



# State Revolving Fund Loan Programs

## Drinking Water, Wastewater, Nonpoint Source

---

### ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

---

#### TOWN OF WHITESTOWN

#### NEW WATER MAINS NEAR I-65 AND CR E 400 S AND ALONG CR S 650 E

#### SRF PROJECT DW05 16 06 03

**DATE:** November 25, 2009

**TARGET PROJECT APPROVAL DATE:** December 28, 2009

#### I. INTRODUCTION

The above entity has applied to the Drinking Water State Revolving Fund (DWSRF) Loan Program for a loan to finance all or part of the drinking water project described in the attached 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 at <http://www.in.gov/ifa/srf/>.

#### II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The DWSRF 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 4-4-11, 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 deadline 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:

**Max Henschen**  
**Senior Environmental Manager**  
**State Revolving Fund**  
**100 N. Senate Ave. IGCN 1275**  
**Indianapolis, IN 46204**  
**317-232-8623; mhensche at ifa.in.gov**

---

# ENVIRONMENTAL ASSESSMENT

---

---

## I. PROJECT INFORMATION

Project Name and Address:	Town of Whitestown 3 South Main Street Whitestown, IN 46075
SRF Project Number:	DW 05 16 06 03
Authorized Representative:	Mr. Jason Tribby Town Council President

## II. PROJECT LOCATION

Whitestown is located in Boone County. The existing and future service areas are shown on Figure 1 and include parts of Worth, Eagle and Perry Townships.

The proposed project near I-65 and CR E 400 S is located in Worth Township, Fayette USGS quadrangle, T18N, R1E, sections 23 and/or 26 (i.e., the line could be on either side of CR E 400 S). See Figure 2.

The proposed project along CR S 650 E is in Worth Township north of CR 500 S and in Eagle Township south of CR E 500 S, T18N, R2E, sections 19, 30 and 31, all in the Zionsville USGS quadrangle. See Figure 3.

## III. PROJECT NEED AND PURPOSE

The water distribution system is divided into two pressure zones: the north system is served by the Whitestown water treatment plant (WTP), and the south system is served by the Indianapolis Water Company (IWC).

The water treatment plant was constructed in 2002, but unexpected development in the area has left the WTP undersized for future flows. In addition, the town is under an Agreed Order with the Indiana Department of Environmental Management (IDEM) due to water quality violations at the WTP.

Some mains in the distribution system were installed in the 1950s and have reached the end of their useful life. In addition, both the north and south systems have several dead ends. Due to the dead end portions, the town experiences water quality issues and more main breaks during the winter months.

The proposed project will address these issues.

#### IV. PROJECT DESCRIPTION

The proposed project will connect the north and south distribution systems, connect both systems to the IWC, and abandon the WTP. Future average day demand for Whitestown is projected to be 1.22 million gpd, and peak day demand is projected to be 3.12 million gpd. A new purchase agreement with the Indianapolis Department of Waterworks provides that Indianapolis Department of Waterworks will supply Whitestown up to four million gallons per day (gpd) at a pressure of at least 35 pounds per square inch at the meter point.

The north and south distribution systems will be connected at two locations: (1) from the existing 500,000 gallon elevated tank, the water main will be extended north along CR S 650 E to a connection point at the south end of the north distribution system; (2) the second connection point is at the west end of the distribution system and will connect the south and north distribution systems between Old U.S. 52 and West 146<sup>th</sup> Street and CR 400 East. With these water main extensions, the Whitestown distribution system will be looped and all customers will receive water from the Indianapolis Water Company.

#### V. ESTIMATED PROJECT COSTS

<u>Construction</u>	<u>Estimated Cost</u>
20-inch Transmission Main 5730 feet	\$ 515,700
16-inch Transmission Main 8040 feet	522,600
12-inch Transmission Main 9860 feet	493,000
I-65 Crossing	190,000
Fittings/Hydrants/Valves	206,556
Mobilization/Demobilization	40,000
Site Restoration	<u>60,000</u>
<b>Total Estimated Construction Cost</b>	<b>\$2,027,856</b>

<u>Non-Construction</u>	<u>Estimated Cost</u>
Administrative, Legal, Bond	\$ 20,000
Land & Right-of-way Acquisition	128,500
Engineering Fees, Construction	201,600
Project Inspection	<u>66,100</u>
<b>Non-Construction Cost</b>	<b>\$416,200</b>

Contingencies (3%) \$155,944

**Total Estimated Project Cost \$2,600,000**

Whitestown will finance the project with a 20-year loan from the SRF program at an interest rate to be determined at the time of 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

Alternatives were evaluated based on cost-effectiveness, technical feasibility, practicality, reliability, ease of implementation, and environmental soundness.

### **A. No Action**

The no action alternative consists of maintaining the poor distribution and treatment conditions. Due to growth which was not anticipated at the time of the 2002 WTP project, the waterworks system would continue to have water quality issues, service connection bans, and distribution problems. This alternative was rejected.

### **B. Expand and Improve the Waterworks System**

Improvements have been made to the WTP, but the plant continues to experience water quality issues. A new water treatment plant would be necessary to provide capacity for future growth and to meet water quality standards. Additional well(s) and water storage would be required to serve present and future demand. Finally, the undersized lines in the older part of town would be replaced and the system looped to improve water flows and eliminate dead-ends. This alternative was rejected due to cost.

### **C. IWC Connection with North and South Connections**

This selected alternative will construct new transmission mains to connect the north and south systems; the project will also maintain the connection with IWC and abandon the treatment plant. This will allow Whitestown to meet present and near future demands. This alternative will also allow the community to come into compliance with its Agreed Order.

## **VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES**

### **A. Direct Impacts of Construction and Operation**

**Undisturbed Land:** Much of the project will occur on land which has not been significantly disturbed by previous construction activity. Archaeological surveys on the portions of the project area suitable to contain cultural materials found eight archaeological sites, which the archaeologist concluded were not significant.

**Structural Resources** (Figures 4 and 5): The proposed projects will not alter, demolish or remove historic properties. If any visual or audible impacts to historic sites occur, they will be temporary and will not alter the characteristics that qualify historic properties for inclusion in or eligibility for the State or National Registers. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "no historic properties affected."

**Prime Farmland:** The project will not affect prime farmland soils.

**Wetlands** (Figures 6 and 7): Directional drilling will be used for installation of the transmission mains where wetlands are encountered.

**Stream Crossing/Surface Water** (Figures 6 and 7): The project will require a crossing of Fishback Creek, which will be directionally drilled. The project will not adversely affect Exceptional Use streams, Outstanding State Resource waters or Natural and Scenic Recreational Rivers and Streams.

**100-Year Floodplain** (Figure 8): Construction activity will take place in the 100-year floodplain, but no displacement of flood waters will occur.

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

**Air Quality:** Construction activities may generate some noise, fumes, and dust. These are short-term impacts, lasting only during the construction phase.

**Plant and Animals:** The construction and operation of the project will not negatively affect state or federal-listed endangered species. Minor tree and shrub removal will be required for the construction of the water main south of CR E 400 S and east of I-65. The project will be implemented to minimize impact to non-endangered species and their habitat.

**Open Space and Recreational Opportunities:** The proposed project's construction and operation will neither create nor destroy open space and recreational opportunities.

The construction and operation of the proposed project will not impact National Natural Landmarks.

## **B. Indirect Impacts**

Whitestown's Preliminary Engineering Report (PER) states: *The Town, through the authority of its Council, planning commission, or other means, will ensure that future development, as well as future supply, storage, distribution or treatment works projects connecting to SRF-funded facilities will not adversely impact archaeological/historical/structural resources, wetlands, wooded areas, or other sensitive environmental resources. The Town 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**

The Natural Resources Conservation Service (NRCS), in correspondence dated May 6, 2009, stated: *The proposed project... will not cause a conversion of prime farmland.*

The U.S. Fish and Wildlife Service, in correspondence dated November 19, 2009, stated: *Where the [route of the project near I-65] crosses open land it passes through two woodlots. According to the National Wetland Inventory (NWI) maps the southernmost woodlot contains a forested wetland, and it appears that the water line would pass through the west end of the wetland. Both woodlots cover 8-10 acres, however the northern woodlot contains 3 residences. The south end of the C.R. 650 east pipeline crosses Fishback Creek and passes through open agricultural land. There do not appear to be any significant wildlife issues related to other project components. The project report states that stream and wetland crossings will be directionally drilled. We support that design feature and recommend against disturbance of the stream channel, riparian zone and wetland. We also recommend the following additional mitigation measures to minimize project impacts on fish and wildlife resources:*

1. *Maintain an undisturbed buffer around the subject wetland at least 50 feet wide.*

2. *Avoid disturbance of all riparian forest along Fishback Creek.*
3. *Install temporary erosion control measures during construction to prevent soil runoff to streams or wetlands.*

*The proposed project is within the range of the federally endangered Indiana bat (Myotis sodalis). The two woodlots contain suitable summer habitat for Indiana bats, however they are so small and isolated from other habitat that the probability of the presence of Indiana bats is discountably low. We concur that the proposed project is not likely to adversely affect this listed species.*

*If...project plans are changed significantly, please contact our office for further consultation.*

The SRF requested comment on the project from the IDNR Division of Historic Preservation and Archaeology on November 4; to date, the DHPA has not provided comments.

The IDNR Environmental Unit, in correspondence dated November 10, 2009, noted that the project was in review.

## **VIII. MITIGATION MEASURES**

Whitestown's PER states:

*Mitigation measures cited in comment letters from the Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.*

*The adverse impacts caused by dust may be alleviated by periodically wetting the exposed soil and unpaved roadways to reduce the suspension of particles. To reduce noise impacts, work activities can be limited to normal daytime hours.*

*If necessary, dewatering will be employed during construction with the flow directed to a sedimentation basin prior to being discharged to surrounding surface waters.*

*Sediment and erosion will be kept to a minimum and any mitigation measures mandated by authorized reviewing agencies to reduce or eliminate waterway contamination will be implemented.*

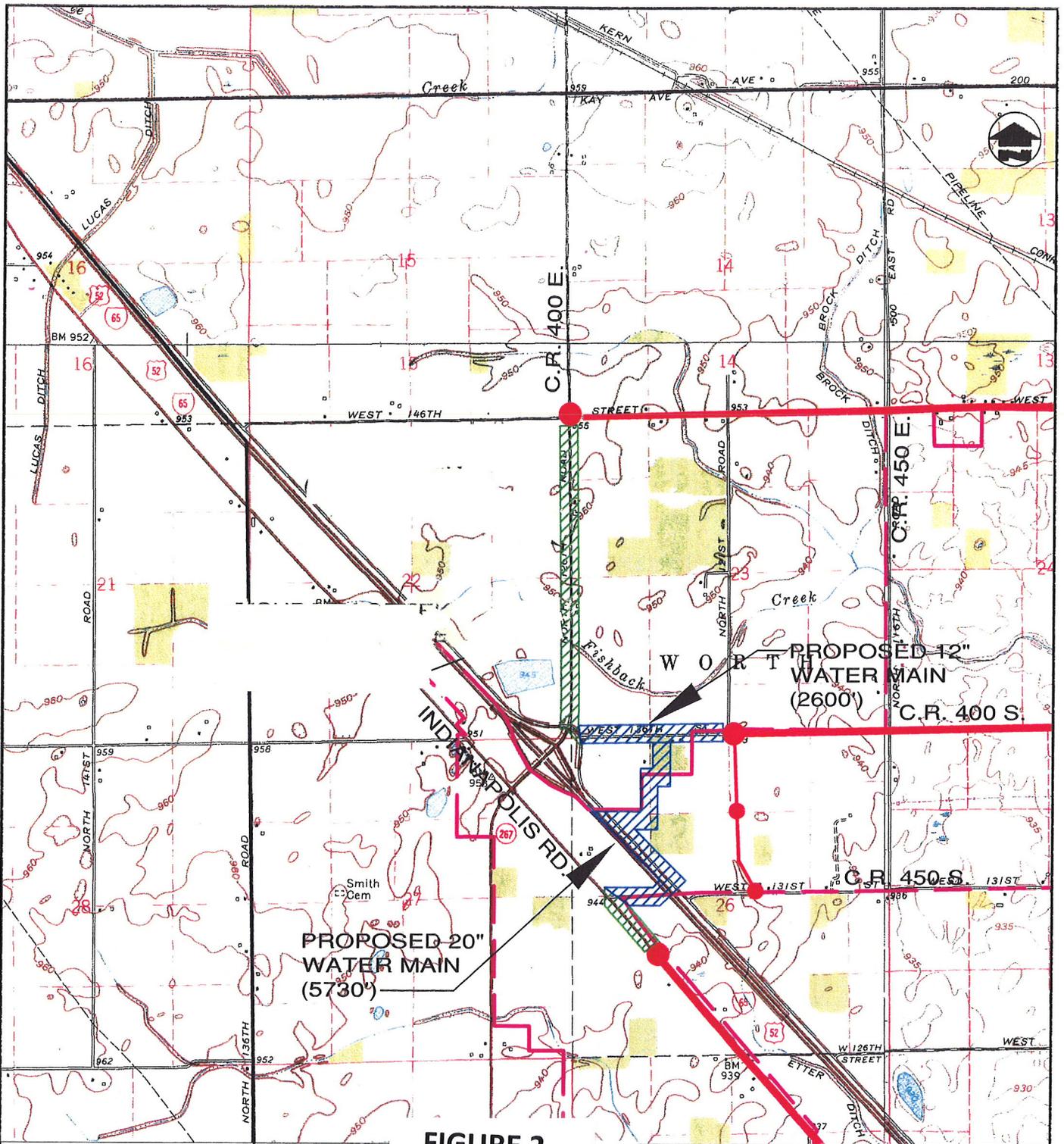
*Mitigation measures to limit sediment and erosion will include the following:*

1. *Sediment and erosion control measures required by the project specifications will require the contractor to follow provided controlling measures to ensure erosion and sediment control.*
2. *Site restoration will be required, which includes restoring site to equal or better site conditions prior to construction.*

3. *Excavations will be limited to 300 feet of open trench, in which sediment and erosion control measures will be used to isolate the disturbed areas.*
4. *If dewatering is needed, water will be directed to sedimentation basins prior to discharging into surrounding surface waters.*
5. *Sediment and erosion control measures shall meet federal, state, and local requirements.*

## **IX. PUBLIC PARTICIPATION**

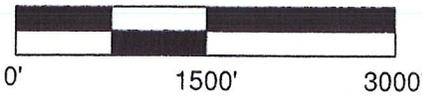
A properly advertised public hearing was held at 6:30 pm on Tuesday March 3, 2009 at the Worth Township Fire Station to discuss the Preliminary Engineering Report. A copy of the Preliminary Engineering Report was available for public review for ten days prior to the public hearing. There were no written comments received from the public during the five day period after the public hearing.



SOURCE: US GEOLOGICAL SURVEY 7.5 MINUTE SERIES (TOPOGRAPHIC)

**FIGURE 2**

**USGS MAP  
WATER TRANSMISSION MAIN  
TOWN OF WHITESTOWN**



SCALE: 1" = 1500'

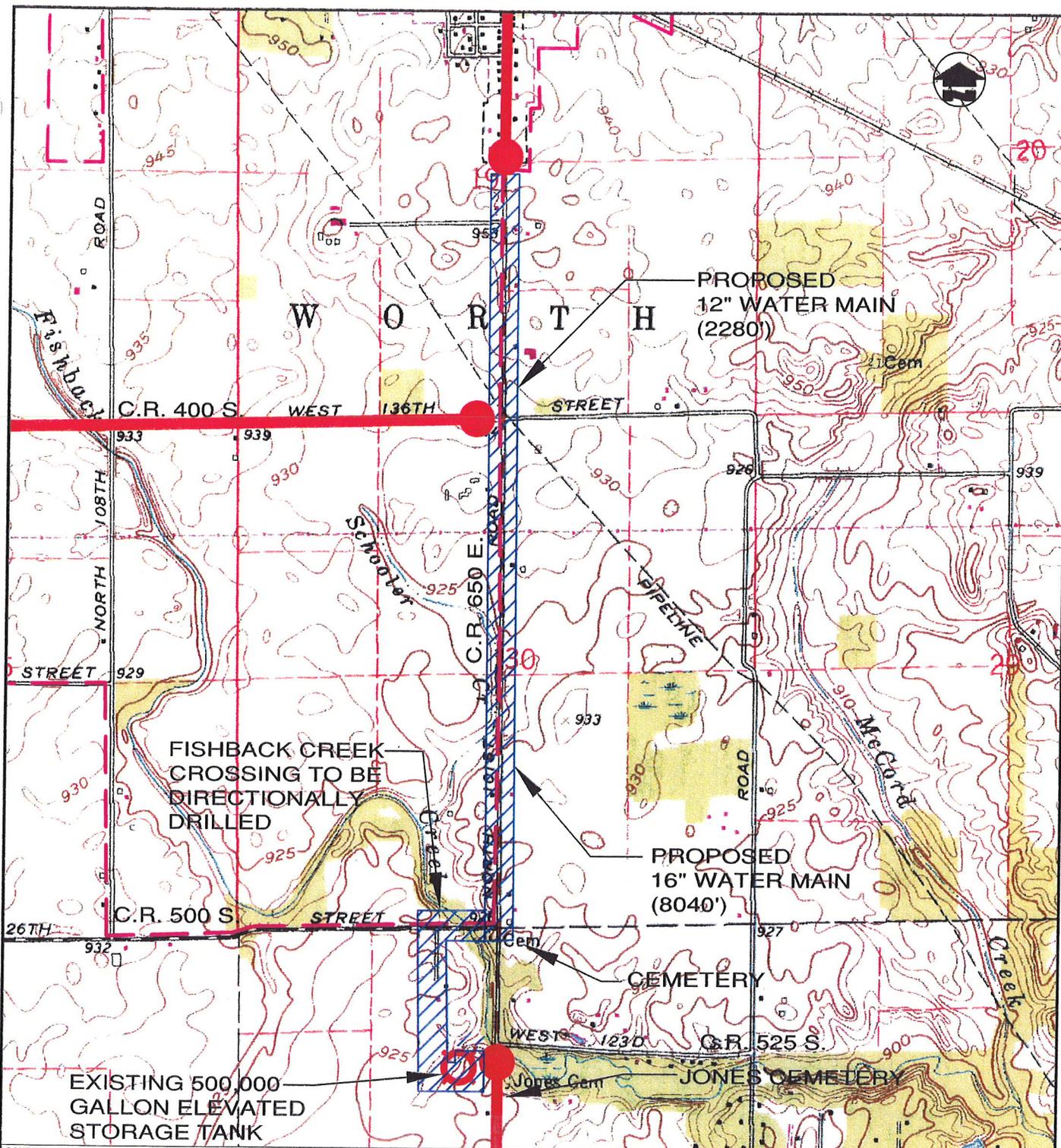
LEGEND	
<span style="color: red;">●</span>	PROPOSED CONNECTION LOCATION
<span style="border-bottom: 1px solid black; width: 20px; display: inline-block;"></span>	FUTURE SERVICE/STUDY AREA
<span style="border-bottom: 1px dashed red; width: 20px; display: inline-block;"></span>	EXISTING SERVICE AREA
<span style="border-bottom: 2px solid red; width: 20px; display: inline-block;"></span>	EXISTING WATER/TRANSMISSION MAIN
<span style="border-bottom: 2px dashed blue; width: 20px; display: inline-block;"></span>	PROPOSED ROUTE 150' CORRIDOR*
<span style="border-bottom: 2px dashed green; width: 20px; display: inline-block;"></span>	PROPOSED ROUTE 150' CORRIDOR* APPROVED NOVEMBER 21, 2006 PER

\*NOTE: 150' CORRIDORS ARE 75' EACH WAY FROM CENTER LINE OF ROADS AND ARE SHOWN 300' WIDE



**GRW Engineers, Inc.**  
Engineers, Architects, Planners  
LEXINGTON LOUISVILLE NASHVILLE NEW ALBANY INDIANAPOLIS  
PORT MITCHELL KNOXVILLE ARLINGTON COLUMBUS

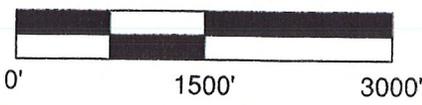
DATE: FEBRUARY 2009  
FILE NAME: I13732 - Whitestown MunicipalXXX Report/Report/PERI/Exhibits/Project Location Exhibit.dwg  
REVISED: 10/16/09



SOURCE: US GEOLOGICAL SURVEY 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE FOR ZIONSVILLE, AND FAYETTE.

**FIGURE 3**  
**USGS MAP**  
**WATER TRANSMISSION MAIN**  
**TOWN OF WHITESTOWN**

**GRW**  
**GRW Engineers, Inc.**  
**Engineers, Architects, Planners**  
 LEXINGTON LOUISVILLE NASHVILLE NEW ALBANY INDIANAPOLIS  
 FORT MITCHELL KNOXVILLE ASHLANDTON COLUMBUS



SCALE: 1" = 1500'

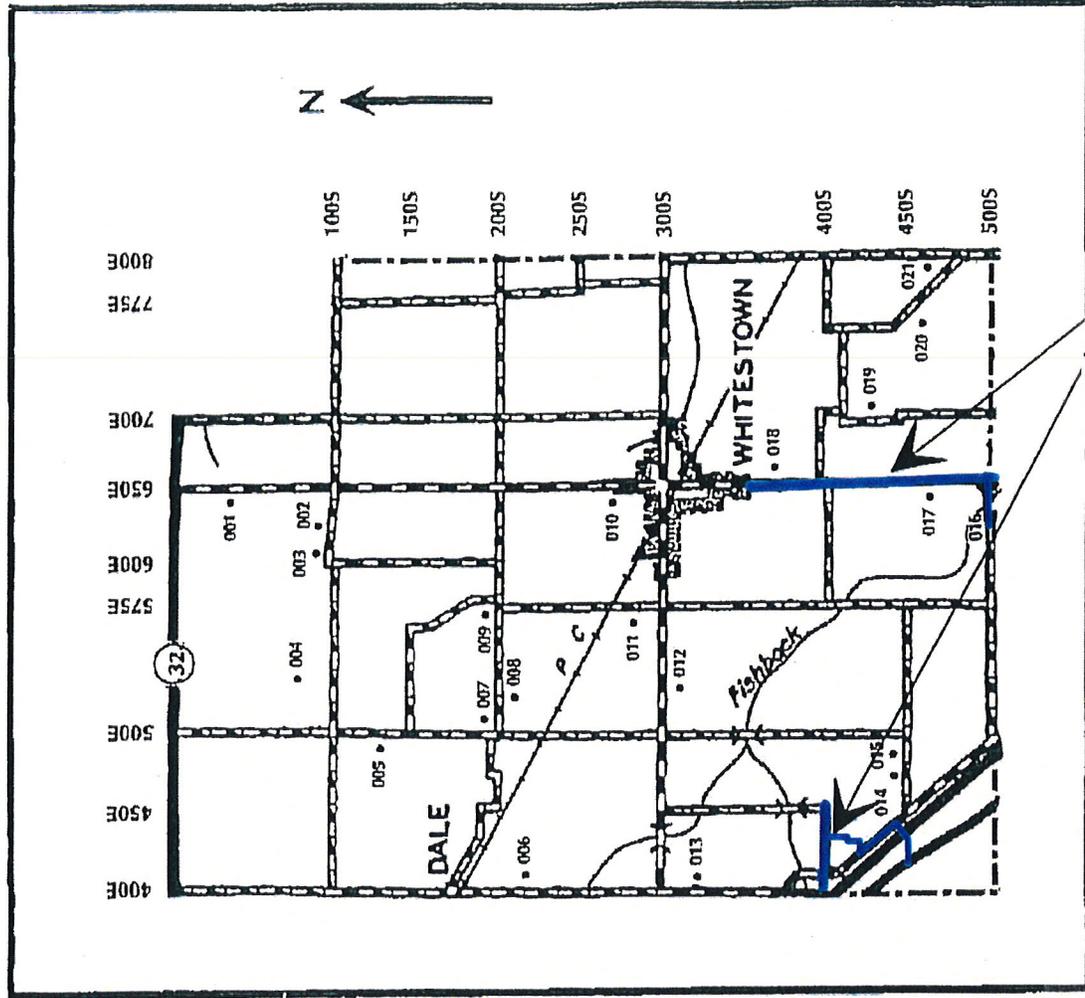
LEGEND	
	PROPOSED CONNECTION LOCATION
	FUTURE SERVICE/STUDY AREA
	EXISTING SERVICE AREA
	EXISTING WATER/TRANSMISSION MAIN
	PROPOSED ROUTE 150' CORRIDOR*
	PROPOSED ROUTE 150' CORRIDOR* APPROVED NOVEMBER 21, 2006 PER

\*NOTE: 150' CORRIDORS ARE 75' EACH WAY FROM CENTER LINE OF ROADS AND ARE SHOWN 300' WIDE

DATE: FEBRUARY 2009  
 FILE NAME: I13732 - Whitestown Municipal\XXX Report\Report\PER\Exhibits\Project Location Exhibit.dwg  
 REVISED: 10/16/09

# WORTH TOWNSHIP (35001-021)

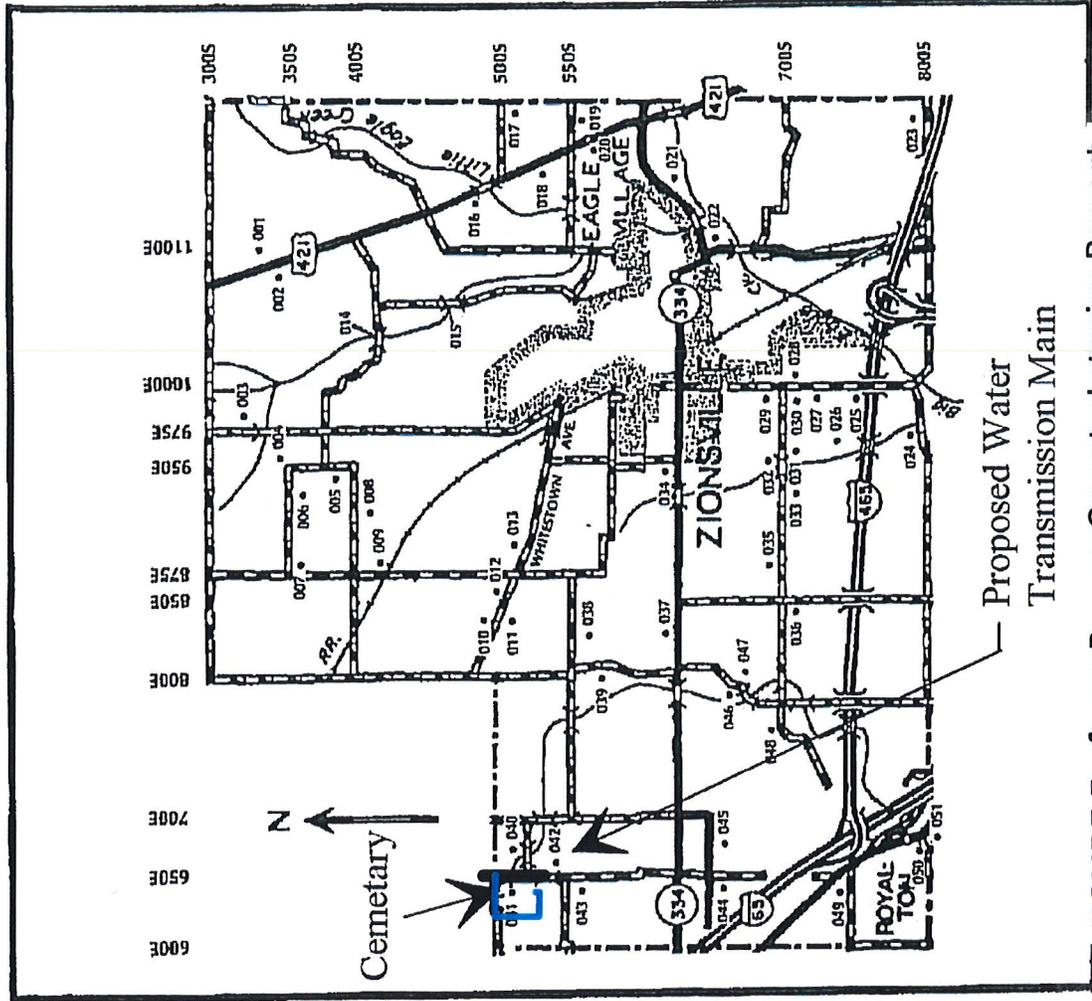
No.	Rtg.	Description
001	C	Farm, 650 E; Greek Revival, c.1855; Architecture (552)
002	C	Livengood Farm, 100 S; Carpenter-Builder/Eastlake, 1893; Architecture (552)
003	C	Casey Farm, 100 S; Carpenter-Builder, c.1900; Architecture (552)
004	C	Farm, 100 S; Carpenter-Builder, 1904; Architecture (552)
005	C	Mose Neese Farm, 500 S; Italianate, c.1875; Architecture (349)
006	C	Farm, 400 E; Carpenter-Builder, c.1900; Architecture (349)
007	C	Farm, 200 S; Carpenter-Builder/Eastlake, c.1890; Architecture (552)
008	C	Farm, 200 S; Carpenter-Builder, c.1880; Architecture (552)
009	C	Scott Farm, 200 S; Carpenter-Builder, c.1890; Architecture (552)
010	N	House, 650 E; Carpenter-Builder/Eastlake, c.1890; Architecture (552)
011	C	Farm, 575 E; Federal, c.1840; Architecture (669)
012	C	Neese Farm, 300 S; Carpenter-Builder, c.1870; Architecture (699)
013	C	Groover Farm, 400 E; Carpenter-Builder, 1875/1906; Architecture (205)
014	C	Farm, 450 S; Carpenter-Builder, c.1890; Architecture (502)
015	C	House, 450 S; Carpenter-Builder, c.1900; Architecture (205)



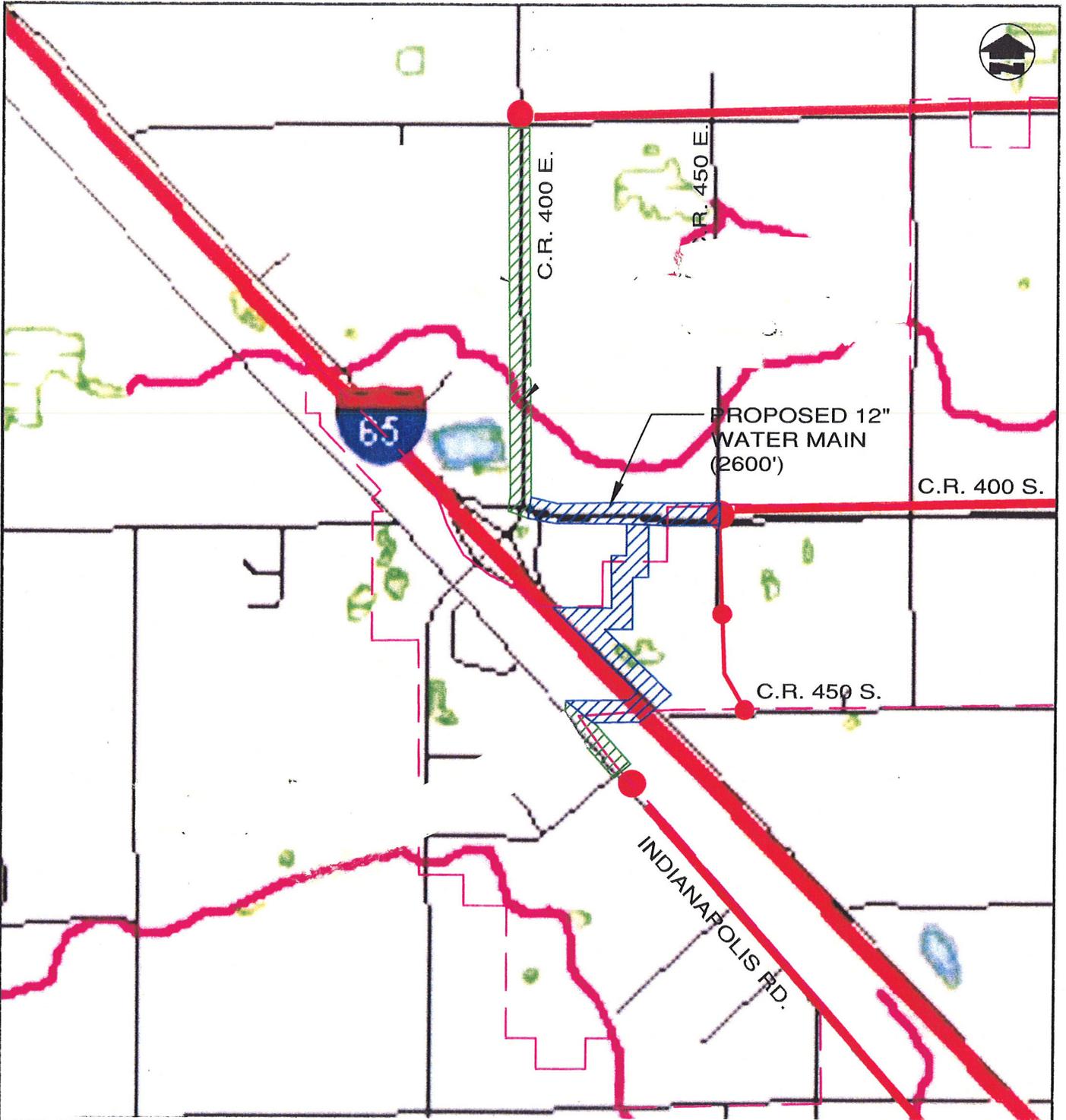
**FIGURE 4:** from Boone County Interim Report  
Historic Sites and Structures Inventory

# EAGLE TOWNSHIP (40001-051)

No.	Rtg.	Description
001	C	House, U.S. 421; Bungalow, c.1930; Architecture (699)
002	N	House, U.S. 421; Italianate, c.1890; Architecture (699)
003	C	House, 975 E; Neo-Pioneer, c.1920; Architecture, Vernacular/Construction (699)
004	C	Thomas Jervis House, 350 S; Carpenter-Builder/Eastlake, 1905; Architecture (699)
005	C	Byrkott Farm, 950 E; Carpenter-Builder/Eastlake, c.1880; Architecture (699)
006	C	Burrs Farm, 350 S; Carpenter-Builder, c.1880; Architecture, Education (699)
007	C	House, 875 E; Carpenter-Builder, c.1890; Architecture (699)
008	C	George Shelburne Farm, 400 S; Carpenter-Builder/Eastlake, c.1890; Architecture (699)
009	C	Farm, 875 E; Carpenter-Builder, c.1900; Architecture (699)
010	C	House, Whitestown-Zionsville Avenue; Carpenter-Builder, c.1885; Architecture (699)
011	C	House, Whitestown-Zionsville Avenue; Carpenter-Builder, c.1900; Architecture (699)
012	N	Farm, Whitestown-Zionsville Avenue; Italianate, c.1880; Architecture, Indian (699)
013	C	Barn, Whitestown-Zionsville Avenue; Carpenter-Builder, c.1880; Architecture (699)



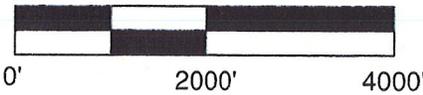
**FIGURE 5:** from Boone County Interim Report  
Historic Sites and Structures Inventory



SOURCE: INDIANA GEOLOGICAL SURVEY OF BOONE COUNTY, INDIANA.

**FIGURE 6**

**WETLAND SURVEY MAP  
WATER TRANSMISSION MAIN  
TOWN OF WHITESTOWN**



SCALE: 1" = 2000'

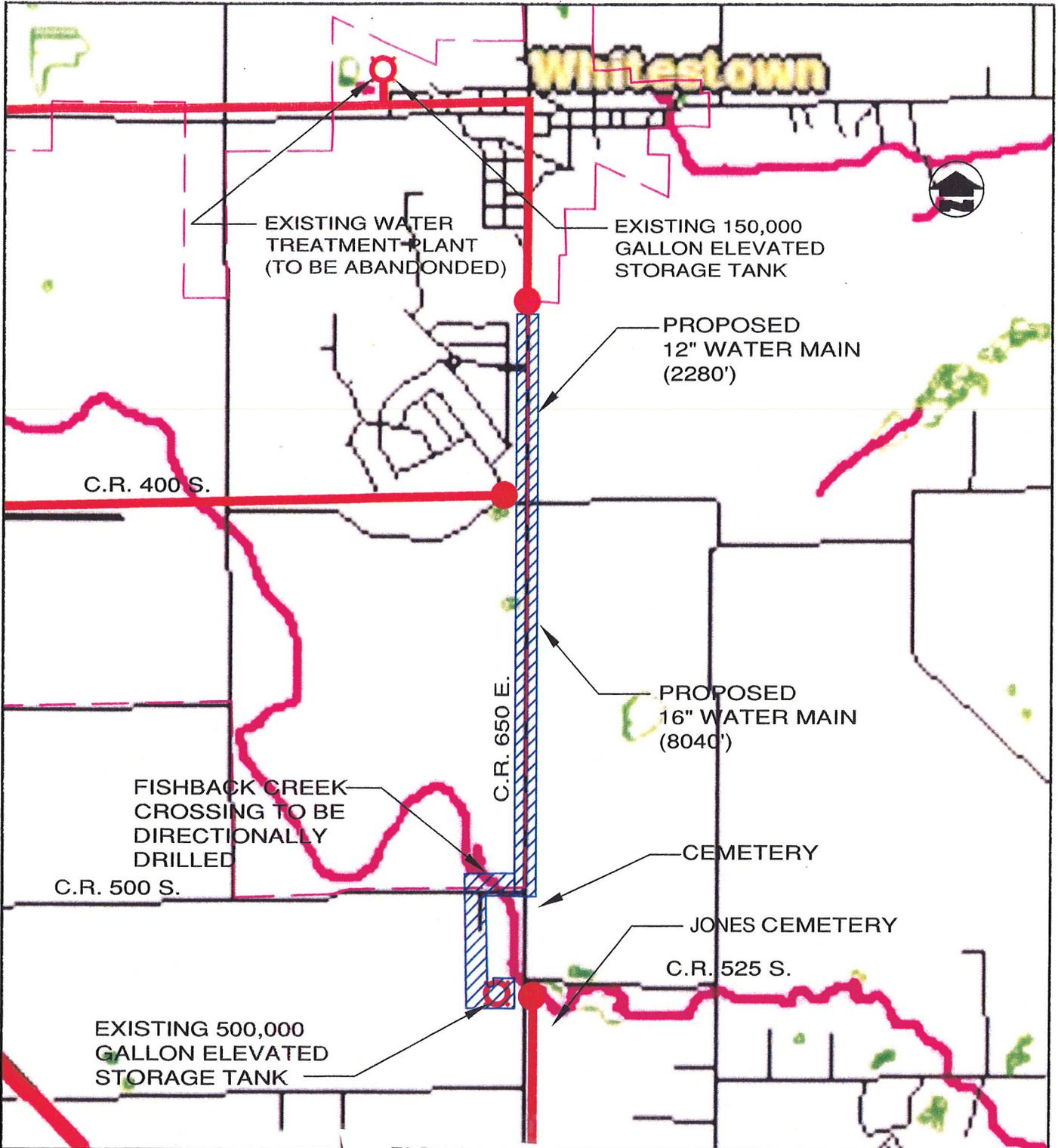
LEGEND	
	WETLANDS
	WETLAND POINTS
	PROPOSED CONNECTION LOCATION
	RIVERINE WETLANDS
	FUTURE SERVICE/STUDY AREA
	EXISTING SERVICE AREA
	EXISTING WATER/TRANSMISSION MAIN
	PROPOSED ROUTE 150' CORRIDOR*
	PROPOSED ROUTE 150' CORRIDOR* APPROVED IN NOVEMBER 21, 2006 PER

\*NOTE: 150' CORRIDORS ARE 75' EACH WAY FROM CENTER LINE OF ROADS AND ARE SHOWN 300' WIDE



**GRW Engineers, Inc.**  
Engineers, Architects, Planners  
LEXINGTON LOUISVILLE NASHVILLE NEW ALBANY INDIANAPOLIS  
FORT MYERS KNOXVILLE ARLINGTON COLUMBUS

DATE: FEBRUARY 2009  
FILE NAME: I:\3732 - Whites town Municipal\XXX Report\PERI\Exhibits\Wetland Exhibit.dwg  
REVISED: 10/16/09



SOURCE: INDIANA GEOLOGICAL SURVEY OF BOONE COUNTY, II

**FIGURE 7**

**WETLAND SURVEY MAP  
WATER TRANSMISSION MAIN  
WHITESTOWN MUNICIPAL UTILITIES**



**GRW Engineers, Inc.**  
Engineers, Architects, Planners  
LEXINGTON LOUISVILLE NASHVILLE NEW ALBANY INDIANAPOLIS  
FORT MITCHELL KNOXVILLE ASHLINGTON COLUMBUS

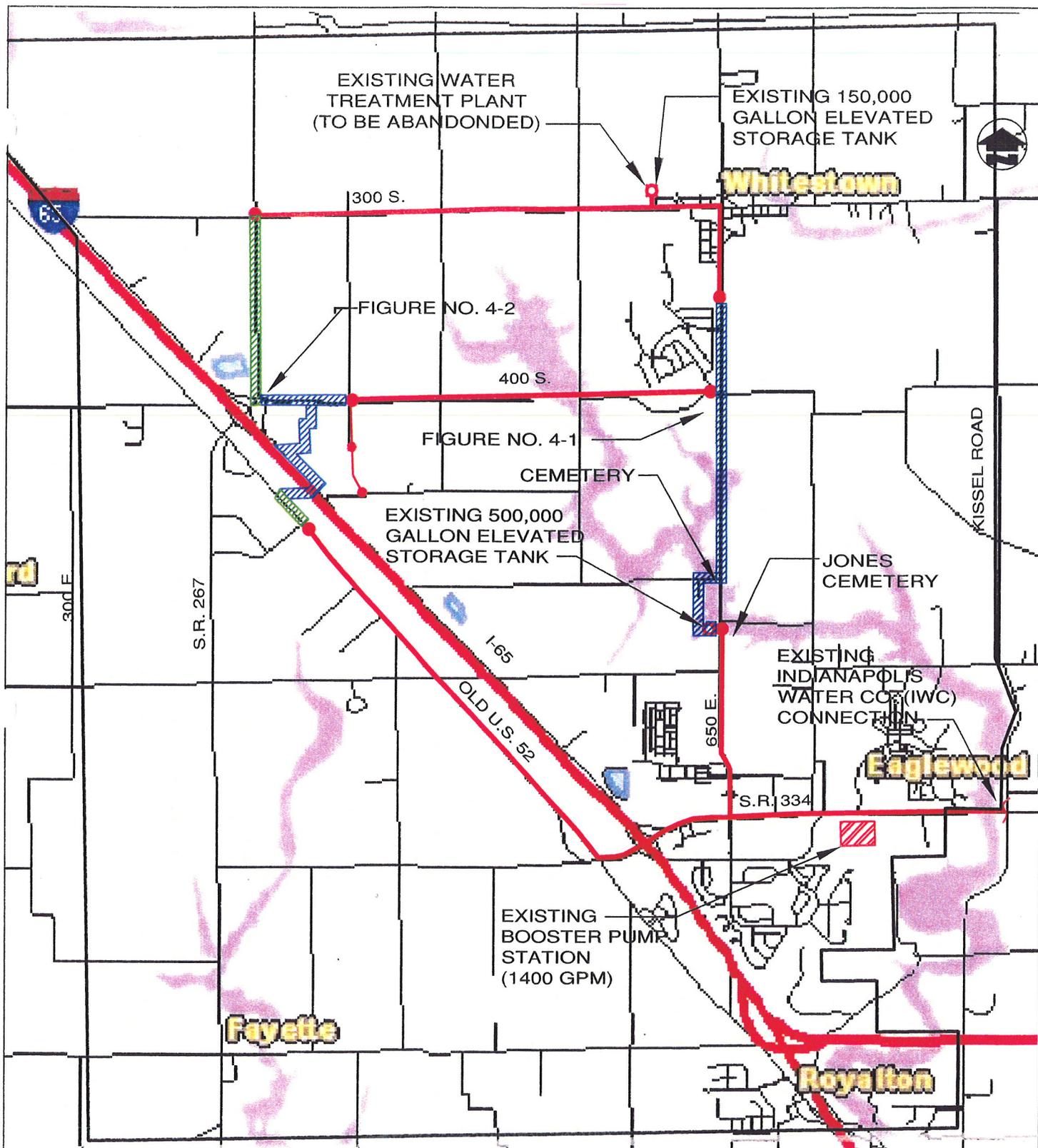


SCALE: 1" = 2000'

**LEGEND**

- WETLANDS
- WETLAND POINTS
- PROPOSED CONNECTION LOCATION
- RIVERINE WETLANDS
- FUTURE SERVICE/STUDY AREA
- EXISTING SERVICE AREA
- EXISTING WATER/TRANSMISSION MAIN
- PROPOSED ROUTE 150' CORRIDOR\*
- PROPOSED ROUTE 150' CORRIDOR\* APPROVED IN NOVEMBER 21, 2006 PER

\*NOTE: 150' CORRIDORS ARE 75' EACH WAY FROM CENTER LINE OF ROADS AND ARE SHOWN 300' WIDE



SOURCE: INDIANA GEOLOGICAL SURVEY OF BOONE COUNTY, INDIANA.

**FIGURE 8**

**FLOODPLAIN LOCATION MAP  
WATER TRANSMISSION MAIN  
TOWN OF WHITESTOWN**



SCALE: 1" = 4000'

LEGEND	
	PROPOSED CONNECTION LOCATION
	FLOODPLAIN
	FUTURE SERVICE/STUDY AREA
	EXISTING SERVICE AREA
	EXISTING WATER/TRANSMISSION MAIN
	PROPOSED ROUTE 150' CORRIDOR*
	PROPOSED ROUTE 150' CORRIDOR* APPROVED IN A PREVIOUS PER NOVEMBER 21, 2006

\*NOTE: 150' CORRIDORS ARE 75' EACH WAY FROM CENTER LINE OF ROADS AND ARE SHOWN 300' WIDE



**GRW Engineers, Inc.**

Engineers, Architects, Planners

LEXINGTON LOUISVILLE NASHVILLE NEW ALBANY INDIANAPOLIS  
FORT MITCHELL KNOXVILLE ARLINGTON COLUMBUS

DATE: FEBRUARY 2009

FILE NAME: I13732 - Whitestown Municipal XXX Report\Report\PER\Exhibits\Floodplain Exhibit.dwg

REVISED 10/16/09