



State Revolving Fund Loan Programs

Drinking Water, Clean Water, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

LEBANON UTILITIES Water Distribution System and Treatment Improvements Phase 2 - Abner Longley Water Storage Facility SRF PROJECT DW 18 13 06 02

DATE: May 6, 2021

TARGET PROJECT APPROVAL DATE: June 7, 2021

I. INTRODUCTION

The above entity has applied to the Drinking Water State Revolving Fund (SRF) Loan Program for a loan to finance all or part of the drinking water project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA, which can also be viewed in color at <http://www.in.gov/ifa/srf/>.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF Drinking Water Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 5-1.2-3, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the target approval date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

**April Douglas
Environmental Review Coordinator
State Revolving Fund
100 N. Senate Ave. IGCN 1275
Indianapolis, IN 46204
317-234-7294
adouglas@ifa.in.gov**

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address: **Water Distribution System and Treatment Improvements
Phase 2 - Abner Longley Water Storage Facility**
Lebanon Utilities
401 South Meridian Street
Lebanon, IN 46052

SRF Project Number: DW 18 13 06 02

Authorized Representative: Mike Whitman

II. PROJECT LOCATION

The proposed Abner Longley Water Storage Facility project is located in Boone County, Lebanon Quadrangle Map, Center Township 18N, Range 1E, Section 6.

III. PROJECT NEED AND PURPOSE

Recent evaluations of the Lebanon Utilities' Water Distribution System have revealed the need for additional water storage. The Sugar Creek Water Treatment Plant (WTP), which provides the City of Lebanon with 80% of its potable water supply, is located approximately 5 miles north of the City limits and is connected to the distribution system by a single 24-inch diameter water main. Two elevated water storage tanks currently provide a total of 750,000 gallons of water storage. Should an issue occur with the 24-inch water main from the Sugar Creek WTP, the 750,000 gallons of water storage currently available would be exhausted by the daily average demand of 1.62 MGD within approximately 11 hours in the best case scenario assuming the elevated storage tanks were full.

IV. PROJECT DESCRIPTION

The selected Phase II Project includes the construction of a two (2) Million Gallon Ground Water Storage Tank with a booster station, to be located in the northeast corner of Abner Longley Park. In addition, Phase II includes approximately 1,750 linear feet of water main, which will be constructed from the new facilities, through City of Lebanon park property and along the southern boundary of the Lebanon Church of Christ property, to connection with the existing distribution system, located along the east side of Indianapolis Avenue. See Figure 1.

V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Estimated Cost Summary

Construction Costs

Water Storage Tank and Booster Station	\$ 3,782,500
Contingency	<u>375,000</u>
Construction Sub-Total	\$ 4,157,500

Non-Construction Costs	\$ 835,500
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Total Estimated Project Cost	\$4,993,000
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- B. The total cost of these projects is estimated to be approximately \$4,993,000. Lebanon Utilities' will finance the project with a loan from the State Revolving Fund Loan Program for a term and annual fixed interest rate to be determined at loan closing. The actual loan amount will depend on the bids received. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

The first alternative is "No Action". The "No Action" alternative is not recommended as supply, pressure and chlorine residual issues have been experienced in the vicinity of the project in the water system's southeast corner.

The second alternative includes the construction of an elevated water storage tank and 16-inch connecting water main within Abner Longley Park. Elevated storage tanks are typically provided within the distribution system to supply peak demand flow rates and to equalize system pressures. The most common types of elevated storage tanks are steel tanks and standpipes. Elevated storage tanks are typically located away from the pump station serving the distribution pressure level, but not outside or near the boundaries of the service area. Within the distribution system, elevated storage tanks typically allow a well or pump station to operate at uniform rates and without frequent start/stop cycles. The elevation of an elevated storage tank is what ensures adequate pressures within the system. The storage in the tank is replenished when water demands are low, and the well or pump station can fill the tank while still meeting all flow and pressure requirements in the system. As elevated storage have reduced pumping requirements, the storage can also serve as a source of temporary supply as the system pressure requirements can still be met temporarily when pumps are out of service. This alternative is not recommended as a ground storage tank is more appropriate for the location of the improvements in the southeast corner of the system than an elevated storage tank.

The third alternative includes the construction of a ground water storage tank with a booster station and 16-inch connecting water main within Abner Longley Park. Ground storage is used as a source of supply for re-pumping to a higher-pressure level in the distribution system at remote locations away from the water treatment plant. Such storage for re-pumping is common in distribution systems covering a large area, as the outlying service areas are beyond the range of the primary pumping facilities. Ground storage tanks require a booster pump station sited downstream in order to provide system operating pressure. The pumps in the booster pump station must be sufficient to elevate the system pressure above the minimum pressure requirement through the system. Ground storage tanks are the quickest style of storage tank to construct, are easier to disguise than elevated storage tanks, are easiest to self-maintain as there is no specialized equipment necessary and are typically the most economical way to provide simple long-term water storage. The design would include a dual 1 million-gallon chambers for a total of 2 million gallons of storage. **This is the recommended alternative.**

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Disturbed/Undisturbed Land: Construction of the water main would require approximately 1,750 feet of 16-inch ductile iron water main to be routed from the proposed Water Storage Tank through the southeast corner of the former Conservation Club property owned by the City and then through the Church of Christ property to Indianapolis Avenue. The majority of the former Conservation Club property to be impacted by the project is paved. The portion of the project that traverses the Church of Christ property, between the form Conservation Club property and

Indianapolis Avenue, consists of mowed grass areas with overhead and underground utilities present. The alignment would require an easement from the City in the southeast corner of the former Conservation Club property and an 1,100-foot long easement from the Church of Christ property. The estimated area of impact for this work is approximately 0.6 acre. The connecting water main would need to cross Indianapolis Avenue to connect to the existing 16-inch water main.

The Water Storage Tank and Booster Station will be constructed in the northeast corner of the Abner Longley Park property. A new access drive will be constructed and extend north approximately 500 feet from the west side of Thompson Street (just south of Hendricks Drive) to an existing well field access drive and the proposed Water Storage Tank and Booster Station areas. The drive construction will impact approximately 0.23 acre of mowed grass areas. Construction of the Water Storage Tank and Booster Station areas will impact approximately 0.5 acre of existing upland forested land.

The **Area of Potential Effect** includes the area where the water storage tank, booster station, and water main will be installed. However, construction activities will not affect historic properties.

Structural Resources (Figure 2): Construction and operation of the project will not alter, demolish or remove historic properties. If any visual or audible impacts to historic properties occur, they will be temporary and will not alter the characteristics that qualify such properties for inclusion in or eligibility for the National Register of Historic Places. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "*no historic properties affected.*"

Surface Waters: The project will not adversely affect waters of high quality listed in 327 IAC 2-1-2(3), exceptional use streams listed in 327 IAC 2-1-11(b), Natural, Scenic and Recreational Rivers and Streams listed in 312 IAC 7-(2), Salmonid Streams listed in (327 IAC 2-1.5-5(a)(3), or waters on the Outstanding Rivers list (Natural Resources Commission Non-Rule Policy Document).

Wetlands (Figure 3): Wetlands will not be affected by construction or operation of the project.

Floodplain: Construction will not occur in a floodway.

Groundwater: Groundwater will not be impacted by the construction or operation of the proposed project.

Plants and Animals: The project has impacted the area of the proposed booster station, piping and storage tank. The trees will be removed before March 31 in order to prevent potential impacts to endangered bat species. The stumps will be left until the proposed start of construction in July.

Prime Farmland: The project will not convert prime farmland.

Air Quality: Construction activities may generate some noise, fumes and dust, but should not significantly affect air quality.

Open Space and Recreational Opportunities: The project will neither create nor destroy open space or recreational opportunities.

Lake Michigan Coastal Program: The project will not affect the Lake Michigan Coastal Zone.

National Natural Landmarks: Construction and operation of the proposed project will not affect National Natural Landmarks.

B. Indirect Impacts

The town's Preliminary Engineering Report (PER) states: *Lebanon Utilities will ensure, through the authority of its Utility Service Board, or other means, that future development, as well as future collection system or treatment works projects connecting to SRF-funded facilities will not adversely impact archeological/historical/structural resources. The Lebanon Utilities will require new development treatment projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities.*

C. Comments from Environmental Review Authorities

In correspondence dated April 5, 2021, the Indiana Department of Natural Resources Division of Historic Preservation and Archaeology stated:

Pursuant to Indiana Code 5-1.2-10, Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108), and 36 C.F.R. Part 800, the Indiana State Historic Preservation Officer ("Indiana SHPO") is conducting an analysis of the materials dated and received by the Indiana SHPO on March 8, 2021, for the above indicated project in Lebanon, Boone County, Indiana.

Based on our analysis, it has been determined that no historic properties will be altered, demolished, or removed by the proposed project.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. 800.

Written comments for this project were not received within 30 days by the United States Fish and Wildlife Service.

In correspondence dated April 7, 2021, the Department of Natural Resources Environmental Unit stated:

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment: This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile. However, if the project qualifies for utility exemption under Administrative Rule 312 IAC 10-5-4 or the general license for outfall structures under Administrative Rule 312 IAC 10-5-8 (see enclosures), a permit from the Department is not required. Please include a copy of this letter with the permit application (if required).

Natural Heritage Database: The Natural Heritage Program's data have been checked. The Common Nighthawk (Chordeiles minor), a state species of special concern, has been documented within 1/2 mile of the project area.

Fish & Wildlife Comments: We do not foresee any impacts to Common Nighthawk as a result of this project.

The Division of Fish & Wildlife recommends avoiding removing urban trees to the greatest extent possible and replacing trees that must be removed. Forested areas are important to fish and wildlife resources in urban areas. Indiana's urban forests also provide millions of dollars of tangible benefits to Indiana communities by their presence in the urban environment. Their shade and beauty contribute to the quality of life. They provide significant increases in real estate values, create attractive settings for commercial businesses, and improve community neighborhood appeal. Trees decrease energy consumption by providing shade and acting as windbreaks. They reduce water treatment costs and impede soil erosion by slowing the runoff of stormwater. Trees also cool the air temperature, cleanse pollutants from the air, and produce oxygen while absorbing carbon dioxide. Trees are an integral component of the urban environment. Proactively managing and maintaining a street tree population will ultimately maximize the benefits afforded by their aesthetic and ecological functions. The following links give a good overview of the benefits of a street tree program and how to select the right species to avoid the negative impacts of non-native invasive species such as the common and popular Bradford pear: <https://www.in.gov/dnr/forestry/3605.htm> > Community & Urban Forestry > Tree Species Lists.

We recommend a mitigation plan be developed for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation guidelines (and plant lists) can be found online at: <http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

- 1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.*
- 2. Minimize and contain within the project limits all tree and brush clearing.*

3. *Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.*
4. *Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.*
5. *Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.*

In correspondence dated July 28, 2020, the Natural Resources Conservation Service stated:

The proposed project to proceed with the water supply improvements in the City of Lebanon, Boone County, Indiana, as referred to in your letter received July 15, 2020, will not cause a conversion of prime farmland.

VIII. MITIGATION MEASURES

Lebanon's PER states:

Any mitigation measures cited in comment letters from the Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented. The project will be implemented to minimize impact to non-endangered species and their habitat.

Existing topsoil will be reused during the restoration process, if applicable. The amount of dust may be mitigated by periodic wetting of exposed soils to reduce the suspension of particles. Normal daytime hours will be used for work activities to reduce noise impacts. All unavoidable tree clearing will be performed between October 15th and March 31st per the Range-wide Indiana Bat Protection and Enhancement Plan Guidelines.

IX. PUBLIC PARTICIPATION

A properly noticed public hearing was held on March 31, 2021 at 10 am at the One Municipal Plaza, 401 South Meridian Street, Lebanon, IN 46052 to discuss the PER. No written comments were received during the 5-day comment period following the hearing.

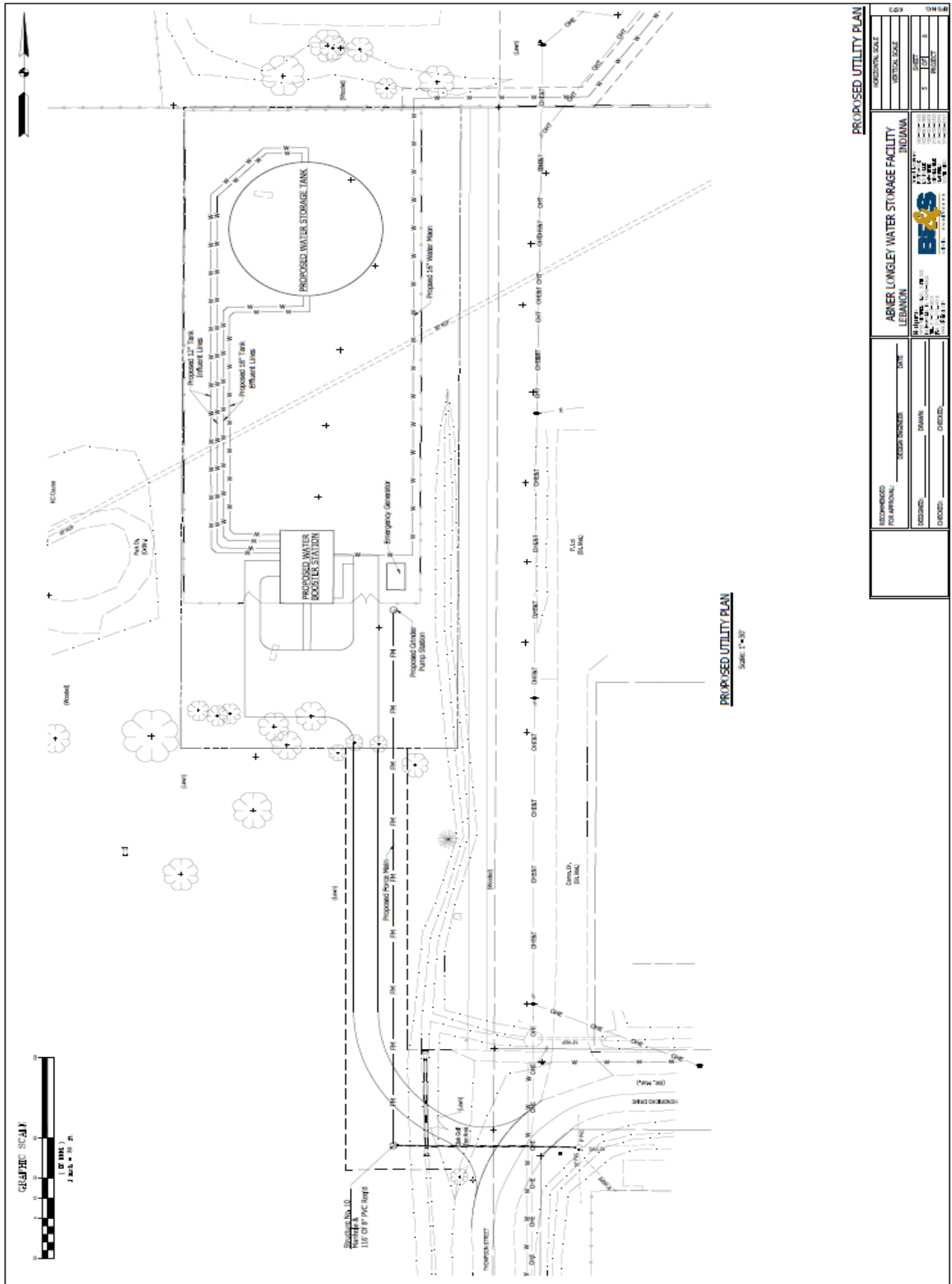


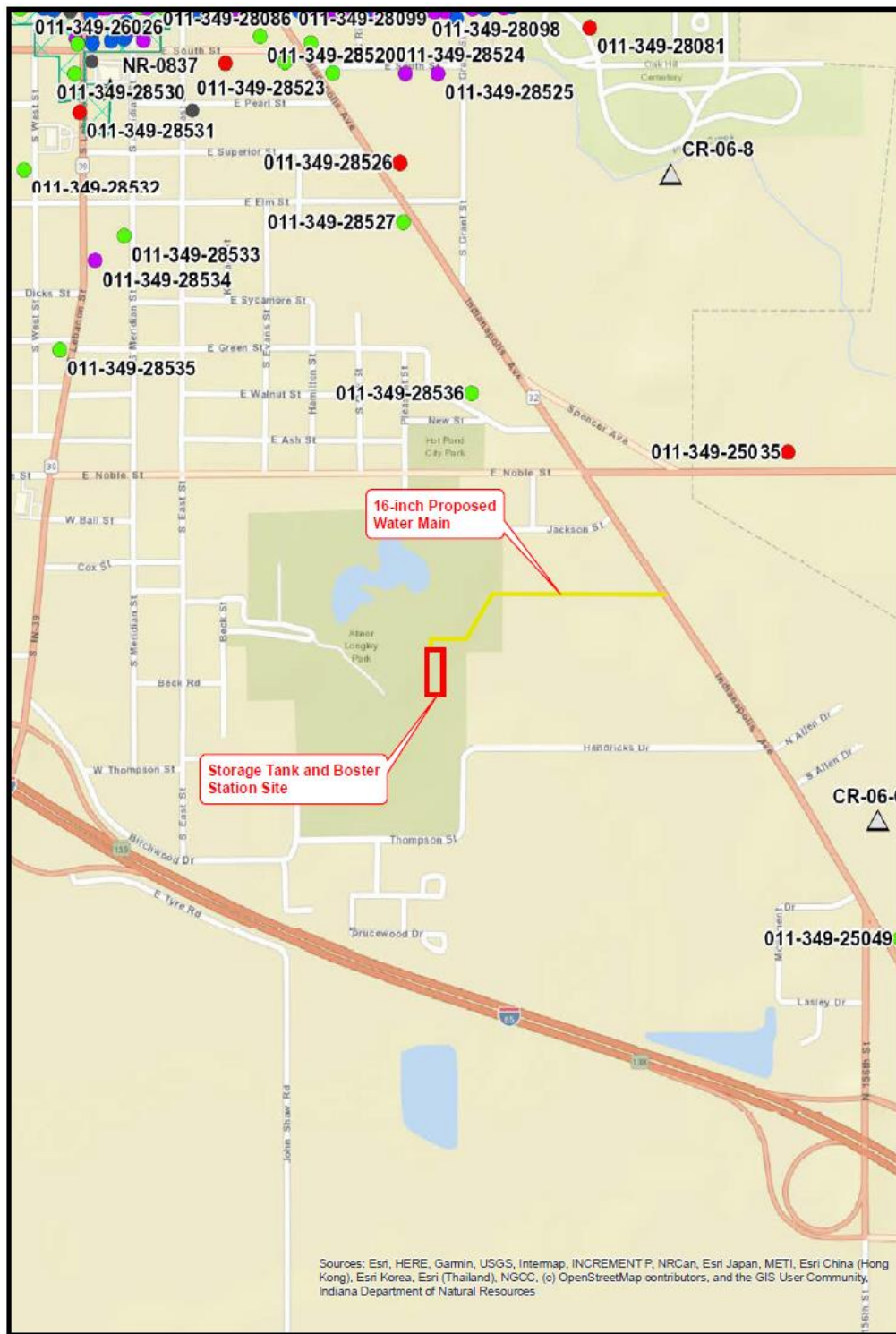
Figure 1 Project Plans for the booster station and water storage tank

PROPOSED UTILITY PLAN		GENERAL SCALE	
RECOMMENDED FOR APPROVAL:	DATE:	VERTICAL SCALE:	
DESIGNED BY:	DATE:	HORIZONTAL SCALE:	
DRAWN BY:	DATE:	PROJECT:	
CHECKED BY:	DATE:		

ABNER LONGLEY WATER STORAGE FACILITY
 LEDBANK, INDIANA

DATE: 11/11/2020
 TIME: 10:00 AM
 PROJECT: 2019-001

B&S
 ENGINEERS & ARCHITECTS
 1111 N. W. 11th St., Suite 100
 Ft. Lauderdale, FL 33304
 P: 954.571.1111



Legend

- ▲ Cemeteries

County Survey Sites

RATING

- Outstanding
- Notable
- Contributing
- Non-Contributing
- Demolished
- Unknown

Historic Bridges

RATING

- Outstanding
- Notable
- Contributing
- Non-Contributing
- Demolished
- Unknown
- ★ National Register Sites
- Historic Districts

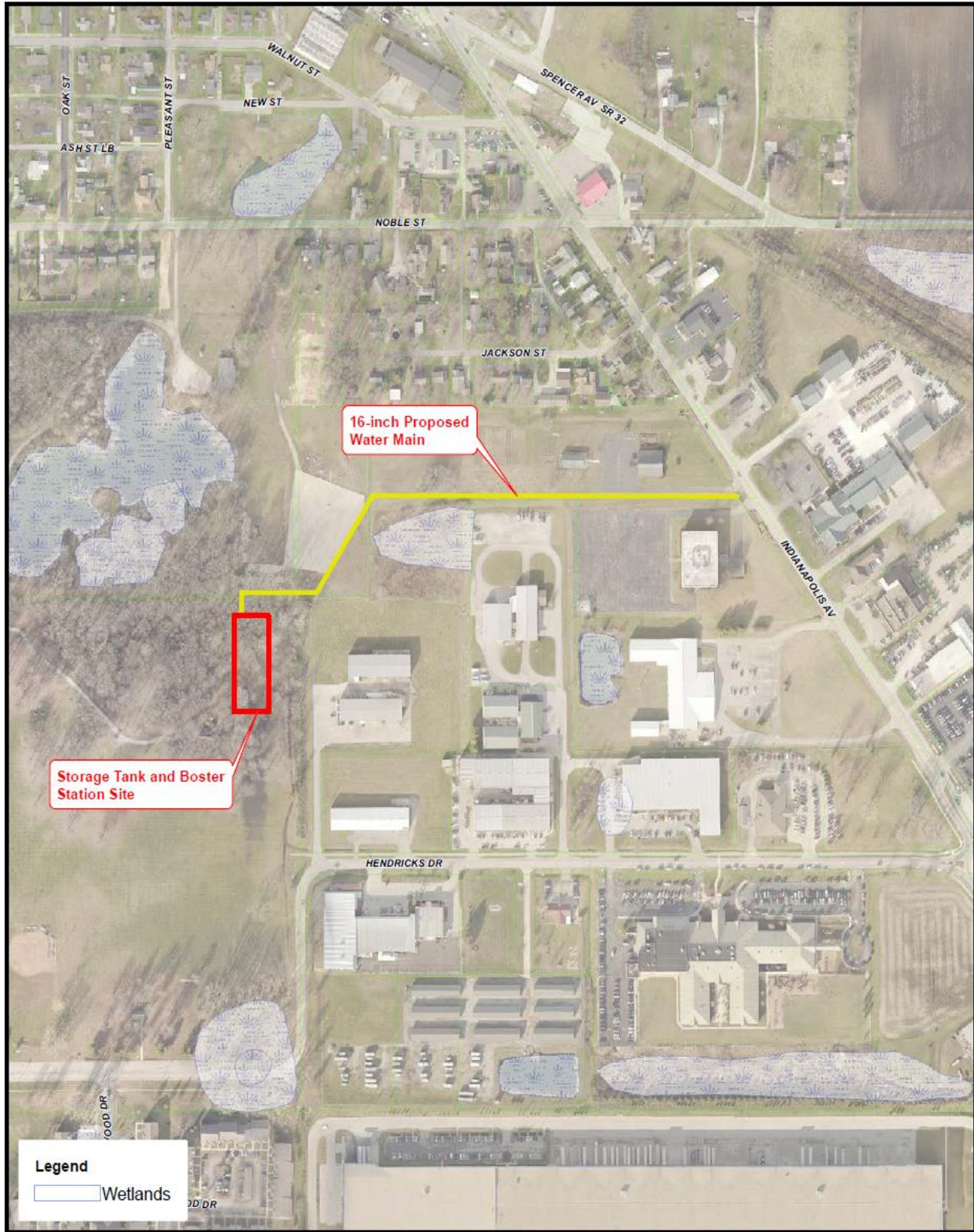
0 445 890 1,780 Feet

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SHAARD Map
Phase II
 Abner Longley Water Storage Tank, Booster Station, and Connecting Water Main

Figure 2 – SHAARD Figure

Wetland Area



Phase II

Abner Longley Water Storage Tank, Booster Station, and Connecting Water Main

Figure 3 – Wetlands