Dams:
(Guess it’ll be unsatisfactory until the spillway is fixed.)

Report: Oroville Dam has unsatisfactory rating for 2nd year in a row
Hundreds of workers busy rebuilding spillway
Mike Luery, Reporter, Sep 4, 2018, kcra.com

OROVILLE, Calif. (KCRA) — A new report on the safety of more than 1,200 California dams reveals only one dam is listed as unsatisfactory -- and that dam is Oroville. In this Butte County town of some 19,000 people, some are getting wary. “Businesses are concerned with getting on with business,” said Eric Smith, CEO of the Oroville Chamber of Commerce. “And folks are wanting to get on and feel they can live
safely in their homes." The new report by the Division of Safety of Dams in the Department of Water Resources shows an old problem is still active at Oroville Dam, which has the "unsatisfactory" rating due to safety deficiencies.

On Tuesday, Oroville Dam was a beehive of activity, with more than 700 workers busy reconstructing the spillway that collapsed in February 2017, forcing an evacuation of some 180,000 people living downstream. "We will have all structural concrete in place by November 1st on the main spillway," said Erin Mellon, a spokeswoman for the Department of Natural Resources. The new report shows Oroville Dam is still listed as unsatisfactory for the second year in a row. Some people in Oroville said they are feeling a little nervous.

"Concerned," said Jessica Campostrini, who said her family lives in Oroville. "We pay taxes in order to have things like this fixed and taken care of." Oroville may be small, but the city took a big hit when the spillway fell apart, causing plenty of pushback against the Department of Water Resources. "A lot of businesses had to close when they evacuated the city," said Art Hatley, an Oroville city councilman. "So there's a lot of concern still that they want to make sure DWR is going to manage this properly." The Department of Water Resources said it is committed to restoring the spillway to protect residents downstream, which could be a critical step in rebuilding public confidence. "Basically, one-third of that hillside is going to be covered in concrete," Mellon said. "So if we ever get to that point again of having to use the emergency spillway, it's going to be in much better shape." The report did generate some good reviews, including one from the Oroville Chamber of Commerce. "I think transparency is always good," Smith said. He added that it's important for residents to be in the know, "so folks have a sense of security knowing their needs and concerns are taken care of." California taxpayers have already spent an estimated $870 million to repair and rebuild the Oroville spillway. The DWR is expected to update that number Wednesday. The Oroville Dam is inspected twice a year by state and federal engineers. Once construction is completed, the department anticipates the next report will show Oroville Dam back in the satisfactory category.

(High tech comes to dam inspections.)

Using Artificial Intelligence To Locate Risky Dams
August 23, 2018, scienceblog.com

In the U.S., 15,498 of the more than 88,000 dams in the country are categorized as having high hazard potential—meaning that if they fail, they could kill people. As of 2015, some 2,000 of these high hazard dams are in need of repair. With a hefty price tag estimated at around $20 billion, those repairs aren’t going to happen overnight. A project out of the Columbia Water Center aims to help guide the process of repairing or decommissioning these dams. The team is pinpointing the riskiest dams, using climate models, GIS data, and artificial intelligence to predict the likelihood that rainfall will overtop a dam and cause significant downstream damages to population and critical infrastructure. "We can tell which dams should be repaired first, and which ones need to be monitored closely to plan for emergencies," said Byungjin. So, a postdoctoral researcher working on the project.

The work is particularly urgent as America’s dams continue aging and as climate change increases the chances of heavy rains and flooding. Most of these dams are now older than their original design life, and their condition is not always well monitored. Maintenance of these old dams is also a concern, as was shown by the near failure of the tallest dam in the country, the Oroville Dam, last year in California. The failure of the spillway led to the evacuation of 200,000 people as well as disruptions to the downstream water supply. The repair cost has now reached
$1 billion, whereas prior maintenance and repair costs were estimated in the low millions of dollars.

First Steps
The projections start with climate data. So works with climate models to understand atmospheric circulation and moisture patterns across space and time. In particular, he looks at winds that pick up water as they move across the Pacific Ocean on their way toward California. "For now we are only working with California," explained So, "but later we will consider the whole U.S." Next, he uses artificial intelligence to determine whether those moisture and circulation patterns will actually translate into rainfall. Analyzing data from 1980 to 2017, the A.I. is using deep learning to recognize which patterns typically lead to rainfall in California. It then categorizes an incoming weather system as "rain" or "no rain" with 95 percent accuracy. Finally, So must predict whether the rainfall could lead to dam failure. He will use elevation maps, dam heights, dam storage capacity, and runoff calculations to predict whether the rain could overtop the dam. Meanwhile, demographic data will reveal the people and critical infrastructure that could be at risk downstream.

What Comes Next
For now, the A.I. only classifies weather events into wet or dry. Eventually, So wants to have it classify events with more detail, such as "low rainfall" and "high rainfall." In addition, he’s currently working on combining the artificial intelligence component into the climate model, and plans to finish that piece of the project in October. The assessment model for the dams, which is slated to be finished next year, will map the transportation, electricity generation, population and water/wastewater treatment infrastructure that could be impacted if each of the dams considered were to fail. Machine learning methods will also use rigorous simulations of dam failure dynamics from a few selected dams to project how any of the 88,000 potential dam failures could lead to downstream inundation and damage. So hopes the model will be ready to advise decision-makers in the real world—and help protect people and infrastructure—by 2020.

(Why did it take so long? It always is the money!)
30 years and $3 billion later, Olmsted Locks and Dam on Ohio River to open
By Chris Welch, Aug 26, 2018, kshb.com

The Olmsted Locks and Dam project, located on the Ohio River between Illinois and Kentucky, has taken 30 years and $3 billion to complete. But after three decades, the project is slated to be operational in October. The engineers and workers behind the development say the investment is worth it. "The Ohio flows into the Mississippi 16 miles downriver from us, and then it's open passage all the way down to New Orleans and into the ocean," explains Mick Awbreyk, the Army Corps of Engineers deputy chief for the Olmsted Division. "There is no locks and dams from the Olmsted to the ocean." He says the innovative details that went into the project are "phenomenal and truly world class."

Awbreyk will see the opening of the project, which began in 1988. So, why has it taken so long to complete? "The nature of the project; a lot of different things have led to the duration," explains Awbreyk of the timeline. "One: it hasn't been fully funded until calendar 2013, fiscal years 2014 and that's the nature of civil works projects." The dam crosses one of the busiest shipping lanes in the United States. Awbreyk says about 91 million tons of goods on average come through the area per year. "The equivalent of 25,000 semi-trucks worth of cargo passes through this site every year," says Awbreyk. "You can imagine the wear and tear on the interstate and the highways that would have an extra 25,000 vehicles that will be on there per day." The project's...
The price tag has grown to around $3 billion. Workers here say it’s money Americans will see come back to them. “It’s widely important. The return on investment on this particular project is $640 million per year to the nation,” says Awbreyk. “That’s a net number, so ultimately it’s a little under a $3 billion price tag; it will pay for itself in five years.”

(Wow, that’s a lot of jobs.)

100,000 jobs depend on them. A congressional committee is coming to Pasco to see if they’re worth saving

BY ANNETTE CARY, tricityherald.com, August 29, 2018

PASCO, WA - The U.S. House Natural Resources Committee has set a field hearing in Pasco to focus on the economic benefits provided by the Columbia and Snake River dams. The Sept. 10 hearing was scheduled at the request of Rep. Dan Newhouse, R-Wash. It continues the tradition of retired Rep. Doc Hastings, R-Wash., who organized a field hearing on the same topic in Pasco in 2012.

The hearing is intended to educate Congress and a national audience, helping dispel misinformation about the federal Columbia River power system, Newhouse said in his request for a hearing to the Natural Resources Committee. “Unfortunately, misguided movements continue to push for the destruction or degradation of our river power system and the many benefits both rural and urban communities on both sides of the Cascade Mountains receive,” he said. The hearing will be an chance to bring together diverse interests that benefit from the rivers and hydropower systems, including representatives of power, labor, agriculture, transportation, navigation and recreation, he said.

The dams are the “economic lifeblood” of the Pacific Northwest, he said. They provide irrigation for the agricultural industry, navigable routes for the region’s export-dependent economy and flood control for local communities, he said. They also provide renewable, affordable power. Newhouse said the system of dams are responsible for more than 100,000 jobs. However, U.S. District Judge Michael Simon has found that not enough is being done to improve Northwest salmon runs and has ordered a federal environmental review of the power system. The review, which began in 2016, is required to look at breaching the four Snake River dams in Washington state as one option to protect fish listed under the Endangered Species Act. The congressional committee hearing is set for 10 a.m. at the Pasco City Council Chambers.

The hearing will follow a Sept. 8 community festival, Riverfest, that’s intended to raise awareness about the role of the Snake River dams in the Tri-Cities economy. The free festival, from 11 a.m. to 3 p.m., will be at the east end of the Columbia Park near the Lampson Pits in Kennewick. More than 40 exhibitors and vendors are planned, with activities for kids and adults. Highlights will include a tour of a Tidewater tug and a demonstration of the Whooshh salmon “cannon.”

City officials confirm: Hillsboro Dam breached

By David Johnson, wkow.com, Aug 28, 2018

HILLSBORO (WKOW), WI -- City administrator Adam Sontag confirmed to 27 News the Hillsboro Dam has breached in Vernon County. The dam has not failed, however water is coming over the top, officials said. Water will slowly rise over the next day. Residents are asked to stay away from the area near E. Mill Street. Sontag said there is flooding in the area. However, he
would not speculate on how much water has spilled onto city streets.

(A voice in the wind. A political statement.)

Affordable Energy for South Dakota
By U.S. Sen. Mike Rounds (R-S.D.), Aug. 30, 2018, capjournal.com

In South Dakota, we have scorching hot summers and frigid winters. This means we require reliable, affordable energy to keep our homes and businesses at a comfortable temperature year-round. Thanks to the Missouri River, South Dakota produces and uses a significant amount of renewable hydroelectric power. We are also one of the largest wind power resources in the nation.

According to the U.S. Energy Information Administration, wind power provided around 30 percent of our total net electricity generation in 2016. **Hydroelectric power provided more than two-fifths of South Dakota’s net electricity generation last year,** the largest share of any energy source in the state. According to the Department of Energy, almost 94 percent of the energy we produce in South Dakota is renewable.

Additionally, our neighboring states provide us with natural gas and clean coal. We rely on this diverse array of energy sources to power our lives. Maintaining steady, balanced energy production allows us to meet our own energy needs, export energy around the world, create jobs here at home, grow our economy and strengthen our national security. Since being elected to the Senate, I have served on the Environment and Public Works (EPW) Committee. One of our committee’s roles is to oversee the Environmental Protection Agency (EPA). During the previous administration, the EPA overstepped its boundaries by attempting to implement the Clean Power Plan, or CPP, by regulatory fiat. I was firmly against this plan, which would have resulted in sky-high energy costs for consumers, all with very little benefit to the environment. It threatened job creation and economic growth. **CPP was a prime example of 'government-knows-best' rulemaking in which government regulators attempted to circumvent Congress and implement this costly new plan.** Fortunately, the Supreme Court blocked the implementation of CPP after more than two dozen states called for it to be stopped, and President Trump signed an executive order in March 2017 to suspend it as well.

The EPA recently announced their proposal to replace CPP, called the Affordable Clean Energy rule, or ACE. This proposed rule, which is open for public comment and has not yet been finalized, respects the rights of individual states in setting energy policies that work best for them. I support this administration’s goal of providing reliable, affordable, clean energy to South Dakota families and businesses while at the same time working to protect our environment and natural resources. According to the EPA, the proposed ACE rule would establish emissions guidelines for states to develop their own plans to limit greenhouse gas emissions. This means that South Dakota will have a strong voice when it comes to federal energy rules that affect us. During the previous administration, rules and regulations were promulgated with very little regard for the businesses and individuals who would have to abide by them. I appreciate that the current administration is attempting to regulate thoughtfully, and is taking into consideration the needs of the people who will have to follow their regulations. I will continue working to promote South Dakota’s energy priorities, and am happy to work with the EPA as they seek to protect our environment and natural resources while providing reliable, inexpensive energy to families across the country.

(Don't let it fail.)

City is keeping a close eye on Wrangell’s dams
By June Leffler | Aug 30, 2018, kstk.org
The city of Wrangell is concerned about one of its dams. The city says the upper dam is seeping more water than usual. At a city assembly meeting, public facilities director Amber Al-Haddad presented her findings. Her staff found some signs of concern on August 21. "A week ago today, we noticed what appeared to be some new or addition seepage, at the toe of the dam on the east end," she said. State regulators gave a poor assessment of the dam in 2011, linked to seepage back then. Alaska Dam Safety engineers say the dam certainly has deficiencies, but cannot say the seepage poses any serious threats to the dam.

The dam is made of timber cribs, essentially logs stacked on top of each other. Later an embankment was put on top of that. In 1993, the city assessed that the dam was stable, under normal conditions. "If we were to have a sizable earthquake that affected those dams we would likely see a failure in those dams," Al-Haddad said. The upper dam is classified as a high potential risk, the lower dam a low potential risk. City staff is monitoring changes in the water flow. Though there is seepage, there are no signs of internal or external erosion. The city has had concerns about the dam for a while. When deciding on building a new water treatment plant, city manager Lisa Von Bargen and some assembly members said the dam and reservoirs need an upgrade too. The city wants to perform a dam stability assessment, though that wouldn't be immediate. The current Emergency Action Plan for the dams also needs to be updated. It was last revised in 2002. The city has already been working on this. A new plan is needed for federal funding the city is seeking.

(Another dam failure. Little problems have a way of turning into big problems.)

**Thousands flee flooding as Myanmar dam bursts**
By Angus Watson and Laura Smith-Spark, CNN, Thu August 30, 2018, cnn.com

(CNN)Tens of thousands of people were forced from their homes Wednesday when a dam burst in central Myanmar, sending floodwater pouring into nearby villages. One person died and six people were believed to be missing as of Thursday, according to Kyaw Kyaw, an official who represents Yadeshe in Bago Division's regional parliament. A breach of the Swar irrigation dam's spillway at 4 a.m. on Wednesday local time (6 p.m. Tuesday evening ET) sent water gushing into Swar, Yadeshe, and nearby villages. Kyaw added that some people had started to return home as the flood water had subsided and that local authorities were turning their attention to rehabilitation.

The commander-in-chief of Myanmar's armed forces, Min Aung Hlaing, posted pictures Wednesday of himself at the dam site using the Russian social network VK. Facebook on Monday announced it was removing his account, along with other government and civilian pages in connection with ethnic violence against Rohingya Muslims. Commuters between Mandalay, in central Myanmar, and Yangon reported highway closures because of the flooding.

A bridge on a major highway linking Myanmar's major cities of Yangon, Mandalay and the capital, Naypyitaw, was damaged by the floods, Reuters reported. The floodwaters have also caused damage to railroads, halting some train services. Heavy annual monsoon rains have already brought flooding to other parts of the country and the region. A dam in neighboring Laos
collapsed last month, causing flash-flooding across six villages and displacing thousands of people.

(More dam failures, probably due to overtopping.)

Vernon County's Jersey Valley, Mlsna dams fail due to heavy rains
By Angela Cina Vernon, County Broadcaster, 8/31/18, lacrossetribune.com

Two of Vernon County's, WI dams — Jersey Valley and Mlsna — failed by 6 a.m. Tuesday, Aug. 28, because of the heavy rains that fell Aug. 27-28. Mark Erickson, resource conservationist with the Vernon County Land and Water Conservation Department, said the Westby Fire Department evacuated residents living in Bloomingdale. According to Linda Nederlo, public information officer at the Vernon County Emergency Operation Center, there were five rescues at Bloomingdale at daybreak Aug. 28, located downstream of the Jersey Valley and Mlsna dams.

Erickson said the dams failed under the auxiliary spillway, where the embankment of the dam meets the abutment of the hill. Erickson said the county had two dams "over top" — one (Mlsna) failed and one (Ostrem) sustained structural damage. He said the auxiliary spillway is designed to take water away from the dam itself but they could not keep up. In an interview Thursday, Aug. 30, Erickson said the water is receding and "going down well." The county has 22 flood-control dams. Erickson said there are at least five other dams with significant repairs needed and a lot of debris to clean up. "Jersey Valley Lake is approximately a third of the way full — 12 feet deep — normal depth is 36 feet," Erickson said. Erickson said the LWCD is trying to come up with a plan to stabilize the 54-foot deep cut in the Jersey Valley dam so it won't get worse. He said if the county chooses to repair the dam, it's a long process for developing and engineering design, getting DNR approval and trying to secure funding from the Federal Emergency Management Agency and/or Emergency Watershed Protection. "At this point we are fortunate there is no loss of life; we are thankful for that," Erickson said. "We will get the smaller repairs done as soon as possible." Erickson said Vernon County has not had a dam failure since 1978, when the Dahlen dam failed.

(Who can haul the most?)

Semis and rail cars can't replace barging on the Snake River
BY RANDY E. HAYDEN, September 01, 2018, tri-cityherald.com

A pleasant Saturday afternoon boating and swimming at Fishhook Park. Catching a salmon for dinner below Ice Harbor Dam. Watching a barge full of Palouse wheat steadily making its way under the Highway 12 Bridge in East Pasco. These are all part of the experience of living the Tri-City lifestyle — relaxing, laid back, enjoying the sun and our rivers. And it's all made possible by dams on the Columbia and Snake rivers. As a Port official, I get to see firsthand the many benefits that dams provide, including the movement of cargo up and down our beautiful rivers.

Right here in the Tri-Cities, many of the products vital to our local, state, and national economy arrive by barge. Drive a car? A large portion of the diesel and gasoline we use in the Tri-City area
is barged to Pasco and trucked out to our local gas stations. At certain times of the year, this can be up to 50 percent of the fuel we put in our vehicles.

For our farms, fertilizer is barged in to help us grow the world’s greatest potatoes, apples, grapes and the many other crops prized in the Mid-Columbia. One of the newest commodities to arrive will be wood chips. Beginning in September, the chips will be barged from lumber mills at Bingen and White Salmon on the Columbia River to the Port of Pasco’s barge slip. From there, the chips will be transferred to trucks and driven to the Wallula paper plant to make packaging materials for recyclable cardboard boxes. The largest commodity moved on the river system is wheat. In the Tri-Cities, we have four large grain terminals that transfer wheat from trucks to barges that make their way to Portland and other deep-water terminals. From there, the grain is loaded onto ocean going vessels bound for Asia.

There are 27 of these truck-to-barge grain terminals on the Snake and Columbia rivers. All told, barging on the inland Columbia Snake River System moves approximately 10 million tons of cargo valued at over $3 billion each year. I find it amazing that all this commerce is happening on our rivers and for most of us is barely even noticed. Now imagine for a moment that we didn’t have the dams. Barging would no longer be an option. For the cargo on just the Snake River alone, that would mean 43,610 more rail cars or over 167,000 semi-trucks. I don’t know about you, but when I’m driving my family to Portland along Interstate 84 or Highway 14, I’m glad to see all that cargo on barges on the river instead of on a semi-truck in the lane next to me. It makes environmental sense, too. Barging uses four times less fuel than trucking and minimizes greenhouse gas emissions.

It’s all the more bewildering then that some groups want to remove the dams, saying that all those products moved by barge should just be put on rail or in trucks. That’s like saying we no longer need the by-pass highway in Richland because all those cars can just use George Washington Way. Providing multiple modes of transportation adds capacity to the system, keeps shipping costs competitive, and provides resiliency to freight movement. With railroads already at peak capacity and a growing shortage of truck drivers, it’s crucial that we keep all modes of transportation – truck, rail, and barge – so that our economy can grow and thrive. Want to tour a tugboat, walk inside a giant salmon, experience the Wanapum Tribe culture, and much more? Bring your family and come learn more about our rivers, our way of life at RiverFest 2018 on Saturday, Sept. 8 at Columbia Park in Kennewick. Randy Hayden is the executive director of the Port of Pasco

(A Photo tour.)
The most beautiful dams around the world. Photo
By paradox, 02.09.2018, micetimes.asia
Incredible creations of mankind.
Throughout its history, people created great things. Construction has reached apotheosis in the twentieth century, when mass began to be erected really big and incredibly expensive designs. These are dams that are able to surprise not only for its Grand appearance, but also bring many benefits.

1. Dam Contra

Widely known design, also known as the Verzasca dam or Locarno dam. The dam is located in Switzerland. The altitude of the engineering of the structure is 220 metres, and the arch length reaches 380 m. The Base of the dam is 28 meters. It gradually narrows to 7 meters. The maximum capacity of the dam is 1300 cubic m/s per year generates 234 GW.

2. Dam Gordon

The dam is located in Australia. One of the key features of a dam is that it is curved both vertically and horizontally. This trait allows it to retain huge amounts of water. Approximately 13% of the needs of Tasmania’s energy is met by this dam. The plant capacity is 432 MW.

3. Dam Of Monticello
The dam height of 93 meters, located in USA, California. Remarkable design, which is one of the coolest in the world tilt. Generates 56 806 000 kWh of energy. Most often used only two turbines of this dam.

4. The Hoover Dam

This engineering design can be treated as one of the attractions of the United States of America. The dam is 221, 4 meters, and base length reaches 200 meters. Width of the ridge is 14 meters. Power turbines of the dam is 4.2 TWh per year. The construction of the dam has become one of the largest construction projects in the country.

5. The Three Gorges

Hydroelectric power station in China located on the Yangtze river in Hubel. Today it is the largest HPP in terms of installed capacity, which is 22 500 MW. Design height is 181 meters. Open the Causeway was in 2003. The construction of the dam cost China 203 million dollars.
6. Dam Tarbela

The largest power station of Pakistan standing on the Indus river about 50 kilometers from Islamabad. The dam is equipped with two powerful turbines, which produce a huge amount of energy. During the year, the dam produces 14.959 billion kWh of electricity.

7. Dam Almendra

One of the largest dams of Spain, part of a complex of five hydroelectric power station near the border with Portugal. The dam is constantly working and meets a major part of local energy requirements. It should also be noted that it offers a great view of the surroundings.

8. Itaipu
The second largest dam in the world, competing with the Chinese "Three gorges”. Located on the border of Paraguay and Brazil. Open the Causeway was in 2007. The height of the dam is 196 meters. The total length of the structure – 7 235 meters.

9. The Atatürk Dam

One of the largest dams of Turkey, located on the Euphrates river. Designed for power generation and irrigation of arid lands. The construction of the dam was completed in 1990. The reservoir above the dam – the third largest in Turkey. The dam height is 169 meters.

(Don’t let it fail.)

**Somerset County issues alert to residents downstream from High Point Dam**

*Fayette County emergency management also notified*  
*Sep 4, 2018, wtae.com*

FORT HILL, Pa. — Somerset County has notified people living downstream from High Point Lake that the dam is leaking and residents downstream need to be on the alert. Alan Baumgardner, a 911 supervisor, said the alert does not mean there is any imminent danger.

Somerset 911 also notified Fayette County of the situation. Fayette sits about 10 miles downstream from the lake. 911 officials there said they are aware of the situation, but have not issued any notifications. The 3 p.m. alert was made at the request of the Pennsylvania Fish & Boat Commission, which owns the dam near Mount Davis, Pennsylvania’s highest point.

“(The commission) said the breast of the dam is leaking,” Baumgardner said. He said personnel from the commission and Somerset Emergency Management Director Joel Landis are at the dam assessing the situation. The notice went to residents in Confluence and Ursina boroughs and Addison and Lower Turkeyfoot townships.

(Flood control. All larger dams affect peak flows, usually lessens them.)

**Letter to the Editor: Dams and flooding**

*By Glen Briggs / Seiad Valley, 9/4/18, siskiyoudaily.com*

I would like to expand some on the article concerning the Klamath River and the dams scheduled for removal in the Aug. 27 Siskiyou Daily News by Dr. Gierak. First, concerning the increased possibility of flooding downstream. Each time this has been brought up in the past during dam...
removal discussions, the statement is made that these four dams do not have flood control included in their operating requirement. This is true, but needs additional input to truthfully understand just what should occur before and during a major flood event similar to several that have occurred in an area which includes the Klamath River system.

In 1850, major flooding on the Sacramento and Feather rivers flooded downtown Sacramento (recounted in the journal of a 49er trying to mine on the Feather River). 1860 when the San Joaquin and Willamette valleys looked like lakes (see up and down California by Brewer and Skooum by Shannon Applegate), 1890 deep snows and major flooding recounted by many concerning the widespread starvation and flooding by many histories and mining journals including narrative description by my grandmother who lived along the Klamath her entire life, and then there was 1964 flood which many of us personally remember. Perhaps not all of these flood events resulted in large flows from the upper Klamath Basin, but, it is most certainly probable that some of them did.

Owners of a dam on a major river system subject to major flooding has taken on a tremendous responsibility for the safety of that dam including the possibility of failure by overtopping and/or eroding as in the case of an earth dam. In order to satisfy part of that responsibility it is imperative that the dam operators stay in close contact with weather forecasters so that all possible measures are taken to safely pass extreme flood flows. In the process of this effort, peak upstream flows should be dampened or delayed as they move through the reservoir systems thus allowing downstream peak flows to dissipate. This action falls under dam safety rather than flood control but unintentional flood control it is.

(Some people haven’t given up the fight or they like to beat a dead horse.)

Letter to the Editor: Once again, dams
By Nita Still / Yreka, Sep 4, 2018, siskiyoudaily.com

I wrote to a certain stakeholder, when articles to about 250 people were being sent around by another person. It is about the removal of the dams. You know, first it was all about fish, now these same stakeholders say, “It’s all about Economics.” Pacific Corp said in 2006 that the salmon did not have any habitat upstream of the dams suitable for salmonids. This same person’s comment to me was, “Thanks in large part to testimony provided by Tribal biologists we defended the mandate for volitional fish passage passed the Dams.” These same stakeholders who used to be called NGO’s, now, still want the dams out, but they are saying, “It’s all about Economics.” So now it is all about salmon, the economy and the removal of four perfect dams! There are dams that are one thousand and two thousand years old and still functioning. It certainly is about the economy. They are declaring that the dams are outdated and it will cost too much money to fix them. They were pronounced in fine working order by a person who worked for the Department of the Interior, who was a whistle-blower and was fired. Whistle-blowers are called that for the truth they tell. This same group of stakeholders almost stopped logging by also using the Endangered Species Act (ESA). Many men lost their jobs when 19 logging mills were closed, as was one school in Fort Jones. They also stopped gold dredging. They have also closed some roads in the forest. All of this has had an adverse effect on our economy, because of the ESA.

All of the Indians in the area are assigned fishing places and how many salmon they may catch, by the BIA. These assigned fishing places are at least 40 to maybe 50 miles from the ocean and the Klamath Indians came down and got/get their salmon near the Trinity River where they smoke them before going back to their home in Oregon. The Shasta Indians also have proof that the salmon only swam 12 miles above the Iron Gate dam before it was created, and besides, there are over 60 tributaries the salmon can swim up to spawn before the dams. Otherwise by the time
the salmon had swam upstream 190 miles, around where Iron Gate dam is now, the salmon were too bruised and battered to eat. To prove that the salmon swam up to Link River, a person from the Fish and Game, who is now retired, and I heard him say, “the dams must be removed,” printed a picture of three men in their Sunday-go-to meeting cloths and shoes, who had caught about five large salmon, one of which was on a spear. I am wondering just how truthful that picture is. Do men really go fishing in Sunday-go-to-meeting suits and shoes? And as their last chance for dam removal, just how lawful/legal is the Klamath River Restoration Corporation. And judges, in their ignorance, also side with these stakeholders! Even the ones, “doing-it-to-us” do not really know why this is happening! As you know, I have also written about this in many other letters over the last 20 some years.

Hydro:
(Hydro in the pipeline.)

Utah asks agency to resume permitting for pipeline project
mrt.com, August 23, 2018

ST. GEORGE, Utah (AP) — The state of Utah wants the federal government to resume its work permitting the Lake Powell Pipeline project. Utah water officials in January asked to halt the project, worried over jurisdictional questions about whether the Federal Energy Regulatory Commission would continue to act as the permitting agency, The Spectrum reported. The state still hasn’t received any answers, and attorneys for the Utah Board of Water Resources and the Washington County Water Conservancy District filed a letter Wednesday with the commission asking it to proceed. “Because it is extremely important that the licensing of this critical infrastructure project for the State of Utah move forward expeditiously, UBWR and WCWCD desire to now have the procedural schedule reinstated,” according to the letter.

State water officials have spent more than $30 million over the past decade readying its proposals for the pipeline, which would carry water some 140 miles (225 kilometers) out of Lake Powell and across parts of Utah and Arizona to communities in Washington and Kane counties. State officials applied for the project through the Federal Energy Regulatory Commission because of proposed hydroelectric facilities that would be built along the pipeline. The water would be pumped out of Lake Powell to a high point within the Grand Staircase-Escalante National Monument area, then flow downhill toward St. George, passing through a series of hydroelectric turbines along the way. Local water managers say the pipeline is needed to keep up with growing demands for water in the fast-growing St. George area, where the population is forecast to balloon from about 165,000 today to more than 500,000 over the next 50 years. The pipeline has been the target of controversy among conservationists. It is one of a series of projects states have proposed to pull more water from the Colorado River system despite evidence that the river’s supplies are overdrawn and that climate change is likely to dry the region further in the future.

(Back to the drawing board.)

Federal regulators deny Alabama Power dam licenses
MONTGOMERY, Ala. (AP) — Federal regulators are canceling Alabama Power’s license for the Coosa River dams. The Montgomery Advertiser reported the Federal Energy Regulatory Commission made the decision about a license that had been issued in 2013. The decision comes after a U.S. Court of Appeals ruled the license did not adequately deal with the negative effects that the dam operations have on Coosa River plants and animals. The Coosa River system provides more than half of Alabama Power’s hydroelectric power. The rejection of the 30-year license means the utility will have to come up with new ways to meet the federal Endangered Species Act and the National Environmental Policy Act rules. The utility plans to ask regulators what they need to do to get a new license.

(Another energy source that can’t get off the ground.)

Tidal energy startup tries to secure millions in investments
August 30, 2018, myplainview.com

PORTLAND, Maine (AP) — A Portland-based tidal energy startup is attempting to secure $12 million in private investments, even though venture funds are favoring other energy projects. Ocean Renewable Power Co. says it will use the funding to set up improved versions of its underwater turbines. The Portland Press Herald reports Ocean Power has developed a sustainable technology that allows underwater turbines to generate electricity from river and ocean tidal forces. An initial funding round will be followed by a push for another $18 million intended to start production for the commercial market. Globally, marine power receives the least investment by far compared with other renewable energies like solar and wind energy — with the exception of large hydroelectric dams.

(A little history.)

The History of the Chickamauga Dam

This 'new deal' era project helped provide safety, security and low-cost power to the Tennessee Valley.
wrcttv.com, September 3rd 2018

The History of the Chickamauga Dam

Before the Chickamauga Dam, Chattanooga, the valley's most flood-prone city, suffered from massive economic damage and mosquito-borne health crises because of the untamed river.

The construction of the dam and its reservoir would require the purchase of over 61,000 acres of land. Because of construction, more than 900 families, 24 cemeteries and 81 miles of roads had to be relocated.

The tip of Chickamauga Island was chosen for the dam, which was authorized December 31, 1935. Construction began just two weeks later, and four years later almost to the day, the project was completed. It was a monumental task to create this facility. At peak, 3,000 employees were involved in construction efforts.
Earth fill: 2,668,500 cubic yards
Riprap: 125,000 cubic yards
Concrete: 506,390 cubic yards
Foundation grouting cement: 508,276 bags

President Franklin Delano Roosevelt dedicated Chickamauga Dam on September 2, 1940. An estimated 80,000 people came out to hear the president's speech. In his speech that day, he said, "This Chickamauga Dam...built by the Tennessee Valley Authority for the people of the United States, is helping to give to all of us human control of the watershed of the Tennessee River in order that it may serve in full the purposes of men. The dam stands at 129 feet high and stretches 5,800 feet across the Tennessee River; Chickamauga Reservoir has 784 miles of shoreline and about 36 thousand acres of water surface. The 60-by-360-foot lock at Chickamauga lifts and lowers river craft about 50 feet between Nickajack and Chickamauga Reservoirs. Chickamauga Dam is a hydroelectric facility for the TVA. It has four generating units with a net dependable capacity of 119 megawatts.

Environment:
(Gotta watch those side effects.)

Environmental suit planned over Boulder County dam project
Aug. 25, 2018, houstonchronicle.com

BOULDER, Colo. (AP) — Environmental groups say plans to expand a Boulder County reservoir would threaten an imperiled species of trout. The Daily Camera reports the groups filed a 60-day notice that it plans to sue the U.S. government and Denver Water in federal court for alleged violations of the Endangered Species Act if the Gross Reservoir expansion moves forward. The groups say that filing the expanded reservoir would require greater diversions of water from Colorado River tributaries that are habitat to the green lineage cutthroat trout.

The environmental groups say federal wildlife officials failed to properly analyze the threat to the fish when the project was approved. Denver Water CEO and manager Jim Lochhead said in a statement the project will benefit the environment by increasing water flows in rivers and streams in Grand County.

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