

Painesville Raw Water Intake Project Fact Sheet

The City of Painesville appreciates your review of the following project fact sheet and is interested in hearing from you. If you have any questions, concerns, or comments on the information presented in this fact sheet, please attend the Raw Water Intake Public Meeting at 6:00pm Monday, March 23, 2015. Mr. George P. Ginnis, Superintendent/Executive Public Service Director, will respond to your questions/concerns. If you have additional questions please contact Mr. Ginnis at 440-392-9565 between the hours of 8:00am to 4:00pm. You may also send email to Mr. Ginnis at gginnis@painesville.com.

Upon completion of the Raw Water Intake Public Meeting, the minutes will be submitted to the Ohio EPA's Division of Environmental and Financial Assistance, and the City of Painesville will have met its responsibilities for notifying the public about the proposed project and the expected funding through the Ohio EPA's Water Supply Revolving Loan Account (WSRLA) program, as well as involving the public in its decision making process.

Introduction- The Painesville Water Division is proposing to make improvements to its raw water intake with financial assistance from the Ohio EPA. The objective is to replace the 24-inch raw water intake that was built in 1913. This intake extends 1,200 feet into Lake Erie and has been out of service due to sand and zebra mussel infestation. The top of the crib structure is at a water depth of approximately 6 feet while the top of intake pipe is at a water depth of 8 feet. The 24-inch riveted steel intake pipe has a maximum capacity of 4 million gallons per day (MGD) and was abandoned in 2010.

The Painesville Water Division currently draws water from Lake Erie from a 36-inch raw water intake pipe that was built in 1951. The original 36-inch intake project design had piping extended 4,000 feet and a crib structure located at the end of the piping. After construction of the original 36-inch intake and piping, the Painesville Water Plant began having problems attempting to draw water into the plant in the late 1950's and early 1960's. Therefore in 1965-1968 divers were hired and began performing inspections to locate possible issues with the 36-inch raw water intake piping. In 1968, divers located multiple problems with the raw water intake piping. The problems detected were at distant locations (2000-4000 feet from shore) and were documented as pipe joints with 10-12 inches of separation, missing lengths of pipe, and scattered sections of pipe lying across the lake floor.

At this point it was determined to test the intake pipe to establish a usable section of the intake pipe. Testing was performed and the final conclusion resulted in an inspection port being utilized as the current Painesville raw water intake. The inspection port is located approximately 1200 feet from the shore.

Project Description- The proposed project will provide a 36-inch diameter intake pipe and crib to be constructed adjacent to the existing 36-inch intake. The addition of the new 36-inch diameter intake pipe will be extended from the shoreline to approximately 4000 ft into Lake Erie. The proposed raw waterline will be constructed 100 ft from the existing intake waterline and the crib structure will be constructed at the termination of the raw waterline. The crib structure will be in water depth of roughly 27-28 ft.

Coordination and obtaining permits from review agencies such as the Army Corp of Engineers, Ohio Department of Natural Resources, the Ohio Historic Preservation office and the U.S. Fish & Wildlife Services has been initiated. The future water demand and population projections have also been calculated and factored into the project.

Additionally, potential potable and non-potable connections with surrounding water system have been evaluated but deemed too costly. The proposed project will enable the Painesville Water Division to safely draw water from one of two intakes when toxins levels exceed Ohio EPA standards.

Project Cost (Estimated) – \$10,000,000.00 - \$12,000,000.00

Advantages - Less susceptibility to Harmful Algae Blooms
Redundancy - two viable sources of Raw Water
Less susceptibility to Frazil Ice
Improved raw water quality
Reduced amount of chemicals required to treat raw water
Reduced amount of sludge produced

Implementation Schedule- Upon completion of the detailed design review and project bidding process, this project will take 12-18 months to complete. Currently, the construction of these improvements should begin in the spring of 2016 and may be completed by 2017 or 2018.

Funding- Ohio EPA's Water Supply Revolving Loan Account (WSRLA) program that will provide a 0% interest loan for 20 years. The entire amount of the project will be funded by the WSRLA loan. The WSRLA loan will be paid by a combination of the Water Infrastructure Fee funds and the City of Painesville's Capital Improvement allocation from the water revenue funds.

Conclusion - The proposed project will provide an alternate 36-inch diameter intake pipe that will permit the consumers of the Painesville Water system to have uninterrupted raw water. The increasing probability of Harmful Algae Blooms developing in the shallow waters near Headlands beach is a mounting concern. The Algae Blooms are located predominately in the western basin but have been positioned over the last few summers in the Headlands Beach area. In the summer of 2012, the Lake County General Health District performed testing at Headlands Beach and posted warning signs about ingesting Lake Erie Water. Microcystin (toxin) testing near Painesville's current raw water intake piping and potable water ensured no plant shutdown was necessary at that time.