



State Revolving Fund Loan Programs

Drinking Water, Clean Water, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

CHANDLER WATER IMPROVEMENTS PROJECT PHASE 3 SRF PROJECT DW 23 22 87 04

DATE: December 29, 2022

TARGET PROJECT APPROVAL DATE: January 30, 2023

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 Wastewater 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 Improvements Project Phase 3**
Town of Chandler
101 Constitution Court
Chandler, IN 47610

SRF Project Number: **DW 23 22 87 04**

Authorized Representative: Tonya Wester, Town Council President

II. PROJECT LOCATION

The proposed water main project is located in Warrick County, Boon, Ohio township, Boonville 24K USGS Quadrangle, township 5S, range 8W and section 31; 5S, 9W section 35 and 36; 6S 9W section 1, 12; Daylight 24K Quadrangle, Ohio township, 6S, 9W section 9, 10, 11, 15, 16, 21, 22, 28, 32 and 33. See **Figure 1**.

III. PROJECT NEED AND PURPOSE

The purpose of the Phase 3 Project is to provide redundancy to several critical facilities on the existing system and to add transmission capacity for current needs and anticipated future growth. The existing water treatment plant has sufficient capacity, but the current limiting factor in the water system is the lack of transmission to elevated storage tanks. Currently there are customers within the existing distribution system that experience supply issues during high usage periods. Growth rates in excess of 2% annually are anticipated system-wide along with several significant water users in an area slated for critical medical facility development.

IV. PROJECT DESCRIPTION

The Phase 3 Project scope will consist of a proposed 24-inch transmission main installed from the existing water treatment facility to the Town of Chandler at the intersection of Jenner Road and Fuquay Road, and six inconnections with the existing distribution system varying in size from 8- to 24-inch, totaling approximately 47,000 LF of transmission main. The six interconnections to the existing distribution system will occur at 1) the existing Grimm Road elevated storage tank, 2) the intersection of Warrick Trail and Grimm Road, 3) the intersection of Epworth Road and Vann Road, 4) Oak Grove Road near Libbert Road, 5) along Telephone Road, and 6) the intersection of Jenner Road and Fuquay Road. The transmission main will be installed primarily in dedicated waterline easements. The installation will be open cut as site conditions allow, with plans to use trenchless installation under creeks and major roadways.

V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Estimated Cost Summary

Construction Costs

Transmission Main and Appurtenances	\$12,265,000
Site Clearing and Restoration	\$ 1,136,000
Mobilization, Bond, and Startup	\$ 874,000
Construction Contingency (5%)	\$ 715,000

Total Construction **\$14,990,000**

Non-Construction Costs (Engineering, Land Acq., etc.) **\$ 5,893,000**

Primary Project Total Estimated Project Cost **\$20,883,000**

- B. Total cost of this project is estimated to be approximately \$20,883,000. The Town will finance the project with a loan from the Drinking Water SRF Loan Program for a term and annual fixed interest rate to be determined at loan closing. 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 “**No Action**” alternative is not practical or economical as it would not address current inadequate distribution issues or the lack of redundancy to critical infrastructure.

The following alternative transmission main alignments were evaluated:

Pollack Road to the Grimm Road Elevated Storage Tank: This alternative alignment traveled straight north from the Chandler Water Treatment Plant. An archeological study indicated the possible presence of historically sensitive sites along this route. While this was the more direct alignment, and therefore the more economical alternative, this alternative was not selected in order to avoid potential archaeological impacts.

Grimm Road between Lincoln Avenue and The Lloyd Expressway: This alternative alignment traveled straight north along Grimm Road. Site investigation determined the alignment to be congested with several existing utilities, with steep topography not conducive for additional underground infrastructure work. This alternative was discarded as it was determined to be not practical or economical.

Northern Route between Edwards Ditch and Jenner Road: This alternative alignment traveled along Telephone Road to a proposed easement 0.5 miles east of Bell Road. The alternative was determined to not be feasible after a county roadway project was initiated along Telephone Road east of Bell Road, reducing the space available for the proposed water main.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Disturbed/Undisturbed Land: Work related to the installation of water main will occur in disturbed rights-of-way, adjacent to roadways, existing utility trenches. Some areas have not

been previously disturbed by previous construction activity. Those areas were subject to an archaeological review/survey and have been reviewed and cleared by DNR SHPO.

Structural Resources (Figure 1): 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.*"

Wetlands (Figures 2 through 14): Mitigation measures to lessen and compensate for wetland impacts cited in comment letters about the project from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

Surface Waters (Figures 15 through 19): The project will not adversely affect outstanding state resource waters listed in 327 IAC 2-1.3-3(d), exceptional use streams listed in 327 IAC 2-1-11(b), Natural, Scenic and Recreational Rivers and Streams listed in 312 IAC 7-(2), or Salmonid Streams listed in (327 IAC 2-1.5-5(a)(3) or streams on the Outstanding River List for Indiana.

Floodplain (Figures 20 through 24): The project will not include dredge or fill in the floodway without a permit from IDNR Division of Water. No change in grade will occur within the floodplain.

Groundwater: The project will not impact a drinking water supply or sole source aquifer.

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

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: *The Town of Chandler will ensure, through local zoning laws or other means, that future development, as well as future supply, storage, distribution, or treatment works projects connecting to SRF-funded facilities, will not negatively impact archaeological/historical/structural resources, wetlands, or other sensitive environmental resources. The Town of Chandler will require new development and treatment works 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 August 18, 2022, 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 July 25, 2022, for the above indicated project in Chandler, Ohio Township, Warrick 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.

In correspondence dated October 14, 2022, 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(s) 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, unless it qualifies for a general license under Administrative Rule 312 IAC 10-5 that applies to utility line crossings (**see enclosure**). Please include a copy of this letter with any permit application(s), if required.*

Natural Heritage Database: The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Fish & Wildlife Comments: Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

1) Directional Boring:

We recommend that all creek or stream crossings be done using a trenchless method. The length of the bore should include any forested riparian areas along the creek to minimize impacts to forested habitat. Install erosion control measures such as silt fencing or other appropriate devices around directional drilling pits in order to prevent drilling mud from leaving the immediate area of the pit or entering the stream. If the open-trench method is necessary and the only feasible option at any of the

planned stream crossings due to the site conditions, then the following measures should be implemented:

- a. Any open-trench stream crossing should be timed to coincide with the low-water time of year (typically mid- to late-summer).*
- b. Restore disturbed streambanks using bioengineering bank stabilization methods and revegetate disturbed banks with native trees, shrubs and herbaceous plants. Stream bank slopes after project completion should be restored to stable-slope steepness (not steeper than 2:1).*
- c. The cleared width through any forested area should be the minimum needed to install the line and no more than 20 feet wide through the forested area to allow the canopy to close over the line.*
- d. Use graded stone or riprap to protect the section of trench below the normal water level from scour or erosion (any stone or riprap fill in the streambed must not be placed above the existing streambed elevation to avoid creating a fish passage obstruction).*

2) Riparian Habitat:

We recommend a mitigation plan be developed (and submitted with the permit application, if required) 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, 1 inch to 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 mitigation site should be located in the floodway, downstream of the one (1) square mile drainage area of that stream (or another stream within the 8-digit HUC, preferably as close to the impact site as possible) and adjacent to existing forested riparian habitat.

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 with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs if any woody plants are disturbed during construction as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants, including prohibited invasive species (see 312 IAC 18-3-25).*
- 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 waterbody 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.

Correspondence to the United States Fish and Wildlife Service dated October 17, 2022 has not received a response as of the posting of this document.

In correspondence dated September 12, 2018, the Natural Resources Conservation Service stated:

The proposed project to improve the water system in the Town of Chandler, Warrick County, Indiana, as referred to in your letter received July 12, 2018, will cause a conversion of prime farmland.

VIII. MITIGATION MEASURES

Chandler's PER states:

The purpose of mitigation measures is to avoid or minimize adverse environmental impacts of a proposed project. Mitigation can be categorized as structural, restrictive, regulatory, or awareness measures. Structural measures are usually associated with planning, construction, and development activities. Measures characterized as restrictive are usually associated with development and operation. Third parties monitor regulatory measures for compliance, while awareness measures involve third parties providing evidence of compliance.

No direct, indirect, consequential, or cumulative impacts were identified specific to the proposed project.

*The following **Table 1** summarizes the mitigation measures proposed for the project.*

Table 1 : Summary of Mitigation Measures

Environmental Resource	Mitigation Measure
Land Use	The Town will require that developments connecting to the water system will comply with the Town’s or the County’s zoning ordinance, as applicable.
Formally Classified Lands	Sediment and erosion control in compliance with Indiana Department of Environmental Management requirements will be provided at all areas of surface disturbance.
Floodplains	Construction debris will be removed daily and surface disturbance will be kept to a minimum in all construction in floodways.
Wetlands	Sediment and erosion control in compliance with Indiana Department of Environmental Management requirements will be provided at all areas of surface disturbance.
Historic Structures	Sediment and erosion control in compliance with Indiana Department of Environmental Management requirements will be provided at all areas of surface disturbance.
Visual Aesthetics	No impacts anticipated to mitigate.
Archaeological Resources	No impacts anticipated to mitigate.
	If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, work will stop and the discovery will be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology, within two days. These artifacts or remains will be avoided, minimized, or mitigated in accordance with all applicable regulations.
Biological Resources	Removal of dead trees along perennial and intermittent waterways during the Indiana bat reproductive season (May 1 through August 31) will not occur without prior regulatory approval.
	All bare and disturbed areas will be revegetated with a mixture of native grasses, sedges, wildflowers, and native shrub and hardwood tree species as soon as possible upon completion. Varieties of Tall Fescue or other non-native plants (e.g. crown-vetch) will not be used.
	All tree and brush clearing will be minimized and contained within the project limits.
	No trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) will be cut from April 1 through September 30.
	Seed and protect all disturbed slopes that are 3:1 or steeper with erosion control blankets (follow manufacturer’s

Table 1 : Summary of Mitigation Measures

Environmental Resource	Mitigation Measure
Stream Crossings	recommendations for selection and installation; seed and apply mulch on all other disturbed areas.
	Sediment and erosion control in compliance with Indiana Department of Environmental Management requirements will be provided at all areas of surface disturbance.
Air Quality	Sediment and erosion control in compliance with Indiana Department of Environmental Management requirements will be provided at all areas of surface disturbance.
	Reasonable and proper construction techniques and clean-up practices will be provided.
Transportation	Surface wetting practices with a dust preventative will be utilized to control dust emissions were required.
	Exhausts of construction equipment will be required to have mufflers for air pollution abatement.
	Ordinances regulating the production and emission of smoke will be strictly met.
	No burning will be permitted.
	If potential hazardous air pollutants are used on the project, the Town will require monitoring, record keeping, reporting, vapor recovery, secondary containment, design, equipment, work practices and operation according to Federal standards.
	Dirt tracked from unpaved areas will be minimized. No construction or demolition will be conducted in wooded areas.
	No asphalt paving plants will be utilized in the construction or operation of the project.
	Any asbestos will be removed in a manner to avoid making the asbestos containing material friable or otherwise regulated.
	If regulated asbestos-containing material (RACM) that may become airborne is found at any demolition site, any subsequent demolition, renovation, or asbestos removal activities will be performed in accordance with the proper notification and emission control requirements.
	The owner or operator will notify IDEM 10 working days prior to the demolition, even if no asbestos is found.
	All traffic control systems will be provided to safely control the flow of vehicles in and near construction zones.
	Road-related construction activity will be coordinated with the County engineer's office.
	All necessary permits will be acquired for the work.

Table 1 : Summary of Mitigation Measures	
Environmental Resource	Mitigation Measure
Noise	Exhausts of combustion-powered construction equipment will be required to have mufflers for noise and air pollution abatement.
	Air compressors shall be equipped with silencers.
	Construction activity and noises will be limited to the provisions of local ordinances but will be no more than daylight hours from Monday through Saturday.
	Blasting shall not be allowed on the project.
Sanitary Construction Facilities	Ample sanitary facilities shall be furnished at worksites during the project. These temporary toilet facilities shall be placed and maintained as required by the local health ordinances.
	The toilets shall be maintained in a sanitary condition and contents shall be removed from the site as often as required.
Solid and Hazardous Waste	Solid waste generated by the construction project will be controlled. The construction sites will be kept as neat as possible.
	No waste will be allowed outside of the construction zone.
	Small debris that may be windblown will be discarded immediately.
	All solid waste will be disposed in compliance with local, state and federal regulations. All construction debris will be disposed in a sanitary landfill or construction debris (CD) landfill according to local, state, and federal regulations.
	Petroleum that must be stored at the construction sites will be kept in above-ground tanks.
	Only the minimum amount of petroleum and other products that may create special wastes will be stored at the construction sites.
	The release of petroleum to the environment will be kept to a minimum.
	All spills of petroleum and other products that may create special wastes will be mitigated immediately.
	If potentially hazardous waste is encountered during the construction of the project, work in the area of waste will stop and appropriate regulatory agencies will be contacted. The Town will work with the appropriate regulatory agencies to mitigate or avoid the hazardous waste.

IX. PUBLIC PARTICIPATION

A properly noticed public hearing was held on October 3, 2022 at 6pm at the Chandler Community Center located at 405 East Washington Avenue. There were no questions regarding the project during the hearing. No written comments were received in the 5-day period following the hearing for this project.

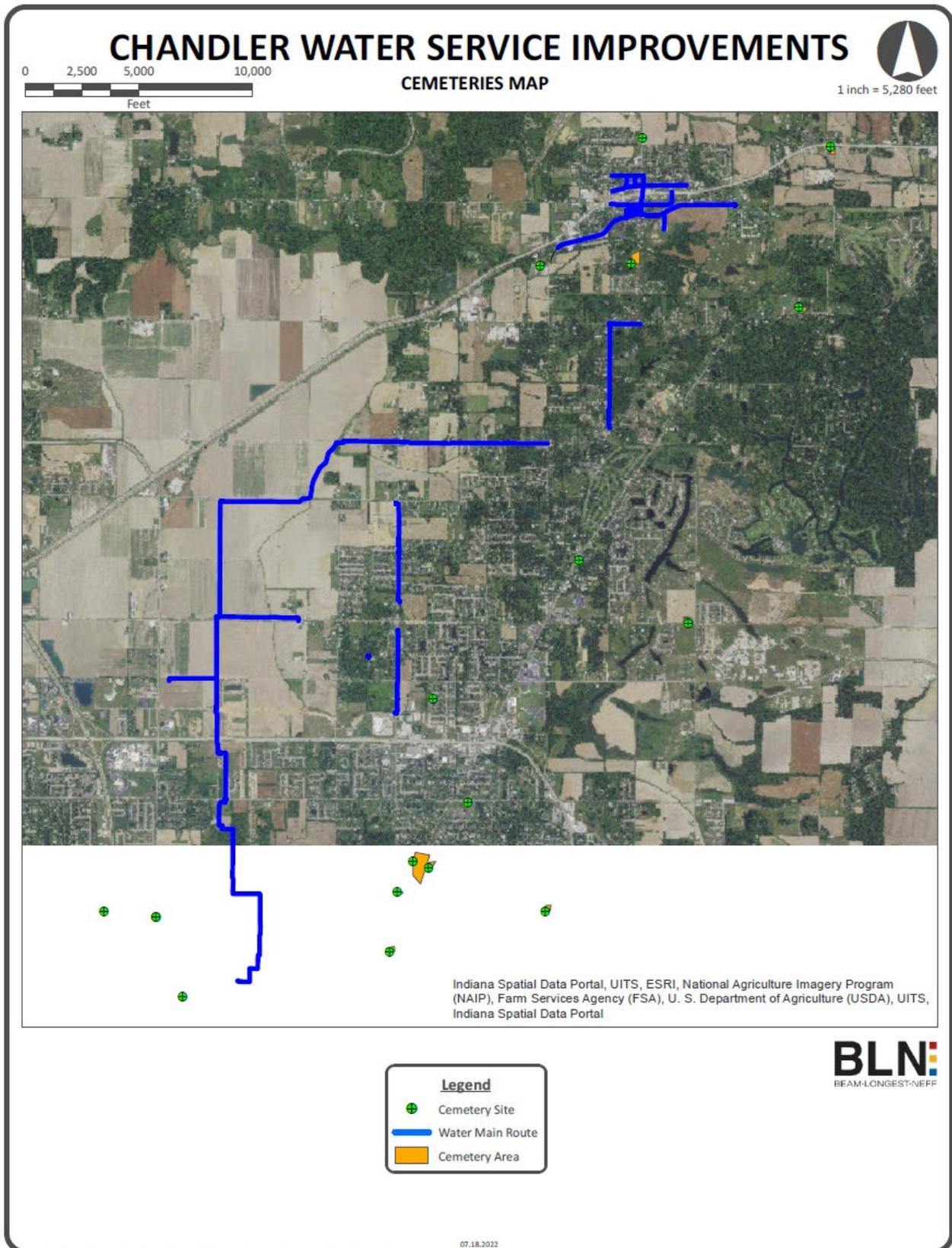


Figure 1 – Indiana Cemetery map

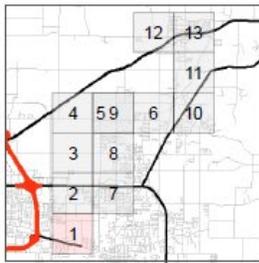
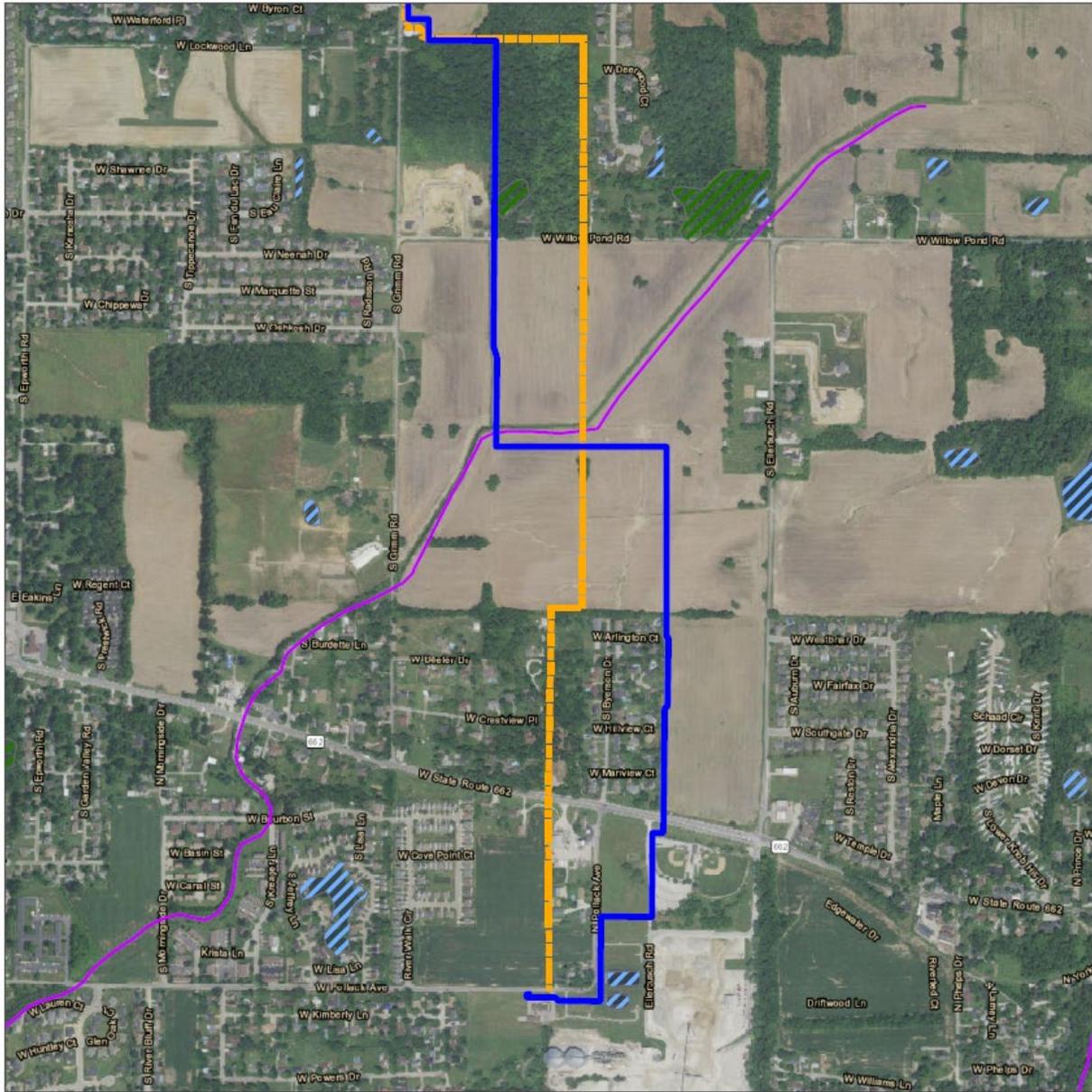
CHANDLER WATER SERVICE IMPROVEMENTS



0 200 400 800
Feet

WETLANDS MAP SET

1 inch = 1,000 feet



Legend

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Wetland Line
- Original Water Main Route, If Shown
- Water Main Route, Revised



Revised: 07.18.2022

Figure 2 – Indiana Wetlands map

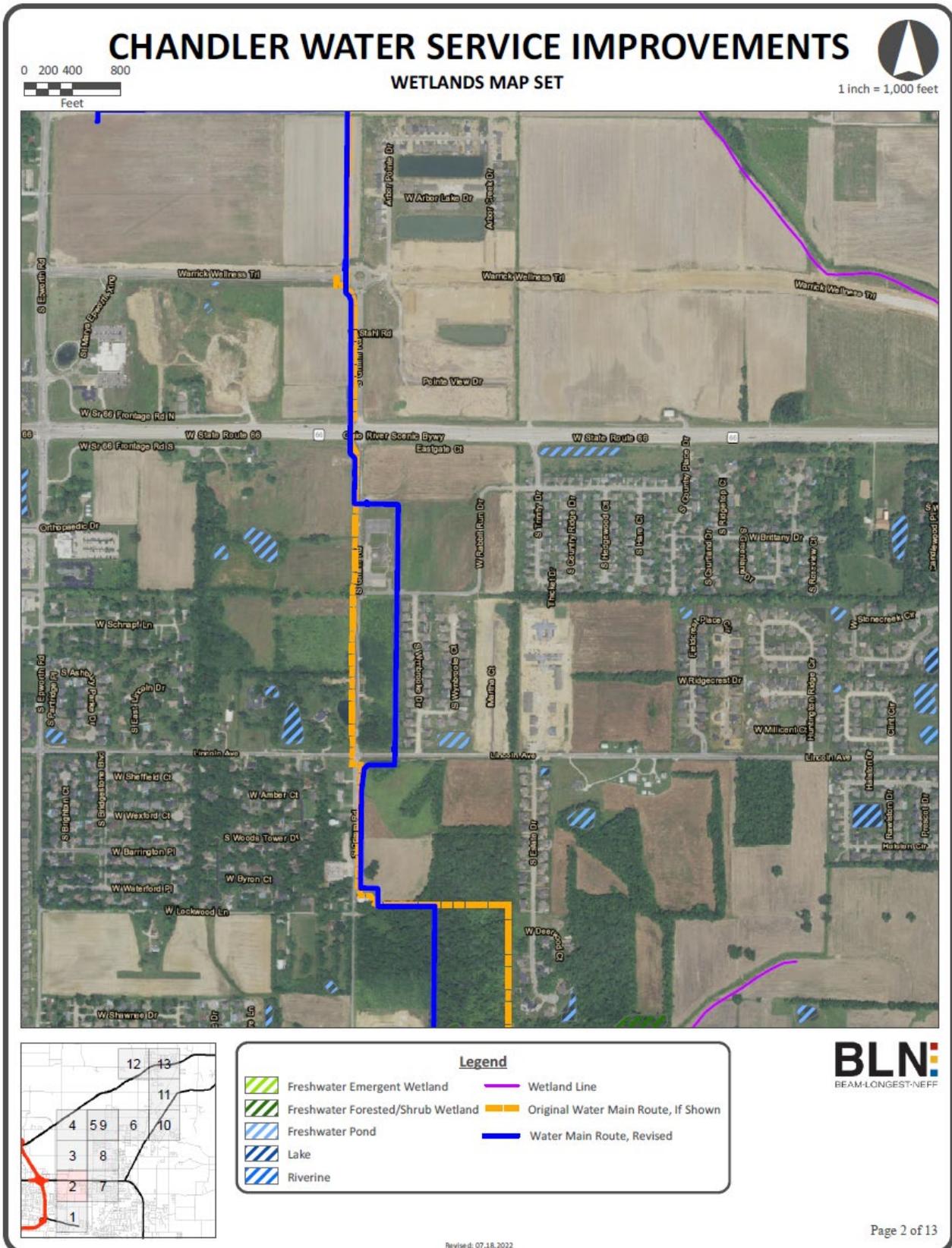


Figure 3 – Indiana Wetlands map

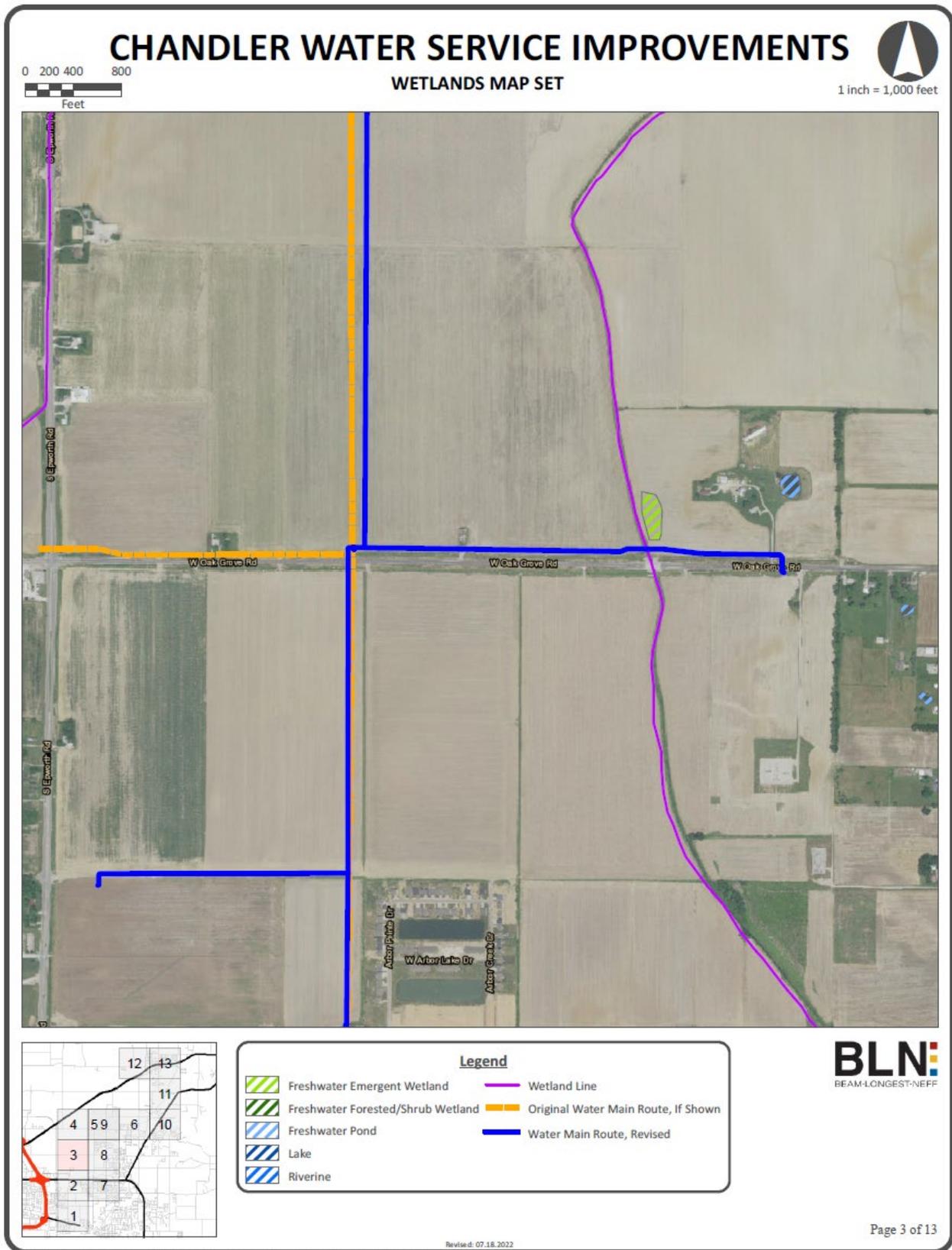


Figure 4 – Indiana Wetlands map

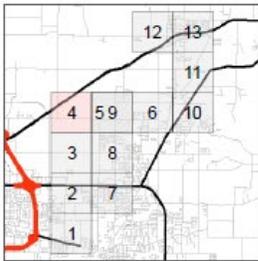
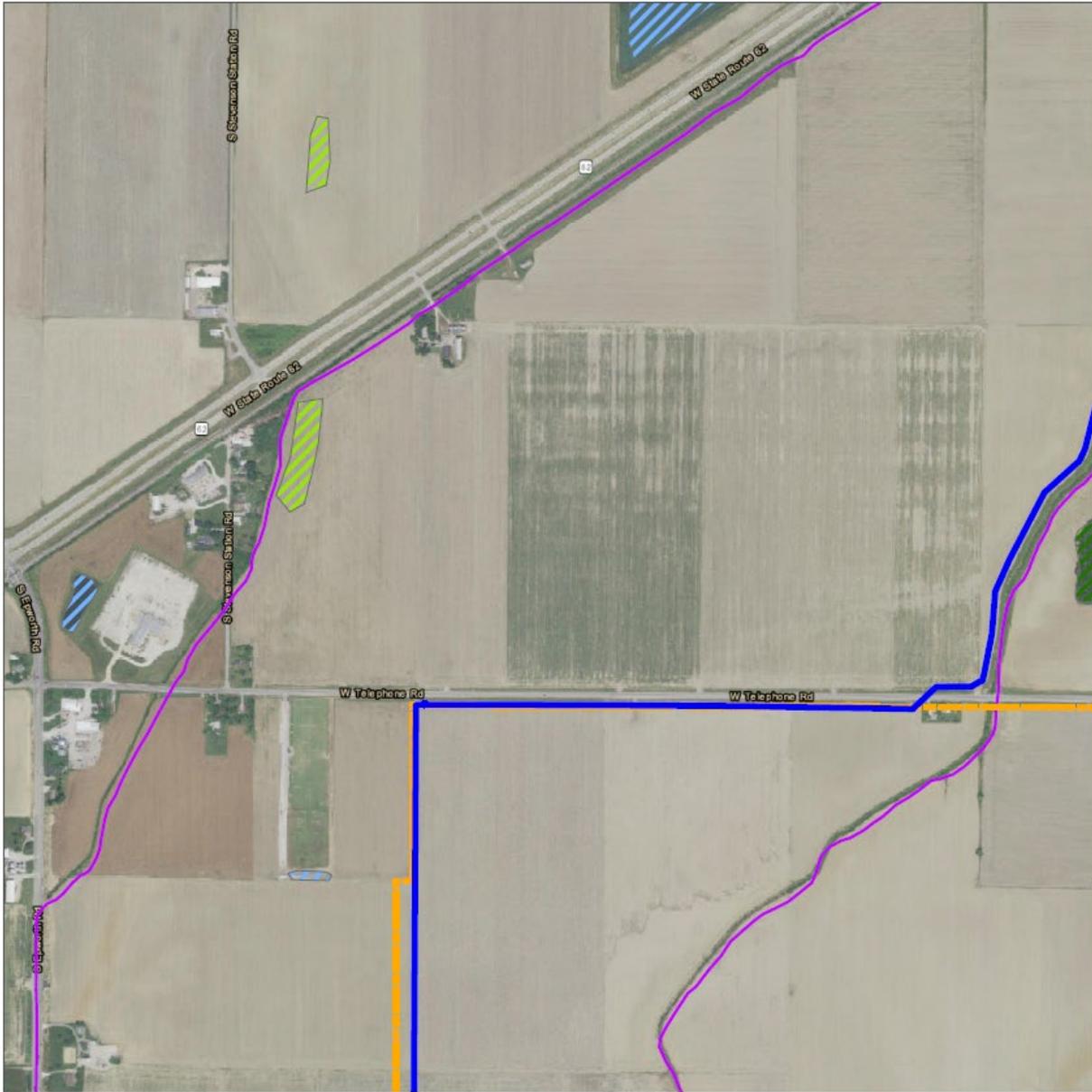
CHANDLER WATER SERVICE IMPROVEMENTS



0 200 400 800
Feet

WETLANDS MAP SET

1 inch = 1,000 feet



Legend			
	Freshwater Emergent Wetland		Wetland Line
	Freshwater Forested/Shrub Wetland		Original Water Main Route, If Shown
	Freshwater Pond		Water Main Route, Revised
	Lake		
	Riverine		



Figure 5 – Indiana Wetlands map

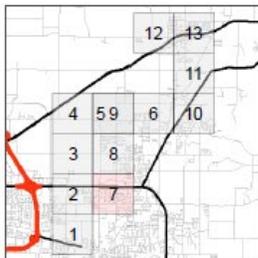
CHANDLER WATER SERVICE IMPROVEMENTS



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Feet

WETLANDS MAP SET

1 inch = 1,000 feet



Legend

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Wetland Line
- Water Main Route
- Original Water Main Route, If Shown



Figure 8 – Indiana Wetlands map

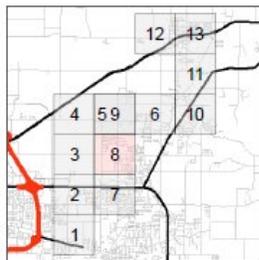
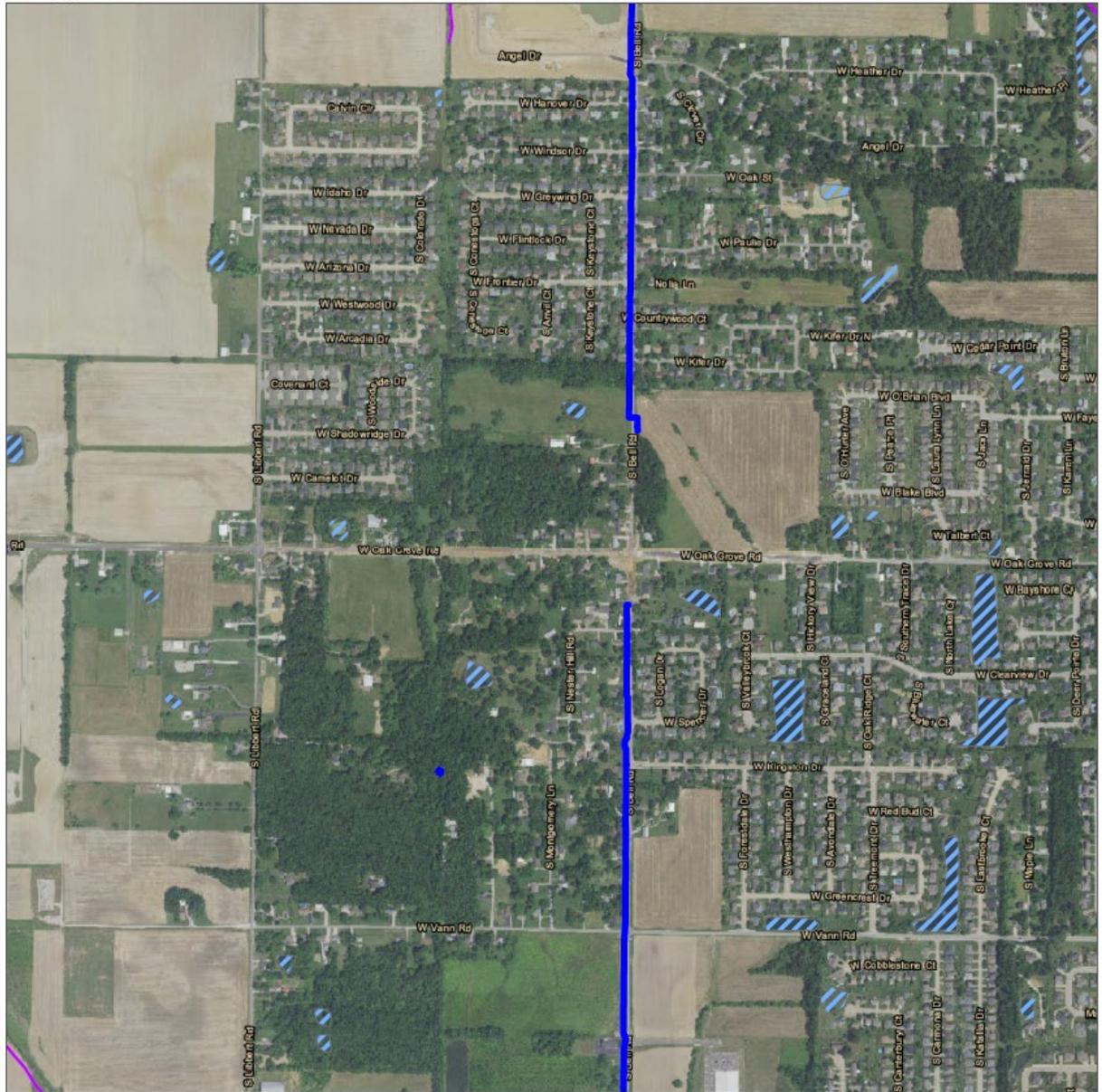
CHANDLER WATER SERVICE IMPROVEMENTS



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Feet

WETLANDS MAP SET

1 inch = 1,000 feet



Legend

Freshwater Emergent Wetland	Wetland Line
Freshwater Forested/Shrub Wetland	Water Main Route
Freshwater Pond	Original Water Main Route, If Shown
Lake	
Riverine	



Revised: 07.18.2022

Figure 9 – Indiana Wetlands map

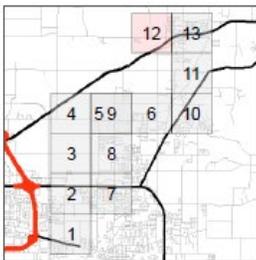
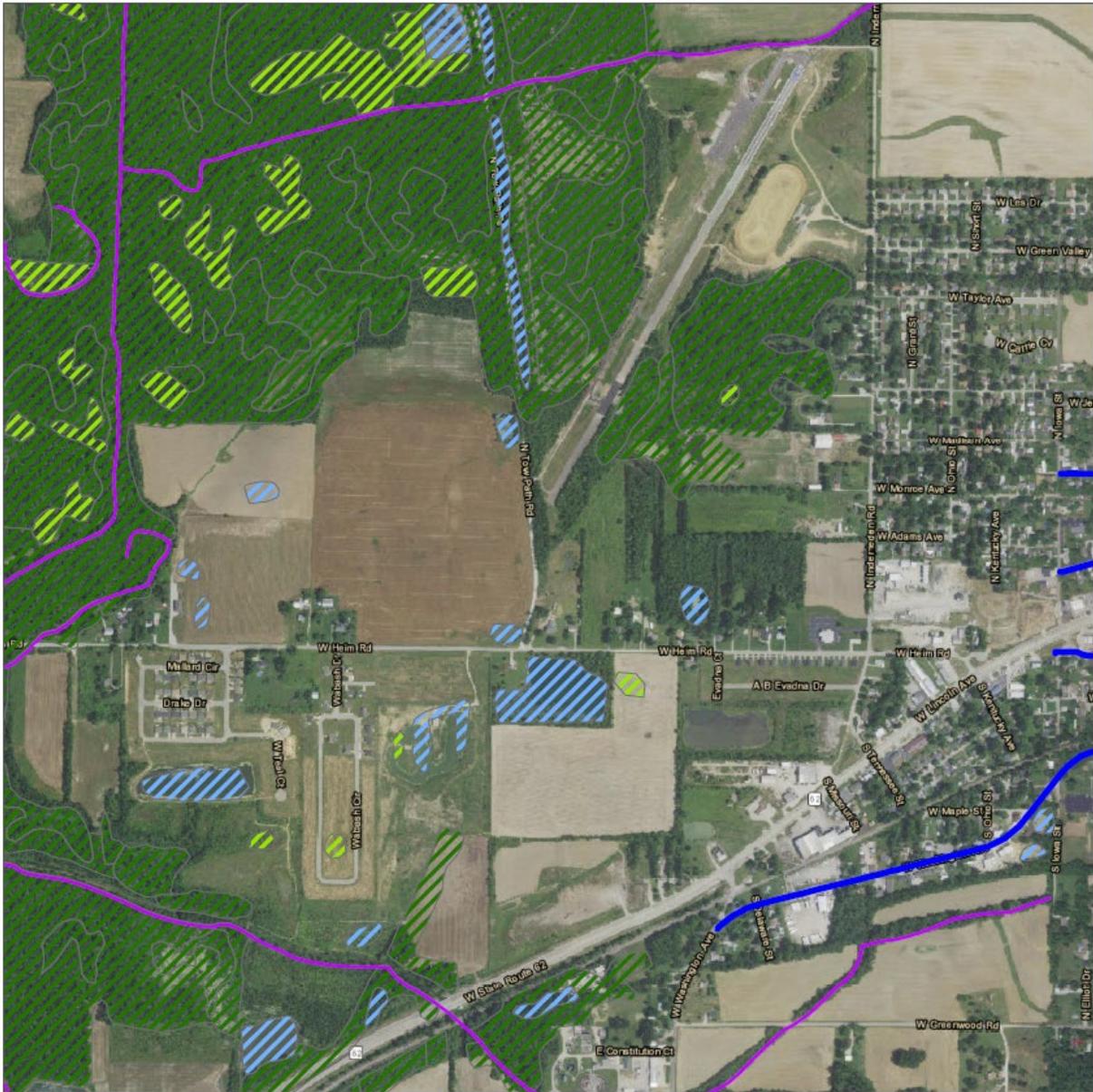
CHANDLER WATER SERVICE IMPROVEMENTS



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Feet

WETLANDS MAP SET

1 inch = 1,000 feet



Legend

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Wetland Line
- Water Main Route
- Original Water Main Route, If Shown



Figure 13 – Indiana Wetlands map

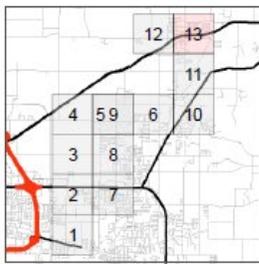
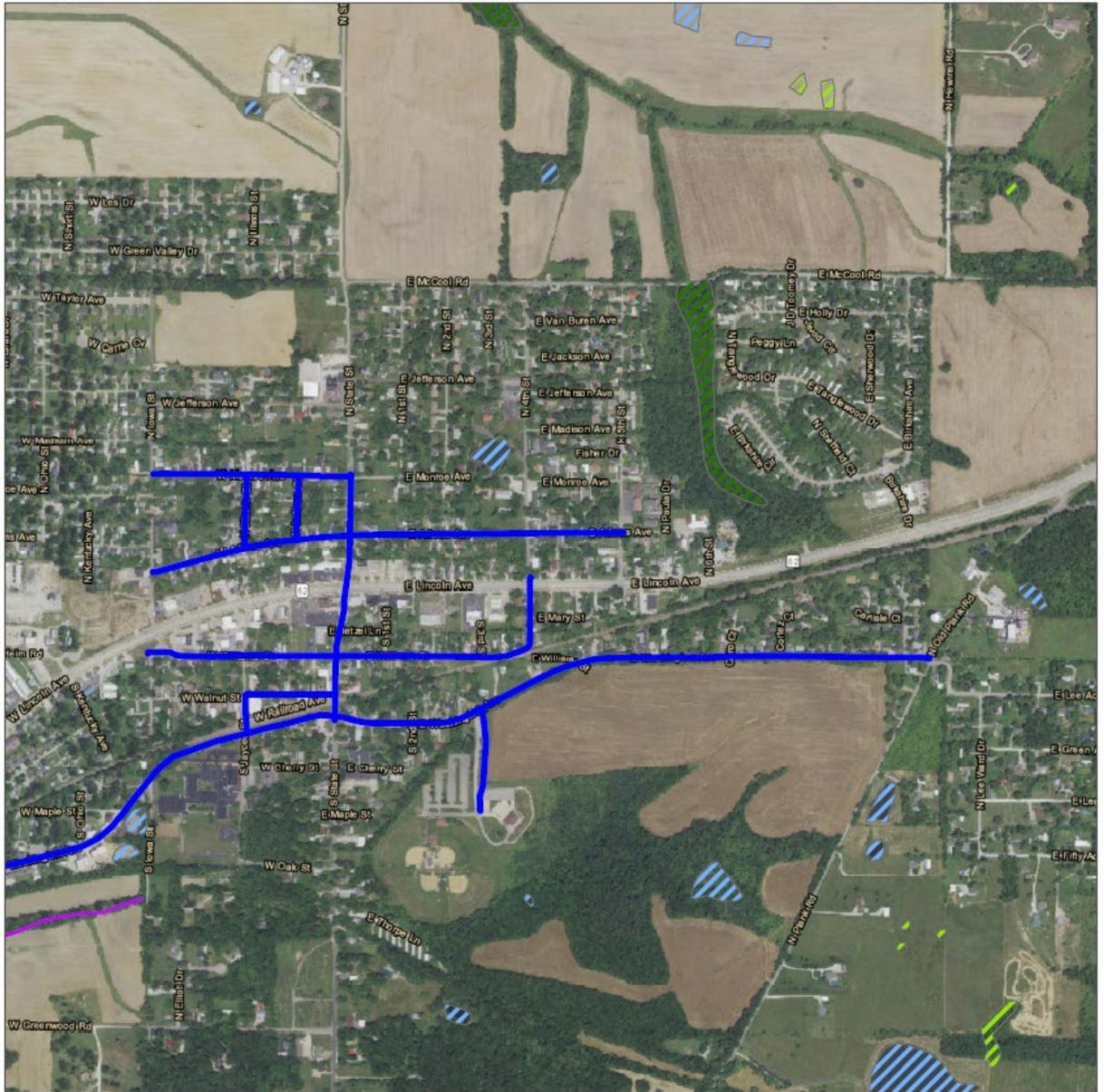
CHANDLER WATER SERVICE IMPROVEMENTS



0 200 400 800
Feet

WETLANDS MAP SET

1 inch = 1,000 feet



Legend

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Wetland Line
- Water Main Route
- Original Water Main Route, If Shown



Revised: 07.18.2022

Figure 14 – Indiana Wetlands map

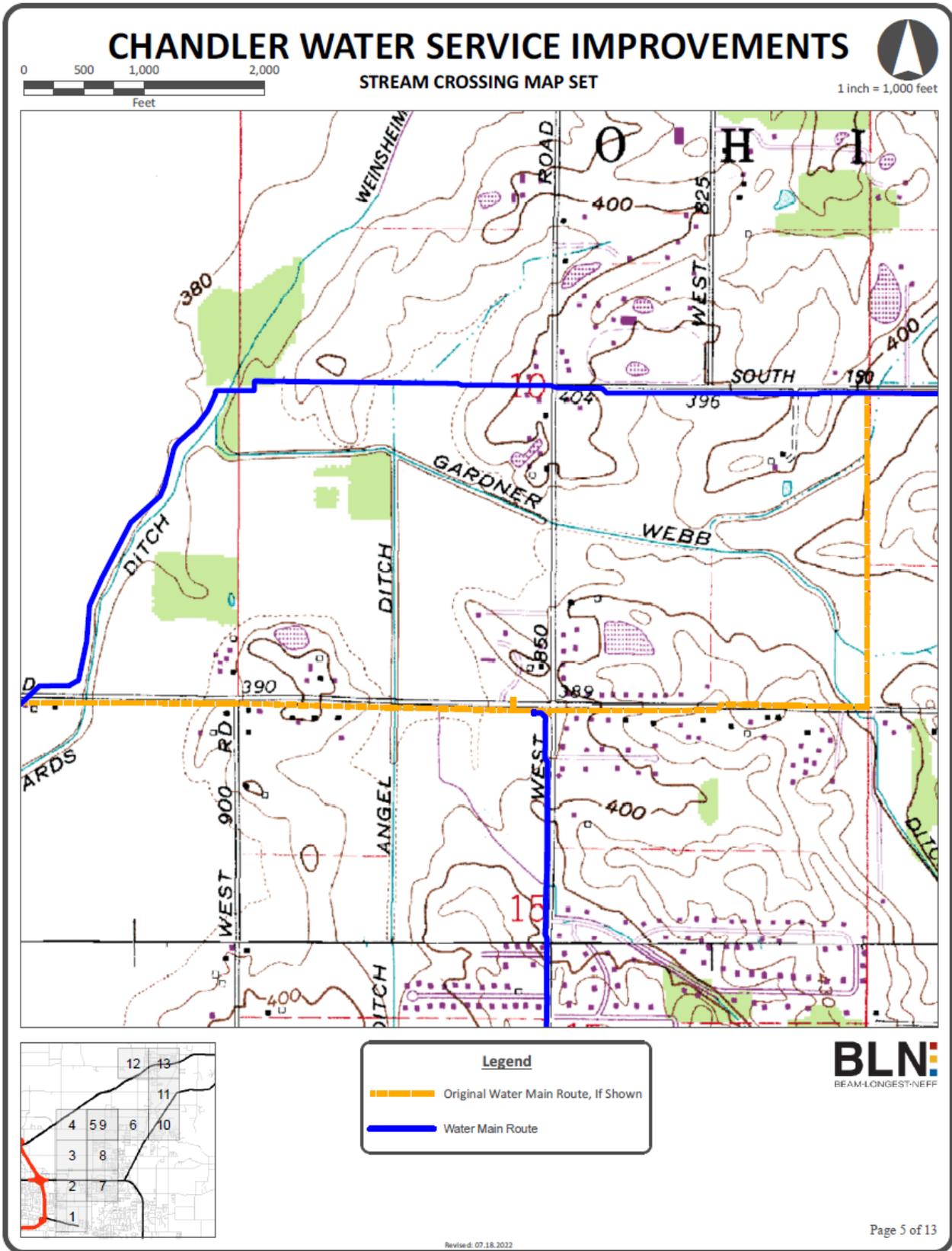


Figure 15 – Stream Crossing map

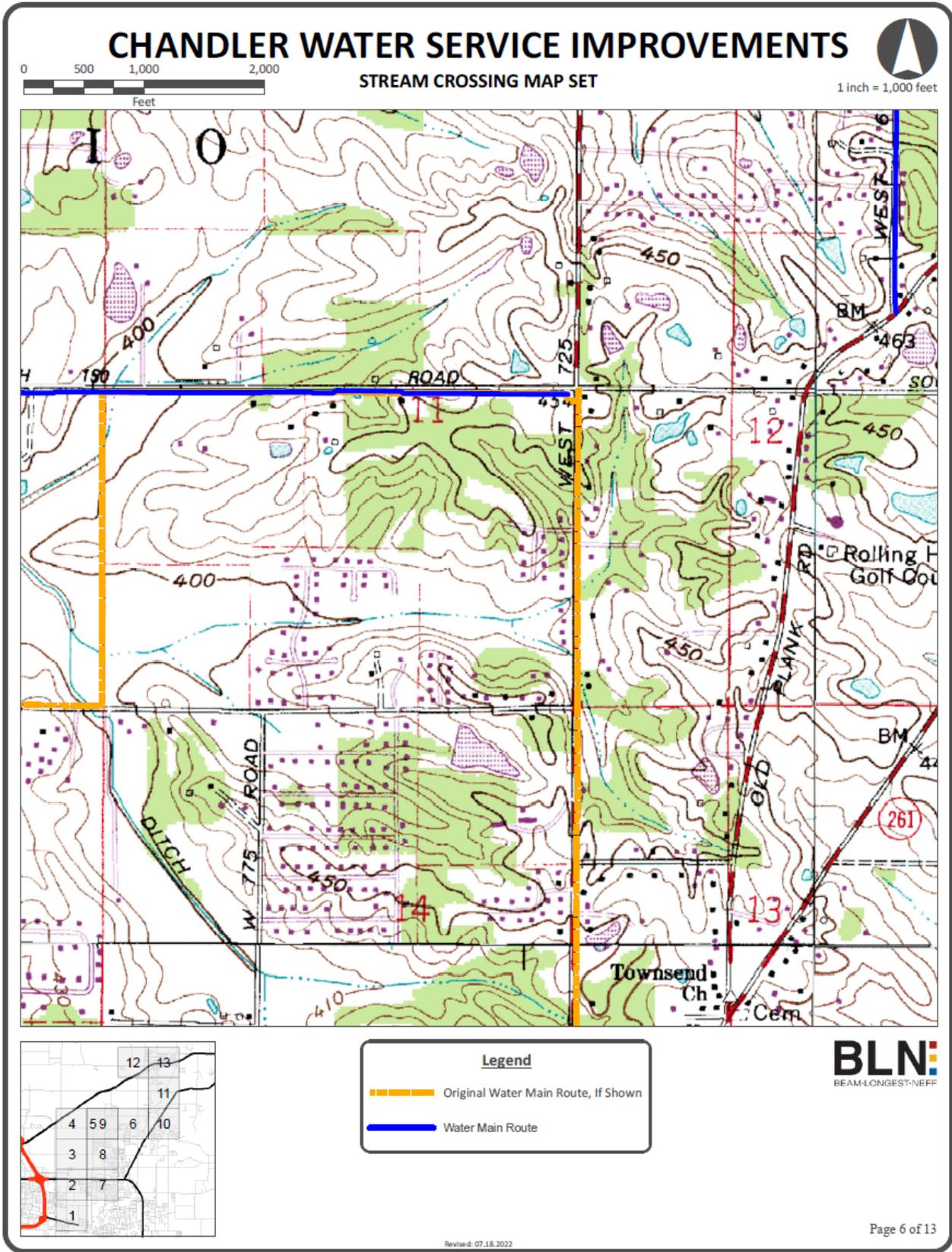


Figure 16 – Stream Crossing map

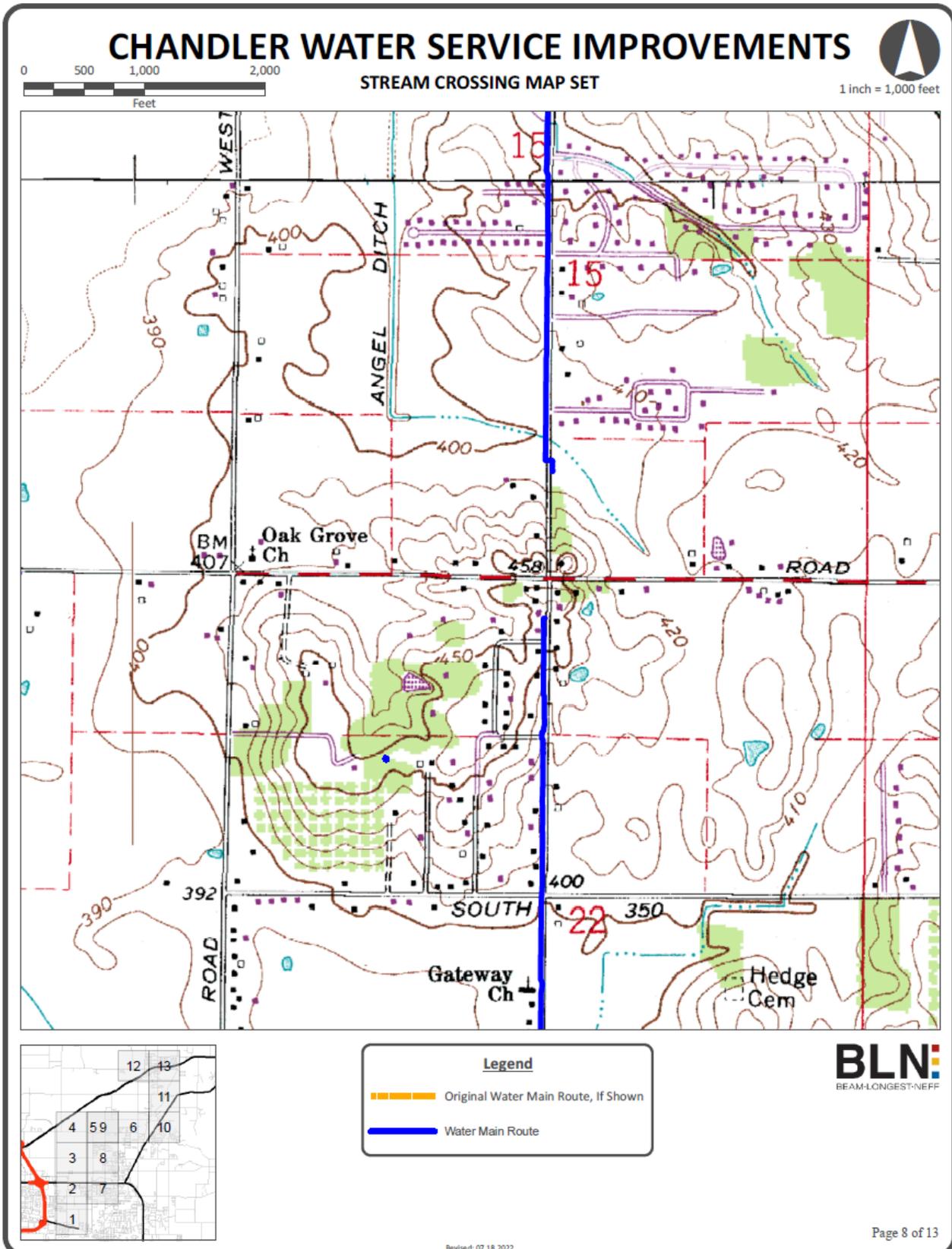


Figure 17 – Stream Crossing map

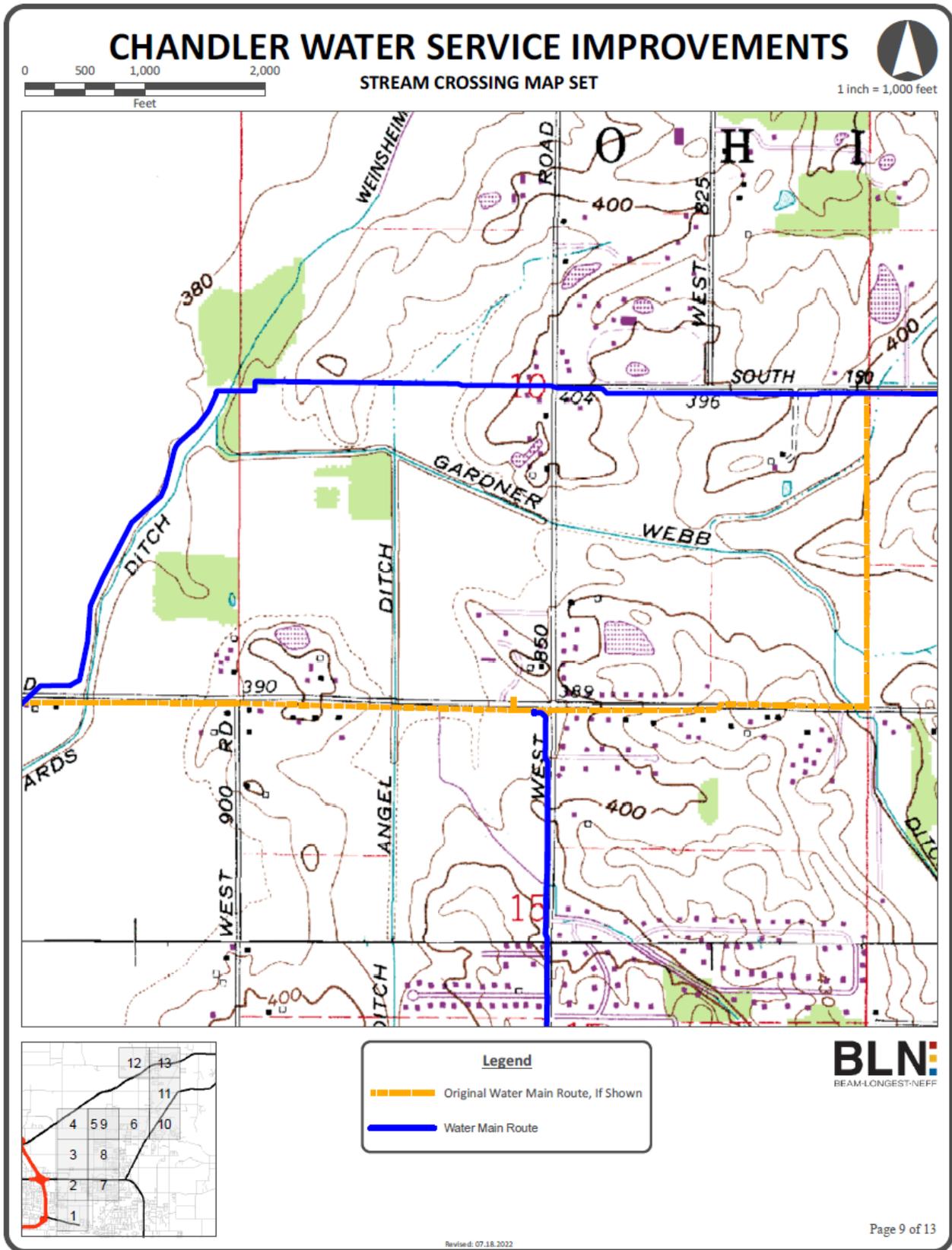


Figure 18 – Stream Crossing map

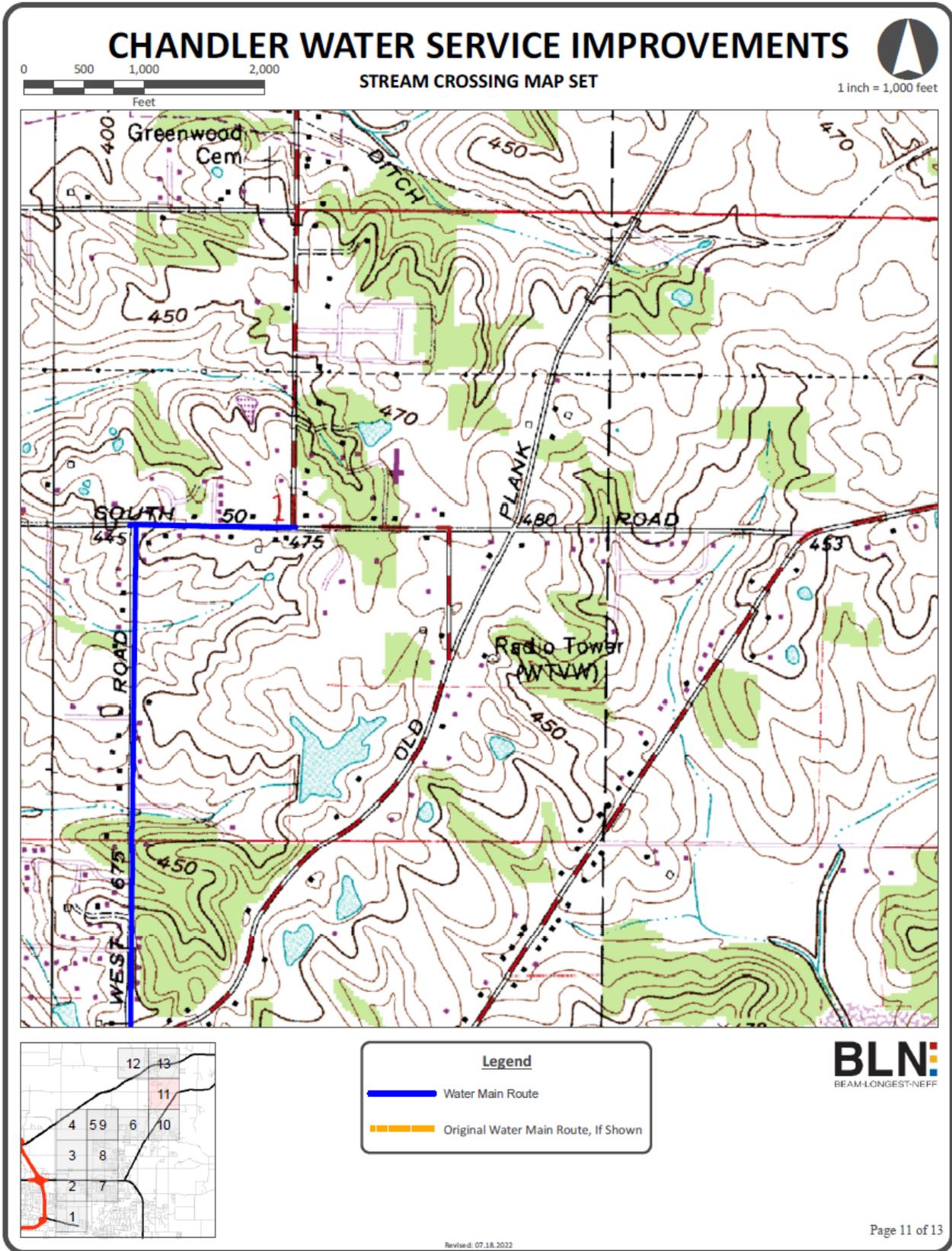


Figure 19 – Stream Crossing map

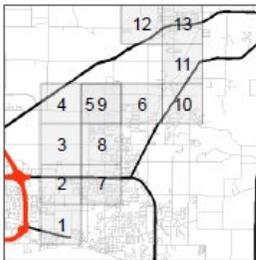
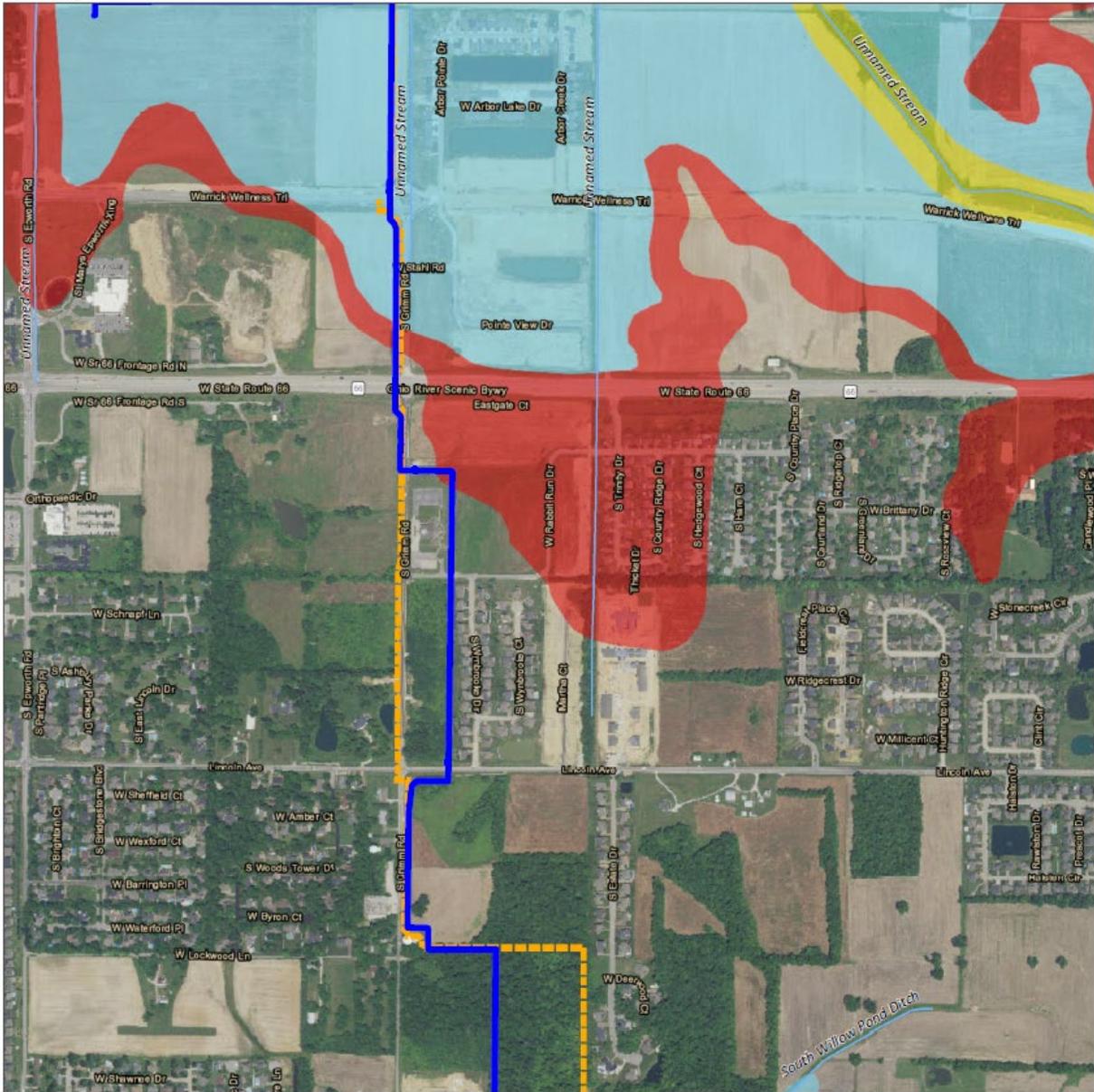
CHANDLER WATER SERVICE IMPROVEMENTS



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Feet

FLOODPLAIN MAP SET

1 inch = 1,000 feet



Legend

- Floodway
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance, Protected by Levee
- 0.2% Annual Chance Flood Hazard
- Stream
- Original Water Main Route, If Shown
- Water Main Route



Figure 21 – Floodplain map

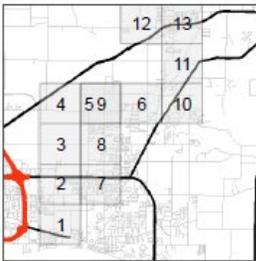
CHANDLER WATER SERVICE IMPROVEMENTS



0 200 400 800
Feet

FLOODPLAIN MAP SET

1 inch = 1,000 feet



Legend

- Floodway
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance, Protected by Levee
- 0.2% Annual Chance Flood Hazard
- Stream
- Original Water Main Route, If Shown
- Water Main Route



Figure 22 – Floodplain map

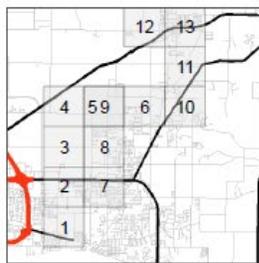
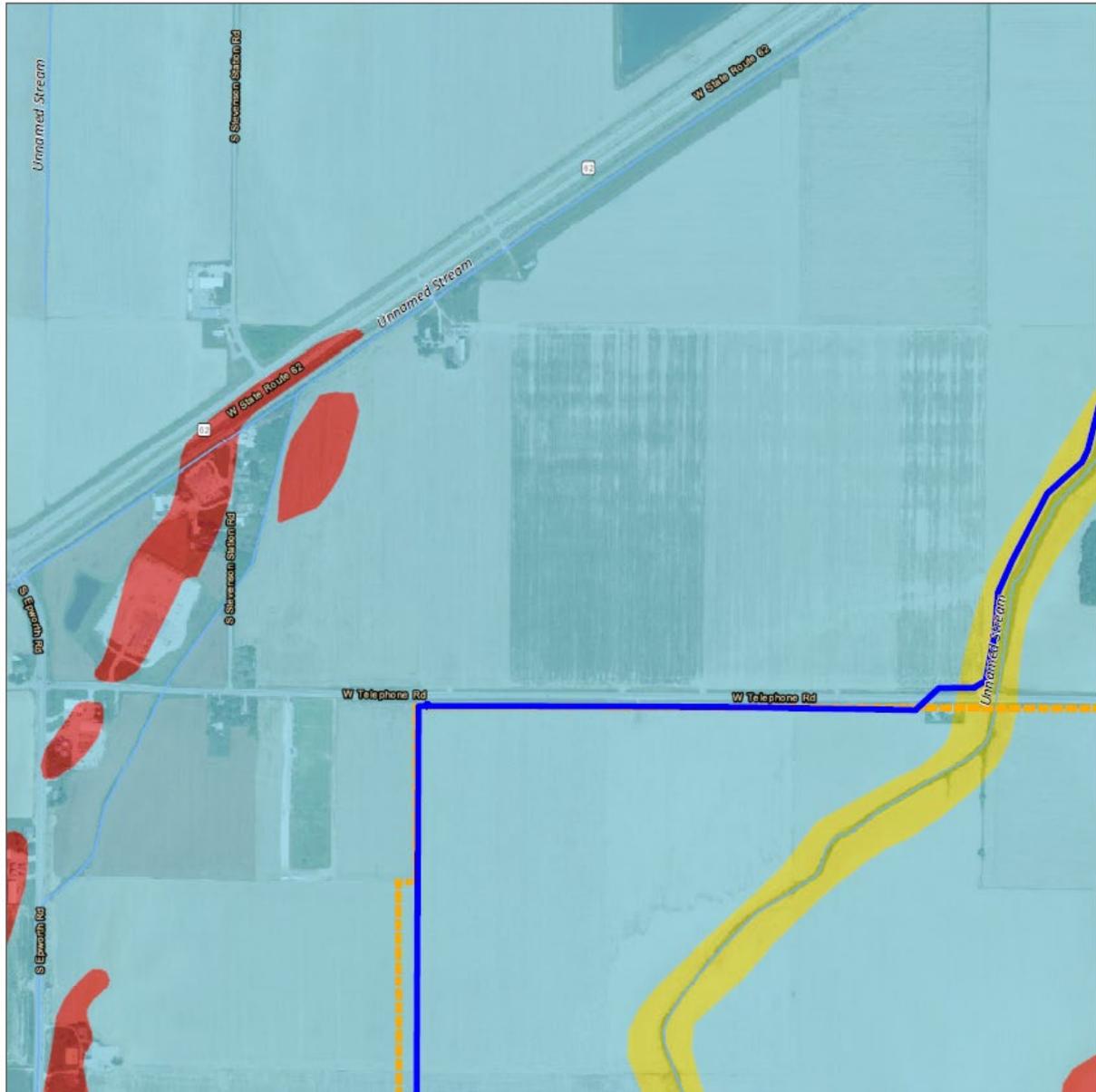
CHANDLER WATER SERVICE IMPROVEMENTS



0 200 400 800
Feet

FLOODPLAIN MAP SET

1 inch = 1,000 feet



Legend

- Floodway
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance, Protected by Levee
- 0.2% Annual Chance Flood Hazard
- Stream
- Original Water Main Route, If Shown
- Water Main Route

BLN
BEAM-LONGEST-NEFF

Revised: 07.18.2022

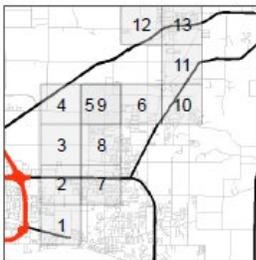
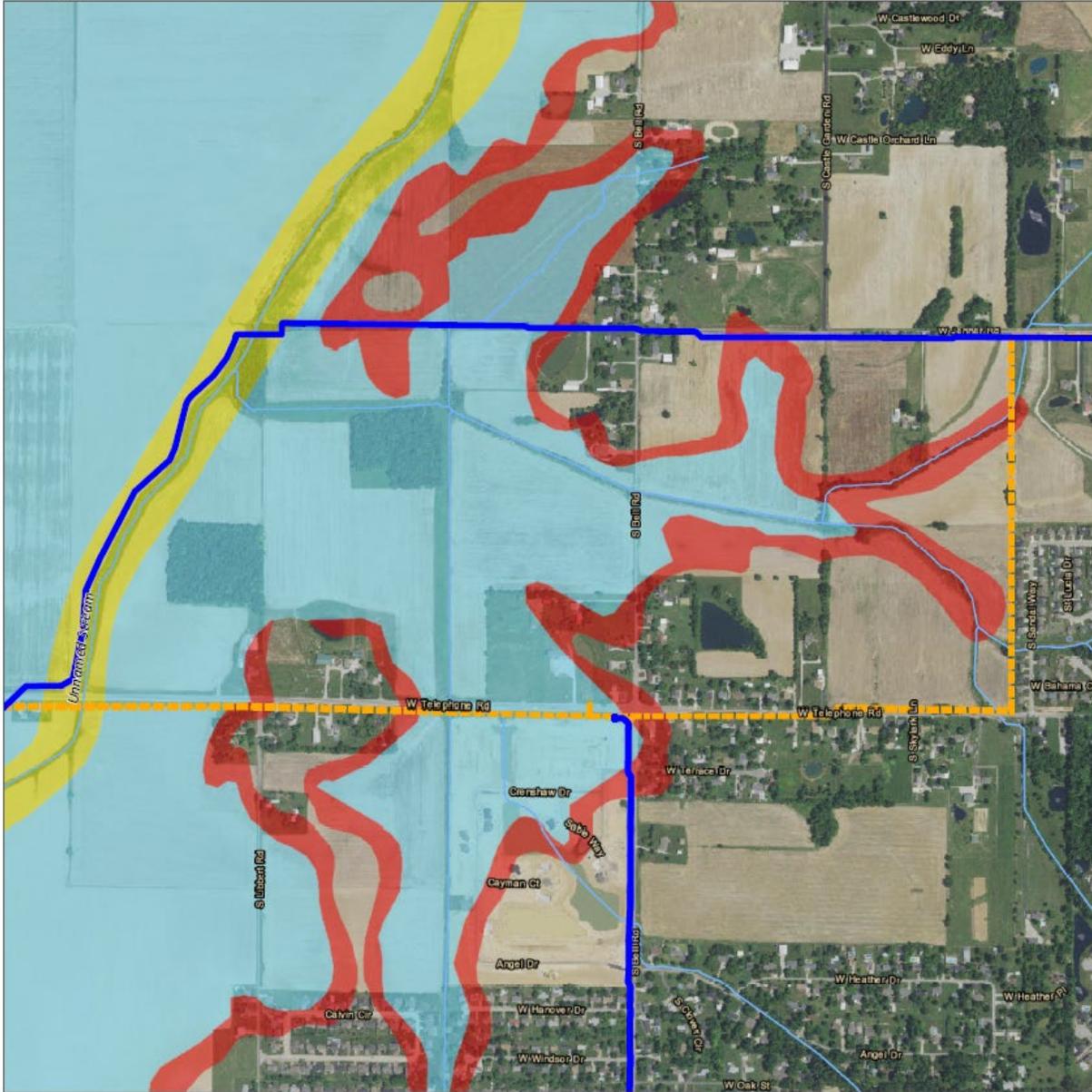
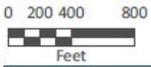
Figure 23 – Floodplain map

CHANDLER WATER SERVICE IMPROVEMENTS

FLOODPLAIN MAP SET



1 inch = 1,000 feet



Legend

- Floodway
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance, Protected by Levee
- 0.2% Annual Chance Flood Hazard
- Stream
- Original Water Main Route, If Shown
- Water Main Route



Figure 24 – Floodplain map

ARTICLE 10. FLOOD PLAIN MANAGEMENT

312 IAC 10-2-42 "Utility line crossing" defined

Authority: IC 14-28-1-5; IC 14-28-3-2

Affected: IC 14-27-7; IC 14-28-1; IC 14-28-3

Sec. 42. "Utility line crossing" means the utility crosses the waterway in a straight line at an angle of between forty-five (45) degrees and one hundred thirty-five (135) degrees from the streambank and does not parallel the waterway for more than fifty (50) feet in the floodway before crossing unless the parallel portion of the line is contained within existing road right-of-way. (*Natural Resources Commission; 312 IAC 10-2-42; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3389, eff Jan 1, 2002*)

Rule 5. General Licenses and Specific Exemptions from Floodway Licensing

312 IAC 10-5-0.3 Determining project eligibility for a general license; general criteria

Authority: IC 14-10-2-4; IC 14-28-1-5

Affected: IC 14-28-1; IC 14-29-1

Sec. 0.3. (a) Except as provided in subsections (b) and (c), a project for a utility line crossing, the removal of logjams and obstructions, or the placement of outfall projects within a floodway is eligible for a general license if the project satisfies the requirements of this rule. For the removal of logjams and obstructions, these requirements include the procedures established by section 0.6 of this rule.

(b) Subsection (a) does not authorize a project in any of the following circumstances:

(1) Within a river or stream listed in the Indiana Register at 16 IR 1677 in the Outstanding Rivers List for Indiana unless prior written approval from the division of water's environmental unit has been obtained.

(2) Within a salmonid stream designated under 327 IAC 2-1.5-5(a)(3).

(3) Within a natural, scenic, or recreational river or stream designated under 312 IAC 7-2.

(4) For a utility line crossing, below the ordinary high watermark of a navigable waterway listed in the Indiana Register at 20 IR 2920 in the Roster of Indiana Waterways Declared Navigable or Nonnavigable unless the utility line is placed beneath the bed of the waterway under section 4(b) of this rule.

(5) Where the project requires an individual permit from the United States Army Corps of Engineers under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.

(c) Subsection (a) does not authorize the removal of logjams or obstructions within one-half (½) mile of any of the following:

(1) A species listed in the Indiana Register at 15 IR 1312 in the Roster of Indiana Animals and Plants Which Are Extirpated, Endangered, Threatened, or Rare.

(2) A known mussel resource.

(3) An outstanding natural area, as contained on the registry of natural areas maintained in the natural heritage data center of the department.

(d) The limitations contained in subsection (b) and subsection (c) [subsections (b) and (c)] do not apply to section 7 of this rule.

(*Natural Resources Commission; 312 IAC 10-5-0.3; filed Aug 2, 2004, 3:18 p.m.: 27 IR 3875*)

312 IAC 10-5-2 General licensing for utility line crossings

Authority: IC 14-10-2-4; IC 14-28-1-5

Affected: IC 14-27-7; IC 14-28-1; IC 14-29-1

Sec. 2. Except as provided in sections 3 and 4 of this rule, a license is required under IC 14-28-1, IC 14-29-1, and 312 IAC 10-4 to place a utility line in or on a floodway where:

(1) the drainage area of a river or stream is at least one (1) square mile at the downstream end of the line's floodway segment; or

(2) a dam or levee regulated under IC 14-27-7 is affected.

(*Natural Resources Commission; 312 IAC 10-5-2; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3394, eff Jan 1, 2002*)

312 IAC 10-5-3 Aerial electric, telephone, or cable television lines; general license

Authority: IC 14-10-2-4; IC 14-28-1-5

Affected: IC 14-28-1; IC 14-29-1; IC 14-29-6

Sec. 3. The placement of an aerial electric, telephone, or cable television line is authorized without a written license issued by the department under IC 14-28-1, IC 14-29-1, and 312 IAC 10-4 if:

(1) the activity does not disturb the bed of the waterway beneath the line;

(2) the activity conforms with the minimum clearance requirements of section 4(b)(9) of this rule;

(3) the support mechanisms are located at least seventy-five (75) feet from the top of the bank; and

(4) the utility line crossing is not within the floodway of a natural river, scenic river, or recreational river designated under 312 IAC 7-2.

(*Natural Resources Commission; 312 IAC 10-5-3; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3394, eff Jan 1, 2002; filed Aug 2, 2004, 3:18 p.m.: 27 IR 3876*)

312 IAC 10-5-4 Qualified utility line crossings; general license

Authority: IC 14-10-2-4

Affected: IC 13-11-2-260; IC 14-27-7; IC 14-28-1-29; IC 14-33; IC 36-9-27

Sec. 4. (a) This section establishes a general license for the placement of a qualified utility line crossing in a floodway.

(b) A person who wishes to implement a project for the placement of a qualified utility line crossing on a river or stream, other than on a river or stream identified in section 0.3(b) or 0.3(c) of this rule, may do so without notice to the department if the project conforms to the following conditions:

(1) Tree removal and brush clearing shall be contained and minimized within the utility line crossing area. No more than one (1) acre of trees shall be removed within the floodway.

(2) Construction activities within the waterway from April 1 through June 30 shall not exceed a total of two (2) calendar days.

(3) Best management practices shall be used during and after construction to minimize erosion and sedimentation.

(4) Following the completion of construction, disturbed areas shall be reclaimed and revegetated. Disturbed areas shall be mulched with straw, wood fiber, biodegradable erosion blanket, or other suitable material. To prevent erosion until revegetated species are established, loose mulch shall be anchored by crimping, tackifiers, or netting. To the extent practicable, revegetation must restore species native to the site. If revegetation with native species is not practicable, revegetation shall be performed by the planting of a mixture of red clover, orchard grass, timothy, perennial rye grass, or another species that is approved by the department as being suitable to site and climate conditions. In no case shall tall fescue be used to revegetate disturbed areas.

(5) Disturbed areas with slopes of three to one (3:1) or steeper, or areas where run-off is conveyed through a channel or swale, shall be stabilized with erosion control blankets or suitable structural armament.

(6) No pesticide will be used on the banks.

(7) If a utility line transports a substance that may cause water pollution as defined in IC 13-11-2-260, the utility line will be equipped with an emergency closure system.

(8) If a utility line is placed beneath the bed of a river or stream, the following conditions are met:

(A) Cover of at least three (3) feet measured perpendicularly to the utility line is provided between the utility line and the banks.

(B) If the placement of a utility line is not subject to regulation under IC 14-28-1-29, IC 14-33, or IC 36-9-27, cover is provided as follows:

(i) At least three (3) feet, measured perpendicularly to the utility line, between the lowest point of the bed and the top of the utility line or its encasement, whichever is higher, if the bed is composed of unconsolidated materials.

(ii) At least one (1) foot, measured perpendicularly to the line, between the lowest point of the bed and the top of the utility line or its encasement, whichever is higher, if the bed is composed of consolidated materials.

(C) If the placement of the utility line is subject to regulation under IC 14-28-1-29, IC 14-33, or IC 36-9-27, cover is provided as follows:

(i) At least three (3) feet, measured perpendicularly to the utility line, between the design bed and the top of the line or its encasement, whichever is higher, if the bed is composed of unconsolidated materials.

(ii) At least one (1) foot, measured perpendicularly to the line, between the design bed and the top of the line or its encasement, whichever is higher, if the bed is composed of consolidated materials.

(D) Negative buoyancy compensation is provided where the utility line has a nominal diameter of at least eight (8) inches and transports a substance having a specific gravity of less than one (1).

(9) If a utility line is placed above the bed of a river or stream, the following conditions are met:

(A) Except as provided in clauses (B) and (C), minimum clearance is provided from the lowest point of the utility line (determined at the temperature, load, wind, length of span, and type of supports that produce the greatest sag) calculated as the higher of the following:

(i) Twelve and one-half (12½) feet above the ordinary high watermark.

(ii) Three (3) feet above the regulatory flood elevation.

(B) If the river or stream is a navigable waterway that is subject to IC 14-28-1, the utility line that crosses over the waterway must be placed to provide the greater of the following:

(i) The minimum clearance required under clause (A).

(ii) The minimum clearance required for the largest watercraft that is capable of using the waterway. The utility must consult in advance with the department to determine the minimum clearance for watercraft at the crossing.

(C) If a utility line is attached to or contained in the embankment of an existing bridge or culvert, no portion of the utility line or its support mechanism may project below the low structure elevation or otherwise reduce the effective waterway area.

(10) A utility line placed in a dam or levee regulated under IC 14-27-7 does not qualify for a general license under this subsection.

(c) A person who elects to act under this section must comply with the general conditions under subsection (b). Failure to comply with these terms and conditions may result in the revocation of the general license, a civil penalty, a commission charge, and any other sanction provided by law for the violation of a license issued under IC 14-28-1 and, if the waterway is navigable, the violation of a license issued under IC 14-29-1. (*Natural Resources Commission; 312 IAC 10-5-4; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3394, eff Jan 1, 2002; filed Dec 26, 2001, 2:42 p.m.: 25 IR 1545; errata filed Mar 13, 2002, 11:51 a.m.: 25 IR 2521; filed Aug 2, 2004, 3:18 p.m.: 27 IR 3876*)