Central Michigan flooding exposes criminal neglect of dam safety

Lily Zhao 25 May 2020

Five days since historic flooding struck central Michigan's Midland County, there are numerous calls for investigations into the collapsed Edenville dam, the failure of which caused the disaster that destroyed homes, swept away cars and washed out roads and bridges. Flood waters rushed through the city of Midland, population of 42,000, the home of notorious polluter and chemical manufacturer Dow Chemical. Dow reported that flood waters mixed with its containment ponds but insists that no toxic chemicals were released downstream.

With thousands now looking for a way to clean up and rebuild, the Michigan Republican Party is asking the state's Democratic attorney general to turn over the dam failure investigation to federal authorities. The Federal Energy Regulatory Commission (FERC) is ordering Boyce Hydro Powers, owner of the Edenville dam, to form an independent team to investigate the conditions of the three other dams it owns, including the Sanford Lake dam, which is still in danger of collapsing after Tuesday's heavy precipitation.

Both the Democratic and the Republican party and the media point to Boyce Hydro as the main culprit, revealing its long history of safety violations. However, Boyce is not the only guilty party. The question of all questions is why was nothing done? Why did the dam continue to operate even though it was out of compliance with flood prevention standards? What transpired, who were the persons involved and who and what class interests do they represent?

The Edenville dam, built in 1924, received multiple warnings from the federal government on its safety violations since as early as 1999. According to reports from the FERC, the dam's spillway capacity only reached half of the required Probable Maximum Flood (PMF) value, meaning that the dam could not properly release the pressure from a standard amount of waterflow and was vulnerable under extreme weather conditions.

However, no improvements were made. After the operation license was transferred to Boyce in 2004, the company's proposal to build an auxiliary spillway to share some pressure on the major service spillway was never

carried out, even though Boyce was granted multiple extensions to finish construction over the next 10 years.

Between 2004 and 2017, according to an FERC Compliance Order, operations at the Edenville dam were in violation of many additional safety guidelines, including carrying out unauthorized dam repairs and earth-moving activities, not filing an adequate Public Safety Plan, unduly restricting public access to its facilities, not constructing and maintaining approved recreation facilities, and more. In February 2018, the FERC issued a proposal to revoke Boyce Hydro's license on operating the Edenville dam for its long-standing noncompliance with the Dam Safety Guidelines.

An exchange in 2011 between Boyce and Sanford lakeshore residents sheds light on why these safety risks were never resolved.

The owner of Boyce, Lee Mueller requested the lakeshore property owners pay the \$83,000 needed to repair the dam structure and to return the lake to its normal level. Lakeshore residents argued instead that Boyce pay for the repair since the company made revenues from the hydroelectric power generated from the dam. In response, Mueller threatened to drain the lake permanently if the property owners refused to pay up. Boyce was counting on Midland County to intervene since the county would lose millions in property tax revenue if residents were forced to move away after the lake was drained.

This episode reveals the utter lack of concern about the imminent danger of flooding caused by Michigan's aging dams. Only profits entered into the calculations of Boyce and the local county officials.

However, the accomplices in this criminal neglect of dam safety, which has led to the evacuation of thousands of people and loss of their homes, are not only one private company. One has to ask this further question: what happened to the Edenville dam after September 2018 when Boyce's license was revoked by the FERC? Why was nothing done to repair and maintain the dam which would have prevented last week's catastrophe from happening?

After the FERC issued a proposal to revoke Boyce's

license, multiple Michigan state officials and heads of local lake associations wrote to request that the FERC either extend the deadline for revocation to November 1, 2018 or reconsider its decision.

Letters sent by Jim Stamas, Republican state senator, and John Moolenaar, Republican congressman, stated, "[Sanford and Wixom Lakes] provide significant economic, tax and recreational value to the counties and residents. Because of this, it is important to find a solution that satisfies the FERC requirements while also preserving our local assets." Throughout the letter, no concerns were expressed for the safety risks that the Edenville dam would pose, except for a nominal acknowledgement in passing that there was "a long history of disputes" between Boyce and the FERC. The only solution they proposed to address the safety issues of the dam is to establish "a new ownership structure of the dam," without a single discussion of repairing the dam in accordance with the FERC guidelines.

Submitted on the same day was another similar but lengthier letter from heads of local lake associations, including David Kepler, president of the Sanford Lake Preservation Association. Kepler was a major figure at Dow Chemical for 40 years, where he was the Executive Vice President, Chief Sustainability Officer and Chief Information Officer, and previously was part of the US National Infrastructure Advisory Council on infrastructure and homeland security under President George W. Bush.

Kepler was also the principal donor to the Four Lakes Task Force (FLTF) formed in September 2018 after Boyce's license was revoked. The FLTF is the "new structure of ownership" discussed in the aforementioned letters. It purchased the dams from Boyce and was planning to take full charge of their operations in 2022.

Even though the FLTF officially operates as a non-profit, the real purpose of its establishment is made clear in Kepler's letter, where he requested the FERC to delay its decision on the ground that "an order proposing license revocation can lead to loss of a project license in a matter of weeks" and "[the revocation] would effectively eliminate any possibility for the Lake Associations to rely on the revenue stream from [the Edenville dam] to fund the ongoing expenses required to rehabilitate and operate the dam".

In other words, the FLTF was formed to retain the license and preserve the revenues from operating the dam. All their talk about repairing the dams was nothing more than an empty promise, as made clear by their 2019 Annual Report and Operating Plan. It stated that "[we] believe that a significant portion of these repairs can be extended over the next 20 years, further reducing initial capital costs and keeping the bond under \$32 million."

What's behind the collapse of the Edenville dam and the damage of thousands of homes is the decades-long bipartisan neglect of the safety issues regarding dams on both the state and federal levels.

Despite Democratic Governor Gretchen Whitmer's statement Thursday that dams and other pieces of critical infrastructure shouldn't be owned by private entities, she has done nothing to address dam safety since taking office in 2019. The Edenville dam's regulation was transferred from the federal government to the state in 2018.

Dam safety is not just a growing problem for Michigan. The number of potentially high hazard dams has been increasing year by year, and according to the National Inventory of Dams in 2019, about 25 percent of dams in the US are classified as such. There are a few natural causes for this number to increase, such as their natural aging, more residents living downstream of dams, and improved understanding of hydro effects on the dams. However, the more fundamental reason is the neglect of the repair and maintenance of these dams at every level of government.

Due to a shortfall in funding, there is a lack of personnel for dam inspections. According to a study published by the Yale School of Forestry & Environmental Studies, on average, each state inspector is responsible for about 200 dams. In Oklahoma and Iowa, there were only three inspectors for their 4621 and 3911 dams respectively. There is also a nationwide lack of emergency responses to the high hazard dams. Alabama does not have a dam safety program, while no emergency action plans exist for 20 percent of the high hazard dams.

From the same study, the total estimated cost to repair all the high hazard dams is about \$45 billion, and about \$71 billion to repair all dams in the country—only a minor fraction of the trillions of dollars used on military expenses and the bailout of Wall Street during the pandemic. The collapse of the Edenville dam is not a natural disaster, but a man-made one, a result of decades of attacks on critical infrastructure. At the height of the coronavirus pandemic, the flooding is yet another catastrophic event that reveals the criminal character of capitalism: the subjugation of human lives to corporate profits.



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