



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING



DAN EICHINGER
DIRECTOR

April 12, 2023

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
Lansing Board of Water and Light, Ingham County
Water Tower/New Wells/Treatment Upgrades/Water Main
Drinking Water State Revolving Fund (DWSRF) Project No. 7538-01

The purpose of this notice is to seek public input and comment on a preliminary decision by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) that an Environmental Impact Statement (EIS) is not required to implement recommendations discussed in the attached Environmental Assessment of a water supply project plan submitted by the applicant mentioned above.

HOW WERE ENVIRONMENTAL ISSUES CONSIDERED?

Part 54, Safe Drinking Water Assistance, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, being Sections 324.5401 to 324.5418 of the Michigan Compiled Laws Annotated, requires EGLE to evaluate all environmental implications of a proposed water supply project. EGLE has done this by incorporating a detailed analysis of the environmental impact of the proposed alternatives in its review and approval process. A project plan was prepared by the applicant and reviewed by the State. EGLE has prepared the attached Environmental Assessment and found that the proposed project does not require the preparation of an EIS.

WHY IS AN EIS NOT REQUIRED?

Our environmental review concluded that no significant environmental impacts would result from the proposed action. Any adverse impacts have either been eliminated by changes in the project plan or will be reduced by the implementation of the mitigative measures discussed in the attached Environmental Assessment.

HOW DO I GET MORE INFORMATION?

A map depicting the location of the proposed project is attached. This information is also available on our website at Michigan.gov/DWSRF under "Related Links." The Environmental Assessment presents additional information on the project, alternatives that were considered, impacts of the proposed action, and the basis for our decision. Further information can be obtained by calling or writing one of the contact people listed below.

HOW DO I SUBMIT COMMENTS?

Any comments supporting or disagreeing with this preliminary decision should be submitted to me at EGLE, Constitution Hall, P.O. Box 30457, Lansing, Michigan 48909-7957. We will not take any action on this project plan for 30 calendar days from the date of this notice in order to receive and consider any comments.

WHAT HAPPENS NEXT?

In the absence of substantive comments during this period, our preliminary decision will become final. The applicant will then be eligible to receive loan assistance from this Agency to construct the proposed project.

Any information you feel should be considered by EGLE should be brought to our attention. If you have any questions, please contact Mr. David J. Worthington, the senior project manager, at 517-554-1835, by email at Worthingtond@michigan.gov, or you may contact me. Your interest in this process and the environment is appreciated.

Sincerely,

Eric Poca For

Daniel Beauchamp, Section Manager
Water Infrastructure Funding and Financing Section
Finance Division
517-388-3380

Attachment

DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY (EGLE)
Drinking Water State Revolving Fund (DWSRF)
Lansing Board of Water & Light, Ingham County
Environmental Assessment
April 2023

PROJECT IDENTIFICATION

Applicant: Lansing Board of Water & Light

Address: P.O. Box 13007
Lansing, Michigan 48901

Authorized Representative: Mr. Michael Lehtonen, P.E., Water Distribution Principal Engineer

Project Number: 7538-01

PROJECT OVERVIEW

The Lansing Board of Water & Light (BWL) is applying for a \$32,220,000 low interest DWSRF loan for a variety of needed improvements to its water supply system that currently serves Ingham County and portions of Clinton and Eaton Counties. Lansing BWL qualifies under State guidelines as a disadvantaged applicant and will be eligible for up to \$20,000,000 in loan principal forgiveness from the federal Bipartisan Infrastructure Law (BIL). The proposed projects include water main replacements to accompany combined sewer separation performed by the city of Lansing (Lansing) in the districts known as 015S (See Figure 2), and 034E (See Figure 3); an upgrade to the ammonia system at the Dye Water Plant; an upgrade to dry chemical handling at the Dye/Cedar Water Plant; a new elevated water storage tank; and two new test-production wells to offset two old wells. Construction of water main in the sewer separation areas will begin May 2023; remaining improvements will not begin until at least September 2023. Residential user costs were expected to increase by approximately \$1.04 per month to pay for the proposed projects (assumes a 40-year loan term @ 1.875 percent interest rate). However, the total user cost impact may be significantly reduced because of the anticipated loan principal forgiveness amount.

PROJECT BACKGROUND

Lansing BWL operates a regional system that supplies water for 208,909 retail and wholesale customers. Retail customers include the entire service population in Lansing and portions of Alaeidon Township, Bath Township, city of Dewitt, Dewitt Township, Delhi Township, Lansing Township, Watertown Township, and Windsor Township. Wholesale customers include Lansing Township West Side, Delta Township, and the East Lansing Meridian Water & Sewer Authority (south side feed to Meridian Township). Figure 1 depicts the BWL Service Area that also represents the project plan study area.

EXISTING FACILITIES

Lansing BWL obtains groundwater from the Saginaw Aquifer from wells located throughout the Greater Lansing area. There are 122 wells in the system in either active or inactive status; seven of the wells are owned by Lansing Township West Side Water. Inactive wells are either

due to routine maintenance or reduced usage during winter. A system of raw transmission mains connects the wells to the Dye Water Conditioning Plant (Dye WCP) or the Wise Road Water Conditioning Plant (Wise WCP).

Dye WCP dates to 1939 and is now rated at a capacity of 40 million gallons per day (MGD). Treatment includes softening, granular media filtration, and chloramine disinfection. Calcium and magnesium hardness is precipitated in primary treatment basins with lime. After rapid mix, flow proceeds to two flocculation basins of five bays each. Flocculants settle out in the settling basins and are transferred to sludge thickening, while settled water proceeds to secondary treatment where pH is reduced. Secondary treatment includes addition of sodium hypochlorite, fluoride, and soda ash. Effluent proceeds to final settling prior to sand filtration. Scale and corrosion inhibitors are added prior to distribution. Backwash pumps supply water to clean the filters. Three finished water reservoirs supply the high service pump stations for pumping to the distribution system. Sludge from thickeners is filter pressed and then ultimately hauled off for land application or reclamation.

Wise WCP dates to 1966 and has a capacity of 10 MGD. Generally, the treatment process is the same as at the Dye WCP but on a smaller scale. This plant receives water from 21 dedicated wells. BWL can send water to Wise WCP from an additional 23 wells by opening or closing valves on the raw transmission line, depending on the demand. Wise WCP does not have solids processing equipment. Instead, the solids are pumped 7 miles to Dye WCP for processing.

Lansing BWL owns and operates five booster stations. Storage consists of ground level reservoirs at the Dye WCP (3), Wise WCP (1) and the Hulett Pumping Station (1). In total, there is 24 MG of storage volume.

BWL's distribution system consists of 52 miles of raw water main, 275 raw water valves, 808 miles of finished water main, and 828 miles of water services. Water main diameters range from less than 6-inches to 72-inches. Cast iron material comprises 35 percent of the system and ductile iron 62 percent, with the remaining unclassified/other. Lansing BWL has already replaced all lead service lines.

PROPOSED PROJECTS

A. Project Need

Needed capital improvements in the system can be summarized as follows:

1. Water main replacements (and related appurtenances such as valves and hydrants) are targeted in areas associated with the Lansing combined sewer overflow (CSO) control program (separating combined sewers into separate sanitary and storm sewers). CSO Subareas 015S and 034E are scheduled for separation through a Clean Water State Revolving Fund (CWSRF) loan and American Rescue Plan (ARP) grant that will be administered by EGLE as project number 5005-25. See Figures 2 (015S) and 3 (034E) for the location of these areas.
2. An Ammonia Alternative Study completed in 2016 recommended conversion of the Dye WCP ammonia chloramine treatment processing from the current anhydrous ammonia gas to an aqueous ammonium hydroxide form.

3. Improvements to the dry chemical handling system are identified as a priority for the BWL at the Dye WCP, particularly storage and slaking equipment for lime as well as miscellaneous electrical improvements.
4. BWL has no elevated water storage. This creates risks during power outages as backup generators and pumps are relied upon to provide adequate water pressure. Should this power backup fail, thousands of customers could be without water for the duration of the outage. Over reliance on the backup power can also create conditions that increase the chances of water main breaks.
5. BWL drilled a new well in 2021 on Hughes Road south of Jolly Road. To connect this well to the water conditioning plant, a raw water main extension is needed. The Hughes well has the capacity to produce 350 to 400 gpm. Due to escalating costs, the BWL has opted to defer this improvement to a Fiscal Year (FY) 2024 financing cycle DWSRF application.
6. BWL has an active plan to replace old wells on an annual basis. For FY23 DWSRF financing, two offset wells could be tested and approved for production to replace adjacent old, deficient wells.
7. All the above projects would improve the overall system reliability.

B. Description of the Proposed Project

Lansing BWL proposes the continuation of water utility replacements to accompany Lansing's long-running CSO correction program. The proposed 015S CSO project area is bordered by Saginaw Street to the north, Sycamore Street to the east, Ottawa Street to the south, and Verlinden Avenue to the west, covers approximately 136 acres, and would replace approximately 28,325 linear feet (LF) of 8-inch diameter water main, 1,970 LF of 16-inch diameter water main, 41 fire hydrants, and related appurtenances at an estimated cost of \$14,755,269. The proposed 034E CSO project area is bordered by South Washington Avenue on the west, Mount Hope Avenue on the north, Forest Avenue on the east, and Greenlawn Avenue on the south, covering approximately 31 acres and would replace approximately 6,470 LF of 8-inch diameter water main, 10 fire hydrants, and related appurtenances at an estimated cost of \$3,908,415. Sewer separation work in these areas is under ownership of Lansing under its Wet Weather Control Plan and will be financed with a low interest CWSRF loan and ARP grant.

Lansing BWL intends to convert its ammonia treatment system at the Dye WCP from gaseous form to aqueous form at a cost of approximately \$2,055,000. Likewise, the BWL intends to upgrade its chemical storage and slaking equipment at the Dye WCP with several miscellaneous improvements totaling approximately \$3,533,803.

A new, composite type elevated water storage tank of 25MG capacity is planned for the reasons described above. It is under design to be sited at Lake Lansing Road and Wood Road (requiring a land purchase by the BWL) at an estimated cost of \$11,800,000. This site is advantageous hydraulically to the existing system. It consists of a vacant rectangular parcel approximately 3 acres bounded by Lake Lansing Road to the north, another vacant parcel to the east, residential homes to the south, and a Speedway gas filling station/convenience store and Crestwood Apartments to the west.

To continue the practice of replacing older wells, two new offset wells are proposed and under review from EGLE's hydrogeology team. One well replacement site is at 1600 Shady Oak Lane in Lansing. A second proposed replacement is at 1530 Hull Court, east of Comfort Street and south of Hyland Street in Lansing. If approved by EGLE, these wells are estimated to cost

roughly \$712,856 to convert to production and would replace the existing wells at those sites with a yield capacity anticipated to be from 300 to 500 gpm. See Figure 4 for the location of these wells.

C. Alternatives Considered

No-Action Alternative

No action is undesirable as the system reliability would suffer if improvements were not made in a timely manner. This could lead to customers without water for extended periods due to outages or supply shortages, water main breaks, inadequate treatment or diminished water quality, and related issues including higher costs for emergency maintenance.

Capital Improvements Implementation

Constructing capital improvements identified as priorities for FY 2023 in the DWSRF Project Plan is the most feasible, cost-effective alternative to address reliability of the BWL water system. Apart from the raw water main extension, items described in Paragraph A “Project Need” would be pursued for funding and implementation. All described projects consist of “either/or” options, i.e., either BWL chooses to do them, or they do nothing in each instance. All improvements’ locations can be seen depicted on Figure 4.

D. Project Cost and Implementation

All projects combined for FY 2023 implementation total \$36,765,343. BWL is eligible for a \$32,220,000 40-year DWSRF loan at 1.875 percent, with up to 62 percent of that amount not to exceed \$20,000,000 eligible for loan forgiveness. Any costs that exceed the DWSRF loan amount will be covered by Lansing BWL with cash on hand. A loan closing to finance the DWSRF eligible portion of these projects is anticipated in August 2023, with construction beginning in September 2023 (except the 034E and 015S water main, which may begin as early as May 2023) and completion expected by 2026.

In the Lansing BWL DWSRF Plan, the residential water user rate increases needed to offset the eligible project cost were estimated to be \$0.99 per month (updated to \$1.04/month due to inflation). However, proposed loan forgiveness from the federal BIL money would likely lower this rate impact significantly.

DESCRIPTION OF AFFECTED ENVIRONMENT

A. IMPACT OF PROJECT

A Section 106 State Historical Preservation Office (SHPO) application was submitted by Commonwealth Heritage Group (CHG) on behalf of the BWL. Tribal Historical Preservation Officers have been contacted for a chance to comment on the plan, and none have expressed a concern thus far. Construction of the proposed projects should have no effect on historical, archaeological, cultural, or recreational areas. However, SHPO requires an archaeological survey be performed at the site of the proposed new elevated water tank, prior to the start of construction, as there are no underground surveys on record for the property. CHG is qualified and will perform the survey as soon as possible, with a target date of completion by the end of May 2023. Sensitive features such as floodplains, wetlands, stream crossings, and prime or unique agricultural lands will not be disturbed by the proposed projects. The projects will be

occurring in urban developed areas. Surface and groundwater will not be adversely impacted by construction. Capacity in the two new wells will match those of the older wells they are replacing in the system. Currently, neither Lansing or the BWL anticipate that contaminated soil or groundwater will be encountered on the project. Appropriate environmental laws will be followed for safely handling and disposing of the material should it be found. There will be temporary impacts to the air quality due to construction equipment, fuel consumption, and exhaust. Traffic will be impacted during construction. Traffic control or detour routes will be put into place depending on the construction location. Residents will be able to access their homes and businesses during construction.

In the two CSO Subareas, Lansing has indicated that tree replacement will occur at a minimum rate of 1:1. Plan sheets posted on the Lansing website for 015S indicate that 30 trees between 6 inches and 18 inches in diameter, 20 trees 19 inches to 36 inches in diameter, and 15 trees 37 inches in diameter or greater are planned for removal. The plan sheets also list a quantity of 130 3.5-inch diameter trees to be provided for replacement or planting. Anyone with questions about trees is welcome to contact the city arborist for clarification on removals, rate of replacement, sizes, and species of trees, and who's responsible for watering. Some decisions could get made during actual construction observation from the engineer, city, and arborist to confer on what is appropriate. Neighborhood meetings were held last month by Lansing on March 15 and March 21 to discuss details of the proposed projects. In the 015S CSO area, residents have expressed concerns about preserving the traffic islands that help to define the character of the neighborhood. Lansing has committed to preserving these islands by designing the project to keep them in place.

Drinking water quality and reliability improvements for BWL customers are the primary cumulative impacts anticipated from the construction of the proposed projects.

An elevated tank at Wood Road (Wood) and Lake Lansing Roads will improve water distribution efficiency to the north and south sides of the Lansing pressure zone. Property access is proposed to be off Wood. An 8-foot-high chain link fence with barbed wire is proposed around the tank. Stormwater drainage improvements at the tank site, including a retainage basin to limit storm runoff, will be necessary. The property is vacant and undeveloped with a small open grass patch and overgrown secondary growth woods. Disturbed soils and a driveway area remain from a demolished home, and miscellaneous minor amounts of discarded trash are present. It does not represent prime wildlife habitat, but displacement of common species may occur.

EGLE's Water Withdrawal Assessment Tool is being utilized to determine if the proposed two offset wells will have any adverse impact. Preliminary results indicate that any adverse impact is highly unlikely, and the sites are expected to be safe from possible sources of contamination. Approvals for the test wells and equipping for conversion to production are expected to occur in a timely manner.

A state and federal endangered species review concluded that such species are very unlikely to be encountered within the construction zone of the projects.

B. MITIGATION

Construction operations will be limited to hours set by Lansing as part of city ordinance. Noise, odor, and dust will be kept to minimum using soil erosion and sedimentation control procedures established in the project plans and specifications. Standard methods for dust control such as

water and/or calcium chloride applications will be used. Any disturbed vegetation will be restored. Traffic safety will be handled by proper signage and detour routes governed by permits from both the Ingham County Road Commission and Lansing. In locations where construction interferes with the normal use of existing roads, temporary traffic facilities will be provided. Facilities for local traffic, pedestrian, and vehicular ingress and egress will be provided for the properties adjacent to the work. Sediment traps, sandbags, silt fences, plastic sheets, erosion control fences, and weirs will be some of the temporary sedimentation controls used during this project. The new storage tank will be designed to comply with Federal Aviation Administration requirements. In accordance with the local drainage district, Ingham County Drain Commissioner requirements will be followed.

All excavated roads will be re-paved with an asphalt surface, concrete surface, or natural gravel. All ditches and lawns will be re-seeded and/ or sodded. Care will be taken as to remove only trees necessary for the construction. Any surplus or waste material resulting from construction will be disposed of properly in a suitable upland disposal site.

PUBLIC PARTICIPATION

A public hearing on the draft DWSRF Project Plan was held on May 9, 2022. A public notice of the hearing was published in the *Lansing State Journal* on April 8, 2022. No members of the general public attended the hearing. Lansing BWL's Board of Commissioners held its regular meeting on May 24, 2022. At that meeting, the Board passed a resolution adopting the project plan and its selected alternatives.

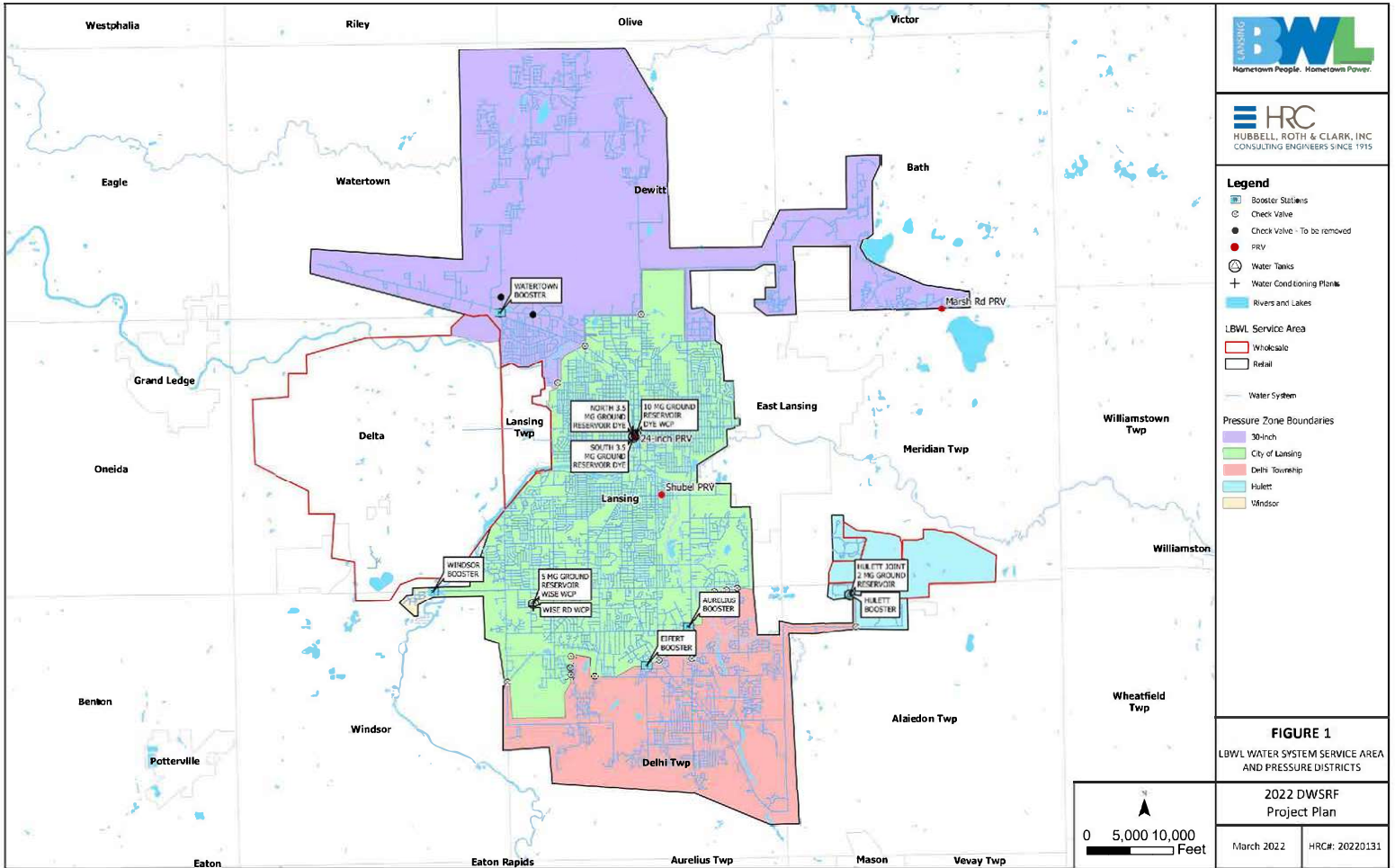
Neighborhood public meetings have been held by the city of Lansing in the regions affected by the CSO projects 034E and 015S to inform the public of the construction activities expected to occur.

REASONS FOR CONCLUDING NO SIGNIFICANT IMPACTS

Negative construction impacts are short term and will be outweighed by the public health benefits of improved drinking water system reliability.

Questions regarding this Environmental Assessment should be directed to:

Mr. David J. Worthington, Senior Project Manager
Water Infrastructure Funding and Financing Section
Finance Division
Michigan Department of Environment, Great Lakes, and Energy
P.O. Box 30457
Lansing, Michigan 48909-4957
Telephone: 517-554-1835
E-Mail: Worthingtond@michigan.gov



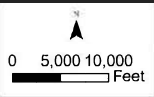
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- Legend**
- ☐ Booster Stations
 - Check Valve
 - Check Valve - To be removed
 - PRV
 - ⊕ Water Tanks
 - ⊕ Water Conditioning Plant
 - ▬ Rivers and Lakes
- LBWL Service Area**
- ▭ Wholesale
 - ▭ Retail
- Water System**
- Pressure Zone Boundaries**
- 30-inch
 - City of Lansing
 - Delhi Township
 - Hullett
 - Windsor

FIGURE 1
 LBWL WATER SYSTEM SERVICE AREA AND PRESSURE DISTRICTS

2022 DWSRF
 Project Plan

March 2022 HRC#: 20220131





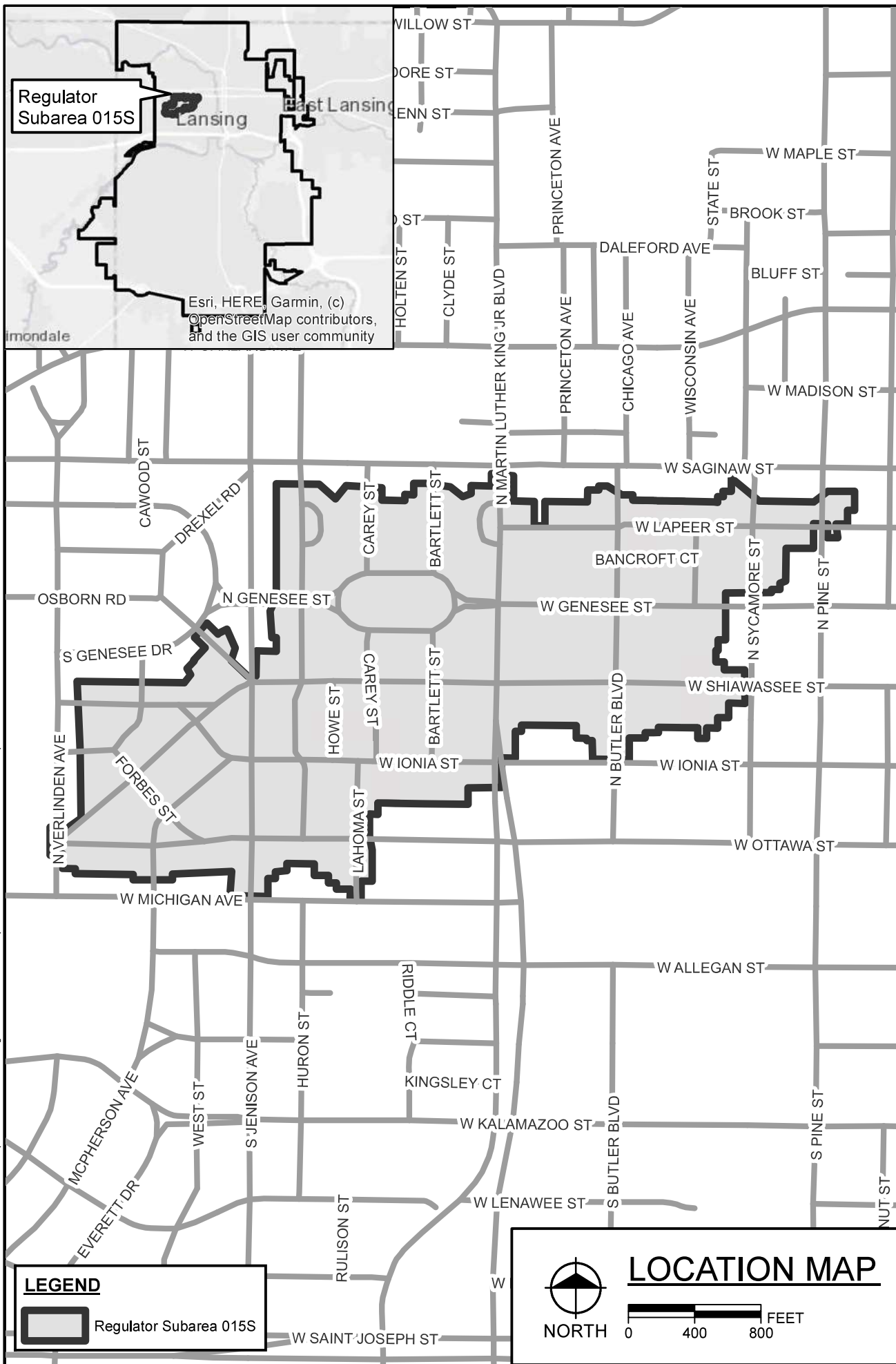
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Engineers | Architects | Scientists | Constructors

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City of Lansing
Ingham County, Michigan
Regulator Subarea 015S

PROJECT NO.
180593

FIGURE NO.
2



Regulator Subarea 015S

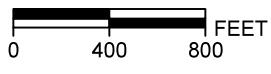
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

LEGEND

Regulator Subarea 015S



LOCATION MAP



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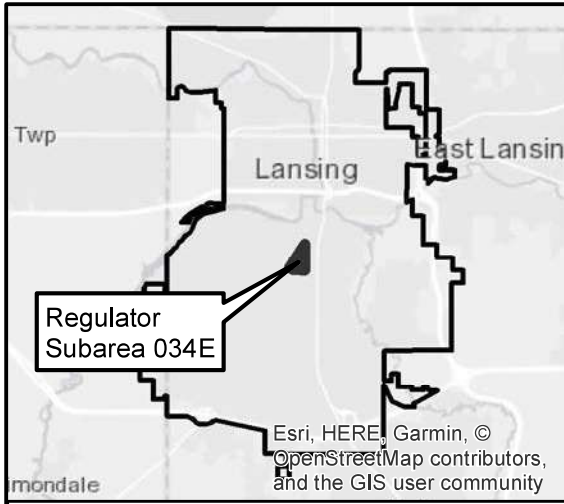
Engineers | Architects | Scientists | Constructors

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City of Lansing
Ingham County, Michigan
Regulator Subarea 034E

PROJECT NO.
180593

FIGURE NO.
3



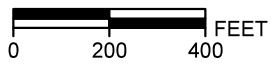
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 Regulator Subarea 034E



NORTH

LOCATION MAP



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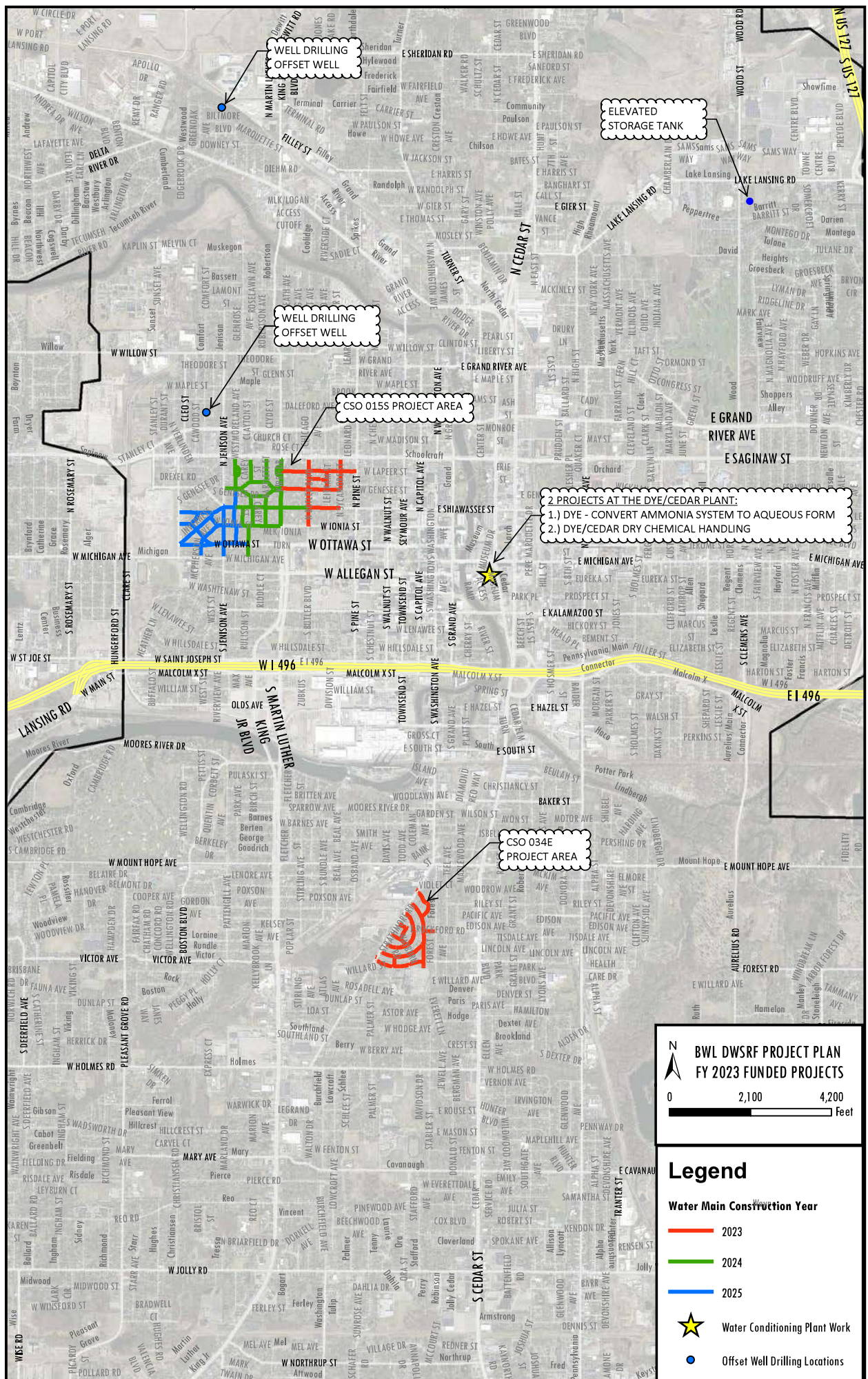


Figure 4