of the environmental damage caused by the stalled reservoir project. "We don't want them in the project," Scott County Judge Executive George Lusby said. "I don't know how much plainer we can be. We don't want you in the project." Lusby says the company has every right to try to convince the landowners where the dams are located and other residents that the plan is a good one. However, Lusby says he's told the company's representatives that "people don't want you here." In a phone interview, Adam Riggsbee told ABC 36 News that the company has received a "mixed response" from dam owners. The company has not made any deals to remove a dam. He says he has sensed a "genuine emotional resistance" in Scott County to removing some of the dams on the North Elkhorn. However, he says "there's still something we can offer Scott County." John Bell, a vegetable farmer who relies on the North Elkhorn, doesn't see it that way. He says if a dam down stream from his farm was removed the creek would "quit flowing during the dead of summer." The creek is used to feed the drip irrigation system which is used to water his 30 acres of fruits and vegetables. "Our livelihoods at stake here," said Bell.

(For someone involved in the ill-fated Storm King Mountain project, this is sour irony. Storm King was not the environmental disaster painted by the opposition and it sure would be useful today when we need peaking energy, but when the opposition is financed by the wealthiest (can you say Rockefeller and others) in the world – you can’t win!)

Cornwall-on-Hudson considers hydroelectric power plant
By Michael Randall, Times Herald-Record, May 05, 2009

CORNWALL-ON-HUDSON — It sounds ironic at first mention. A hydroelectric power plant in Cornwall-on-Hudson? The same village that's about to honor the successful fight to keep Consolidated Edison from building a hydro-power plant on Storm King Mountain? But there's a big difference between the two. The Con Ed plant — an idea that was dropped in 1980 after a 17-year environmental battle — was meant to provide power to the masses. The village's plant, if it proves feasible, might make enough energy to run the Black Rock Forest water filtration plant. A study now under way by Windsor Machinery, a Dutchess County firm, will provide the answers. The village authorized up to $5,000 to pay for that study. Water Superintendent Bob June said he expects to hear those answers soon. The plant, if built, would harness the power of water already being piped down a mountain in the forest to the filtration plant at the base. That water already passes through two tanks, or vaults, which slow it down to reduce the pressure before the water reaches the filtration plant. A hydroelectric plant would harness the power of that water as it flows downward. June said there are some important questions to be addressed: How much of the power needed to run the filtration plant could be generated by the hydroelectric plant? How do you get the power generated to a place where you can use it? And is the cost of doing that, and all other costs that would be incurred, worth the expense? June said if there's any excess power produced, it will be sold back to the state power grid, just as homeowners who install solar or wind power-generating equipment do.

(Oh oh, it’s turning into an international incident. With all due respect to our wonderful friends to the North, I guess it’s OK for Canadian firms to own U.S. hydro but not the other way around.)

Run of the river power far from ecologically responsible
May 04, 2009, Editor: The Standard, bclocalnes.com
Help me pick my jaw back up from the floor after I read ‘Region could become Green Energy powerhouse says liberal candidate’ (Barry Penner) in last week’s Hope Standard. Penner paints the liberals’ latest cash source, the ‘run of the river’ power plants that the incumbent party is hawking as Green (ecologically responsible) Power. Hardy.

Once again the Liberal party is engaged in selling permanent public property for temporary profit. The Liberal party has been looking for things to sell ever since coming into power in BC, and the latest publicly owned assets they are flogging to every interested international investor with cash and a pen to sign the contract, are the water rights to every significant river and creek in the province close enough to the population centers to be feasible as a power source. That’s right, foreign investors are quickly snapping up contractual rights to dam and divert for power, every sizable creek in the lower province! “But wait, isn’t it ‘run of the river’?” you say. Yes, technically it is, but it isn’t like just sticking a paddle wheel into the nearest creek to harness the energy in water that’s falling down anyway. A penstock is constructed to divert and harness the water, just like in a hydroelectric project, and there has to be a reliable head of water with which to generate power, so to ensure that they build… a dam. These run of the river power projects are just foreign owned hydroelectric dams folks, selling power that is made with our water, to BC Hydro, who doesn’t need this independently produced power but by their contract, are forced to buy it at rates higher than BC Hydro itself charges!

And if you aren’t outraged yet, think about the fact that every valley that is to contain one of these projects, basically every valley, will doubtless be gated and locked off to public travel in order that the companies that have a power generating facilities may protect their investment from vandalism and public nuisance, just as the upper Coquihalla valley has been gated off from public access for the last twenty years in order to protect the business interests of the pipeline that uses it. So Mr. Penner, how is it in my interest that you sell the rights of BC waterways to foreign interests, who will use this to force my provincially owned power company to incur greater costs, and thus make me pay more for power, while simultaneously closing off the back country recreational opportunities that I and other BC residents enjoy? If that’s ‘Green’ then give me any other colour.

Mike Stuart, Hope B.C.

Spokane River falls to flow all year, all night

Avista Utilities and the Sierra Club have reached an agreement that requires Avista to maintain minimum flows of water over the Upper Falls north and middle channels in Riverfront Park. It also includes provisions for additional spills for lower Spokane Falls below the Monroe Street Dam. The minimum daytime flow is 300 cubic feet of water per second. At night, the minimum flow will be 100 cubic feet of water per second. “Water will be restored to Spokane Falls 24 hours a day, seven days a week,” said Rachael Paschal Osborn, director of the Sierra Club’s Spokane River Project. “These waterfalls are important from every vantage: Cultural, historic, economic and aesthetic.” The settlement resolved the last issue under appeal in the Washington Department of Ecology’s water quality certification requirements. The certification is part of establishing new licensing conditions for Avista’s hydropower dams on the Spokane River.

(This won’t go away because the State suffers from illusions of getting something free – ain’t gonna happen unless the U.S. Congress passes a special law to ignore the Federal Power Act)

Senate OKs river trust bill
ENTERPRISE STAFF REPORT, MAY 7, 2009

DAVIDSON COUNTY - The N.C. Senate approved a bill Tuesday that would create a trust to take over Alcoa’s hydroelectric projects on the Yadkin River. The passage of Senate Bill 967, introduced by Sen. Fletcher Hartsell, R-Cabarrus, approves the creation of a Yadkin River Trust to take over hydroelectric projects along the Yadkin River at the Tuckertown Reservoir, Badin Lake, Falls Reservoir and High Rock
The N.C. House has yet to consider the bill. Last month, Kevin Lowery, director of Alcoa's corporate communications in Pittsburgh, said his company plans to fight the proposed legislation with "all resources available." Alcoa is a worldwide leading producer and fabricator of aluminum. Sen. Stan Bingham, R-Davidson, and Sen. Jerry Tillman, R-Randolph, are co-signers on the bill. Both state senators recently said they hope the trust would stop Alcoa from receiving a new 50-year licensing renewal to operate the four hydroelectric dams on the Yadkin River. Gov. Bev Perdue has endorsed the bill to turn the hydroelectric dams into a state operation. Perdue has said the waters of the Yadkin River belong to the people of North Carolina.

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(Lake: This is an interesting dilemma for State! Water quality certification must be issued within a time limit; otherwise the State waives its authority to do so. If this is the remaining approval by other agencies, then the FERC can issue the license.)

**Alcoa wins water permit for Yadkin**

By Bruce Henderson, Charlotte Observer, May. 07, 2009

N.C. officials today issued a water-quality certificate that Alcoa Power Generating Inc. needed to renew its federal hydroelectric license on the Yadkin River. Federal regulators have granted Gov. Bev Perdue the right to intervene in the license renewal. Perdue supports state legislation, adopted by the N.C. Senate on Wednesday that would create a state trust to take over Alcoa's license. The aluminum maker's Stanly County smelter, once powered by Yadkin hydropower, has closed. Perdue and others argue that revenues from Alcoa's four dams should serve local needs instead of the multinational corporation. Alcoa calls the move an attempt by government to seize private property. The water certificate issued by the N.C. Division of Water Quality requires a number of measures meant to protect the Yadkin; including monitoring of the discharge from Alcoa's dams and of contaminated sediment in Badin Lake, near Alcoa's smelting plant.

(Hydro goes down in defeat once again. This bill was vetoed in part because of the strong opposition by the wind power lobby. Outrageous!)

(Excerpts)

**Schweitzer vetoes three bills, including one to provide capital gains tax credits**

May 9, 2009, By CHARLES S. JOHNSON of the Missoulian State Bureau

HELENA - Gov. Brian Schweitzer on Friday vetoed three bills - one to provide a capital-gains tax credits as an incentive for businesses and two bills to deal with renewable energy. Vetoed were:

---------------. In his veto of Keane's SB250, Schweitzer called it a commendable goal on its face to upgrade hydro dams because it would produce clean energy and jobs. "However, facts claimed by the proponents to support the bill do not bear up under examination," he said. "Because I believe SB257 would subvert Montana's Renewable Portfolio Standard, actually discouraging the development of new renewable energy projects, I have chosen to veto the bill." As for Gebhardt's SB403, Schweitzer said if it had been allowed to become law, the measure would "undermine the value of renewable energy generated in Montana, lower Montana's renewable portfolio standard, risk a determination that Montana's RECs (renewable energy credits) do not comply with regional standards and could result in litigation." Schweitzer said he vetoed SB403 because it "does not move construction of new renewable energy forward in Montana."

**NHA Honors Four Hydropower Projects for Outstanding Stewardship**

**OSAW Awards Highlight Exceptional Achievements in Hydro Industry**

Washington, D.C. (May 11, 2009) -- The National Hydropower Association today honored the exceptional programs and practices of four hydropower companies today through its annual Outstanding Stewards of America's Waters (OSAW) Awards. The winners -- New York Power Authority, Puget Sound Energy, TransCanada, and Yuba County (CA) Water Agency -- all have developed groundbreaking, collaborative projects that expand the U.S. hydropower industry's work in providing clean, affordable, domestic energy. "The OSAW awards highlight some of the industry's boldest approaches to fulfilling its obligations as stewards of our rivers and natural resources every year," said NHA Executive Director Linda Church Ciocci. "The winners deserve this recognition, because, not only have they fulfilled their legal and regulatory commitments in their operations, they've created innovative solutions, developed new technologies, and
NHA conferred three awards in the category of Recreational, Environmental, and Historical Enhancement this year:

- **New York Power Authority** won for its Lake Sturgeon Spawning Beds initiative, which is a part of its relicensing program for the St. Lawrence/FDR hydroelectric project in New York State. NYPA identified the sturgeon spawning beds program as part of a portfolio of habitat improvements outlined in its relicensing process. Eager to improve the population of lake sturgeon -- a New York threatened species -- NYPA took an innovative, collaborative approach to encourage natural reproduction of the species. In consultation with the St. Regis Mohawk Tribe and representatives from state and federal resource agencies, NYPA embarked on a multi-phase effort to site, test, and analyze spawning beds in Lake St. Lawrence. The approach -- far different from the traditional practice of qualitatively assessing sites -- yielded exceptional results in the first year of operation. Visit [http://www.nypa.gov/](http://www.nypa.gov/) for more details.

- **Puget Sound Energy** won for the design and implementation of a floating surface-collector fish-passage system at the Baker River Hydroelectric Project in Washington. In relicensing its Baker River dams, PSE had the opportunity to redesign its unique floating "gulper" and guide-net complex, which captures migrating juvenile salmon for release into the Skagit River. Working with late Indian tribes, state and federal resource agencies, and other local stakeholders, PSE developed a new, more advanced floating surface collector that includes submerged screens, water pumps, fish-holding chambers, a fish-evaluation station, control rooms, and a fish-loading facility to prepare the salmon for downstream trucking around the utility's two high-reservoir dams. The system uses a series of pumps to simulate river current and attract the fish into the facility. Inside the facility, screens slow the water down to project the fish from injury. PSE has seen fish collection rates skyrocket since installing the facility, and it hopes to reach a 95 percent capture rate on Baker Lake, improving the existing rate by 50 percent. Visit [http://www.pse.com](http://www.pse.com) for more details.

- **Yuba County (CA) Water Agency** won for completing the lower Yuba River Accord, an unprecedented set of agreements among local irrigation districts, state and federal resource agencies, and conservation groups to meet the simultaneous, sometimes competing demands for fisheries protection, water supply, power supply, and other services on California's Yuba River watershed. Looking at the seemingly impassible, expensive controversies surrounding the watershed that had been playing out in regulatory and legal forums since 1988, Yuba County Water Agency championed a collaborative approach to address all stakeholder concerns. YCWA and 16 other entities launched a four-year process that led to a three-agreement accord that addresses key economic and environmental priorities. Since completing the accord, YCWA has reported several important outcomes, including significantly increased fisheries flows for the lower Yuba River's salmon and steelhead, full utilization of hydropower generation in the Yuba River Development Project, and commitment of a $6 million dollar fisheries monitoring and evaluation program to address operational and flow-change decisions in an ongoing, collaborative manner. Visit [http://www.ycwa.com/](http://www.ycwa.com/) for more details.

NHA also conferred one award in the Public Education category this year:

- **TransCanada** won for the high-definition documentary it produced to document the re-powering project it undertook at its 100-year-old Vernon Station hydroelectric plant in Vermont. From 2006-2008, TransCanada replaced Vernon Station's four original three-wheel turbines with advanced, axial-flow Kaplan runners that could double the plant's capacity. But, installing 21st-century technologies in a facility subject to National Historic Preservation Act requirements posed daunting technical challenges, as well as important efforts to maintain and document the facility's historic character. TransCanada decided to document this work by producing a high-definition video about the facility's past as seen through archival photos and its future, as captured in footage showing the re-powering project. The company kept a local production team "on call" throughout the project, so it could keep the re-powering project progressing, while also capturing all significant milestones. Schools, historical societies, and other local organizations are now using Vernon Station -- Honoring the Past, Powering the Future as an educational resource and historic reference. Visit [http://www.transcanada.com/](http://www.transcanada.com/) for more details.

NHA's selection panel, which includes representatives from industry, environmental, and media interests, determined the OSAW Award winners based on their project or program's initial challenge, innovation, collaboration with stakeholders, and results. The panel judges every project by its own merits. NHA
presented the awards today at the association's annual conference in Washington, D.C. For more details on the 2008 OSAW winners, see www.outstandingwaters.org.

Water
(Is this the “wave” of the future? One problem – reports indicate that the company has not decided on a technology for this site.)

US FERC issues permit for 100-MW ocean wave power project
Washington (Platts.com)--8May2009

Staff of the US Federal Energy Regulatory Commission upheld the commission's end of a recent agreement with the Department of the Interior's Minerals Management Service while still approving a preliminary permit for a wave power project proposed to include part of the Outer Continental Shelf. In a delegated order Thursday, Mark Robinson, director of FERC's Office of Energy Projects, issued a preliminary permit for the 100-MW Green Wave San Luis Obispo project but revised the northwest and southwest boundary markers so the site would span state waters only. Green Wave Energy Solutions wants to build the project off the coast of San Luis Obispo County, California. This arrangement would respect the terms of a memorandum of understanding that DOI and FERC signed in April to clarify their jurisdiction over renewable power projects on the OCS. FERC has authority over licensing of hydrokinetic projects but leasing, rights-of-way and easements for all renewables on the OCS are in the hands of MMS. Also, MMS has jurisdiction over offshore wind power projects.

Under the MOU, FERC agreed not to issue preliminary permits for hydrokinetic projects that would be located on the OCS and developers must receive an MMS lease before they can obtain a commission license. There were nine preliminary permit applications for wave power projects proposed on the OCS when FERC reached the MOU. Preliminary permits do not grant land-use rights but instead serve as placeholders in FERC's water power licensing process so a developer has priority if it later decides to pursue a license. The commission also has issued a preliminary permit for a traditional hydropower project. On May 1 it issued to Glacier Fork Hydropower a preliminary permit for the 75 MW Glacier Fork project proposed in the Glacier Fork of the Knik River in Alaska. On the same day FERC accepted for filing a preliminary permit application from Hydro Energy Technologies for the proposed 250-MW Southerly Waste Water Treatment Plant to be located on the Cuyahoga River in Ohio.

More water wars. Sounds more like politics than facts.)
S.C. to fight Duke’s Catawba River license
May 8, 2009, Charlotte Business Journal - by Susan Stabley, Staff Writer

South Carolina has opened a new front in its water war with North Carolina, targeting Duke Energy Corp.’s federal license for hydroelectric operations along the Catawba River. S.C. Attorney General Henry McMaster has filed to intervene in Duke’s application for a new, 50-year license for its 11 reservoirs and 13 hydro facilities along the bi-state river. McMaster argues the Charlotte-based energy company (NYSE:DUK) is basing its relicensing application on flawed data. In question: Duke's scientific models that predict when the river will suffer from serious droughts. Duke submitted an application in 2006 to the Federal Energy Regulatory Commission that estimated the Catawba’s currents would drop to its lowest levels for a combined four months out of a 51-year period. But low-flow river conditions were recorded for 15 consecutive months as the region suffered from an extreme drought in the past two years, McMaster says.

"That vast disparity between the model’s prediction and actual experience to date calls for a serious reassessment,” he states in comments sent to FERC. McMaster says the latest statistics show the Catawba is — and will be — “extraordinarily taxed” beyond Duke's environmental calculations. "South Carolina will be directly affected by the terms of any license granted by the commission,” he says in his motion. Jeff Lineberger, hydro licensing manager at Duke, disagrees with South Carolina's analysis of the river modeling. “You have to understand what those numbers represent,” he says. The estimates were used to set triggers for drought response that “worked like a charm” during an unprecedented dry period, he says. Revised data have since been submitted to FERC, he adds, that reaffirm the modeling system. McMaster's
filing cites his state’s suit against North Carolina that is pending before the U.S. Supreme Court. South Carolina’s complaint contends North Carolina takes more than its fair share of water out of the Catawba. The case is expected to sort out how the river’s limited resources should be divvied up among competing interests. Arguments before the Supreme Court over a key battle in the case may come as soon as October, according to a recent memo from N.C. Solicitor General Christopher Browning. Attorneys for the city of Charlotte, Duke Energy and local utility Catawba River Water Supply Project have filed to intervene in the suit between the states. The nine justices have said they will hear oral arguments on which parties may be allowed to take part in the suit.

Lake Mead Is Drying Up
Environmental, Health and Safety News, May 10, 2009

If it dries up, so could power and water for much of the Southwest. Lake Mead stores water from the Colorado River. When full, it holds 9.3 trillion gallons, an amount equal to the water that flows through the Colorado River in two years. The water from Lake Mead is used for many things. It irrigates a million acres of crops in the United States and Mexico, and supplies water to tens of millions of people. Its mighty Hoover Dam generates enough electricity to power a half-million homes. Additionally, the power from Hoover Dam is used to carry water up and across the Sierra Nevada Mountains on its way to Southern California. In 2000, the water level at Lake Mead was 1,214 feet, close to its all-time high. It’s been dropping ever since. When Lake Mead was built during the 1920s and 1930s, the western United States was enjoying one of the wettest periods of the past 1,200 years. Even today, our so-called drought is still wetter than the average precipitation for the area averaged over centuries. In other words, for the last 75 years, we’ve been partying like it’s 1929. Farmers grow rice by flooding arid farmland with water from Lake Mead; residents of desert communities maintain front lawns of green grass; golfers demand courses in areas where the temperature exceeds 100 degrees Fahrenheit during the summer. And it continues to shrink. Lake Mead's water level fell 14 feet last year, and the Bureau of Reclamation has projected the level will drop 14 more feet this summer. That will bring it perilously close to 1,075 feet, the point at which the federal government can step in and declare a drought condition, forcing a reduction of 400,000 acre-feet drawn from Lake Mead per year. A typical Las Vegas home uses a half acre-foot of water per year, so such a reduction would be equal to turning the tap off for 800,000 households. In 2008, the Scripps Institute of Oceanography issued a paper titled "When will Lake Mead go dry?" which set the odds of Lake Mead drying up by 2021 at 50-50. No more water, no more electricity, no more pumping power.

Hydro plant would restore steelhead spawning areas
Under an agreement, hydro firm would install fish screens to aid smolts going downstream
May 05, 2009, By Mark Freeman, Mail Tribune

APPLEGATE — A Utah firm is close to winning authority to retrofit Applegate Dam with hydropower turbines under an agreement that would restore wild steelhead spawning to 35 miles of creeks upstream of the dam. After seven years of applications and studies, the company Symbiotics expects to soon receive a federal license to add two turbines for producing 10 megawatts of electricity using water the dam releases into the Applegate River. As part of that license, Symbiotics would add $4 million worth of fish screens that would allow protection to downstream migration of steelhead smolts. That would pave the way for wild steelhead now trapped at the dam's base for spawning at Cole Rivers Hatchery on the upper Rogue River to be trucked upstream from Applegate Lake and released in Carberry Creek and other streams that feed the

Copy obtained from the National Performance of Dams Program: http://npdp.stanford.edu
The effort could reseed at least 35 miles of wild steelhead spawning area thought to be lost to the Rogue River basin when the U.S. Army Corps of Engineers completed Applegate Dam in 1980, according to the Oregon Department of Fish and Wildlife. "The upside is just too good to pass up," said Dan VanDyke, the ODFW's Rogue District fish biologist. "You just don't find this in a whole lot of places in the state."

The Federal Energy Regulatory Commission is awaiting a formal biological opinion on the proposal from the National Marine Fisheries Service before ruling on the license, said Eric Steimle, Symbiotics' director of environmental compliance in Portland. The biological opinion is expected this week, and a FERC decision on the license is expected within three months, Steimle said. If the license is issued as expected, construction on the $19 million project would begin in 2010, he said. Steimle offered no projections on how long it would take for the project to pay for itself. There is no timetable for the steelhead re-introduction, which likely would be publicly vetted during the drafting of a management plan governing steelhead management throughout the Rogue River basin, VanDyke said. Since 2001, Symbiotics has been looking at Applegate Dam and dozens of others throughout Oregon as candidates for hydropower retrofits. The electricity it generates here would be delivered to the power grid through a series of underground and above-ground wires to a substation at Ruch.

The dam currently passes water through an outlet at the base. To generate power, that outlet would be lined with a steel pipe that would funnel water into two penstocks fitted with turbines. The diversion to the turbines would be fitted with screens to keep downstream-migrating juvenile steelhead away from them, funneling them through the dam and into the current "stilling basin," where the water is pooled and slowed before eventual release into the river, said David Harris, the ODFW's southwest regional hydropower coordinator. "The screen system is going to be pretty complicated, but that's typical," Harris said. The screens are estimated to cost about $4 million. When the Corps built the dam, it also built a fish trap to collect broodstock for Applegate winter steelhead production at Cole Rivers Hatchery on the upper Rogue. In past years, some of those excess winter steelhead have been trucked around the dam and released into the reservoir, largely for anglers to catch. By using trapped wild steelhead to seed above-the-dam tributaries, Symbiotics' studies suggest that as many as 2,000 extra adult winter steelhead would return to the Applegate. A U.S. Fish and Wildlife Service study before the 1962 congressional authorization of the Rogue Basin dams estimated that 850 winter steelhead spawned upstream of the current reservoir. Another 1,150 adult steelhead spawned annually within the area now inundated by the reservoir. Since fisheries enhancement is a primary purpose of the dam's operation, any hydropower operations cannot harm downstream fish or their habitat.

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Bonneville Sea Lions Avoiding Traps, Still Eating Salmon
BY PETE SPRINGER, Portland, OR, May 8, 2009, OPBNews.com

Sea lions eating salmon below Bonneville Dam have been avoiding traps set by state fish and wildlife officials. In fact, not a single California sea lion has been captured at Bonneville Dam in the last three weeks. The traps were designed basically as rafts with steel cages on top, says Brian Gorman, a spokesman for the National Marine Fisheries Service. Gorman says sea lions like to haul their bodies onto jetties, docks, and boats and the traps were designed to take advantage of this behavior. "But lately, the past couple of weeks, they have not been hauling out on the traps," says Gorman. "This is probably due to the fact that they've been observing what's going on." In other words, the sea lions seem to have figured out what the traps are and they're now avoiding them completely.

Gorman says there are three main criteria used to designate a sea lion for permanent removal. The animal has to be individually identifiable, which usually means it's been trapped and branded previously. The sea lion has to have been seen eating salmon or steelhead at Bonneville Dam. And they have to have resisted attempts at hazing which is usually done in the form of chasing them away with boats, firecrackers, and rubber bullets. Under these criteria, 85 sea lions were designated for possible removal starting this spring. But since early March, only eleven of these sea lions have actually been trapped. Seven of those were diagnosed with pre-cancerous conditions and euthanized. Two were sent to an aquarium in Chicago, and the final two will be shipped to an aquarium in Brownsville, Texas. "These animals are very smart and they are very resourceful," says Gorman. "And they are very well motivated so it's not like you're catching rabbits." "Even though they're not being trapped, they're continuing to eat salmon that are there below

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(This is worth a chuckle. Makes humans look pretty silly and probably stupid!)
Bonneville Dam,” says Roger Fuhrman, a spokesman for the Oregon Department of Fish and Wildlife. ODFW is one of the agencies operating the traps. Fuhrman says his agency turned to trapping after efforts at hazing the sea lions were unsuccessful. “It discourages them somewhat, but the sea lions continue to move back in,” says Fuhrman. “And that’s why we requested and received authority to move towards removal of sea lions in the area, because the non-lethal means of moving the sea lions out of the area, the hazing, just wasn’t effective.” Fuhrman says his agency is concerned about the impact the sea lions are having on both hatchery and wild fish now that they are avoiding the traps. Oregon and Washington wildlife officials are authorized by the federal government to shoot the problem sea lions on site, but so far they have not done that due to safety concerns.

1 This compilation of articles and other information is provided at no cost for those interested in hydropower, dams, and water resources issues and development, and should not be used for any commercial or other purpose. Any copyrighted material herein is distributed without profit or payment to those who have an interest in receiving this information for non-profit and educational purposes only.
"Good wine is a necessity of life." - Thomas Jefferson
"No nation was ever drunk when wine was cheap." - Thomas Jefferson
Ron's wine pick of the week: Charles Smith Wines Boom Boom Syrah 2006/2007

Other Stuff:
(Another freebie for wind! If it were hydro, the hydro industry would have to pay the freight.)

FERC Study: Using Frequency Response to Assess Reliable Integration of Wind and Other Renewable Resources

The Federal Energy Regulatory Commission (FERC) has commissioned a new study that will use Frequency Response to assess reliable integration of wind and other renewable energy resources.

- This is a groundbreaking study. This is the first time anyone has looked at using this specific metric – frequency response – to objectively determine how much renewable energy can be reliably integrated into the bulk power system.
- This is particularly important given state renewable energy goals, the recent discussion regarding possible national minimum renewable energy goals, and given Chairman Wellinghoff's stated goals for FERC: integration of energy efficiency, demand response and renewable resources into the grid for the benefit of consumers around the country with no harm to the reliability of the bulk power system.
- FERC is charged with the oversight of the reliability of the nation’s bulk power system.

This study will provide FERC with the information it needs to protect and improve the reliability of the grid. FERC will use the results of the study to validate an approach to assess the reliability impacts of integrating renewables into the grid. The Study:

- The study will be performed by Lawrence Berkeley National Laboratory.
- The study has three main goals determine if frequency response is an appropriate metric to assess the reliability impacts of integrating renewables; use the resulting metric to assess the reliability impact of various levels of renewables on the grid; and identify what further work and studies are necessary to quantify and mitigate any reliability impacts associated with the integration of renewables.
- The study should be completed in six months.
(They left out a little factoid as usual because it doesn’t fit the agenda – namely, of the 10% renewables, it’s mostly hydro)

7 amazing facts about renewable energy
Sustainable Energy Coalition's renewable energy facts for 2009
Mother Nature Network, May 13 2009
The Sustainable Energy Coalition is hosting a big energy expo in D.C. today, and they have assembled a nice collection of interesting factoids about renewable energy. Here are 7 facts about the renewable market you probably didn’t know:

. . . . that **renewable energy** sources provided nearly 10% of both domestic energy production and U.S. electrical generation in 2008 with non-hydro renewable electricity expanding by 17.6% over the previous year; renewable energy will account for about a third of new electricity capacity added to the U.S. grid over the next three years.

. . . . that U.S. **wind power** grew by 50% in 2008 and accounted for 42% of all new power generation in the United States last year; wind energy could supply at least 20% of U.S. electricity needs by 2030 while avoiding 7.6 cumulative gigatons of carbon dioxide.

. . . . that **grid-tied photovoltaic** (PV) capacity increased 58% in 2008 and solar water heating capacity increased 40%; the PV industry today is 10 times larger than 1998 and likely to grow by 50% annually in the coming years; solar thermal plants covering an area equal to 9% of Nevada could generate enough electricity to power the nation; solar power is on the verge of reaching cost parity with conventional energy sources.

. . . . that there may be more than 90,000 MW overall of untapped water potential in the United States; through **new hydropower technologies**, such as advanced turbines, and new applications, such as tidal, wave, ocean currents, and in-stream hydrokinetic approaches, the industry could double its output over the next 20 years.

. . . . that six million Americans are using **geothermal energy** in their homes – three million receive electricity from geothermal power plants and another three million use geothermal heat pumps to heat & cool their homes; more than 100 new geothermal power projects now under development in 13 states will more than double the country’s geothermal capacity over the next five years.

. . . . that total ethanol capacity expanded 34% and E85 stations exceeded 1,800 in 2008; the fuel now represents more than 7% of the nation’s gasoline supply and can be found in more than 70% of gasoline gallons sold in the U.S.; the 6.5 billion gallons of ethanol produced last year added $47.6 billion to the nation’s GDP; moreover, **cellulosic ethanol** requirements are projected to boom during the coming decade.

. . . . that **biomass** is presently the largest U.S. renewable energy source with more than 200 existing bio-power plants now providing electricity for 1.5 million American homes; manure-to-energy biogas projects are expanding and could power up to 3% of North America’s electricity needs.

Also check out 7 Facts about Energy Efficiency and 7 Facts about Green Jobs.

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Munro named to national hydropower post
By Christine Pratt, The Wenatchee World staff writer, May 15, 2009

EPHRATA — Andrew Munro, external affairs director at the Grant County PUD, has been named 2009-10 president of the National Hydropower Association. The association announced the appointment Wednesday, following its annual conference in Washington, D.C. Munro, 41, said in a prepared statement that he’d work toward the association’s goal this year of challenging the industry to double its capacity, its number of jobs and the megawatts of new hydroelectric projects presented for federal approval. Munro has also worked as director of governmental affairs for the Chelan County PUD. Founded in 1983, the nonprofit association lobbies for the interests of the hydropower industry. Its membership includes more than 140 organizations, including public and investor-owned utilities.

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Copy obtained from the National Performance of Dams Program: [http://npdp.stanford.edu](http://npdp.stanford.edu)
Governor’s Executive Order Could Dam up Safety Regulations
The [Green] Capitol Insider - 5.4.2009

An executive order signed by Governor Paterson last week has Albany insiders concerned that it could be used to roll back regulations that protect our air, water and land. Executive Order #17 requires all state agencies to assess how all current and future regulations could impact municipal property taxes. These are the taxes that fund things like drinking water and sewage treatment plants, not to mention schools, libraries, and fire and police departments. According to Crain’s New York Business, Executive Order #17 caught the state’s new dam safety regulations, which are three years in the making. New York’s dam owners are required by law to inspect, and if necessary, fix their dams. Seems pretty reasonable, given the flood of problems that result when a dam fails. Inspections and repairs cost money and more than one-third of the state’s dams are owned by local governments and municipalities according to the D.C.-based group American Rivers. New York is home to more than 5,500 dams statewide and has few inspectors charged with ensuring dam safety. And now even those staff may be in danger thanks to continued staff cuts at the agency, which will likely lose more than 400 people this year.

Seismic concerns complicate Scoggins Dam project
by Susan Gordanier, Hillsboro Argus May 12, 2009

The possibility of a quake along the fault off the Oregon Coast is impacting a project of major significance to Hillsboro and its Washington County neighbors. The U.S. Bureau of Reclamation is evaluating the safety of Scoggins Dam in light of scientists' increased understanding of the Cascadia Subduction Zone, the major fault line that runs off the Oregon Coast and the possibility of a 9.0 quake along that fault. That study is being conducted under the Safety Evaluation of Existing Dams program, which periodically reviews the safety of all dams under bureau ownership. In August 2008, the bureau drilled a series of holes at the dam's slope to extract rock and soil layer samples down to bedrock. Data from those samples are now undergoing analysis, and a report should be issued by October, according to Richard Link, a geologist with the bureau's Pacific Northwest region offices in Boise, Idaho.

Meanwhile, partners in the Tualatin Basin Water Supply Project are equally interested in these same safety considerations, but because their team is working under tighter time constraints, they are moving ahead with their own analysis. The team is weighing alternative designs to raise the height of Scoggins Dam by 40 feet and increase the holding capacity of Henry Hagg Lake to meet the region's future potable water needs. Clean Water Services is a lead partner for this project. Mark Jockers, its spokesman, said the partners have hired Kleinfelder Water Inc., a national firm, to analyze data from an additional 14 holes drilled at the dam site, in addition to data from the bureau's borings. Kleinfelder is building computer models, Jockers said, to simulate the effects of a 9.0 quake lasting for two minutes along the subduction zone. Meanwhile the project's design team has come up with several alternative models to make Scoggins Dam safer, yet still meet the project's larger goals, on schedule, with construction between 2012 and 2014. Tom VanderPlatt, Clean Water Service’s Water Resources manager, said, "We, the partners, say we can make the dam safer sooner than the federal government can fix it." The Water Supply Project partners are also seeking transfer of title to the dam from the Bureau of Reclamation, which would be responsible for making the current dam safe -- but not raising it. VanderPlatt says "the raise can be the fix" because the new design would have to meet current seismic guidelines. Originally, before possibility of earthquake became a driving factor, the assumption had been that the dam might be raised 40 feet by backfilling on its downstream side. Now engineers are beginning to weigh other alternatives:
• Raising the height of the existing dam in a similar way to the original assumption, but at a far gentler slope. The completed dam would have a much wider footprint, but the flattened profile would prevent sliding during a quake.
• Constructing a new dam downstream from the existing Scoggins Dam, just above the site of the Stimson Lumber Mill. This model would have the advantage of storing the required amount of water while flooding less upstream land.

No matter which alternative is finally selected, funding the project could run into hundreds of millions of dollars.

(He already made up his mind. He just wants the administration to back him up. It looks like the Snake River Dams are on a death watch. There goes over 3000 MW of renewable power)

**Dam breaching an option to protect salmon, U.S. District judge says**

Idaho Statesman, 05/19/09

U.S. District Judge James Redden told the Obama administration on Monday its changes to a Columbia-Snake salmon and dam plan should include a contingency plan to breach the four lower Snake River dams or draw down reservoirs on the Columbia or Snake rivers if current measures fail to protect endangered fish. Redden wrote in a letter Monday he welcomed the administration's effort to review the controversial biological opinion on how federal dams affect 13 stocks of endangered salmon and steelhead. But he said he still doubted the existing plan meets the requirements of the Endangered Species Act. "Federal defendants have spent the better part of the last decade treading water, and avoiding their obligations under the Endangered Species Act," Redden wrote. "Only recently have they begun to commit the kind of financial and political capital necessary to save these threatened and endangered species, some of which are on the brink of extinction. We simply cannot afford to waste another decade."

(Holy mackerel, someone is manufacturing something in the U.S.)

**Steel-Fab to make new gates for Maryland dam**

By Lisa Eckelbecker TELEGRAM & GAZETTE STAFF, May 19, 2009

FITCHBURG — Steel-Fab Inc., a privately held maker of gates for dams and hydroelectric plants, has been awarded a $792,580 contract to make gates for a prominent dam repair project in western Maryland. Steel-Fab was awarded the contract to make four stainless-steel gates, each measuring 5 by 10 feet, by the Upper Potomac River Commission, according to officials from Steel-Fab and the commission. The gates will replace aging equipment in the Savage River Dam, including one gate that is stuck in place, under a $6 million project that has been in the works for months but recently was cleared to receive federal stimulus money. "We've been working on this project since last June," said Louis Bartolini, vice president of Steel-Fab. The gates will be fabricated in Fitchburg for installation at the bottom of a shaft about 100 feet into the ground, Mr. Bartolini said. Steel-Fab's subcontractor, Sorensen Systems LLC of Northboro, will provide the hydraulic systems for the gates, which are designed to lift and drop into place.

The Savage River Dam controls the water from a 365-acre reservoir that provides drinking water to downstream communities. The dam's current gates date to 1954, according to Scott Shoemaker, superintendent of the Upper Potomac River Commission. All the gates are heavily corroded and at the end of their service life, according to a report from Hazen and Sawyer, the North Carolina-based engineers working on the project. Mr. Shoemaker said Steel-Fab's gates are due to be delivered to the dam in the fall. To install the new gates, operators will draw down the reservoir over the winter and schedule construction for December through February. Steel-Fab employs about 50 people.

**Hydro**

(Why do news media keep asking this dumb question? It's obvious why we have an energy problem – no one knows that hydro is renewable! American Rivers is so anti-hydro that it fogs their ability to think rationally. We will NOT get where we want to be with renewables by relying on the fad called wind power.)
Hydropower: It's Renewable, But Is It Green?
BY ETHAN LINDSEY, Bend, OR, May 11, 2009

A federal judge in Portland is considering how the hydroelectric dams on the Columbia River interact with salmon. At the same time, environmentalists continue to push the Obama Administration to remove several of the hydroelectric dams on the Columbia River. And that leads us to the next installment in our energy series, The Switch. Hydroelectric power has long been part of the Northwest’s fabled history. In fact, Woody Guthrie wrote a whole album about building the Columbia River dams. But in our clean energy future, is hydropower really “green” enough? Ethan Lindsey explores the issue.

Hydro power and the Northwest. They’re nearly synonymous, even for people who’ve never heard Guthrie’s “Roll on Columbia.” In fact, when Fran Halpin graduated from college in Massachusetts, it just made sense to move west and work on one of the country’s biggest renewable energy projects. Fran Halpin: “I came here and got a job with Bonneville, and I said, this is like my dream job. I get to do engineering and I get to be environmentally conscious, and work with fish survival and renewable energy and conservation. Being an engineer, I am not that much of a braggard. People have to pry this stuff out of me. It is a job I am very proud to be doing and happy to be doing. I’ve loved it ever since I came out here.” Halpin works in the Portland offices of the Bonneville Power Administration. Today, he heads up a team that watches the water flow of the Columbia River system and markets power accordingly. Through Halpin’s eyes, the hydroelectric power generated along the Columbia is one of the best answers we’ve got to our energy questions. His office sits next to a trading floor and monitoring room – both of which feature banks and banks of computer screens. Fran Halpin: “I have a couple of displays here that I can show you if you want. Ok, so this is about midnight here. So we’re at 1500 megawatts or 1700 megawatts at Grand Coulee. And then it’s dropping off between midnight and 1 o’clock. Turning off the Late Show, electric heaters are turning off. And then, early risers start getting up, so you start seeing the load picking up, people are coming into schools or offices, so the load does come way up.”

The Bonneville Power Administration sells and markets electric power generated from the federally-owned energy projects in the Northwest – that includes wind and nuclear power, as well as BPA’s bedrock business: hydroelectric dams. On a tour of the Bonneville Dam, the sheer scale of the engineering is breathtaking. The dams are operated by federal agencies, notably the Army Corps of Engineers. Dams make up the biggest piece of the Northwest’s hydroelectric pie. They’re a reliable source of base load power. That and their ability to respond to increased demands at peak times are key selling points of hydro.

Longtime Oregonians remember when hydro constituted more than 90 percent of the state’s power a few decades ago. Inside the dam, next to the energy turbines, it’s hard to believe that hydro’s share of the regional power mix has now been cut in half. Population and energy growth has been coupled with a push to sell cheaper power to California. So now, Oregon gets just 42-percent of its energy from hydroelectric power. Still, hydro is one of the cheapest – if not the cheapest – power source we’ve got. The Bonneville Power Administration says its average price per kilowatt-hour over the past year was 2.73 cents. The only rival is coal – but hydro supporters like to point out the dams don’t pump any pollution into the sky. And on top of all that, it’s renewable. Steve Wright: “Well, hydro is clearly renewable. I don’t think there’s any question about that. The fact of the matter is, it’s the cycle of water that we are able to take advantage of. Steve Wright is the Administrator of the Bonneville Power Administration. He says it’s also sustainable, and in his mind, green. Steve Wright: “I believe the fundamental value of the electric power system in the Northwest resides in that river. This is a huge river, and it sits on the side of a very steep hill. And that’s a unique opportunity. Hydro power is the best renewable resource because it is the lowest cost and most reliable renewable resource. And I think that’s why so many people in the Northwest feel connected to the Columbia.” But Wright, as well as anyone, knows and acknowledges the environmental costs of the dams. They damaged the nearby habitat, forever changed cultures, and killed lots and lots of fish.

And to Brett Swift at the conservation group American Rivers, a label like "green" or "sustainable" or "renewable" just doesn’t fit. Brett Swift: “Dams absolutely have an adverse impact on the environment. The important question is ‘what is the role of hydropower in the future of our energy mix. And how we label it doesn’t necessarily inform that.’” Swift says American Rivers knows that hydropower will be a part of the region’s future energy reliance – but says that doesn’t mean we should start building new dams or dismiss getting rid of old, inefficient ones. One model for future hydro is small-scale, low impact dams. Jerry Bryan stands next to a small hydroelectric project in the Farmers Irrigation District outside Hood River the entire facility is about the size of a 7-11. Jerry Bryan: “You are looking right now at the control panels for both of those generators. I still think that I am staring at engineering technology from the 40s and 50s.” Unlike a traditional dam, this project allows fish to swim by unimpeded and yet provides local irrigators with the water...
they need to grow their crops. Many in the state say little hydro projects like this could serve as models for low-impact, small scale power generation in the future, but Bryan is reluctant to take any praise. Jerry Bryan: "If I am going to stand here and say a project I am working on is a model for everyone, I am justly accused of affected arrogance. So I am not willing to say that, but what I am willing to generalize is that if people sit down, then wonderful models emerge." Bryan says his project isn’t perfect. Every energy source has drawbacks. And that’s the crux of the hydro debate, says Angus Duncan, with the non-profit Bonneville Environmental Foundation. Angus Duncan: "There’s a tendency to exalt some sources of energy, and demonize others. And for better or worse, hydro has been demonized in the Northwest. Right now, a far greater threat to salmon runs generally, is global warming. That is a bigger threat than the hydroelectric system." Duncan says inefficient and destructive dams are being torn out around the region right now. And that should continue. But he says if we tear out the big dams, we’ll need to replace that energy with something else. And until hydro power can be replaced by something other than coal, it’s “green” enough for most.

Petersburg argues sole municipal preference for hydro exploration permit
Matt Lichtenstein, NPR KSTK, May 10, 2009

PETERSBURG-AK (2009-05-11) The City of Petersburg claims it’s the only applicant that should receive a municipal preference for an exclusive permit to study the feasibility of a hydroelectric plant at a nearby mountain lake. Petersburg, Wrangell, Angoon and the private company Cascade Creek LLC are all competing for the preliminary permit to explore Ruth Lake in Thomas Bay. The area is about 15 miles from Petersburg, 40 miles from Wrangell, and 70 miles from Angoon. Wrangell and Angoon have chosen to work on energy development in collaboration with the private sector, while Petersburg has not.

Snohomish County PUD thinking small dams
By DAVID CHIRCOP, THE HERALD, Seattle Post-Intelligencer, May 10, 2009

MONROE, Wash. -- More dams are coming. These aren’t the hulking concrete structures of the past. Instead, the Snohomish County PUD wants to construct miniature versions -- "micro hydro" in industry jargon -- in the upper reaches of streams and creeks, above already existing natural barriers to salmon and other migratory fish. The public utility already purchased an existing miniature dam -- 6 feet tall and 35 feet across -- last year on Woods Creek near Monroe. It's providing enough power for several hundred homes. This fall, it plans to begin building another small dam near Sultan. The agency wants to build as many as 10 new dams in the next decade to provide a small but important source of energy for the area. If successful, the PUD's effort would likely mark the greatest boom of new dam construction by a single utility in the United States in years, according to the Federal Energy Regulatory Commission, which issues licenses for dams.

These new dams will have little if any effect on fish or water quality, utility officials say. They add it's important to explore forms of power generation other than traditional fossil-fuel-burning power plants. This region is blessed with natural resources: streams and creeks as well as tides and volcanic activity. It only makes sense to tap into them for energy, PUD general manager Steve Klein said. "The tides go on forever, the streams flow forever and the heat of the earth is virtually limitless," Klein said. Building new dams is not an easy prospect when environmentalists, tribes and fishermen are fighting to take sledgehammers to existing ones. While the dams of the past created great public benefits, they also choked dry countless rivers, blocked hundreds of miles of salmon runs, silted spawning grounds and made it difficult for many native fish species to survive. Even small dams can harm the environment, said Darcy Nonemacher of the national conservation group American Rivers. "There is a tendency to call them small hydro, or micro hydro, but that can be greenwashing for the hydro industry," Nonemacher said. State rich in water power. Flick on a light switch in any home in this state and the electricity that flows to the bulb likely comes from a dam. Washington is the nation’s leading producer of hydropower. Nearly three-fourths of the electricity generated in the state comes from dams, according to the federal Department of Energy. With many dams built by the federal government during the Great Depression, Washington continues to benefit from subsidized electricity and enjoys among the lowest rates in the country. The Grand Coulee Dam completed in 1942 on the Columbia River in Eastern Washington produces more energy than any other hydroelectric plant in the U.S. Months after the Japanese bombed Pearl Harbor on Dec. 7, 1941, electricity from the Grand Coulee helped make the aluminum used for thousands of American warships and planes. More recently, power-hungry
that takes environmental concerns seriously. "There needs to be a new look at small, low-impact hydro," for green energy development, said the utility's plan for small-scale electricity generation is a compromise environmental impact studies. Dave Aldrich, a PUD commissioner, who is widely regarded as a cheerleader application to construction. It's a trail loaded with regulatory hurdles, public comment periods and FERC spokeswoman. The PUD expects each new project will take three to five years from license licenses, 11 of those were approved in the last three years. "The trend is definitely up," said Celeste Miller, a search for cleaner power. Since 2000, the federal government has issued 23 new federal dam operation Despite concerns, interest in new dams is growing as coal prices skyrocket and states force utilities to culverts that block salmon and other fish from migrating to and from their spawning grounds. Snohomish County Councilman Dave Somers said a similar attempt by the PUD to build small hydropower projects in the eastern part of the county, said some of these planned projects are in difficult terrain for construction and environmental studies on the Youngs Creek Project before it could be built. That dam -- planned at 12 feet high and 65 feet across -- would create a 1.5-acre reservoir, the streambed would need to be excavated and a 7-mile long underground power line installed. A 3-mile stretch of the creek downstream from the dam will see less water. "The environmental and societal costs of (small hydro) can outweigh the benefits," said Thomas O'Keefe, regional director for the advocacy group American Whitewater. Protecting salmon habitat has been a leading cause for American Indian tribes in the Pacific Northwest including the Snohomish County PUD. Demand for power from the federal agency is growing faster than it can provide it. Part of it is the steady increase in population. Part of it is the big-screen TVs, computers, air-conditioning and even electric cars that are part of modern life. All this means the PUD and other utilities will have to produce their own energy or be forced to buy costly electricity on the open market.

Some have doubts
Small dams come with hefty price tags and can hurt rivers and streams just like large ones, opponents warn. State Rep. John McCoy, D-Tulalip, said he is against any new dam construction in the state and said the PUD is soft-pedaling some of the environmental impacts associated with new hydro projects. "They impound water and some of them are pretty damn big, so I'm not in favor of those," said McCoy, who is the chairman of the House Technology, Energy and Communications Committee. Environmentalists across the West are also taking notice of the PUD's new interest in hydropower, American Whitewater, a North Carolina-based recreation advocacy group, and the National Heritage Institute, a San Francisco-based conservancy group, attempted unsuccessfully last year to get the federal government to require an update of 20-year-old environmental studies on the Youngs Creek Project before it could be built. That dam -- planned at 12 feet high and 65 feet across -- would create a 1.5-acre reservoir, the streambed would need to be excavated and a 7-mile long underground power line installed. A 3-mile stretch of the creek downstream from the dam will see less water. "The environmental and societal costs of (small hydro) can outweigh the benefits," said Thomas O'Keefe, regional director for the advocacy group American Whitewater. Protecting salmon habitat has been a leading cause for American Indian tribes in the Pacific Northwest. The Tulalip Tribes are among about two dozen Western Washington tribes that plan to face state attorneys in federal court over broken culverts that block salmon and other fish from migrating to and from their spawning grounds. Snohomish County Councilman Dave Somers said a similar attempt by the PUD to build small hydropower projects in the area was met with resistance by state agencies and tribes back in the 1980s when he worked as a fish biologist for the Tulalip Tribes. Somers, whose district includes much of the Snohomish River Basin in the eastern part of the county, said some of these planned projects are in difficult terrain for construction and include relatively undisturbed habitat that is important to salmon. "Each project you have to look at very carefully; they're not automatically low impact," Somers said. "I'm not saying they're necessarily bad, but they're not going to be a cinch to build."

Despite concerns, interest in new dams is growing as coal prices skyrocket and states force utilities to search for cleaner power. Since 2000, the federal government has issued 23 new federal dam operation licenses, 11 of those were approved in the last three years. "The trend is definitely up," said Celeste Miller, a FERC spokeswoman. The PUD expects each new project will take three to five years from license application to construction. It's a trail loaded with regulatory hurdles, public comment periods and environmental impact studies. Dave Aldrich, a PUD commissioner, who is widely regarded as a cheerleader for green energy development, said the utility's plan for small-scale electricity generation is a compromise that takes environmental concerns seriously. "There needs to be a new look at small, low-impact hydro,"
PUD Commissioner Dave Aldrich said, "No one should construe our effort as an assault on the environment."

**Feds OK two more hydroelectric plants**
By BRENT ENGEL, Hannibal Courier-Post, May 12, 2009

Plans for power plants at Clarksville and Winfield have gotten the green light, but are being scrapped at Canton and scaled back at Saverton. The Federal Energy Regulatory Commission has given Quincy, Ill., the exclusive right to seek licenses for the hydroelectric facilities in Pike and Lincoln counties. The goal is to provide a clean, local, renewable energy source that would power thousands of homes on both sides of the Mississippi River. Estimated cost of installing turbines at dams in Quincy, Saverton, Clarksville and Winfield is at least $200 million. Construction could begin in 2011, with completion at Quincy and Saverton by 2015 and at Clarksville and Winfield by 2017. "We're very pleased," said Mike Klingner, an engineer involved with the effort. "What we're doing is picking the very best of the sites."

Canton originally was part of the plans but has been dropped. Unlike the other four sites, Lock and Dam 20 does not have a spillway. The fear is that debris such as ice and logs could interfere with the turbines. Thirty turbines would be installed at Quincy, but the number would be dropped to four from the original 30 at Saverton. Klingner said the project was scaled back because supporters didn't want to disrupt water flow at an already-planned "fish passage" that will be built at Saverton in the next year. There also may be environmental problems at Winfield because of several islands just south of Lock and Dam 25, Klingner said. An impact study will determine the number of turbines that would be installed there. Clarksville likely would have 30 turbines. It shows the most promise because water flow increases dramatically just north of Lock and Dam 24. "It looks like a very good site," Klingner said. Turbines would be placed on the shore opposite lock chambers. Klingner said the "environmentally-friendly" devices would cause little change in scenery because they would be below the water line. Clarksville already has discussed alternative energy options. Though she hasn't seen specific plans for the hydroelectric plants, Clarksville Mayor Jo Anne Smiley is encouraged by the prospect of another power source. "Anytime anything like that is approved, it's encouraging," Smiley said. "We certainly would be interested in it working for us." The next step is continued work on environmental studies at Quincy and Saverton and the start of economic impact studies at Clarksville and Winfield. Quincy would oversee the projects and hire a contractor to maintain the system. The city could later contract with utilities to transmit power.

("While others talk, we're building,")

**Quebec looking to woo U.S. energy industry**
May. 18 2009, The Canadian Press

MONTREAL -- The Quebec government's ambitious plans to seduce the U.S. energy industry into upping imports of the province's hydroelectricity have as much chance of being rebuffed as embraced, critics and industry insiders said. Claude Bechard, the province's minister of natural resources, is in New England this week to take part in a major energy conference attended by some 375 key players from the region's energy sector. It's the first time in the conference's 16-year history that a provincial minister has been invited to attend. "(I'm) really there to explain that this energy is green and to say we're not there to compete (with their utility companies)," Bechard told The Canadian Press on Monday after landing in Connecticut. He's also planning visits to Albany, N.Y. and Washington, D.C. over the next few months.

Quebec has good reason to try to intensify its trade relationship with the United States. The province is one of the world's largest producers of hydroelectric power and is planning to increase its production capacity by nearly 16 per cent within five years. It's also made developing its energy potential a priority. Hydro-Quebec, the province's publicly-owned utility giant, reported a net profit of $3.1 billion last year as the company generated higher net exports to the United States and other parts of Canada. It says its exports to the U.S. produced nearly one-third of the company's operating profits last year. But Chris Sherman, general counsel for the New England Power Generators Association, the largest trade association representing competitive electric generating companies in the region, says the industry won't necessarily welcome Quebec's pitch with open arms. "The reception is somewhat mixed," Sherman said. "A lot of people -- policy-makers and legislators -- are looking at it largely favourably. But there are other groups, stakeholder groups, consumers, energy industry stakeholders that are a little bit more apprehensive," he said. Quebec has been exporting hydroelectricity to its southern neighbour for decades, but Bechard says the current environment is especially inviting. Combined with President Barack Obama's green energy push and Quebec's increased production capacity, he thinks the timing right. "There's a greater openness to Canadian energy," he said.
The Federal Energy Regulatory Commission is currently looking into a 1,200 megawatt project with New Hampshire that includes an energy sales contract with Hydro-Quebec for a minimum of 20 years, starting in 2014. The decision by U.S. authorities is expected soon and Bechard says it's exactly the type of long-term collaboration his government is seeking. The province will certainly have energy to spare. Hydro-Quebec has been steadily increasing its production capacity in recent years with a number of new power plants. The latest initiative is the Romaine River hydroelectric project that was launched just last week. It's a $6.5 billion behemoth, touted by Premier Jean Charest as the biggest construction initiative in Canada. It includes four dams to be built on the Romaine River on Quebec's Lower North Shore by 2020 and is expected to increase Quebec's installed capacity by 1,550 megawatts. That is enough to power 450,000 residences for a year.

But Sherman says New England's energy needs are not growing as fast as forecast. "We have a reprieve right now where we don't really have to make any hasty decisions," he said. What Quebec hydroelectricity does offer the region, according to Sherman, is "the path of least resistance." "Our policies call for pretty aggressive increases in renewable energy and yet we have not had the ability to (reach) that domestically or even regionally," he said. "So there is a demand for it." Bechard is also facing detractors from U.S. and Canadian environmental groups. The Sierra Club of Canada says the provincial government should stress cutting energy use in Quebec over building megaprojects. "The strategy should not be towards giving Hydro-Quebec more money to build more dams," said executive director Stephen Hazell. "It should be a broad-based program to encourage energy efficiency in businesses and homes across the province. That should free up energy for export," he said. But Bechard is ignoring the critics and pushing forward the government's energy export policy. "While others talk, we're building," he said.

Chelan PUD could speed up Chelan dam rehabilitation

By Christine Pratt, Wenatchee World, May 19, 2009

WENATCHEE — Engineers charged with the $45 million rehabilitation of Lake Chelan Dam, want to finish the project faster to save money and reduce risk, Chelan County PUD commissioners learned Monday. "The quicker we act, the less risk we absorb and the more revenue we gain," Dan Garrison, director of Rocky Reach and Lake Chelan dams, told commissioners. Work began in March to modernize the first of the two turbines and generators in the Lake Chelan Dam powerhouse. Work on the first unit should be finished in September. To accelerate the rehab, some $11 million more will be needed this year, the engineers said. The PUD is already expecting an $18.5 million deficit this year because of low river flows, low market prices for surplus electricity and lower returns on its investments. PUD staff proposed postponing work on the second unit until 2012, when finances are expected to improve. But a closer examination of the project revealed overall savings of approximately $1 million if work begins in November, John Janney, the utility's chief financial and risk officer said. Savings come because:

- Experts from Alstom, the French company hired to do the upgrade, are already on site.
- The PUD would lose less revenue, since the second unit would be taken out of service this year, when below-average mountain runoff is already expected to reduce generation.
- The faster the second unit is complete, the faster the PUD can cash in on its increased efficiency. The updated units will produce nearly 30 megawatts of electricity, compared to current 24 megawatts, for an annual gain of approximately $500,000 each;
- A speedier rehabilitation also reduces the risk of the old equipment failing. Much of the equipment in the historic powerhouse dates to 1927, the year it first generated power. Turbines were replaced in 1980.

Commissioners will decide in the coming weeks whether to approve the accelerated schedule.
Alabama, Florida and Georgia face off over water
By RON WORD Associated Press Writer, 05.11.09

JACKSONVILLE, Fla. -- A federal judge on Monday complained that a protracted battle over three states’ claim to water flowing from a reservoir near Atlanta has been taking place in "never-never land." U.S. District Judge Paul Manguson is attempting to unravel 19 years of litigation between Florida, Georgia and Alabama over water from Lake Lanier, Atlanta's water supply. Florida and Alabama want to increase the amount of water released from Lanier to benefit downstream power plants, farms and other businesses in their states. Manguson, who flew in from Minnesota to hear the case, did not say when he would rule on the legality of water supply allocations by the U.S. Army Corps of Engineers. But he criticized the Corps for its part in the delays. "The Corps has been sitting on this," Manguson said near the end of four-hour hearing after being told that an environmental impact study would take another three years. "It is a situation that cannot be permitted to function in this never-never land that it is in," he told Ruth Ann Storey, a U.S. Department of Justice attorney representing the Corps. Storey told the judge there was no action in the case for almost a dozen years because the states were trying to work out an agreement on their own.

The dispute centers on how much water the Army Corps of Engineers holds back in federal reservoirs near the head of the Chattahoochee and Flint River basins in north Georgia. The rivers flow south into Florida and Alabama, where they form to become the Apalachicola River. The fast-growing Atlanta region relies on the lakes for drinking water, while Florida and Alabama depend on healthy flows downstream for commercial fisheries, farms, industrial users and municipalities. The Corps also is required to release adequate flows to ensure habitats for species protected by the Endangered Species Act. Parker Thomson, an attorney representing Florida, argued that the Corps in supplying an increasing amount of water to Atlanta was violating rules which require the Corps to get approval from Congress. "There has been a major operational change. There has been no consent from Congress," he argued. Patricia Barmeyer, representing Georgia, urged Manguson not to be influenced by an appeals court ruling in favor of Florida and Alabama. "We urge you to resist the calls from Alabama and Florida that there is nothing for you to do in this case," she said. Matt Lembke, an attorney representing Alabama, argued the Corps of Engineers had failed to comply with the Water Supply Act. Many of the arguments centered on actions when the dam was being planned in 1946. Florida and Alabama argued the dam was built for hydroelectric power, flood control and navigation, while Georgia argued the reservoir was built as a water supply for the Atlanta area. Many of the arguments were based on technical data and laws in effect when the dam was built.

Georgia Gov. Sonny Perdue said Monday that he expects the judge's ruling to come down somewhere in the middle, but it is unlikely this will be the last round of appeals. "It's unfortunate our neighboring states would want to use water supply as a way to limit the growth of a very successful city and state," Perdue said. Seven lawsuits on the water issue have been consolidated by a federal panel. The case has been going on for almost two decades.

1This compilation of articles and other information is provided at no cost for those interested in hydropower, dams, and water resources issues and development, and should not be used for any commercial or other purpose. Any copyrighted material herein is distributed without profit or payment to those who have an interest in receiving this information for non-profit and educational purposes only.
Quote of Note: “The economy is like a car going downhill that has run out of gasoline, everything seems OK until you get to the bottom of the hill.” - - RAC

“Good wine is a necessity of life.” - - Thomas Jefferson

Ron’s wine pick of the week: Sawbuck Cabernet Sauvignon 2005

“No nation was ever drunk when wine was cheap.” - - Thomas Jefferson

Other Stuff:

Changes to the Office Energy Projects
FERC News Release, May 21, 2009

After 32 years of service, Mark Robinson is retiring. Mark Robinson became Director of the Office of Energy Projects in 2001. Under his leadership, OEP has developed the record that has allowed the Commission to authorize 11,738 miles of pipe, 751 BCF of storage capacity and 37.7 BCF per day of LNG send out capability. These numbers are phenomenal. Mark, however, can not be defined by simple numbers. Mark is a model of leadership. And as a model he exhibits initiative, knowledge, self-confidence, tenacity, and integrity. And because of his leadership, we have an Office of Energy Projects that is a proud example of the best in government services. We have an authorization process that places a premium on early identification of issues, collaboration, flexibility, and resolution. With Mark’s leadership, we are an agency that promotes sound infrastructure development in a responsible fashion. Due to that leadership and widely recognized competence the level of respect afforded this agency by the industry, other federal and state agencies, and congress has been enhanced significantly. With Mark’s retirement, Jeff Wright will become the Director of OEP. Jeff has 30 years of experience in projects. He has held a number of senior management positions within OEP. Jeff is currently the Deputy Office Director in OEP. Berne Mosley, who is currently the Director of the Division of Pipeline Certificates, will be Jeff's Deputy. Berne has been with the Commission since 1983. He is a graduate of Auburn University with a Bachelor of Science Degree in Civil Engineering. Under their management, I am confident that OEP will remain the highly professional and respected organization that it is today.

(Excerpts – where’s hydro? I’m told it’s in there, but as usual the media conveniently doesn’t mention hydro. NHA advises that the House bill includes in the definitions – incremental hydro (upgrades), non-hydro dams, and new hydrokinetics.)

Renewable power mandate overcomes hurdle in Senate
May 21, 2009, By Ayesha Rascoe

WASHINGTON, May 21 (Reuters) - A measure requiring utilities to generate a certain amount of electricity from renewable sources, such as wind and solar, overcame a legislative hurdle in the U.S. Senate on
Thursday. The Senate Energy and Natural Resources Committee voted down an amendment offered by Republican Senator Jeff Sessions that would have removed the renewable electricity standard from the energy package the panel is currently debating. The proposed committee bill would mandate that power plants meet targets to gradually produce more renewable power, beginning with 3 percent of their output between 2011 and 2013 and rising to 15 percent between 2021 and 2039. Utilities could meet about a quarter of their renewable requirements through energy efficiency gains.

"The renewable electricity standard would put us on the track to becoming less dependent on greenhouse gas-emitting resources. It would also move us in the direction of being more secure as to price and supply, as well as less dependent for foreign sources," committee Chairman Jeff Bingaman said. This legislation is weaker than Bingaman's original proposal, which would have required 20 percent of electricity to come from renewable energy in 2021-2039. Despite the changes, Sessions and other lawmakers argued the bill would harm certain regions of the country where significantly increasing the use of resources like solar and wind power may not be feasible. "I don't think this makes sense. In the Southeast, this will be a disproportionate cost to us," said Sessions, who is from Alabama.

States that do not meet the energy and efficiency standards would have the option to buy renewable power, or renewable energy and efficiency credits from other entities, or pay 2.1 cents per kilowatt hour. Lawmakers also complained that the legislation did not allow states to count nuclear power and some hydropower as renewable energy.

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State loosens dam proposal
Inspections eased on small dams not posing a downstream threat
By BRIAN NEARING, Staff writer, Times Union, May 20, 2009

ALBANY, NY — The state Department of Environmental Conservation is loosening proposed dam safety and inspection rules on the owners of small dams where failure would not threaten public health or property downstream. DEC rewrote rules proposed last year after some dam owners opposed a requirement that all of the state's 5,000 privately-owned dams be inspected by a licensed engineer at least once a decade. "The revised proposal addresses those concerns. Our staff worked hard to find ways to provide flexibility to owners based on the specifics of their dam's condition in ways that do not compromise safety," DEC Commissioner Pete Grannis said. The "low-hazard" dams, which would compose the majority of the dams in the state, could face an engineer's inspection if an unsafe condition was observed, either by DEC officials or though a complaint from the public, said Maureen Wren, a DEC spokeswoman. For dams posing a threat if they were to fail, DEC revised proposed rules to extend a deadline for engineering studies. Also, the frequency of subsequent inspections will be tailored to individual dams, based on its condition, rather than being automatic every 10 years. The revised draft regulations and related documents, and instructions for submitting written comments, can be found at http://www.dec.ny.gov/regulations/propregulations.html on DEC's Web site. DEC will be accepting written public comments on the proposals until June 19.

(Teton Dam may be revisited if someone comes up with the money. People question whether a safe dam can be built that site)

Upper Valley Community For or Against Rebuilding the Teton Dam?
May 19, 2009, By Megan Boatwright, Local News 8 Idaho

The Teton Dam Flood is arguably the greatest tragedy to ever hit Eastern Idaho. Since the flood there has been much debate about rebuilding the dam and Idaho's growing water storage problems means the idea is now more popular than ever. Monday night Local News 8 looked at a study the state legislature approved last year, appropriating $400,000 from the Department of Water Resources. The study will explore many storage possibilities along the Teton basin, and recommend the safest, most economical solution. Part of the deal was the Bureau of Reclamation would match the figure. However, the agency says they don't have the funds, and to date the study is nowhere close to beginning.
Sugar City Resident Harvey Jackman remembers June 5th, 1976 well. Jackman and his wife lost their home in the flood. “People were bused in every morning as far south as Bountiful and as far east as Wyoming,” Jackman said. “Most everybody in the valley is resilient,” said Bonnie Jackman. “They’re pioneer stock.” Jill Spencer, Curator of the Rexburg Flood Museum talks with many people about the tragedy everyday, and has heard her share of opinions. “I’ve heard indifference, I’ve heard, ‘it will never happen’ but I’ve not heard very strong opinions against rebuilding the dam,” said Spencer. So even there are plenty of people and environmental groups, like Trout Unlimited, Idaho Rivers United and Greater Yellowstone Coalition who oppose the idea. These groups say there’s more than enough water to go around if we use it efficiently. They believe the State of Idaho should focus less on building new storage, and more on recharging the Snake River Plain Aquifer, off-site river storage, and voluntary water rights buyouts. “I’ve talked to some who say we don’t want it. We went through it once we don’t want to go through it again,” said Harvey. Public opinions are as vast as the canyon itself. “I drive for the university and take students up to the dam,” said BYU-Idaho employee Jeff Muench. “Even back then geologists knew that lava rocks were bad, but the government didn’t listen.” “If it’s possible to build a solid structure, I’d be in favor of a concrete structure rather than earth filled,” said Rexburg Resident Herald McCrecken. “If it can be determined that they will not have the same problems as last time then why not rebuild it,” said Brian Atkinson from Rexburg. Even though they experienced the flood first hand, Bonnie and Harvey Jackman believes a new dam would be good for the valley. “We both feel there’s a need for it,” said Bonnie. “There’s a lot of water running down the Snake River that’s not being captured,” said Harvey. The Teton Basin isn’t the only tributary under consideration. The state is also looking at developing or furthering projects in at least seven other areas across the state. The purpose of the study covers more than just looking at another earthen dam. It would include studying off stream storage, man made lakes, even smaller dams or no storage at all.

(No comment!)

Watchdogs not allowed at safety meeting

Two local Dix Dam watchdogs weren’t allowed to attend a meeting at the Frankfort Public Safety Facility in which safety at the dam was discussed.


A dam official contends such sessions are routine fact-finding meetings not open to the public and that the dam is safe. Deron Rambo, local emergency management director, organized the meeting Wednesday of several state and local officials. Jim Daniel, a retired enforcement agent for the Division of Water, and Bruce Cassidy, president of the South Frankfort Neighborhood Association, wanted to attend but their request was denied. They are members of the Kentucky Council for Dix Dam Safety. Cassidy is also an employee of the state Division for Air Quality in the Department for Environmental Protection. A State Journal reporter also was denied admission to the meeting. Cassidy and Daniel met with Rambo last week saying they wanted to be included in the meeting. Cassidy e-mailed Rambo Tuesday saying he’d been asked by numerous members of the South Frankfort Neighborhood Association to attend “to provide a comprehensive report at the July quarterly meeting.” In his response, Rambo said, “I asked my bosses and even some of the agencies that were requested to be at our planning meeting about the possibility of having a representative of your group there. “I was basically told this is a planning meeting for the emergency operations plan and not a public forum. I think the focus will be on a local plan and not so much what is or isn’t being done at the dam itself.” Rambo said he was told there is “going to be a public meeting at some point soon. I’m not sure with who or when but will let you know as soon as I find out.”

Cassidy told The State Journal he couldn’t understand why anybody would object to a representative of the South Frankfort Neighborhood Association being at the meeting. “There are 1,200 living units in South Frankfort that would be immediately impacted by the dam failure,” Cassidy said. “We would be the first area to be evacuated, I would think. “We could actually assist in the evacuation if it came to that. Kings Daughters, Frankfort Independent Schools, numerous older residents need our participation (in the meeting).” Daniel, Cassidy and a reporter received access to the third floor waiting area of the facility where the meeting was held. Those attending were officials from Kentucky Utilities, owner of the 84-year-old dam; the Kentucky River Authority; the National Weather Service and the Ohio River Forecast Center, the state Division of Water, Office of Homeland Security, Office of Emergency Management and Department of Fish and Wildlife Resources. Also on hand were emergency management representatives from Anderson, Woodford and Mercer counties; Frankfort Mayor Gippy Graham and Franklin County Deputy Judge-Executive Jennifer Wilson. Cassidy gave Rambo a list of questions he hoped KU would answer. He also complained to Mayor Graham about them being left out of the meeting. Cassidy asked if KU is “handing out rose-colored glasses to everybody in there. I expect them to give a whitewash presentation. That’s why we insisted on being here. “We weren’t going to be rebel rousers. We just wanted to listen and see what they had to say,” Graham said the group in the meeting room “has assured me they will respond to your questions.” After the meeting, Jeffrey Fraley, KU’s general manager of E.W. Brown Generation Station at Dix Dam, referred a reporter’s questions to KU spokesman Cliff Feltham in Lexington. Feltham, by phone
Wednesday afternoon, said KU officials attend similar fact-finding meetings all the time that aren’t open to the public. Feltham said information from the meeting and from KU’s updated inundation study - underway now as a part of its Dix Dam emergency action plan - "will ultimately end up in the public…

"It will become a matter of public record" when KU releases its study and updated plan to Rambo’s office and the state Division of Water, the regulatory agency over the dam. Those reports should be ready in July, Feltham said. Dix Dam is 53 miles upstream from Frankfort on the Dix River, a Kentucky River tributary.

Feltham says the dam is safe. “We are doing what we always do to make sure it is safe…testing and inspections,” Feltham said. Fraley, in an April letter to Rambo, said starting in May there would be an “in depth inspection and engineering evaluation,” a “potential failure mode analysis study,” and a “third party engineering review of past inspections and analyses of past engineering reviews.” In 2010 there will be a “planned remote operated vehicle underwater face slab inspection.” Daniel, who spoke recently at City Commission and Fiscal Court meetings, has said, “We have absolutely no documentation that the dam is safe, which is why we believe it may not be safe.” U.S. Corps of Engineers' studies in the late 1970s determined there were numerous serious structural-integrity deficiencies, Daniel said. "There are no records available that indicate any of those deficiencies have been corrected," Daniel said.

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**Red Wing lock and dam to get $70 million upgrade**

**Federal stimulus will pay to renovate it, but a conflict with Wisconsin DNR could block some work.**

By DAVID SHAFFER, Star Tribune, May 26, 2009

The lock and dam on the Mississippi River near Red Wing, Minn., the site of more than 100 barge accidents because of the hazardous current, will undergo $70 million in safety improvements over the next two years under the nation's economic stimulus program, according to the Army Corps of Engineers. It is one of the Corps' largest projects under the program, although a long-standing conflict with the Wisconsin Department of Natural Resources (DNR) over the lack of a fish passage threatens to block some of the work. Critics led by the Wisconsin DNR also object to the Corps' plans to cut down trees used by perching bald eagles and to embed concrete blocks along vast stretches of shore and bottom land on the Wisconsin side of the river.

The Corps says the lock has the second-highest risk of failure of any U.S. navigation project, and part of the $70 million in renovations aims to reduce that risk. The problem is that the lock was built on a marshy bend in the river. The current pushes southbound barges away from the lock on the Minnesota bank, and toward the concrete dam.

In 1993, a barge carrying soybeans crashed into the dam and sank, forcing a shutdown in river traffic. In 2005, two out-of-control barges went through a dam gate. Corps engineers fear worse -- a barge crash that could block the dam gates and force water toward the Wisconsin embankment, eroding a new channel and draining the pool. That would halt shipping, damage wetlands and expose water intakes for two upstream power plants, forcing them to shut down, according to a 2006 Corps study. To get the project underway quickly -- and create about 500 jobs -- construction will begin before the design is completed, a process known as design-build, Corps officials said. This method was successfully used to replace the collapsed Interstate 35W bridge, but this is the first time the Corps' St. Paul district has tried it. In the renovation, the Corps would extend a concrete wall that runs almost in the middle of the river so barges would have a safer approach to the lock. Much of the rest of the work is planned on the Wisconsin side, shoring up dikes, weirs, lake outlets and embankments. The dikes and weirs are unusual features of this lock because they were designed to overflow into two floodplain lakes that are part of a 1,500-acre private preserve. Almost all of the work would be done in the winter, to avoid the shipping season, said Terry Williams, a Corps project manager. Firms that wish to bid on the design-build project must submit their qualifications by June 30, and those chosen to compete must submit proposals by Aug. 31, she said. The goal is to complete all work by September 2011.

**Oops, no fish passage**

Upper Mississippi River locks built in the 1930s don't have fish passages, which allow sturgeon, paddlefish and other species to easily get by the dams. When the Corps announced $1.8 billion in projects under the Recovery and Reinvestment Act last month, it said the Lock & Dam No. 3 renovation would include a fish passage. The announcement was a mistake, the Corps says. "We had recommended including a fishway feature in the stimulus bill, but somewhere in Washington it was removed," said Daniel Wilcox, a Corps biologist in St. Paul who has studied the project's environmental effects. The Corps, which once opposed fishways, says it would build one on Lock & Dam No. 3 if it had another $10 million or more. Wisconsin's DNR says now is the time to add a fish passage, and it has threatened to deny two key permits to the Corps if the project doesn't include one. The agency also objects to other changes proposed below the dam on the Wisconsin shore. "It is going to look dramatically different than it does now," said David Pericak, the DNR's
aquatic habitat coordinator for that region, said of the area downstream of the lock. "It is going to look more like a manicured urban setting with low, grassy vegetation." Large cottonwoods and maples will be cut down, and 19 acres of wetlands will be lost, he said. Concrete blocks, linked by cables, will be embedded in the ground to strengthen banks and new spillways. One such structure would be more than one-third of a mile long. DNR biologists also are concerned about mussel beds and the walleye fishery just below the dam. "If the fishermen knew what was going to change, there would be public outcry," Pericak said. DNR and Corps officials will meet this week to discuss the lingering issues. Wilcox, the Corps fisheries biologist, said the agency spent years reevaluating the project after Wisconsin raised concerns in the 1990s. He said a lot has been done to reduce and mitigate environmental damage, including an agreement to buy 300 acres of river bottomland nearby and restore it to floodplain forest. Some land already has been purchased on the Rush River in Pierce County, Wisconsin. "We went a long way to try to accommodate their concerns and minimize the construction footprint," Wilcox added.

Hydro

(Even if Congress and the Enviro organizations won’t recognize hydro as a renewable, we at least have some sensible people just to the North)

FERC approves funding for Quebec-New England hydropower line

By Julieta Mendoza, 21 May 2009, International Business Times

The Federal Energy Regulatory Commission approved the funding for a major transmission project that would deliver hydropower from Quebec to the New England region. The project will link Hydro-Quebec with ISO New England and is expected to cut greenhouse gas emissions by about 4 to 6 million tons of carbon dioxide per year, the FERC said in a statement today. The transmission line would deliver 1,200 megawatts. It will cross over the U.S. and Canadian border. "This project provides the opportunity for consumers in a region of the country that has tight constraints on electricity supplies to get access to clean, low-cost energy," FERC Chairman Jon Wellinghoff said in a statement. Northeast Utilities Service Company, NSTAR Electric Company and Hydro-Quebec TransEnergie will build the transmission line.

Quebec future in rivers, dams: premier

“This energy created our history," Charest says

By Philip Authier, The Gazette, May 24, 2009

The richest societies in the world today are the ones with oil but in the future it will be those with clean renewable hydropower, Premier Jean Charest said today. In a sweeping exposé of his party’s energy vision of the future, Charest said Quebec’s future prosperity lies in its rivers and dams, a political philosophy that has served the Liberals well in the past. "This energy created our history," Charest said in a speech to 700 Liberals closing a two-day party council in Laval. "It has given work to a generation of Quebecers. It will also be part of our future." Charest used his speech to announce that on top of a major development project on the Romaine River, the government is moving up plans for a second project on Petite-Mécatina River.

(They sure like that cheap hydro)

NYPA power

Low-cost electricity benefits New York

Watertown Daily News, May 21, 2009

North country businesses can look forward to some relief from high utility costs thanks to the New York Power Authority. The agency on Tuesday approved the North County Stimulus Plan proposed by NYPA President and Chief Executive Officer Richard M. Kessel for use of profits from the short-term sale of surplus power to lower electric rates to businesses in Jefferson, Franklin and St. Lawrence counties. Their rates could be reduced as much as 15 percent. Mr. Kessel's plan outlined last month at a Greater Watertown-North Country Chamber of Commerce dinner calls for the sale of 237 megawatts of electricity from the FDR-
St. Lawrence Power Project: The allocation will not be used when Alcoa idles its East Plant in Massena. However, as preservation power that has to stay within the three counties, it must be kept available when Alcoa reopens its plant. In the interim, state regulations also require the surplus electricity to be sold on the open market, which could generate $10 million in revenue for NYPA. Rather than see that disappear into a general fund, NYPA’s plan will use the revenue to reduce electric rates to approximately 7,000 businesses, allowing them to hold down operating costs and retain jobs in the tricounty region. The North Country Stimulus Plan is consistent with the intent of the preservation power by utilizing it to benefit the region most impacted by the hydropower development. But Northern New York is not alone in benefiting from NYPA’s operations. The authority also guaranteed Yahoo! Inc. up to 15 megawatts of power in the coming years for construction of a $150 million data center with 125 high-tech jobs in Western New York, subject to final approval by Yahoo’s board of directors. In both actions, NYPA is fulfilling its purpose using low-cost hydropower to benefit job-creating businesses in the state.

(Excerpts)

Ontario Power Generation confirms Niagara tunnel cost surge to $1.6B
By THE CANADIAN PRESS – May 23, 2009

TORONTO — Ontario Power Generation Inc. has confirmed that the anticipated cost of its massive tunnel project to boost hydroelectricity output at Niagara Falls’s Adam Beck generating station has ballooned to $1.6 billion from $985 million. In a financial report Friday, OPG also pushed back the expected completion date of the project to December 2013, from the original target of June 2010. As for the Niagara tunnel, OPG said the provincial Crown utility and the tunnel boring contractor are renegotiating the design contract with a revised cost and schedule as well as incentives to meet the new targets. The Niagara tunnel project is the latest in a series of expansions to the 87-year-old Sir Adam Beck plant at Niagara Falls, one of Canada’s oldest hydroelectric power plants. OPG said the tunnel boring machine has advanced nearly 3,800 metres through hard rock, about 37 per cent of the planned tunnel length. At the Niagara hydroelectric expansion project, the boring machine had advanced 3,794 metres at March 31 - 37 per cent of the tunnel length. As a result of the geological complexities of the area, the machine “is now operating on a revised alignment that will minimize remaining excavation in the Queenston shale formation,” OPG stated. The utility and the contractor are renegotiating the contract to confirm the revised target cost and schedule.

Environment
(Is this the 1st arrow in the heart of the Snake River Dams? The judge has always been going in this direction.)

Judge rules removal of dams must be an option
Tri-City Herald staff, May, 20, 2009

PORTLAND, OR — A federal judge’s insistence Tuesday that removing Snake River dams must be a backup plan for saving endangered salmon in the Pacific Northwest brought strong criticism from water user groups. Portland-based Judge James Redden called for the dam’s removal just days after the one-year anniversary of the Columbia River Fish Accords -- an agreement to spend $10 billion over 10 years for fish habitat restoration and fish passage improvements. Basically, it established a truce in the years-long court battles about endangered salmon, ushering in a new era of collaboration. Federal law doesn’t allow dam removal and no Democrat-politician-turned-activist-judge can rewrite the law. Only Congress has the authority to
Authorize dam removal and ... I'll do everything in my power to stop any such extreme action," said Rep. Doc Hastings, R-Wash. Representatives of the six tribes, the U.S. Bureau of Reclamation, Bonneville Power Administration and other signers of the Accords met two weeks ago near a sacred tribal site on the Columbia River to celebrate the anniversary of the historic agreement.

Darryl Olsen, of the Pacific Northwest Project, a Kennewick consulting firm specializing in water, energy and natural resources, said the CRF Accords gave false hope, and the judge's letter proves it. "What (Judge Redden) is doing is trying to position the hydropower system for perpetual blackmail. It's all about money. The position he's taken totally ignores the science and economics of water management," Olsen said.

"There will be no fish benefits with more money. The hydro system is largely optimized," he said. Northwest River Partners Northwest, a Portland-based group, expressed dismay at the judge's letter. "We are deeply disappointed in Judge Redden's latest reaction to the Federal Biological Opinion on Columbia and Snake River hydro operations, especially since he noted in court that the BiOp was 'very close' in March," wrote Terry Flores, executive director of the group. "For the first time in two decades the region has more consensus on salmon recovery because Northwest states and federal agencies and tribes developed this biological opinion collaboratively," Flores said. "Dam removal should not be put back on the table in any form, not even as a contingency plan. Only after the last Administration took dam removal off the table did the region see an unprecedented level of collaboration and agreement that brought together all federal agencies, three states and the major Indian tribes." Hastings said in his statement Tuesday. "If (the judge) gets this into the new (biological opinion), then the people who need to be satisfied are the people who are getting the money. Basically, the tribes," Olsen said. President George W. Bush made it clear the Snake River dams would not be bargaining chips. They generate enough electricity to power Seattle, and provide Lewiston, Idaho, with a port for barging valuable cargoes of grain 140 miles down the river. But it's a new administration, and Redden's letter signals that yet another federal salmon recovery plan is on its way to getting tossed out by the courts. "This is a significant development in the case, because it indicates to the new administration that they have a significant problem to solve in order to come up with a plan that will protect these species and all the people that depend on them," said Todd True, attorney for the environmental group Earthjustice. "We believe that a serious look at the science and the options we have for bringing the fish back will lead to the conclusion that removing dams on the lower Snake River is a critical step that we should stop dancing around and start dealing with." Brian Gorman, a spokesman for the National Oceanic and Atmospheric Administration in Seattle, said the agency could not comment on the judge's letter before reviewing it. But he said government scientists believe they can bring salmon populations back without breaching the dams. "I don't think anyone argues that conditions in there for fish would be improved if there were no dams, but what we have argued in this biological opinion is that we can get to where we need to go without breaching the dams," he said. Hastings said: "Instead of moving forward with a plan supported by nearly all parties involved, the judge has chosen to fight for the interests of dam removal extremists who are funding the lawsuit." The U.S. Justice Department this month requested a delay with a plan supported by nearly all parties involved, the judge has chosen to fight for the interests of dam removal extremists who are funding the lawsuit. Hastings said: "Instead of moving forward with a plan supported by nearly all parties involved, the judge has chosen to fight for the interests of dam removal extremists who are funding the lawsuit." The U.S. Justice Department this month requested a delay with a plan supported by nearly all parties involved, the judge has chosen to fight for the interests of dam removal extremists who are funding the lawsuit. Hastings said: "Instead of moving forward with a plan supported by nearly all parties involved, the judge has chosen to fight for the interests of dam removal extremists who are funding the lawsuit." The U.S. Justice Department this month requested a delay with a plan supported by nearly all parties involved, the judge has chosen to fight for the interests of dam removal extremists who are funding the lawsuit. Hastings said: "Instead of moving forward with a plan supported by nearly all parties involved, the judge has chosen to fight for the interests of dam removal extremists who are funding the lawsuit." The U.S. Justice Department this month requested a delay with a plan supported by nearly all parties involved, the judge has chosen to fight for the interests of dam removal extremists who are funding the lawsuit.

(L) Everybody is a "dam" expert

UN study advises caution over dams
By MICHAEL CASEY – May 21, 2009, AP

BANGKOK (AP) — A dam-building spree in China poses the greatest threat to the future of the already beleaguered Mekong, one of the world's major rivers and a key source of water for the region, a U.N. report
China is constructing a series of eight dams on the upper half of the Mekong as it passes through high gorges of Yunnan Province, including the recently completed Xiowan Dam, which — at 958 feet (292 meters) high — is the world's tallest. Its storage capacity is equal to all the Southeast Asia reservoirs combined, the U.N. report said. Laos, meanwhile, has started construction on 23 dams expected to be finished by 2010 on the Mekong and its tributaries, the U.N. said, as a means to spur development and lift the country from poverty. Cambodia and Vietnam also have ambitious dam-building plans.

"China's extremely ambitious plan to build a massive cascade of eight dams on the upper half of the Mekong River, as it tumbles through the high gorges of Yunnan Province, may pose the single greatest threat to the river," the report said. The report went onto to say that the impacts of the proposed dam development include "changes in river flow volume and timing, water quality deterioration and loss of biodiversity." China's Foreign Ministry spokesman Ma Zhaoxu said in a regular briefing the government pays equal attention to the development of the Mekong and its protection. The Mekong is known as the Lancang River in China. "I would like to point out that the Chinese government attaches great importance to the exploration and the protection of cross-border rivers and conducts the policy of equal attention to development and protection," Ma said.

The proposed dams would add further pressure to the Mekong, which runs through China, Myanmar, Laos, Thailand, Cambodia and Vietnam. The 307,000-square-mile (795,000-square-kilometer) river network is home to dozens of rare bird and marine species, including the Mekong giant catfish, and is a source of food and jobs for the 65 million people who live in the river basin. The river and its vast tributary network already face threats from pollution, climate change and the effects of earlier dams that were built in China and have caused water levels to drop sharply on the upper Mekong. Still, the U.N. report said for the time being, the Mekong's pollution levels were not at "alarming levels" while water shortages and conflicts over water on the Mekong have so far not emerged. "The Mekong is in good condition at this time and can take more pressure such as irrigation development or industrial development," said Mukand S. Babel, one of the reports' authors. The report, however, found several river basins in the Mekong that are under threat, including the Tonle Sap in Cambodia, Nam Khan in Laos and Sekong-Sesan Srepok in Vietnam and Cambodia due to increasing development and demand for water. It called for countries bordering the Mekong to work more closely together to ensure that the region's growing population and expected economic development doesn't further strain the capacity of the delta. "The time to tackle these challenges is now, otherwise the projected growth and development may impact on the basin's ability to meet future water needs," said Young-Woo Park, a U.N. regional director.

(Dams are an endangered species!)  
**River restoration: Should we bring back Mississippi's roaring white-water rapids?**

By Ron Way | May 26, 2009, MniPost.com

For thousands of years, the Twin Cities had a white-water rapids roaring through it, tumbling and roiling over and around enormous limestone chunks that still litter the Mississippi River's floor for eight miles from the St. Anthony Falls dam all the way down to Ft. Snelling. If it were restored to its natural state, the "gorge" would be a kayaking and recreational wonder with hundreds of acres of new parkland, a photographer's delight and a sportsman's paradise. Scores of eagles would nest there, drawn by all the fish that would mass in oxygen-rich water and spawn in gravel beds under swirling eddies. And lately a small but growing band of restoration advocates see that two key events — the prospective closing of the Upper Harbor Terminal in Minneapolis and impending shutdown of the Ford Plant in St. Paul — are giving hope that the rapids may one day roar again.

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