



## Lessons from the Michigan Dam Failures for Lake Homeowners and Concerned Citizens

By Lon Nordeen & Mark Teicher, MLSA Board Directors



Readers of *The Michigan Riparian* magazine have probably seen the news reports about the May 19, 2020 dam failures in Midland county. The Midland/Gladwin county group of dams—Edenville (located about 120 miles north of Detroit), Sanford, Smallwood, and Secord—were created in the 1920s to produce electricity and recreational lakes. Residents have long had seasonal cottages and year-round homes around the lakes formed by this project. In 2018 Federal Energy Regulatory Commission (FERC) began revoking the license of Edenville dam due to failure of Boyce Hydro, LLC to perform upgrades. Local residents and government entities were working to create funding sources to have the Four Lakes Task Force buy the dams from Boyce Hydro, LLC when the events of May 19th took place. Boyce Hydro, LLC went into bankruptcy following the dam failure.

We spoke with a few officials and residents directly involved in the dam failures to give a clear picture of events as well as what we should all learn from these unfortunate circumstances. The first of our interviews was with Mike Wood, the supervisor of Jerome Township. This is what Mike had to say, “Our township is on Sanford Lake, the last lake on the Chain of Lakes, and includes the village of Sanford. On May 19, 2020, after days of heavy rains, all of the Chain of Lakes dams were overwhelmed. Smallwood dam saw 3 feet of water over its dike. Wixom Lake saw 5 feet or more above the normal level, causing Wixom Lake’s dike to fail. The

failure caused a 12 foot rise above the normal lake level on Sanford Lake.

“Sit at your lake’s water edge and think of it being 12 feet higher in two hours. Understand this is not a tsunami wall of water. It was a gradual rise of water over a period of time but the water included debris; parts of trees, houses, campers, sheds, decks, and propane tanks spewing gas, just to name a few of the items. This caused massive destruction all along Sanford Lake, the village of Sanford, and into the city of Midland. The water washed away homes, bridges, roads, and everything in its path. Sanford Lake was 11 miles long and a half mile wide at its widest point. Now it’s a river about 30 yards wide surrounded by mudflats. Most of it is inaccessible because of the muck. We had a person become stuck in it having to be rescued by our fire department.”

Township Supervisor Wood continued, “I see the depression and desperation on peoples’ faces. Many of them are wondering if we will ever have a lake again. The older, retired folks living in their forever lake home. The younger people who worked hard



is contracted and it does not cover this kind trash. It costs extra to have this cleaned up. Our trash contractor gave us a price of \$11 dollars a cubic yard to remove it. My estimate to have it remove it was \$80,000 or more out of the township budget.

“Dealing with a flood and Covid-19 at the same time has many challenges. FEMA is doing claims virtually if you have a computer and a home with power. We have a computer café set up in our township hall to help our residents file FEMA claims. As a township we suspended all elect, plumbing/mechanical, and building permits fees for flood related repairs. We have community foundations for support and financial help, untold volunteers helping with clean up, and numerous businesses are supporting other devastated businesses. We are Sanford Strong.”

and spent every penny to get that lakefront home. At this time there is no promise that there will ever be a lake again. Home owners are mad, wanting their taxes reduced because they don't have a lakefront home anymore. Disaster recovery is massive for flooded homes, all of their contents destroyed and contaminated with water and muck. Drywall removed up to the water line in the homes and all wiring that was under water needed to be replaced. Most just carried it to the curb and left it for the township to clean up. Our normal household trash pickup

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Mike highlighted some positives: “Good news is there was no loss of life or serious injury during this event. Our Midland County Emergency Operation Center was instrumental in helping set up an evacuation plan in the event of a dam failure. We held a full day exercise with the two counties that have these four dams including the road commission, local police, fire, state police, National Guard, and every township or county official. We ran a scenario of one upstream dam failing and reviewed what we would need to evacuate, what roads to close, and where to send them. When our fire department received the notice of an eminent dam failure, they had maps of where to evacuate.”

But not everything could be planned for, Supervisor Wood noted, “One of the surprises we have encountered are lawsuits. We are a small township with no sewer systems. We have a city water system with individual septic systems at each home. We are named in over 20 lawsuits for sewer water discharge. This is the claim: ‘Brief Description of Claim: On or about May 19, 2020, Claimants suffered a Sewage Disposal System Event, as defined by MCL 691.1416(k), at the Claimants' property’. MCL 691.1416(k) gives them the right to sue a government and what they are trying to claim is all the rainwater runoff of any drain or road ditches is storm sewer runoff and they call it a storm sewer system. So rainwater ran into the lake, the lake flooded the homes, and it was the township’s fault. Our insurance will represent us in these lawsuits. I’m sure our future insurance premium will reflect these legal costs.”

Douglas Enos is the Water Commissioner in Midland County, Soil Erosion Enforcement Officer, Chairman of the Sanford Lake Improvement Board, and the Wixom Lake Improvement Board. Doug remarked: “If you live on a lake or water, every county has an emergency services coordinator. Here in Midland, one of the potential emergencies includes a potential release of toxic materials by Dow Chemical. Other communities have other scenarios but all have a plan that includes weather crises and natural disasters, such as tornadoes, blizzards, wildfires, and other dangers. Residents should go find out what the emergency action plans are for their area and what the assessed risks are for a flood and any other possible emergency. All of these plans should be available on the county website.”



“Right now, most lakes are suffering from high water levels issues, so residents need to know, does your lake have a legal lake level? What level is that? How is it controlled? And who makes the decision? The level is set to balance the various interests around the lake. Some people might have saturated septic fields during high water events, while others could suffer wave damage and shore erosion. Each person who buys property on the water needs to know what the legal lake level is, what is considered high or low level and what these conditions could do in their particular situation.”

Pay Attention warns Doug: “The dam failure here came as a huge shock to many residents. Residents had a debate about what to do when the emergency responders came to their door. Some left, others did not. Later we had stories like, ‘I evacuated but I really did not need to do so.’ The night before at about 12:30AM or 1AM there was an alert that came over cellphones telling us a dam failure was imminent and we needed to evacuate. I went out and checked the water level and it did not come up. I checked an hour later and it was still ok, so I said to myself, maybe there was not a dam failure. The next day at about 6PM we got another alert but this time it had failed. I got a call from a couple friends, consulting engineers, who were monitoring the dams and they told me of the failure and that in two hours we were going to get a lot of water. So, I started acting accordingly for several feet of water. My walls and drywall were damaged but I moved stuff and protected the area as best I could. Most people did not get a call and didn’t understand the details on the expected water level at their location. Some people suffered six to eight feet of water in the basement and others had that level on the first floor. Some other homes were pushed off their foundations by the force of water.

“I hope the dams get rebuilt, if they do not get rebuilt there will be a serious drop in property values in the area around the lake and all areas near it. Much of the Sanford Lake area is a bedroom community for the city of Midland and the surrounding area which has a lot of industry. If the lakes are not fixed, Gladwin County will lose a lot of summer cottages and smaller homes and the county will really take a financial hit without the lakes. I am not sure if the dams will continue to be used for electrical generation, but from a recreational standpoint, it is important that they are rebuilt. We were already in the process of buying the dams from the owner. We had developed a Special Assessment District and had a designated agent called the Four Lakes Task Force in operation in Gladwin and Midland counties to prepare for the transfer. They are still in place and committed to

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controlling erosion in the short term and working toward getting the dams rebuilt. The lawsuits will have to sort themselves out.”

We also spoke to Patricia Benner, a Sanford Lake homeowner, “It’s difficult to explain the level of devastation to homes and businesses caused by the Edenville dam breach on May 19. Pictures don’t do it justice. In my own neighborhood two homes have been demolished due to structural damage. Others sit vacant, with owners who don’t have the resources to rebuild. It’s nearly three months since the flood and many in the Sanford area are still homeless. We had about nine feet of water in our house; four in our crawl space and five on our main floor. We were completely unprepared for the level of damage, including inches of mud inside and outside our home. By the incredibly generous support of dozens and dozens of people, during what has been one of the most difficult times in our lives, we’re slowly rebuilding. We were displaced for 24 days. Once we had hot water and stable power, we were able to move home to live on our second floor. Not having a kitchen is challenging, but we’re making it work. Neighbors in one-story homes literally lost everything they owned. There was a thriving and vibrant ecosystem around Sanford Lake. What we have now is mud and quicksand, invasive species growing on the lake beds, and ongoing erosion of banks further threatening homes. There will be no long-term recovery for Sanford or Gladwin County without the lakes. We’re cautiously optimistic and stand behind The Four Lakes Task Force plan to rebuild the dams and restore our communities.

“My parents bought the property where our house is, and where my brother’s house next door is, before we were born. My dad built, with his own hands, a small, redwood cabin that was our summer place. Dad worked maintenance at a local dairy. Mom, when she did work, worked in a hospital kitchen. While other families bought new cars or took vacations, we had the lake. In 2006, my husband and I built a year-round home where the cabin was. We’re one of many multi-generation homeowners here. Lake life was the one constant throughout my life. The center of every summer memory, a player in every single relationship. The emotional devastation is hard to express. The fear and uncertainty

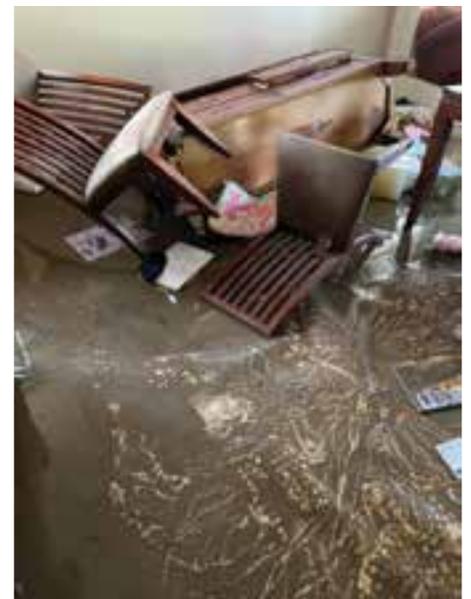
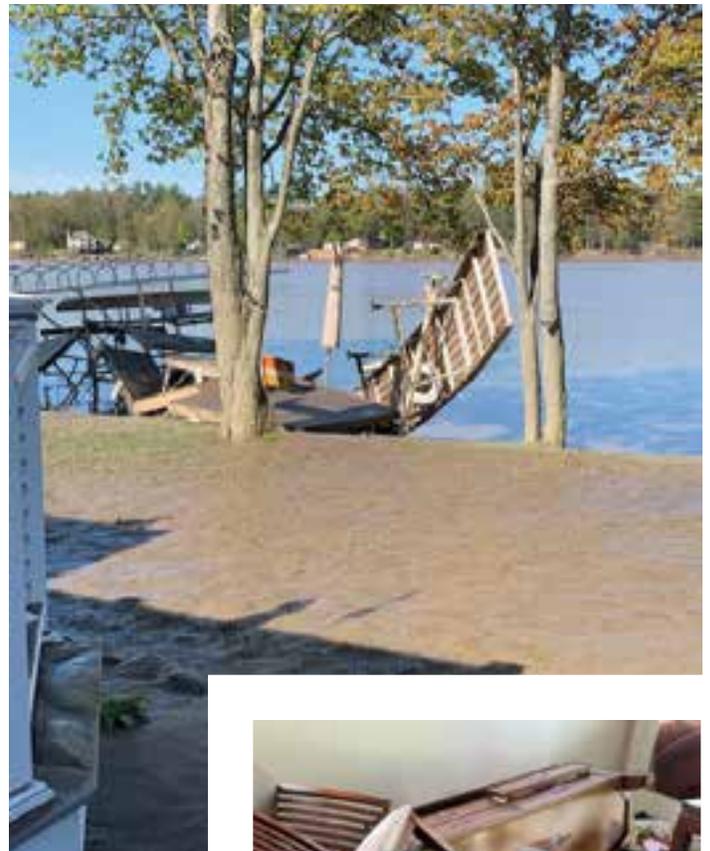
during the evacuation. The lost sense of security. A return to a place that no longer feels like home. We hope for an uncertain future.”

What can you do if you find yourself in a situation similar to the dam failures of mid-Michigan?

Your first avenue of recovery is your own insurance coverages; this may include homeowners, flood, business interruption, and auto policies. All of these coverages are very specific with lots of exceptions. Call your agent and get everything in writing.

There are at least 42 lawsuits relative to the dam failures. Possible liable defendants include the dam owners and others

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working with or for the dam owners but perhaps different legal entities, which means with their own insurance: the dam contractors, the dam maintenance company, and the dam engineers. Then there are the governmental entities: The state of Michigan through its regulators, the DNR, EGLE, your county and township officials, and the federal government. The owners of the dam filing bankruptcy does not necessarily get them off the hook; you can hire a bankruptcy attorney expert and file claims with the bankruptcy court. If your insurance coverage is insufficient, you may have a claim against your insurance sales agent and agency for failures to properly inform you of applicable coverages and amounts (insurance agent malpractice; they have insurance for this).

What can you do to prepare for this situation?

Get dam educated and informed. First, get a first-hand tour of your dam. Your local association can contact the owner/operator of your dam and receive a walk-through guided tour. It is eye-opening and immensely informative. Second, demand a copy of the most recent inspection report. Although it should be readily available, file a FOIA request if the owner/operator will not voluntarily supply the whole report—not just a summary, demand the complete report.

There are multiple sources of informational and educational materials on the web, some are listed below. Check out our next MLSA newsletter for live links to these materials and tips for using them. If you don't subscribe to our newsletter, visit [mymlsa.org](http://mymlsa.org).

**Association of State Dam Safety Officials: [damsafety.org](http://damsafety.org)**

**Michigan EGLE Dam Safety: [mi.gov/damsafety](http://mi.gov/damsafety)**

**Federal Dam Safety: [fema.gov/emergency-managers/risk-management/dam-safety](http://fema.gov/emergency-managers/risk-management/dam-safety)**

**Army Corps of Engineers: [usace.army.mil/Missions/Civil-Works/Dam-Safety-Program/](http://usace.army.mil/Missions/Civil-Works/Dam-Safety-Program/)**

**The U.S. Society On Dams: [ussdams.org](http://ussdams.org)**

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