**JOINT EAST RANGE WATER PROJECT – PHASE 1 STATUS UPDATE**

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**THE NEED**

For over a decade, your local public officials have been planning a new East Range water supply system. The East Range Water Board most recently is overseeing this effort. Plans for the new supply system are progressing rapidly thanks to recent funding commitments. The Board wants to ensure that you are informed about the replacement supply system plans. This is the first installment of a 3-part series to explain The Need, The Plan, and The Cost of this new system. The City of Aurora’s water intake pumps on the St. James Pit and the nearby water treatment facility were constructed in 1950. This Supply System furnishes water to users in the City of Aurora and in portions of White Township. The Supply System produces approximately 220,000 gallons of treated water in an average day. There are approximately 947 residences and businesses serviced by the current system.

The Supply System has four basic components. Water is pumped from the St. James Pit intake facility by two 600 gallons-per-minute pumps. The raw water is pumped to the nearby water treatment plant where it is treated. The treated water from the treatment facility’s storage tank is then pumped to the City’s 500,000-gallon elevated water tower from which it is distributed to the Water System customers.

Since 2004 the City has commissioned a number of water treatment plant evaluations and been advised of a number of rehabilitation improvements. Due to budgetary challenges and other concerns, none of the major commissioned recommendations ever took place. City staff have continued to operate and maintain the facilities in the best ways they could.

A lot has changed since 2004 in the condition of the Supply System facilities and regulated water quality standards. The Supply System facilities are rapidly reaching the end of their useful life – the antiquated System components need to be replaced, rising water levels at the Pit Lake are threatening the functioning of the pumping station, and new water quality treatment and discharge standards are posing very real challenges. Specifically, most recent studies have determined that three of the system’s four components have substantial or critical issues that require attention as soon as feasible. The newest challenge to the System is the inability to acquire permits from the DNR to allow for warm weather dewatering of the rising Pit waters because of zebra mussel “villagers” that have been discovered in the Pit waters. The city urgently needs to relocate its current water supply source and construct new Supply System facilities. The current System is on life support – the facilities need to be modernized in a way that will serve our communities throughout the 21st Century.

**THE PLAN**

This message is the second in a 3-part series of updates that are intended to inform the citizens of the East Range of the status of the planned new drinking water system.

The Plan for Phase One of the new drinking water system is intended to service Aurora and Town of White customers which comprise about 990 users (ERUs) and includes:

* Construction of a new water intake facility on the north shore of the Embarrass Mine Lake (Mine Lake – the lake located immediately east of the Mine Lake public access site). A 12-foot diameter concrete caisson will be installed to a depth of approximately 65 feet, with an 18” diameter horizontal intake pipe extending from the bottom of that caisson into the Mine Lake waters at a depth of approximately 60 feet (the Lake is over 300 feet deep). At the base of the caisson, pumps will be installed to pump the raw water to the surface raw water transmission line piping system. The intake facility is designed to facilitate the installation in Phase Two of additional pumps to handle any expanded water needs for Biwabik, Hoyt Lakes and/or Giants Ridge;
* The raw water from those pumps will be pumped through underground piping along Lake Mine Road and Highway 135 for about 1½ miles to the new water treatment plant site. The transmission line piping is sized to handle volumes of raw water that are sufficient to service the foreseeable needs of the water system users in both Phase 1 and Phase 2;
* A new state-of-the-art water treatment plant will be constructed next to the existing Aurora water tower. The WTP capacity initially will be 1 million gallons a day and be modularly expandable in Phase 2 to provide up to 2 million gallons a day to service the foreseeable needs of Hoyt Lakes (990 ERUs) and Biwabik (632 ERUs). Water treated at the plant will be piped to the nearby Aurora water tower.
* The treated water from the water tower will flow through the existing Aurora and TOW distribution systems and also provide public water system services, for the first time, to a new distribution system to service the Scenic Acres communities on Embarrass Lake.

It has been determined that the water available in the Mine Lake has 81% less sulfates and a water hardness that is 63% lower than the existing St. James Pit water source. Additional studies have indicated that the water level of the Mine Lake will not be drastically reduced under any foreseeable water usage circumstances and thus provide a reliably abundant supply of raw water for both Phase 1 and Phase 2 of the Project. If the last commitments of anticipated State grant funds are made available through the Public Facilities Authority’s Water Infrastructure Fund program during this Legislative session, plans for the new system could be sent out for bids in the near future. Construction of Phase 1 of the new system will take approximately two years. Upon commencement of operations of the new water system, the existing St. James Pit intake and water treatment facilities will be decommissioned.

**THE COST**

As indicated in a previous installment of this series, the current estimated construction cost of the planned new drinking water system (pre-bid) is $ 24.8 million. A table detailing how those costs were calculated is viewable on the websites noted below. Over the course of the past five years, commitments of financial support to pay portions of those costs have been secured from the following sources in the following amounts:

* **$ 7.5 million** will be paid from State grants authorized in the 2018 and 2020 State of Minnesota bonding bills;
* **$ 6.5 million** will be paid from federal appropriations (so called “Congressionally Designated Spending”), $ 2.5 million of which was granted in the 2022 Bipartisan Infrastructure Law and the remaining $ 4 million of which was granted in December in the Omnibus Consolidated Appropriations Act, 2023;
* **$ 1.0 million** will be paid from a grant authorized by the State’s Department of Iron Range Resources and Rehabilitation at the Board’s meeting in December;
* **$ 150,000** County Community Development Block Grant funds.

Additional sources from which funding is being sought include the following:

* Grant funding of between $ 5 million - $ 8 million from the **State’s Water Infrastructure Fund (“WIF”**) which is administered by the State’s Public Facility Authority (“PFA”);
* Grant funding from the **Army Corps of Engineers** in the amount of $ 1 million;
* Municipal borrowing by the Phase 1 participants, the City of Aurora and Town of White, from the **PFA’s Drinking Water Revolving Fund**. Such funding would consist of a below-market rate loan, with a 30-year repayment term, to provide between $3 -$5 million of Project funding. Water system facility and operational costs are handled as “enterprise” funds. Such enterprise funds are not funded by real property tax revenues. Instead, they are funded through the monthly utility service charge revenues. Monthly water utility service rates would need to increase to generate the money needed to repay any such loan obligations.

As generous as the commitments of State and Federal funds for the Project are, all of the potential outside funding entities will require the Phase 1 water system users to pay at least their “**affordable share”** of the projected enterprise fund loan repayment costs.

How much will that “affordable share” be? The City of Aurora’s and the Town of White’s monthly water utility services rates in effect as of January 1, 2023, are **$ 30.25 per month**. The “affordability” threshold used by the PFA to determine the monthly amount that our water system users should pay in order to be eligible for WIF funds last year was determined by the Water Board’s financial advisory firm, David Drown and Associates, to be at least **$ 37.16 per month** for our system users. Because the City has been determined by governmental agencies to be a low-moderate income (“LMI”) community, the City’s monthly “affordability rate” is actually lower than would be the case for richer cities.

In summary, through the dedicated efforts of our area’s federal, State and regional public officials, it appears that approximately **80% of the estimated Project costs will be paid by sources other than the local utility customers.** That bears repeating – **THAT’S 80% OF THE COSTS PAID BY OUTSIDE FUNDING SOURCES.** Nevertheless, monthly water utility service rates **will have to be increased to at least the monthly “affordability rate”** to pay for our approximately 20% share of the total Project costs. That is an incredibly great position to be in – a bargain in anyone’s book for an improvement that should serve the area for decades to come.