



Monday, September 25, 2023
5:30 PM
South Water Treatment Plant, 1155 South
Martin Luther King Junior Drive

CITY COUNCIL STUDY SESSION AGENDA

- I.** Call to Order
 - 1. Roll Call
 - 2. Pledge of Allegiance
- II.** Study Session: Study Sessions are less formal meetings of the City Council called to discuss broad policy themes and obtain input from the governing body about proposals and initiatives that are still being developed. No formal votes are taken at Study Sessions, and no informal directions expressed at Study Sessions bind the City Council, or its individual members, to vote in a certain manner at a future City Council meeting. Members of the public should limit their remarks to three (3) minutes after Council discussion.

Water & Utility Capacity, Distribution, Inspection & Planning

- III.** Appearance of Citizens

Policy relative to Appearance of Citizens:

A 30-minute time period is provided for citizens to appear and express their views before the City Council. Each citizen speaking will be limited to one appearance of up to 3 minutes. No immediate response will be given by City Council or City staff members. Citizens are to give their documents (if any) to the Police Officer for distribution to the Council. When the Mayor determines that all persons wishing to speak in accordance with this policy have done so, members of the City Council and key staff may make comments.

- IV.** Adjournment
- V.** Safety Note: The agenda includes a tour of select water treatment facilities. Participants must wear closed-toed shoes and should refrain from wearing neckties and loose hanging jewelry. The city will provide eye protection.

City Clerk

DATE: 9/20/2023

MEMO:

TO: Mayor Julie Moore Wolfe
City Council Members

FROM: Scot Wrighton, City Manager

SUBJECT: Water & Utility Capacity, Distribution, Inspection & Planning

SUMMARY RECOMMENDATION: See attached memo.

ATTACHMENTS:

Description	Type
Study Session Memo	Cover Memo
Overview-Study Session	Backup Material

DATE: September 21, 2023

TO: Mayor Julie Moore Wolfe & Members of the Decatur City Council

FROM: Scot Wrighton, City Manager
Matt Newell, Director of Public Works
Paul Caswell, City Engineer
Robert Weil, Assistant City Engineer

RE: September 25 Study Session on Utility Planning & SWTP Improvements

Water and sewer infrastructures have consistently been a large part of the city's budget because without these investments it is not possible to support the activities of a city of 71,000 people, plus the community's industrial and commercial activity. This will be even more true in the future as cities in other parts of the country suffer economically from a lack of sufficient infrastructure, and as Decatur will tend to attract new entities with large water demands.

Since 2019, the City Council has chosen to invest more than 85% of its ARP funds in two major areas: 1) water and sewer infrastructure, and 2) neighborhood revitalization. Although the city has many priorities, these two priorities have some of the greatest capital needs; they both bear directly on the future of Decatur; and both are critical to securing Decatur's economic success and long-term sustainability. Providing sufficient water, sewer, broadband and transportation access (particularly in the Northeast Quadrant where many industries are clustering) can be expected to bring more investment to Decatur, add to the population over time, and thereby improve city revenues.

The last time the City Council held a study session on its water system, the council authorized staff to proceed with engineering and investigation of three projects (DeWitt Fields pumping, Old Vulcan Pit, and Lake Toko) that are intended to expand the city's water supply and improve its drought resilience. The council has not yet given final approvals to incur capital costs and move these 3 projects forward to the next step. Prior to the previous water study session, the council approved the Claricones project at the South Water Treatment Plant (SWTP). Since the previous study session, the council also authorized an engineering analysis to determine how the city can overcome piping limitations that currently cap the quantity of water the city can deliver to the Northeast Quadrant of the city. For its part, since the previous study session, staff has nearly completed its engineering analysis and investigation of the three water supply projects listed above; performed preliminary engineering to support the next group of SWTP capital projects; and the city has agreed to host additional employers in the Northeast Quadrant that will require utility service.

The goals of this study session are to: 1) update the City Council on the status of projects listed above; 2) update the City Council on the status of the watershed management program; and 3) discuss planning options for increasing supplies of potable and non-potable water (for industrial process uses) to the Northeast Quadrant. The foundational assumption of goal #3 is that the

city should seek to provide water that not only gives Decatur better drought resilience—but *also* provides even more water to attract economic development, local investment and new job creation. If this foundational assumption is not valid in the opinion of the City Council, then several of the capital projects to be discussed on September 25 may not be necessary.

An agenda outline for the study session is attached. We will start with a brief description of key SWTP process steps; then we will take a short tour of portions of the SWTP (highlighting those components that are new and that still need upgrades). Then we will provide a status report on the watershed management program; and then we will discuss ways to get more water volume delivered to the Northeast Quadrant. Staff will make a detailed presentation after the plant tour, but it is largely summarized by the diagrams included in this packet.

There are four (4) general strategies for increasing water supply and achieving better delivery of existing water supplies in ways that will take total water volumes beyond drought resilience targets and provide more water to the Northeast Quadrant:

1. Increase pipe diameters and pumping capacity sufficiently to move greater quantities of water from existing storage facilities to the Northeast Quadrant (such an improvement will also improve overall flows in the city's distribution system);
2. Identify new water supply sources that can be used to meet future potable and non-potable water demands in the Northeast Quadrant;
3. Reclaim storm water and other wastewater flows to augment non-potable water supplies required for industrial processing; and
4. Work with ADM to divert a portion of the water they treat and pump from the North Water Treatment Plant (NWTP) to supply some portion of the aggregated water demand needs in the Northeast Quadrant.

Although we will broadly discuss all four strategies on September 25, the study session focuses on strategies #1 and #2 above. The amount of water required to supply industrial customers who have committed (and will commit in the future) to build new plants in Decatur remains subject to change; some new supply options have not yet been comprehensively researched; the operational issues related to different options remains under investigation; and the practicality of engaging in large-scale water reclamation in the Northeast Quadrant is a topic staff has only recently started to analyze. Nonetheless, it seems prudent now to pause and determine if: 1) the City Council is ready to move forward with some or all of the new supply projects they have discussed in the past (Phase One projects) and for which they have approved engineering studies; and 2) determine if the City Council is comfortable with the general planning direction and scope of Phase Two water projects outlined in this memo and the attached outline—all of which will be laid out in much greater detail during the September 25 study session.

Overview & Goals of the Study Session:

- **Update the City Council on select water projects (SWTP and Watershed Management)**
- **Discuss options for developing additional water supplies & utility capacity to:**
 - **Facilitate and secure more job creation and economic growth for the future**
 - **Provide drought resilience**
- **Obtain tentative council direction concerning future utility capital planning**

Discussion Outline:

1. **Current Projects Update & Status Report (40 minutes)**
 - Review South Water Treatment Plant (SWTP) diagram, followed by brief SWTP tour
 - See Claricone Project (SWTP)
 - See Chemical feed system (SWTP)
 - Review proposed electrical improvements (SWTP)
 - Watershed Management Update (Lake Decatur)
2. **Discuss water & sewer demand increases in the Northeast Quadrant of the City**
 - Review general magnitude of additional water & sewer needs
 - Discuss existing water distribution “bottlenecks”
 - Review options to provide additional water & sewer infrastructure
3. **New Water Sources - Phase I**
 - Former Vulcan Pit
 - Lake Toko & Rhodes Landfill
 - Dewitt Wellfield Improvements
4. **New Water Source Ideas - Phase II**
 - Dewitt Wellfield pipeline to improve the use of this critical supply source
 - Expand Intera’s 2019 Additional Water Supplies report to add new sources
 - New water supply sources
 - Existing & additional non-potable water sources
 - Water reclamation options
5. **Possible funding strategies, agreements w/ key partners in the Northeast Quadrant (ADM, SDD, PRIMIENT, etc.)**
 - Additional council discussion and direction

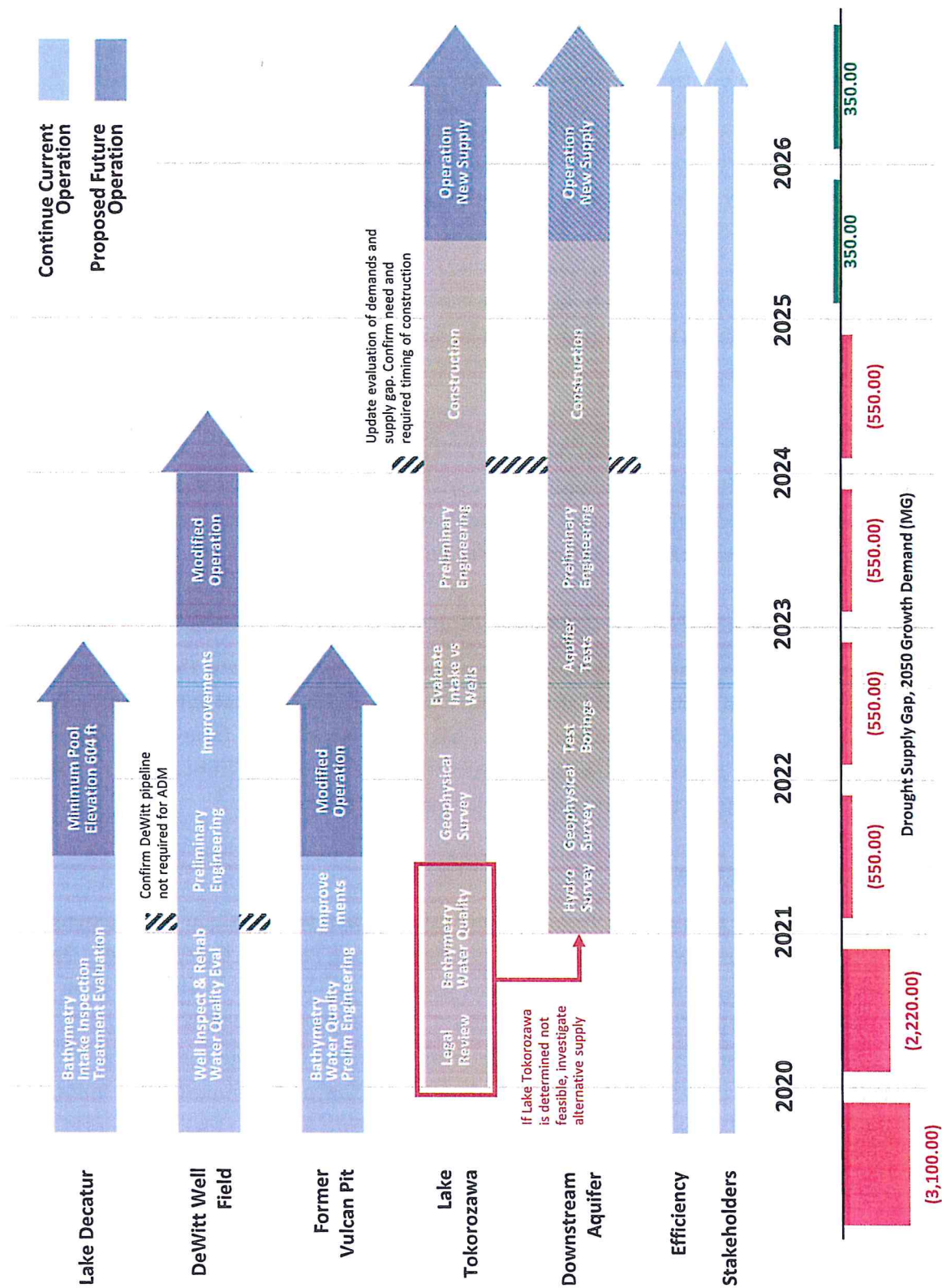


Figure 11.1: Recommended supplemental water-supply portfolio development.

Changed parameters from Intera Report

