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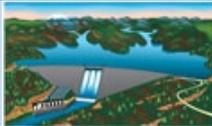
Some Dam – Hydro News™ And Other Stuff



Quote of Note: “I haven’t taught people in 50 years what my father taught me in one week.” – Mario Cuomo

Some Dam - Hydro News → **Newsletter Archive for Back Issues and Search** <http://npdp.stanford.edu/>
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“Good wine is a necessity of life.” - -Thomas Jefferson
Ron’s wine pick of the week: 2012 Columbia Crest Merlot "H3"
“No nation was ever drunk when wine was cheap.” - - Thomas Jefferson



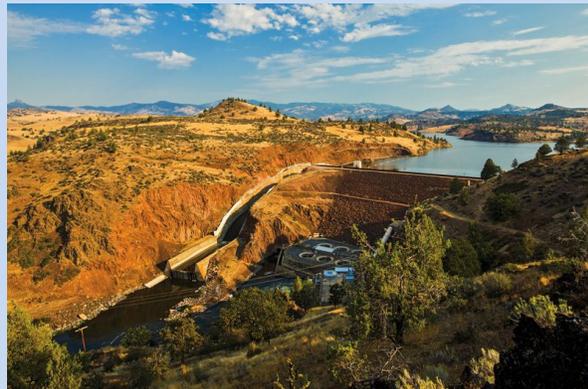
Dams:

(The media won't let this story go! They have already forgot the drought which the dams helped alleviate!)

TELLING THE DAM STORY

portlandtribune.com, 10 January 2015 00:00 | Written by Ellen Spitaleri

Greg Baartz-Bowman wants people to realize that on this planet we live in “one enormous watershed,” and the best way to guarantee the good health of that is to start restoring our local watersheds. “All our local creeks flow into the Willamette,” he said, “so we have to start here.” His interest in local watersheds spurred Baartz-Bowman to put together the first Milwaukie Watershed Film Event in 2012, and now he is looking forward to the fourth-annual festival, taking place at 7 p.m. Saturday, Jan. 17, at Milwaukie’s Masonic Lodge.



The two movies on the bill at the watershed film event are “Crystal Clear,” a short film by Baartz-Bowman and Milwaukie City Councilor Mark Gamba, and “DamNation,” a feature-length film tracking dam removal in Washington, Oregon and Maine.

Metro Councilor Carlotta Collette, who represents District 2, will host the event. Featured speakers after the films are shown include Robin Jenkinson, restoration coordinator, Johnson Creek Watershed Council, and Chris Runyard, environmental activist and North Clackamas Urban Watersheds Council board member. Runyard will speak about the Free Celilo Falls awareness campaign, designed to remind everyone that Celilo Falls still exists under the pool behind The Dalles Dam. “Celilo Falls is the longest continuously inhabited place on the continent. It was a gathering place for the people of the region for 10,000 to 15,000 years. It is currently flooded by a dam that may not be worth what was lost. We believe it is time to have a discussion of what is still there and should we think about bringing it back,” he said. Gamba also will speak, and Baartz-Bowman said Gamba hopes to be able to share important news about the Kellogg Dam at the event.

‘Crystal Clear’

“Crystal Clear” will lead off the series. It depicts the restoration of Crystal Springs Creek, which flows through the Sellwood and Moreland neighborhoods, including nearby Reed College. The city of Portland was mandated to replace nine culverts along Crystal Springs Creek to aid in fish passage, Baartz-Bowman said. “Culverts throw a creek out of balance because they narrow the creek, and the increased velocity is not good for fish. Since they’ve made the culverts wider, we’ve had spawning salmon in Crystal Springs Creek — there is even underwater video to prove it,” he said. At present, seven of the nine culverts have been replaced; the final two, located near the fire station at Bybee Boulevard and Southeast Glenwood Street, should be replaced this year. Although “Crystal Clear” is specifically about Crystal Springs Creek, the film begins with a shot on the Willamette River, near the Hawthorne Bridge in Portland, because Baartz-Bowman and Gamba wanted to show the “connectedness” between the river and its streams. The whole idea of the film series, he said, is to bring awareness to the plight of the local watersheds, especially to the removal of Kellogg Dam. Plenty of restoration work has been done at Klein Point, the mouth of Johnson Creek in Milwaukie, “while 300 yards away are the degraded Mt. Scott and Kellogg creeks. That is the most impacted watershed around, because of Kellogg Dam and the toxicity behind the dam,” Baartz-Bowman said. As yet there has been no resolution on removing the dam, and Baartz-Bowman said he will keep showing films focusing on dam removal as long as the Kellogg Dam is still in place.

Restoration work

The land at Klein Point was donated as a natural area to the city of Milwaukie in 2003, by the Klein family, Gary Edward Klein said. “The point was phase one of the riverfront park and it was done in 2012. Now phase two is going on at the south end of the park, by the boat ramp, and that should be done in February of this year,” he said. Klein added, “If the watershed is healthy, then things around it and within it are healthy, too. This park issue is more than just restoration work, it will be a regional park for people to use and enjoy.” Another part of the restoration of Crystal Springs Creek involves work in Reed Canyon, near Reed College. Zac Perry, canyon restoration manager, has been working for the college actively restoring the headwaters of Crystal Springs Creek since 1999, when he oversaw the removal of a concrete, chlorinated swimming pool that was built into the stream channel in 1929. Before it was removed, the creek was diverted around the pool through a 230-foot pipe, and “obstructions such as these prevented clear passage from the clean, cold headwaters of Crystal Springs to the Pacific Ocean,” severely limiting the successful spawning of migratory salmon, he said. Perry added, “The college has entrusted me with removing decades of weed infestation without the use of chemicals. Essentially, I have been restoring the streambanks to improve fish habitat, while making it more attractive for insects and amphibians.”

‘DamNation’

This hour-and-a-half movie was a very personal film for Patagonia founder and the film’s executive producer Yvon Chouinard, who partly financed the film; co-director and editor Ben

Knight; co-director Travis Rummel; and Matt Stoecker, producer and director of underwater photography, Baartz-Bowman said. The filmmakers have petitioned President Obama to “crack down on deadbeat dams,” and they have an online petition at change.org, asking for people to support dam removal.

“DamNation” follows dam removal stories on the Elwa and White Salmon rivers on Washington’s Olympic Peninsula, the Rogue River in Oregon and the Penobscot River in Maine.

The press kit for the movie describes how the film charts the change in public perception about dams over the past 50 years, when people first thought dams were good, to the present day, when obsolete dams are being removed to facilitate healthier watersheds and renew spawning grounds for fish.



Photo Credit: LATER. PHOTO COURTESY OF MIKAL JAKUBAL - In a still from DamNation, a painted crack and message on Glines Canyon Dam, on the Elwa River in Washington, foreshadowed its removal over two decades

Changing opinions

“Part of doing this event is for people to see that Kellogg Dam needs to be removed. Our local watershed and its health is what this event is about,” Baartz-Bowman said. He has seen the audience evolve over the four years he has been showing films at the watershed event. “We first showed films central to Milwaukie and Oregon, but now I have seen the reaction that folks give to the films, and they are willing to reach beyond Milwaukie’s borders to see what is happening out there, and bring it home,” Baartz-Bowman said. “This is always a great event. Clean, salmon-filled rivers, healthy, abundant wildlife, and thriving, successful people are what the Northwest has always been about. We must take great care to protect and enhance it,” environmental activist Runyard said. “This helps tell the story of what Milwaukie means; something like, ‘land by or with many waters,’ I believe, in Indian native tongue. And we would not be here if it were not for all the springs, creeks and rivers in the Milwaukie area. Keeping this pristine is a very good thing for all people and citizens in the area; it is a spiritual recharge,” Klein said. Baartz-Bowman added, “It’s about having a healthy watershed where salmon come into play. As former Gov. Tom McCall said, ‘If salmon are in your local stream, you have a healthy watershed.’”

(With no dam, where would they get drinking water?)

CANYON LAKE: Dam changed region's history

Built in the late 1920s, structure created lake that now supplies water to surrounding region

BY MICHAEL J. WILLIAMS / STAFF WRITER, Jan. 10, 2015, pe.com

Nearly 90 years after its completion, “Jamison’s Folly” remains a monolithic fixture in the lives of Canyon Lake and Lake Elsinore residents. The Temescal Water Co. built Railroad Canyon Dam to create a reliable irrigation source for citrus groves in Corona, CA. Unfortunately, the reservoir envisioned as the fruit of the dam failed to materialize for several years when the region went through one of its periodic droughts. That provoked ridicule of the dam’s chief proponent, water company President Joy Jamison, according to historical accounts. Yet, his place in history received a reprieve when rains returned and regional



authorities drilled a tunnel in nearby San Jacinto Mountains that released copious amounts of water flowing down the San Jacinto River to fill the basin behind the dam.

The reservoir, now christened Canyon Lake, has been there ever since and functions as a drinking water source for the entire Elsinore Valley, while providing fishing and recreation to the residential community that sprang up around it over the last 45 years. Lake Elsinore Historical Society President Ruth Atkins said the dam is such a reliable facet of the region that it is largely taken for granted. "Twenty years ago, you could see it a lot better," she said. "Now, people don't even realize it's there because of all the development." Construction of the dam began in 1927 during the presidency of Calvin Coolidge and it was completed two years later during the term of Herbert Hoover prior to the completion of the Hoover Dam on the Colorado River.

While the dam's original concrete structure remains in place, its configuration was altered in 1996. Elsinore Valley spent \$9 million to improve the dam's safety by nearly doubling the spillway's width to 376 feet.

RAILROAD CANYON DAM FACTS

Built: 1927-29

Where: Present day boundary between Canyon Lake and Lake Elsinore on the San Jacinto River

Purpose: To create a reservoir for agricultural irrigation in Corona

Function today: Drinking-water reservoir

Construction material: Concrete mixed with stone

Height: 69 feet

Elevation: Top, 1,381 feet about sea level

Spillway width: Originally 193 feet; expanded in 1996 to 376 feet

Dam watch

Each year, winter's arrival regenerates interest in the barrier because of the potential for rainwater to fill up the 3.9-billion-gallon reservoir and cause an overflow into the spillway. That water gushing over the dam and tumbling into the San Jacinto River channel about 70 feet below flows down to Lake Elsinore and is one of the primary sources for that lake's replenishment and health. Amid the current drought, that overflow hasn't happened for nearly two years, contributing to a drop in Lake Elsinore's water level by several feet. Observers and supporters of Lake Elsinore are keeping a close eye this year as recent storms have brought Canyon Lake within several inches of the dam's top at 1,387.76 feet above sea level. When Canyon Lake's level drops under 1,375 feet, its filtration plant must cease operation and the district is required to maintain the surface at a minimum of 1,372 feet through an agreement with the Canyon Lake Property Owners Association. We try to operate the treatment plant and maintain the lake levels in concert with annual rainfall," said Elsinore Valley spokesman Greg Morrison. "We expect a certain amount of rainfall, to offset the usage, too. It's a delicate balance between the operation of the treatment plant, lake levels and Mother Nature." Throughout the dam's history, people down in the valley, fretting about Lake Elsinore's shrinking level, have blamed the folks upstream for hoarding water, forgetting that their water bills are substantially lower by not having to foot the bill for additional imported water. "I grew up hearing, 'Oh yeah, you're keeping all our water,'" said Canyon Lake resident Elinor Martin. "I don't think they realize if we dumped all that water down there, it might not help too much."

Good fishin'

It's safe to say no one alive today has led an existence as inextricably linked to the dam and the lake it created than Martin, whose grandfather owned much of the property now occupied by the city of Canyon Lake. "My grandfather Henry Evans came to this area in 1890 and that was on the east end of what's now Canyon Lake," said Martin, the author of "Images of America: Canyon Lake," in which she traces the history of the community through black-and-white photographs. When what was then called Railroad Canyon Lake began to thrive, Martin said, water company officials realized the property's potential as a mecca for fishing and granted the Evans the right to operate a fish camp there starting in 1937, when Elinor was 3. She spent much of her childhood down at the lake. "I had a lake to play on, I learned how to swim, we went out on boats and we caught crawdads and frogs," she said. "Every weekend we had new playmates to play with." Three generations of the family operated the camp, concluding in 1967, when Elinor and husband Don decided to call it quits. By that time, they had managed to obtain property on a hilltop overlooking the lake and built the community's first home there, from which they watched the

newly created tract of Canyon Lake burgeon around them. That is where they live today, surrounded by more than 10,000 inhabitants.

Fruitless protest

Over the years, Martin said she's heard dozens of tales about the area's history, many of which she admits are probably yarns. One that was not a fabrication was chronicled by Lake Elsinore newspaper publisher Tom Hudson in his history of Lake Elsinore Valley. It centers on a woman who was a vigorous opponent of the future dam site. As the water company overcame various obstacles, Hudson wrote, "Temescal now found its progress stopped by a lone individual. Miss Ella Van Fossen, a well-educated middle-aged woman who lived only a few hundred feet downstream from the damsite, liked her secluded home in the canyon." One day, as trucks began streaming by with construction materials to the site, the drivers found themselves blocked by rocks and wire in the roadway. After an officer arrived and removed the barricade, Hudson wrote, Van Fossen "laid down in the road and defied trucks to pass." Somehow, Hudson says, the officer was able to remove the woman and she was taken to the county hospital for mental observation. Subsequently, she returned and set fire to her house, resulting in an expansive brush fire. The July 8, 1928, edition of the Sunday Morning Outlook in Santa Monica reported on the incident, as observed in an online archive. "Riverside, Calif., July 7 -- Mrs. Ella Van Fossen, said to be a wealthy Oakland widow, was held here tonight on a charge of insanity after she allegedly started the fire which burned over 800 acres of watershed in Railroad Canyon and destroyed several cabins." Legend has it Van Fossen willed her property to the U.S. president. Martin said that much is true, though she doesn't remember which president. Had she succeeded in stopping the project, of course, the area's water storage would have been vastly different. And Martin's life would undoubtedly have taken an entirely different turn. "(The dam) has had a profound impact on our family, because that was our heritage."

(Article too long for Newsletter, but interesting. Good photos. What would southern CA do without Hoover Dam? Often wondered what we would do if they hadn't built the infrastructure when they did.)

12 dams that changed the world

From the iconic Hoover Dam of US to Mao's Three Gorges Dam in China and India's Sardar Sarovar, here is a selection of 12 mega dams of the world – but are they a boon or bane?

<http://www.theguardian.com/environment/blog/2015/jan/12/12-dams-that-changed-the-world-hoover-sardar-sarovar-three-gorges>

(Wish we could all hold up for 100 years.)

Dam good: Bays Mountain structure holding up well at nearly 100 years old

January 12th, 2015, by MATTHEW LANE, NET NEWS SERVICE, johnsoncitypress.com

KINGSPORT, TN — The dam at Bays Mountain Park is nearly 100 years old and in good structural shape with some normal weathering. However, the dam does have some hairline cracks, and the cement in the masonry joints is breaking down, requiring remedial work in the future. This according to the most recent annual safety inspection of Bays Mountain Dam, performed by the Tennessee Department of Environment and Conservation in May of 2014. In light of the sinkhole and seepage issues at Boone Dam, the Times-News inquired about the dam at Bays Mountain.

The Kingsport Waterworks Corporation finished the dam in 1917 with plans to create a 44-acre lake to serve as the water source for the



Rhonda Goins, park naturalist, stands atop the nearly 100-year-old dam at Bays Mountain Park. (David Grace/NET News Service)

Model City. The lake served this role until 1944 and the dam has stood ever since as an iconic piece of the 3,500-acre nature preserve. Bays Mountain Park Manager Ken Childress said structurally, the dam is in good shape.

(The Appalachian Mts. are beautiful, but full of limestone.)

TVA still searching for cause of seepage, sinkhole at Boone Dam

By TAMMY CHILDRESS | BRISTOL HERALD COURIER | bristolnews.com, 1/14/15

Water is still seeping at Boone Dam and the cause has yet to be determined. Workers discovered a sinkhole at the dam, located on the South Fork of the Holston River, in October. Further investigation led to the detection of seepage at the toe of the dam. The Tennessee Valley Authority accelerated the annual drawdown at Boone Lake and lowered the water an extra 10 feet so engineers could conduct a detailed study and investigation of the sinkhole and seepage. The drawdown was completed in November and TVA has been at work drilling at the dam since that time. Boone Dam has two portions, a concrete portion with the steel gates on the right and the powerhouse on the left. The second half of the dam is an earthen embankment. "The leak is actually in the embankment, that's where all the focus is," Travis Brickey, a spokesman for TVA, said Monday.



While the water level in Boone Lake is too low to turn the turbines to produce power at the TVA facility, water is still being passed through the sluiceway gate at the dam in Sullivan County.

Water is released in three different ways at the dam. The preferred method is to release the water through the three generating turbines because it creates low-cost electricity. TVA is currently drilling around the area where the units discharge water so the units have been turned off for safety purposes. When the water levels are high, the water is released through the steel way gates at the top of the dam. Currently, the only way to safely release water out of Boone and keep the water at the lower level is through the sluiceway gate. When the sluiceway gate is open, water rushes up a ramp and causes a rooster tail effect in the water. Brickey said when people see the rooster tail they think that's the dam leak. "That is absolutely not the case," he said. Though there is no clear timeline on how long the investigation will take, Brickey said that it's safe to say that there will be a project at the dam. But he's not sure what that will look like, how long the project will last or how it will impact the reservoir. Workers discovered a sinkhole at the dam, located on the South Fork of the Holston River, in October. Further investigation led to the detection of seepage at the toe of the dam.

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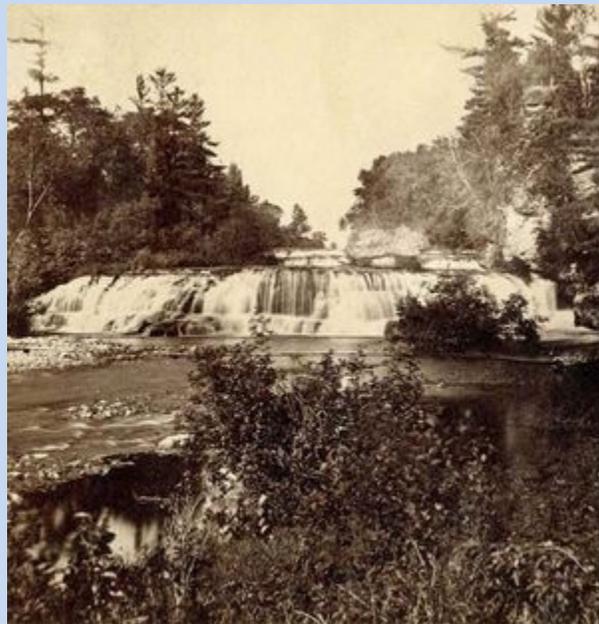
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(More dam removal. The economics makes no sense.)

Group wants two dams removed from Kinnickinnic in River Falls

ecpc.com., January 16, 2015 12:37 am | by Joe Knight Leader-Telegram staff

"Help put the falls back in River Falls" is the slogan of a group called Friends of the Kinni that has been advocating for removing two dams that cover the falls that gave the city its name. On Tuesday night the River Falls City Council took steps that at least raise the possibility that the dams will be removed and falls and a mile of river that have been submerged for more than 100 years will be restored. The council voted to ask the Federal Energy Regulatory Commission for an extension on a re-licensing deadline so the city could study the issue longer and conduct a study of what city officials want the corridor of the Kinnickinnic River in the city to look like in the future. The generating license for the dam will expire in August of 2018. About a year ago the city began taking the required steps to renew the license for another 30 years, but in recent months a community discussion regarding the true costs of generating electricity with the dams, both in terms of dollars and environmentally, has occurred. Michael Page, a River Falls dentist who is a member of Friends of the Kinni, said there is enough evidence of the detrimental effects of the dams on the in town and downstream to justify giving up the generating license and to begin restoring the river in the city. That work could be done at the same time as a river corridor study, he said. But council members weren't ready for that. Page still considers Tuesday's vote a positive step because a few months ago restoring the river wasn't even in the discussion. Now it's a serious option, he said.



Famed fishing

For trout anglers, the 22-mile-long Kinnickinnic River is known as one of the best trout streams in the Midwest. It is also one of the most heavily fished, due to its proximity to the Twin Cities and to a growing St. Croix County population. The Kinnickinnic River upstream has between 5,000 and 12,000 wild trout per mile, among the highest trout densities in the U.S. Within River Falls about a mile of the former river affected by the two dams is fishless. But below the second dam the river becomes a trout stream again for the remaining 10 miles to its confluence with the St. Croix River. The stream changes character there, flowing over gravel through a 200-foot canyon. Access is more difficult, but that location is still heavily fished. The lower part of the river has become increasingly popular with kayakers. The trout in that part of the river are fewer but larger than those above the dams, with an average of 3,000 wild trout per mile. As good as fishing in the lower creek is, it could be better. Temperature monitoring by Trout Unlimited has found the river is on average 4.5 degrees warmer below the city than above the dams. Under the generating license, the dams are supposed to be operated on a "run of the river" basis — immediately letting out as much water below as they take in. However, in practice the dams sometimes aren't operated on a steady flow basis, according to members of Trout Unlimited and Friends of the

Kinni. Instead, Page said, the dams are operated manually and they sometimes don't keep up with changes in river flow. That has sometimes caused a partial de-watering of the river below the dam, which is bad for aquatic life downstream, he said.

Dam economics

The dams supply about half of the power needed in River Falls, and much of the discussion about whether to keep or remove the dams has centered around the costs of locally provided energy. A study commissioned by the city concluded that for 14 of past 25 years, the cost of generating electricity has been more expensive than buying it on the wholesale market. However, Page said that analysis left out some of the costs of maintaining the dams and substantial re-licensing fees. "It's not a complete picture and the city knows it," he said of the study. Other community members have said the city should be willing to pay more for renewable energy that is generated without pumping carbon dioxide into the atmosphere.

Downtown scenery

At the heart of the debate is what the roughly one mile of river that is basically now an industrial site could look like if it were restored to a free-flowing river. The two ponds created by the dams are from one to three feet deep due to sediment that has built up there over the years. Those ponds are used by Canada geese, but they have no fish and are unsuitable for swimming or boating, Page said. "Anybody who says the lakes are an asset to our community, you just ask them to go to Lake George sometime in August and take a swim," he said. In contrast, the city could have a green corridor and trails bordering an impressive waterfall and tumbling trout stream if officials are willing to restore the river, Page said. "The opportunity to restore a full mile of the Kinnickinnic that doesn't exist right now is amazing," he said. The local chapter of Prairie Enthusiasts is interested in planting native plants in the soil that has accumulated behind the dams over the years as part of the process of restoring the river channel if the dams are removed, he said.

Long process

Members of Friends of the Kinni have suggested asking the Federal Energy Regulatory Commission for a five-year extension beyond the 2018 deadline to study the issue and hopefully plan for the river's future restoration. City staff has suggested an extension of a few years longer than the new deadline, which would be until 2023. To people who favor removal of the dams, that seems like a long time. But they need to respect the political process, said Dave Fodroczi, executive director of the Kinnickinnic River Land Trust, which supports removing the dams. "The city is calling 'time out' to do more due diligence," Fodroczi said. Considering that the mile of river has been submerged for some time, another five or 10 years isn't so long, he said.



Hydro:

(100 years old and still ticking!)

Stuyvesant shifts co-license of hydroelectric plant back to Albany Engineering

By Barbara Reina Columbia-Greene Media | registerstar.com, January 12, 2015

STUYVESANT, NHY — In an effort to relieve the town of possible liability concerns regarding the Stuyvesant Falls Hydroelectric Plant, shared licensing operations by the town and Albany Engineering Corporation may soon shift to the sole license of AEC if approved by the Federal Energy Regulatory Commission (FERC). At a recent meeting, the Stuyvesant Town Council approved the amended agreement to relinquish its co-licensee relationship with AEC. The amendment states, "The town no longer desires to be jointly and severally liable for the continued

operation, maintenance, capital improvements and regulatory compliance for the facility.” The amended agreement with the hydroelectric plant has been signed by AEC Executive and owner James Besho. Transfer of the town’s interest in the license to AEC is pending approval by FERC. Included in the 2015 town budget is the town’s expectation to receive some \$10,000 in revenue as a co-licensee of the local hydroelectric plant. The plant sells back additional power that is produced but unused to the energy grid, creating revenue on the town’s tax base. Stuyvesant Town Supervisor Ron Knott said this revenue on the tax base would continue under the amended agreement. “If FERC approves the transfer, the town will receive a minimum of \$10,000 and up to \$20,000. It’s added into a budget line item under franchise agreements,” Knott said.



More than 100 years old, the historic plant was originally built in 1899 by the Albany and Hudson Railroad Company, then rebuilt in 1942 by New York Power and Light. Located on County Route 25A, the plant sat idle from 1994 until 2003, when U.S. Senator Charles Schumer passed legislation that granted an operating license to the Town of Stuyvesant and AEC. Acquiring the plant in 2008 for \$210,000 through eminent domain, AEC owns the plant and shares licensing for operations with the town. In December 2009, AEC received approval from FERC to commence restoration of the plant, including new turbines, generators, piping and upgrades to the power house, bringing the plant into the 21st century. The hydroelectric plant resumed the business of conducting power on December 28, 2012. The renovation phase employed several hundred people locally and from the Capital Region, including some 40 vendors taking part in the project, Besho said. The 21st century upgrades have computerized and automated the operation, but Besho said the overall function of the plant remains the same: water from the dam goes through two penstocks (pipes) and spins the turbines, which spin the generators and make electricity.

(Didn't know they had that many hydro projects.)

Modernization comes to Proctor hydropower plant in Vermont

ecoseed.org, 09 January 2015

Power management company Eaton will be working with Vermont-based energy provider Green Mountain Power to modernize its Proctor, Vermont hydroelectric plant. Eaton will update the plant’s power and control systems which will allow Green Mountain Power to reduce costs, enhance reliability and manage the facility remotely. Green Mountain Power currently owns and operates the Proctor hydroelectric station, which uses five turbine generating units to produce 6.9 megawatts of low carbon energy. The upgrades will include the replacement of the excitation system, governors, turbines, control system and power distribution equipment. The modernization project is expected to be completed in January of 2015. The upgrade supports Green Mountain Power’s long-standing effort to deliver the most environmentally sound and cost effective energy possible for its customers. “Eaton’s power



Eaton is helping Green Mountain Power modernize, upgrade and automate the electrical system at its Proctor, Vermont hydroelectric plant. (Photo: Business Wire)

management expertise and solutions will help Green Mountain Power continue to produce low-cost, low-carbon and reliable power at the Proctor hydroelectric station,” said Dorothy Schnure, a spokeswoman from Green Mountain Power. Green Mountain Energy has around 32 hydrostations across Vermont, the largest fleet of hydroelectric stations in New England. – EcoSeed Staff

(Selling a hydro project, mmm!)

Burrows Paper sells hydroelectric power plants to Cube Hydro New York

[esprom.com]9 January, 2015

Jan 10, 2015. /Lesprom Network/. Burrows Paper Corporation and the other owners of Lyonsdale Associates, LLC have sold their ownership interests in Lyonsdale Associates to Cube Hydro New York LLC, a wholly-owned subsidiary of Cube Hydro Partners, LLC. Lyonsdale, as the company said in the press release received by Lesprom Network. Associates owns and operates a 3 MW hydroelectric facility in Lyonsdale, N.Y., and is the general partner of Little Falls Hydroelectric Associates, which owns and operates the 13.6 MW Little Falls hydroelectric facility in Little Falls, N.Y. The Little Falls and Lyonsdale facilities have been generating clean electricity in Upstate New York since 1986. “We are pleased to announce that Cube Hydro will assume control of the Lyonsdale and Little Falls facilities and will maintain Bill Burrows’ vision and commitment to sustaining the environment. We are extremely proud of our dedicated employees who have operated and maintained these facilities since they commenced commercial operations, and we are positive that Cube Hydro will continue this strong operating history,” said Rose Mihaly, president and chief operating officer of Burrows Paper Corporation.

“Cube Hydro is excited to close on the acquisition of Lyonsdale Associates and assume control of the Lyonsdale and Little Falls hydro plants. We look forward to operating and maintaining these facilities to maximize the generation of clean electricity to businesses and residents of Upstate New York, and to being part of and involved in the local communities,” said Kristina Johnson, president and CEO of Cube Hydro. John Collins, president of Cube Hydro New York, added, “We have been extremely impressed with the commitment of Burrows Paper Corporation and Lyonsdale Associates, and their employees to operate and maintain these plants at a very high standard to ensure the long-term generation of clean, renewable electricity. We are committed to maintaining these high standards to ensure the production of clean electricity for decades to come.” Burrows Paper Corporation operates four paper mills and six packaging converting facilities domestically and abroad.

Energy Department Accepting Applications for a \$3.6 Million Hydroelectric Production Incentive Program

einnews.com, 1/15/15

The Energy Department today announced an incentive program for developers adding hydroelectric power generating capabilities to existing non-powered dams throughout the United States. Hydropower is the nation's leading source of renewable energy and helps the country avoid over 200 million metric tons of carbon emissions each year, while providing about 7% of our electricity. More than 80,000 non-powered dams throughout the country provide services such as regulating local waterways and controlling inland navigation. Equipping local, non-powered dams with generating capabilities has the potential to provide up to 12 gigawatts of cost-competitive, renewable energy at a lower cost than creating new powered dam structures, without impacting critical habitats, parks, or wilderness areas. The funding opportunity announced today supports developers who have already added electrical generating capacity to these existing facilities. As outlined in Section 242 of the Energy Policy Act of 2005, \$3.6 million in funding is available for incentive payments to owners or operators of qualified hydroelectric facilities based on the number of kilowatt hours of hydroelectric energy generated by the facility in calendar year 2013. Qualified applicants may receive up to 2.3 cents per kilowatt hour for hydroelectric energy generated by the facility during the incentive period. Qualified owners or operators who have added hydroelectric generation to a non-powered dam or conduit after 2005, and where the

facility was built prior to 2005, are eligible to apply. In order to qualify for the Section 242 Hydroelectric Production Incentive Program, applicants must review the final guidance and supply the required information. Applications are due February 20, 2015. The Department's Office of Energy Efficiency and Renewable Energy accelerates development and deployment of energy efficiency and renewable energy technologies and market-based solutions that strengthen U.S. energy security, environmental quality, and economic vitality. More information about this and other hydropower technologies can be found on the Water Power Program's hydropower research and development Web page.



Other Stuff:

(Ambitious)

Avista promotes renewable energy

By STEPHANIE SHOR, JUNEAU EMPIRE, juneauempire.com, 1/15/15

Six months after Avista's takeover of Alaska Electric Light and Power, the Washington-based corporation declared it is moving ahead with alternative energy developments. The Juneau-based company and its Outside parent started in hydropower over 100 years ago and intend to follow that direction away from fossil fuels. Battery Storage Avista is testing a new energy storage battery in Pullman, Washington to combat natural energy outages. The batteries would store excess energy from solar and wind production and release it when needed. Their capacity would be enough to power about 100 homes in the course of three hours, according to the Seattle Times. Avista funds the battery research through a \$3 million state grant and Avista spokeswoman Jessie Wuerst said it will be some time before the technology has advanced enough to be affordable to the average customer. Her colleague, Utilities President Dennis Vermillion, said when the technology is ready, it could be a major turning point for renewable energy. "Storage is the holy grail of our industry," Vermillion said. Vanadium redox flow batteries are non-Lithium rechargeable batteries that have potentially unending lifespans and could be the answer for isolated Southeast communities like Kake which are attempting to use solar power to lower electricity costs. Almost all current alternative energy methods are dependent on nature's influence. If excess energy could be stored on sunny and windy days to accommodate less-ideal conditions, outages and backup diesel use may become less essential.

Wind Energy

Southeast Alaskan communities have also considered the feasibility of wind power. Avista is exploring wind turbine technologies in Washington to supplement its hydropower output. The Palouse Wind Farm supplies power to over 30,000 customers with 58 turbines. Avista currently operates eight major hydroelectric plants along the Spokane and Clark Rivers with service to over 370,000 customers in Washington, Idaho and Oregon.

Waste Energy

Another energy avenue Avista has pursued is biomass power. The Kettle Falls facility in Kettle Falls, Washington, was completed in 1983, and converts wood waste from logged trees into energy that can power over 37,000 homes. Biomass conversion is mainly used to produce wood pellets for home heat in Alaska, and AEL&P President Tim McLeod has encouraged the technology for Juneau customers since 2012. "Biomass is a good alternative," he said. "It was named by Southeast Conference as the best alternative for heating at the time." McLeod said he feels many customers choose not to use biomass heating because they don't want to deal with the labor involved with packing pellets in their hoppers every few days.

New Hydropower

AEL&P began exploring the possibility of a new hydro facility at Sheep Creek in 2013 to accommodate Juneau's growing energy needs. Sheep Creek Hydro Plant was constructed in

1910 to power the Treadwell Mine in Douglas. The facility is now mostly in ruins, but Avista hopes to construct a small plant on the site by 2018 to supply Juneau's growing electricity needs for at least another four years. McLeod said in the meantime, if the company uses a small amount of diesel power to supplement its hydroelectricity, it would actually be cheaper than the major construction costs of a large-scale hydropower project. The Lake Dorothy hydropower plant, which was completed in 2009 and increased Juneau's electricity supply by 20 percent, cost about \$70 million. Avista plans to expand the Lake Dorothy project to cover Juneau's energy needs for another 20-30 years. The large-scale project is not necessary just yet, McLeod said. The Snettisham facility built in 1973 currently provides Juneau with about 70 percent of its power needs. The other 30 percent comes from Lake Dorothy, Annex Creek, Salmon Creek and Gold Creek hydro projects. Snettisham's 44-mile transmission line has experienced damage from avalanches over the years, with a major outage inflating customer utility prices from about \$0.11 to nearly \$0.55 per kilowatt-hour in 2008.

Community Service

Customers in Juneau are not expected to experience any changes in rates or operational procedures with the new merger. Avista recently donated over \$100,000 to nonprofit organizations in Juneau. "I think our community is going to be very happy with the merger," AEL&P President Tim McLeod said on Monday. McLeod, an employee of AEL&P for over 30 years, took over management in 2002 when Bill Corbus retired from running his family's historic company. Corbus promised to donate 90 percent of the proceeds from AEL&P's sale to Avista, and when the deal was done in September, the Juneau Community Foundation received almost \$50 million. "The proceeds from the sale of the company were generated by the community and I thought it should stay in the community," Bill Corbus told the Empire in November 2013. McLeod will remain on the AEL&P Board of Directors and continue community relations with Juneau customers.



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