

## October 27<sup>th</sup> Meeting with the City of Piqua, the Ohio Department of Natural Resources (ODNR) and State Representative Steve Huffman

### *Minutes*

Chris Schmiesing, Community and Economic Development Director, opened the meeting, attendees introduced themselves around the table. The following people were present:

- Dena Barnhouse, Chief of the Division of Water Resources
- Mia Kannik, ODNR Dam Safety Program Manager
- Katie Hegarty, ODNR Director of Legislative Affairs
- Nathan Moffitt, ODNR Deputy Director of Legislative Affairs ?
- Frank DeBrosse, City of Piqua CAC Member for Hydraulic Canal Project
- Tim Biggam, The Montrose Group
- Steve Huffman, State Senator
- Chris Grissom, City of Piqua Commissioner
- Cindy Pearson, City of Piqua Mayor
- Paul Oberdorfer, Piqua City Manager
- Kevin Krejny, City of Piqua Utilities Director
- Chris Schmiesing, City of Piqua Development Director
- Kyrsten French, Piqua City Planner

Kyrsten presented a high level overview of the system and the community's asks (slides attached). The hydraulic canal system was presented as a community asset that is enjoyed for its aesthetics and recreational purposes. A brief overview of how water flows through the system, and what ODNR's Probable Maximum Flood (PMP) meant for compliance. The challenges to Piqua's progress toward compliance were presented: Swift Run's potential hurdle of re-classification (currently a Class 1 Dam) may be challenged by its use as a backup water source (5% of source water comes from the system annually), and the possible effects of a flood to State Route 66. These standards for classification come from the Ohio Revised Code. Kyrsten expressed that the community is having a difficult time understanding or accepting the reason for the system to need to pass the 27" in 24-hour rainfall event as described by the area's PMP.

Chris Schmiesing asked Chris Grissom and Cindy Pearson to give some overview of the community's feelings on the problem and project. Cindy re-iterated that most people who have heard about the project for compliance have balked at the large rainfall event and think it's a crazy ask that's difficult to imagine needing to prepare for.

Steve Huffman asked some questions about the slides and how the water exited to the Great Miami River. Kyrsten responded by showing the existing spillway paths, and how those paths would need to be modified to accommodate the requirements.

Paul Oberdorfer expressed the difficulty of compliance given the extremely large price tag on the projects that would bring the City into compliance. Kevin mentioned that the ERU price for stormwater fees would be the main source of revenues for changes for compliance, and at some point the price will be high enough that industries will not be attracted to the city.

Dena asked about the system and its history, and whether the system was larger in the past. Chris Schmiesing responded that the south end of the dam was filled in at some point and turned into roadway. Kevin mentioned that a 54" stormwater main is underneath that roadway today.

Dena and Mia both expressed that ODNR's concern was for the safety of people living below the dam which includes downtown Piqua. Dena said that in their line of work, they are in constant communication with other parts of the country where flood events are happening, and it is not to them an unfathomable amount of rain. Look at recent large rain events and flooding that occurred in Tennessee and Kentucky. Designing high hazard dams to safely pass 100% of the probable maximum flood (PMF) is a national standard used by the Army Corps of Engineers, and other state dam safety programs. The PMF is based on the PMP which represents the greatest amount of precipitation that is physically possible in a particular geographic location. High hazard dams are held to a high standard since overtopping flows can cause failure of the dam and probable loss of life and structural collapse of property. Currently Piqua's dams can only pass a small fraction of the PMF. They spoke about the Applied Weather study and how it was based on methodology that is accepted throughout the country as being the most accurate modeling available. The State had contracted with Applied Weather to get better data, and this had resulted in the area's PMP actually being lowered to 27" from more than 30" previously.

Kyrsten asked about Swift Run Lake, and asked if Dena would think about the effect of a law that requires the City to meet a higher percent of the PMP for the lake that, if breached, would have no impact on any lives, simply because it is a current water source and there is a state route there. Dena responded that state requirements may allow Swift to go to a Class II, and that the law reflects the lesser risk by only requiring the dam owner to meet 50% of the PMP. Kevin said that the difference between Class II and Class III means many millions of dollars of upgrades to the spillway.

Kevin mentioned that the state law has language that allows the chief to consider unusual circumstances when classifying dams. Dena urged the City to finish the study that their consultant is currently working on because a decision on the final classification of Swift Run cannot be made until the analysis is complete.

Kyrsten said that it is usually considered a good thing to have multiple sources of water to build system resiliency in the event of a disaster, but the price tag for dam compliance

could have the effect that the City stops using the lake as a water source. Further, the state route is essentially just pavement, and is not as important as human life.

Dena countered that the pavement and bridge is owned and maintained by the State of Ohio, and the City has an obligation to protect it from its own dam overtopping. She expressed that it is a state route and bridge that if damaged would cost a significant amount of money to repair. Kyrsten said that it may be owned by the state but in terms of importance, it is not much different than any other country road, and there are multiple routes in and out of the city.

Frank DeBrosse asked why the State is so focused on what amount of water will flow into the system of the dam when in a large rain event, water would flow everywhere and all parts of the city would be inundated at once.

Dena responded that the requirement comes from the need to preserve life with respect to the dam itself.

Chris Schmiesing restated Frank's question and asked for clarification, since rain would fall everywhere in the city, and the whole city would be flooded in such a large rain event, would the failure of the dam be the worst part of such a flood? Dena responded that a rain event could also just fall west of the canal and the dam could break on its own without the rest of the city being flooded. In any case, a breaching of the dam would add a significant risk to people downstream.

Frank said that another CAC member had spoken with Applied Weather about the PMP and the chance of a flood like that ever happening, and that the head of Applied Weather said it was a 1 in ten million chance or less of having such a flood. Dena responded that the PMP should be thought of as the maximum rainfall that could happen given patterns of weather. She reiterated that the reason for these requirements is to keep people safe.

Chris emphasized that safety was important to everyone, though there's some disagreement on how much risk to be preparing for.

Senator Huffman asked what the timeline for compliance looks like for the City. Dena responded that the City has been out of compliance for decades and they want to see real strides forward toward compliance. She said, however, that progress must be made but a deadline for full compliance has not been set yet.

Senator Huffman asked about grants that might be available. Mia responded that they do not have in-house money to distribute within their division, but that funding was available, possibly through FEMA's BRIC grant program.

After some further discussion on grant availability, Chris Schmiesing asked that everyone break out into vehicles to travel to Swift Run Lake.



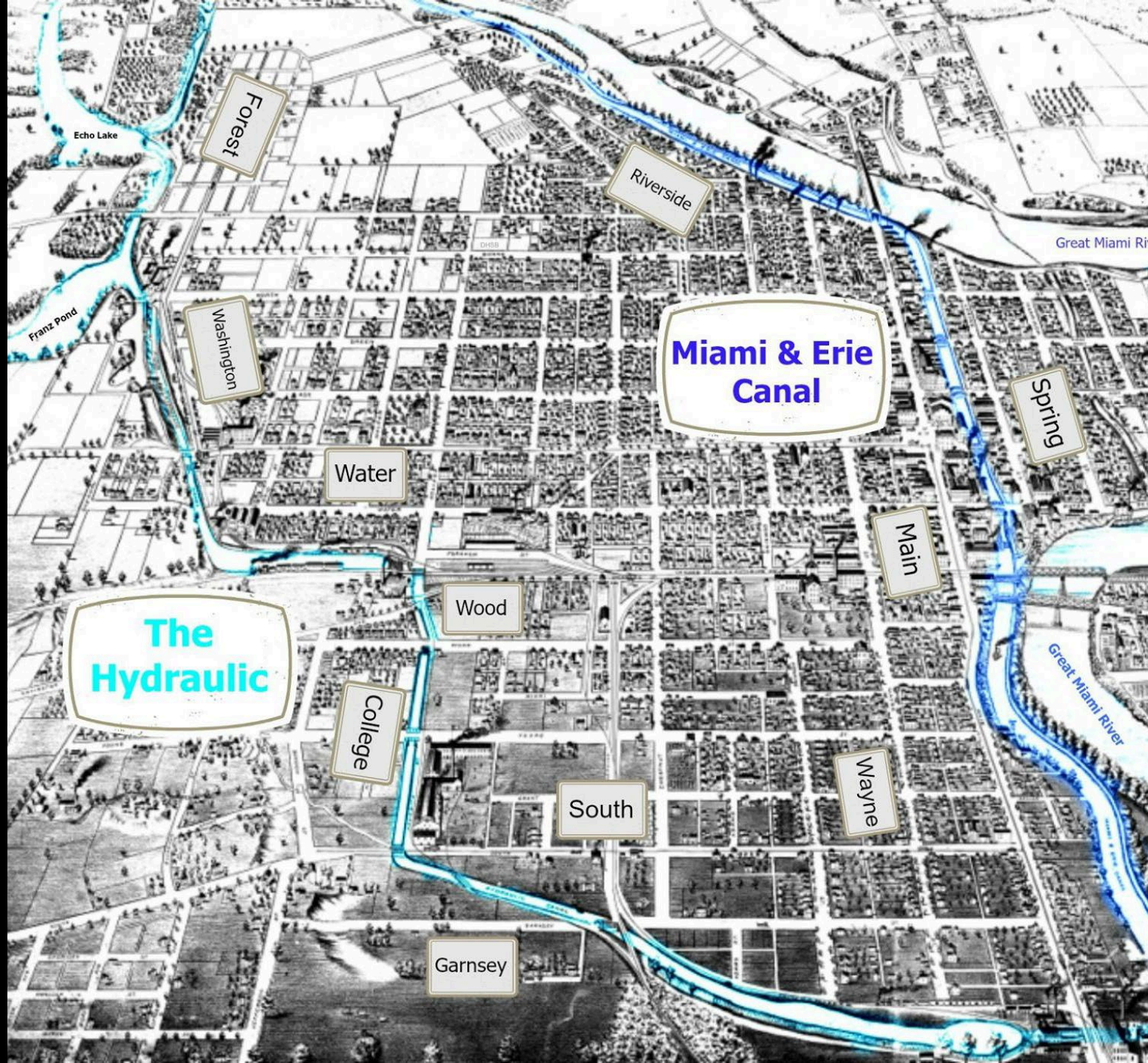
A scenic view of the Piqua Hydraulic Canal. The water is calm, reflecting the vibrant autumn foliage of the surrounding forest. The trees display a mix of green, yellow, orange, and red. A large, layered rock formation is visible on the right side of the canal, with some sparse vegetation growing on it. The sky is a clear, light blue.

# Piqua Hydraulic Canal



# Piqua Hydraulic Canal

- Constructed by the Piqua Hydraulic Company in the 1860s to power downtown manufacturing
- Purchased by the City of Piqua in the 1870s to provide a municipal drinking water supply





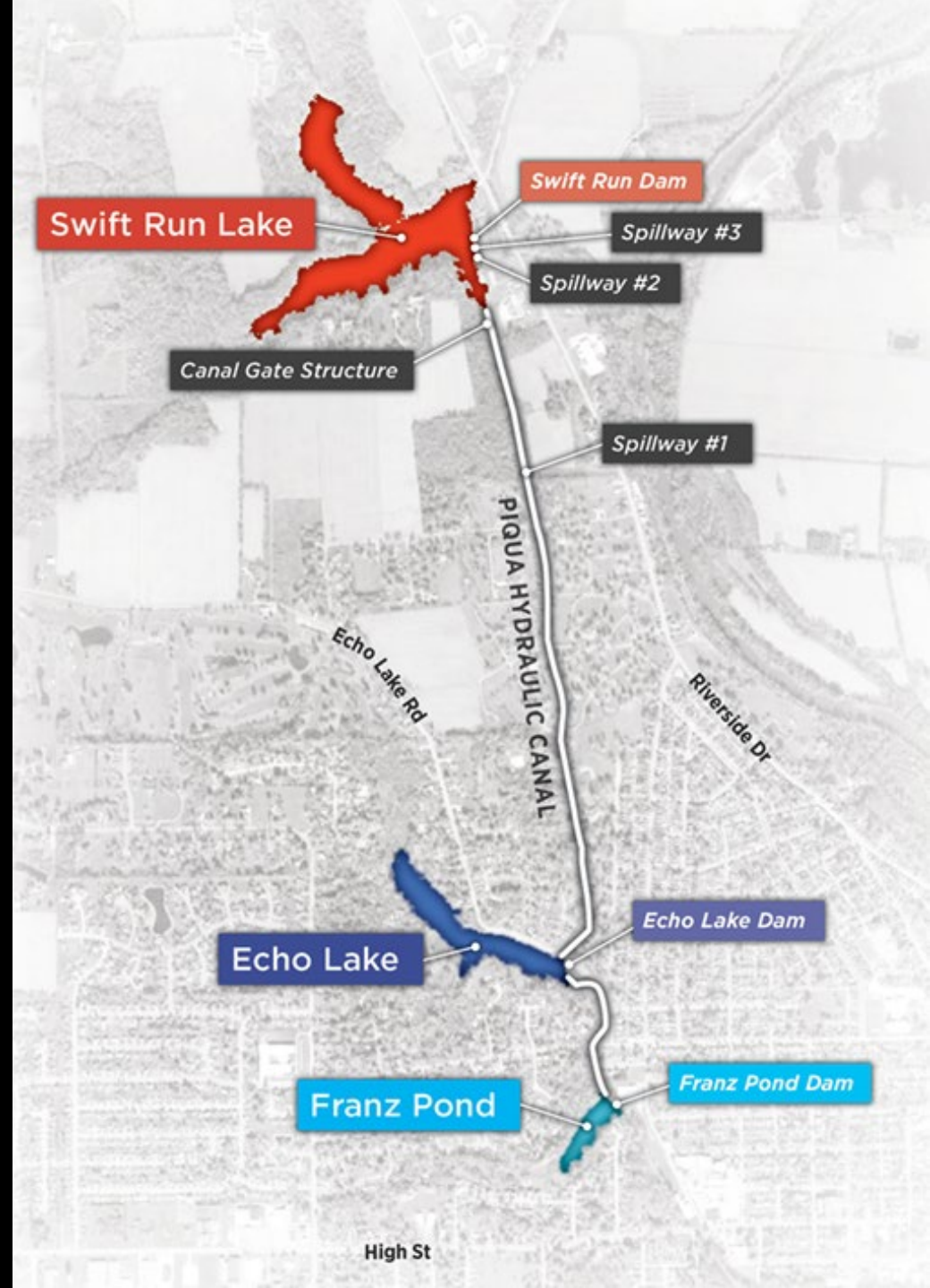
# Piqua Hydraulic Canal

- The canal system is a community amenity for kayakers, cyclists, runners and fisherman and a focal point of the community
- The system is unique in the region and forms a long segment of the popular Loop bike route
- Neighborhoods have been built around the lake amenities

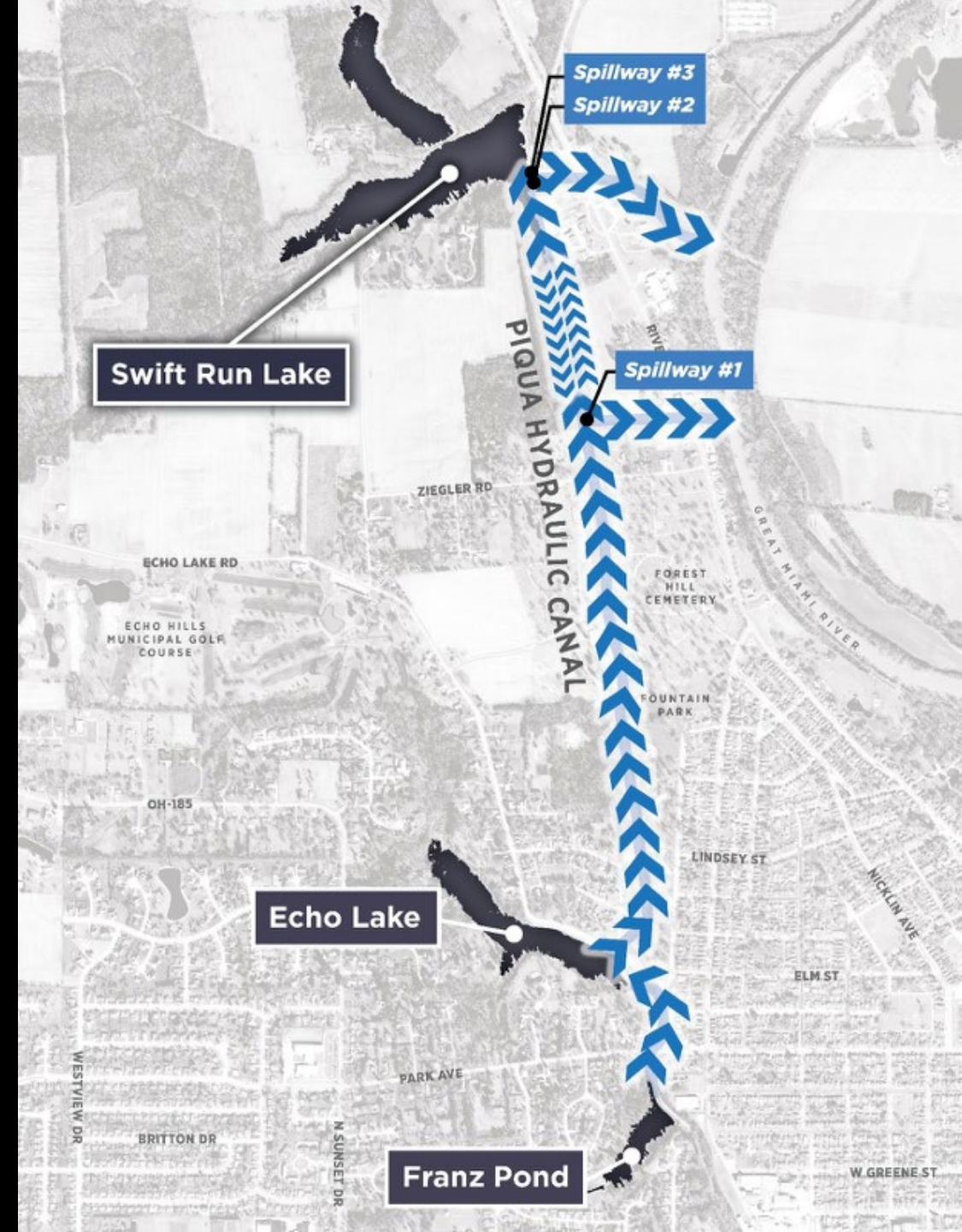




The system consists of Franz Pond, Echo Lake, and Swift Run Lake, connected by the hydraulic canal



Water flows from south to north, and overflows exit from spillways into the Great Miami River





The system does not meet State requirements for dam safety.

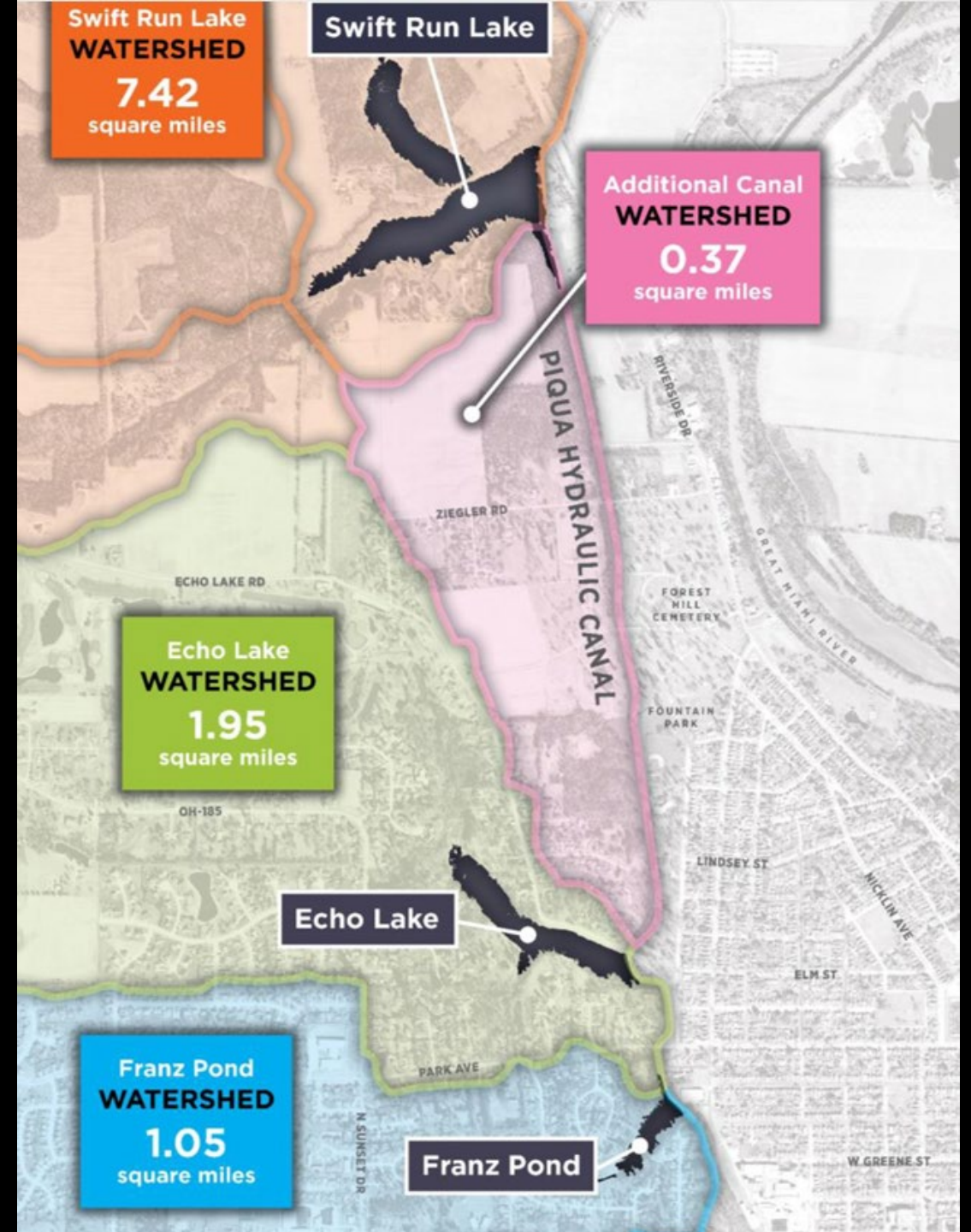
As a Class I dam, the system needs to pass a Probable Maximum Flood of 27" of rainfall in 24 hours.

The system can currently accommodate 6" of rainfall in 24 hours.





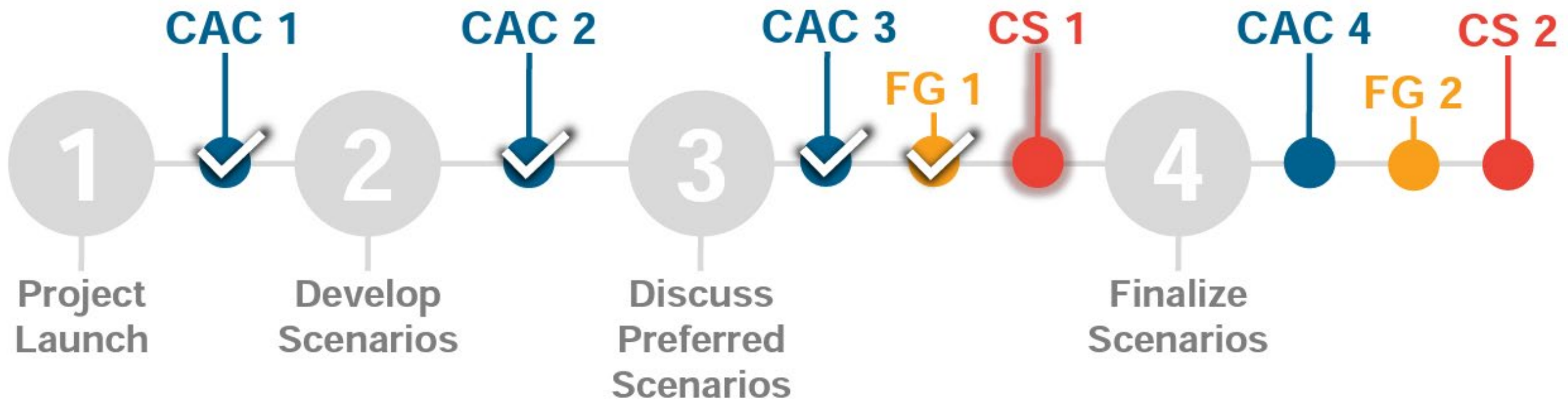
The City is committed to increasing safety, and plans to break the problem down into smaller pieces based on watershed areas.







The City is performing extensive community engagement to educate on the topic and collect feedback on preferred design solutions





## Challenges to full compliance include:

- Swift Run Lake's inability to be reclassified to a Class III dam under State law, despite no downstream residents in harm's way
- High 27" oversizing requirement involves extensive work that is cost prohibitive to a relatively under-resourced jurisdiction



Thank you!

