



MEDIA KIT

**REMOVAL OR RESTORATION OF THE
HYDROELECTRIC DAM
ON THE KALAMAZOO RIVER**

City Of Marshall To Explore Removal Or Restoration Of 124-Year-Old Hydroelectric Dam On the Kalamazoo River

City officials are seeking an engineering partner through RFP Process

(Marshall, Michigan) – City of Marshall officials are debating making changes to its historic hydroelectric dam and surrounding earthen embankments, and have sought professional engineering services to help the Marshall City Council decide the dam's future. The City of Marshall owns and operates the dam and associated facilities under a permit issued by the Federal Energy Regulatory Commission (FERC), and has used the facility to generate electricity for many years. The dam is in need of significant construction upgrades which were determined as a result of FERC required dam structure studies performed in 2012.

Marshall city officials have already released a request for proposal to select engineering firms across the region for recommendations and work plans addressing the future design options of the 124-year-old dam which generates less than 1% of the total energy requirements for the city.

"The City Council has not made any decisions regarding the future of the hydro dam and will thoroughly evaluate each proposal," said Tom Tarkiewicz, Marshall City Manager. "We are taking a proactive approach to this project to learn what needs to be done to maintain the high quality of life we now enjoy in Marshall. We are keeping an open mind and exploring all of our options."

According to city estimates, rehabilitation of the hydroelectric dam could require lowering the water elevation of the city's millpond – created by the dam's initial construction – by more than six to eight feet, exposing the river bottom to air. Due to the anticipated work, The City of Marshall enlisted the Calhoun Conservation District to obtain sediment data taken upstream of the dam - standard practice for work of this magnitude.

The preliminary results show the sediment to contain higher than normal levels of heavy metals and other chemicals, which are believed by city officials to have been deposited in the river over the course of many decades. As the Kalamazoo River runs its course upstream of the City of Marshall it collects a considerable amount of material. The siltation contamination has no connection to the July 2010 Enbridge oil spill in the Kalamazoo River, but rather, is believed to come from legacy sources of pollution upstream from Marshall.

City officials have consulted with members of the Calhoun County Health Department and state environmental regulatory agencies, including the Michigan Department of Environmental Quality, the Michigan Department of Natural Resources, and the Michigan Department of Health and Human Services, for their guidance as the city takes its first steps toward mitigating the potential for environmental hazard in this project.

The river is not a source of drinking water for citizens in or around the area. A complete copy of the city's sediment sampling can be obtained free of charge at the City of Marshall's website, along with other project related information at: cityofmarshall.com/departments/141

City officials will keep the people of Marshall updated and informed about any and all dam related information. Questions are always welcomed. Please contact Ed Rice at 269-558-0329 or at erice@cityofmarshall.com.

About: The City of Marshall recognizes that our community enjoys a special quality of life. Their mission as a City government is to continually enhance this uniqueness by providing quality municipal services to the citizens. This mission will be accomplished through efficient use of resources.



FAQ

The Marshall Hydro Facility is the 3rd oldest municipally owned plant in the US.

The dam is operated, per Federal Energy Regulatory Commission (FERC) requirement, as "Run of River".

The hydros generate less than 1% of the total energy requirements for the city.

The value of the electricity generated is \$35,000.00 per year.

The embankment project would require a pond (130 acres) drawdown for the duration of the project (approx. six months).

Marshall Electric provides service to 24 residents in view of the pond.

A second evaluation has been requested by another independent dam consultant which produced the same conclusions as the first consultant.



HISTORY

1892 Dam constructed with a timber crib and stone/earth backfill

1896-1930 Railroad grade along the north side of the dam

1919 Two additional generators were installed

1920-1930 Perrin 1 & 2 were capped with concrete

1945 Unit 2 out of service

1986-1990 Perrin 1 & 2 recapped

2005 FERC license renewed. 30-year life. \$250,000.00 cost



ABBREVIATED RFP ISSUED

The City owns and operates the dam and associated facilities under a permit issued by FERC license. The FERC requires that the earthen embankment be remediated as a result of a 2012 Part 12D Safety Inspection Report. In June, 2015 FERC requested a plan for remediation of the earthen embankment.

The City of Marshall's City Council is contemplating decommission of the hydroelectric project and ceasing to operate the facility, as a result, the City has prepared a request for proposal for selected engineering firms in order to estimate cost and timeline for the three ways to meet FERC requirements to repair the 2012 Part 12D Safety Inspection Report in order to terminate the relationship with FERC:

- 1) Evaluate the alternative of lowering of water elevation by six to eight feet to repair the embankment and concrete structure to meet the requirements. Drawdown would be achieved through a slow and controlled process that is approved by the MDEQ to mitigate sediment migration.
- 2) Evaluate the alternative of lowering water elevation in order to repair the earthen embankment. The drawdown will be accomplished through a slow and controlled process that is approved by the MDEQ by the installation of a coffer dam around the earthen embankment. The coffer dam is to be removed at the conclusion of the repair work.
- 3) Evaluate and determine a method for a permanent breach of the dam thereby returning the river to a natural flow including a stable river channel that would form after the breach. This would include the determination of riparian rights of property owners contiguous to the river and the remediation of uncovered sediment. The estimated dimension of the final channel shall be determined by the MDEQ as shown in Appendix C.

In determining dam removal or restoration, the City of Marshall requested a sediment analysis. Sediment samples from the Kalamazoo River near the dam were collected and analyzed as outlined in the MDEQ Operating Procedure for Dredge Sediment Review.

According to city preliminary estimates, rehabilitation of the hydroelectric dam would require lowering the water elevation of the city's millpond – created by the dam's initial construction – by more than six to eight feet, exposing the river bottom to air. Due to this anticipated work, The City of Marshall enlisted the Calhoun Conservation District to obtain sediment data taken upstream of the dam - standard practice for work of this magnitude.

The preliminary results show the sediment to contain higher than normal levels of heavy metals and other chemicals, which are believed to have been deposited in the river over the course of many decades. As the Kalamazoo River passes through several communities upstream of the City of Marshall it collects a considerable amount of material through its course. The siltation contamination is not as a result of the July 2010 Enbridge oil spill in the Kalamazoo River, but rather, is believed to come from legacy sources of pollution upstream from Marshall.

"The City Council has not made any decisions regarding the future of the hydro dam and will thoroughly evaluate each proposal," said Tom Tarkiewicz, Marshall City Manager. "At the moment, we are taking a proactive approach to this project, learning what needs to be done to maintain the high quality of life we now enjoy in Marshall. We are keeping an open mind and exploring our options."

City officials have consulted with members of the Calhoun County Health Department and state environmental regulatory agencies, including the Michigan Department of Environmental Quality, the Michigan Department of Natural Resources, and the Michigan Department of Health and Human Services, for their guidance as the city takes its first steps toward mitigating the potential for environmental hazard in this project.



BIOS

Jack Reed is the Mayor for the City of Marshall, Michigan. He has held this position since January 2015. Prior to becoming Mayor, Jack was a City Council Member for Ward 4 in Marshall for 3 ½ years. As well as Jack's service to the City of Marshall, Jack is Senior Vice President of Lending at Chemical Bank. Jack has been in banking for 18 years, serving at Chemical Bank for the last 2 years.

Jack serves on many boards both City wide, County wide and for the State of Michigan. Jack serves on; Community in Schools State Board, 2016 Chairman Firekeeper's Local Revenue Sharing Board, Marshall Community Foundation Grant Review Committee, Cronin Foundation Grant Review Committee, Chairman of the Small Business/Chamber Advisory Board for MAEDA, member of Mayors of Michigan, member of Michigan Municipal League, member of Southwest Michigan Municipal Leaders, involved in the State of Michigan Sister-City program with Koka, Japan, member of the Walk for Alzheimers and many other fine organizations.



Tom Tarkiewicz is the City Manager for the City of Marshall, Michigan. He has held this position since 2009. Prior to being appointed City Manager, he was the Director of Utilities and Infrastructure for the City of Marshall for 16 years. Prior to his employment with the City of Marshall, Tom was the City of Three Rivers, Michigan Director of Public Services for 14 years and Senior Engineer for the City of Adrian, Michigan for six years. Tom is a licensed Professional engineer with the State of Michigan. He is a graduate of the University of Michigan with a Civil Engineering degree.

He is Vice Chair of the Michigan South Central Power Agency and serves on boards for the Marshall Community Foundation, Downtown Development Authority, Local Development Financing Authority, Marshall Area Economic Development Alliance, Michigan Municipal Electric Association, and the Michigan Municipal League Transportation Infrastructure Committee.



Ed Rice is a graduate electrical and registered professional engineer. He has over 40 years of electric utility experience in both the private and public electric utility sectors. His experience includes electric utility transmission, distribution, substations, hydroelectric and fossil fuel generation. Mr. Rice is also very experienced in electric power resource planning in fossil fuel and renewable energy. His mission is to provide safe, reliable and low cost electric service in a customer sensitive manner. Ed is an alternate member of the Michigan Municipal Electric Association and the Michigan South Central Power Agency where he strives to influence electric service policies for the benefit of rate payers.

He has previously been active in the United Way, Rotary Club, Junior Achievement, junior league soccer and football and high school mathematics tutoring. In his leisure time he enjoys out-of-doors activities, sports, reading, astronomy and performing mechanical type work. He and his wife, Kathy, reside in Marshall where they enjoy participating in community activities. They have two grown sons and five grandchildren.

