



# State Revolving Fund Loan Programs

## Drinking Water, Wastewater, Nonpoint Source

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### ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

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#### TOWN OF SWEETSER

#### New Wastewater Treatment Plant (WWTP), Force Main and Lift Station Modifications

#### SRF PROJECT WW 13 18 27 01

**DATE: Sept. 17, 2013**

**TARGET PROJECT APPROVAL DATE: Oct. 17, 2013**

#### I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Fund (SRF) Loan Program for a loan to finance all or part of the wastewater 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 at <http://www.in.gov/ifa/srf/>.

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

The SRF Clean 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 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 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**  
**Senior Environmental Manager**  
**State Revolving Fund**  
**100 N. Senate Ave. IGCN 1275**  
**Indianapolis, IN 46204**  
**317-234-7294; adouglas at ifa.in.gov**

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# ENVIRONMENTAL ASSESSMENT

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## I. PROJECT IDENTIFICATION

Project Name and Address: **New Wastewater Treatment Plant (WWTP), Force Main and Lift Station Modifications**  
Town of Sweetser  
113 North Main Street  
Sweetser, IN 46987

SRF Project Number: WW 13 18 27 01

Authorized Representative: Mr. Travis LeMaster, Town Council President

## II. PROJECT LOCATION

The proposed projects include modifications to two lift stations, a new force main, and a new Wastewater Treatment Plant (WWTP). The project area is located in Pleasant and Franklin Townships in Grant County in Township 24 N, Range 7E, Sections 4 and 5 and in Township 25 N, Range 7 E, Sections 32 and 33 on the Marion and Sweetser Quadrangle maps. See Figure 1.

## III. PROJECT NEED AND PURPOSE

The purpose of the project is to redirect the flow currently transported to the City of Marion, a CSO community, to a new WWTP southwest of the town.

## IV. PROJECT DESCRIPTION

New pumps will be installed and modifications will be made to lift stations 3 and 4 to reduce capacity and reverse flows. A smaller force main will be installed from lift station 4; the pipe will be pulled through the existing line. A new force main will be installed to transport the influent to the plant site.

The proposed treatment facility will be a single stage nitrification activated sludge plant with an influent screen, aeration, secondary clarifiers, aerobic digester, ultraviolet disinfection, and flow meter. The WWTP complex will also include installation of a laboratory, maintenance garage, standby power, and well. The effluent line will be installed next the Sweetser Switch Trail and will discharge to Pipe Creek. See Figures 2-4

## V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

### A. Selected Plan Estimated Cost Summary

#### Construction and Equipment Costs

Clarifiers	\$100,000
Aeration	\$80,000

Fine Screen	\$80,000
Blowers	\$45,000
Aerobic Digesters & Splitter	\$100,000
Sludge Pumps	\$20,000
UV Disinfection	\$110,000
Post-Aeration	\$10,000
Alum Feed	\$5,000
Plant Site Grinder Station	\$5,000
Effluent Meter	\$5,000
Concrete Tanks & Excavation	\$530,000
Laboratory	\$100,000
Building (Plant, Lab, Maintenance)	\$200,000
Misc Site Improvements	\$20,000
Influent Force Main	\$68,250
Force Main from LS #4 (2.5")	\$110,000
Effluent Sewer	\$51,750
Access Drive	\$8,000
Highway Bore	\$20,000
Standby Power Generator	\$60,000
Water Well (20 gpm)	\$15,000
Lift Station #3 Modifications	\$80,000
Lift Station #4 Modifications	\$60,000
Electrical	\$250,000
Site Piping	\$150,000
Main Incoming Power	<u>\$50,000</u>
	<i>Construction and Equipment Subtotal</i> \$2,333,000
	<i>Contingencies (5%)</i> <u>\$333,300</u>
	<b><i>Estimated Construction Cost</i> \$2,666,300</b>

**Non-Construction Costs**

Administrative, Legal, Bond	\$65,000
Engineering Services	<u>\$415,000</u>
	<b><i>Non-Construction Subtotal</i> \$480,000</b>

**Total Estimated Project Cost \$3,146,300**

- B. Sweetser will finance the Wastewater Treatment Plant, Force Main, and lift station improvements with a loan of approximately \$3,146,300 from the SRF Program for a 20-year term at an 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 payment.

**VI. DESCRIPTION OF EVALUATED ALTERNATIVES**

The “No Action” alternative is not viable due to a Settlement Agreement to terminate the Sewer Agreement with Marion and for Sweetser to disconnect no later than August 2015. In addition to the “No Action” alternative, Sweetser evaluated two alternatives: (1) connection to an existing plant, and (2) construction of a new treatment facility.

Based on availability, reliability, cost and technical feasibility, the selected alternative is construction of a mechanical plant that discharges to Pipe Creek.

## VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

### A. Direct Impacts of Construction and Operation

Undisturbed/Disturbed Land (Figure 3): The plant will be constructed on previously undisturbed plow-field farmland. Minor tree/brush removal may be necessary to install the effluent line at the outfall. The line will be installed along the Sweetser Switch Trail and have an approximate construction corridor width of 15 feet. An archaeological review has been conducted, and no significant archaeological materials were found.

The influent force main will be installed within and adjacent to CR N 400 W. A portion of the line will be directionally bored under a drainage structure; see Figure 4. The construction corridor will be approximately 10 feet wide.

Modifications to the lift stations consist of replacing the pumps and changing the piping to reverse the flow. A new smaller force main will be pulled through the existing line from lift station #4 to #3; see Figure 2.

Structural Resources (Figures 5 and 6): 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."

Plants and Animals: The project will be implemented to minimize impact to non-endangered species and their habitat.

Prime Farmland: The proposed project will affect 6 acres of prime farmland.

Wetlands (Figure 7): Pipe Creek is designated as a forested wetland.

100-Year Floodplain (Figure 8): The project will not affect not be affected by a 100-year floodplain. If practical and necessary, above ground structures will be placed above the 100 year flood boundary.

Surface Waters (Figure 2): There are no stream crossings. Pipe Creek will be temporarily affected by the project's headwall construction and longer due to the increased pollutant load from the WWTP. 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), 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).

Groundwater: If necessary, dewatering will be employed during construction with the flow directed to a sedimentation basin prior to being discharged to surrounding surface waters. The project will not impact a drinking water supply or sole source aquifer.

Air Quality: Construction activities may generate some noise, fumes, and dust normally resulting from such activity. The dust, fumes and noise are short term impacts, lasting only during the construction phase. Construction activities should not impact ozone, airborne pollutants or other current or future air quality concerns.

Open Space and Recreational Opportunities: Construction of the treatment plant will occur on undeveloped land, so open space will be impacted. Construction and operation will have no effect on recreational opportunities.

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

National Natural Landmarks: The proposed project will not affect National Natural Landmarks.

## B. Indirect Impacts

The 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 wastewater 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

In correspondence dated August 26, 2013 the Department of Natural Resources Division of Historic Preservation and Archaeology stated:

*“Pursuant to IC 13-18-21 and 327 IAC 14 and Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) 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 August 13, 2013, for the above indicated project in Sweetser, Franklin and Pleasant townships, Grant 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 archaeological artifacts, features, or human remains are uncovered during construction, state law (Indiana Code 14-21-1-27 & 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days.”*

In correspondence dated September 6, 2013 the United States Fish and Wildlife Service stated:

*These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.*

*The proposed project will have no effect on wetlands or other significant habitat types. Project impacts are expected to be minor in nature. Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed. This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. However, should new information arise pertaining to project plans or a revised list be published, it will be necessary for the Federal agency to reinstate consultation.*

*If project plans change such that fish and wildlife habitat may be affected, please coordinate with our office as soon as possible.*

In correspondence dated August 21, 2013 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.*

*This proposal will require the formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1, unless it qualifies for a general license under Administrative Rule 3121AC 10-5 that applies to outfall structures (see enclosure).*

*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.*

*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) Riparian Habitat:*

*We recommend a mitigation plan be developed (and submitted with the permit application, if required) if habitat impacts will occur. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at <http://www.in.gov/legislative/iac/20120801-IR-312120434NRA.xml.pdf>.*

*Impacts that remove trees from a non-wetland, riparian area should be mitigated. Impacts to non-wetland forest over one (1) acre 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).*

*2) Wetland Habitat:*

*Due to the presence or potential presence of wetlands on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetlands should be mitigated at the appropriate ratio (see guidelines above).*

*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 grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion.*

2. *Minimize and contain within the project limits in channel disturbance and the clearing of trees and brush.*
3. *Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.*
4. *Do not cut any trees suitable for Indiana bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark) from April 1 through September 30.*
5. *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.*
6. *Seed and protect all disturbed stream banks and slopes that are 3:1 or steeper with erosion control blankets (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.*
7. *Install appropriate armament below pipe outfalls.*
8. *Comply with IDEM requirements for the effluent line discharge to prevent impacts to aquatic organisms.*

The Natural Resources Conservation Service, in correspondence dated May 7, 2013 stated that “*The project to make wastewater improvements in the Town of Sweetser, Grant County, Indiana, as referred to in your letter received April 23, 2013, will cause a conversion of prime farmland.*” The project will convert 6 acres of prime farmland.

## **VIII. MITIGATION MEASURES**

Mitigation measures from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

The PER states:

### *1. Siltation and Erosion*

*Siltation and erosion will be kept to a minimum. Any mitigation measures mandated by authorized reviewing agencies to reduce or eliminate waterway contamination will be implemented. Mitigative measures to limit erosion and siltation will include the following:*

- a. Erosion and sediment control measures required by the project specifications will require that the contractor provide a schedule for clearing, grading, excavating and restoring disturbed areas, along with a description of measures to be used during construction to ensure erosion/ sediment control. The program shall meet all applicable federal, state, and local requirements.*
- b. Natural vegetation will be retained wherever feasible.*
- c. Excavations will be limited to right of ways where possible.*
- d. Appropriate agronomic practices (sediment basins, seeding, mulching) will be provided to control runoff, including shoreline and stream crossings, if applicable.*
- e. Drainage systems, including surface and subsurface drainage, will be returned to their natural state as soon as possible, if disturbed.*
- f. Roadways and parking lots will remain stabilized during construction to the extent possible.*

- g. Construction activities will be scheduled to avoid excessively wet conditions when possible.*
- h. No more than 100 feet of open trench will be allowed. Excavated material will be kept to the upland side of the trench. Excess material will be used elsewhere on the project.*
- i. The existing topsoil will be reused during the restoration process.*
- j. If necessary, discharge from dewatering will be directed to sedimentation basins prior to discharging into surrounding surface waters.*

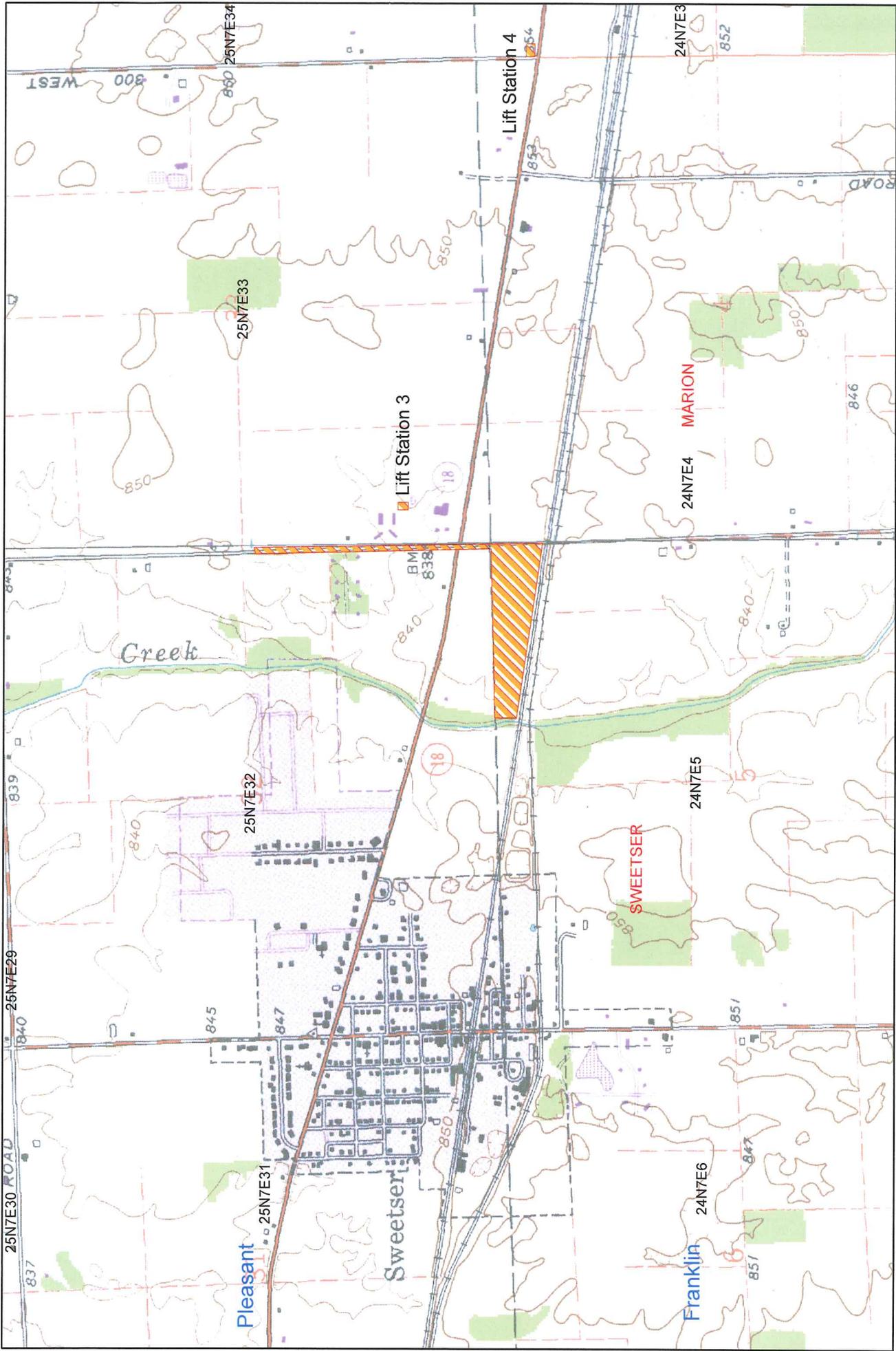
## 2. *Air Quality Impacts*

*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.*

## **VIII. PUBLIC PARTICIPATION**

A properly noticed public hearing was held on June 13, 2013 at 7:00 pm at the Sweetser Town Hall, 113 N. Main Street. There were no questions during the hearing. No written comments were received in the 5-day period following the hearing.

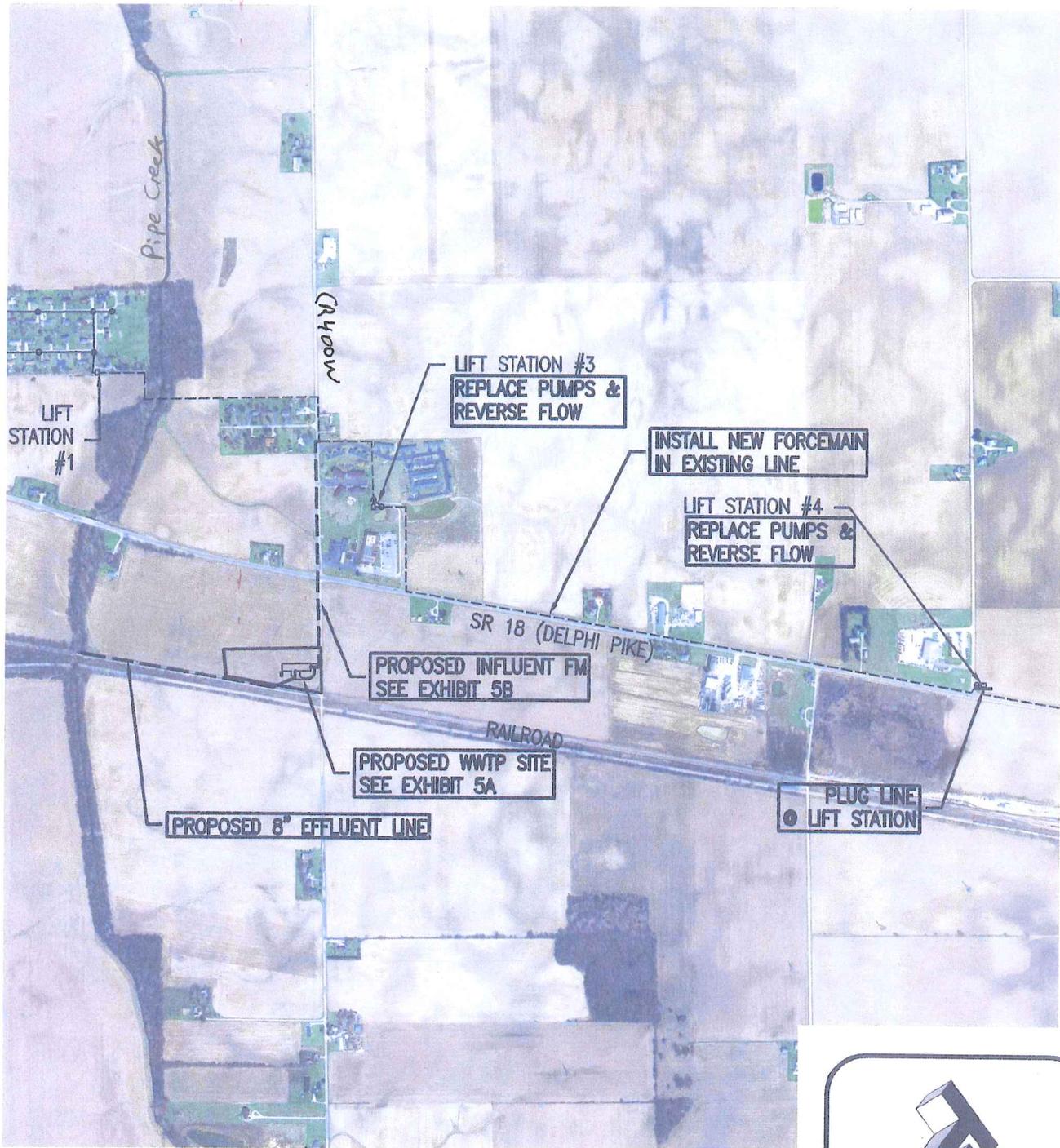
# Figure 1: Town of Sweetser



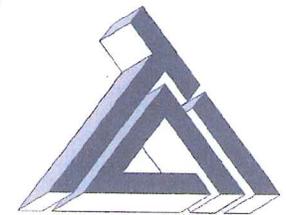
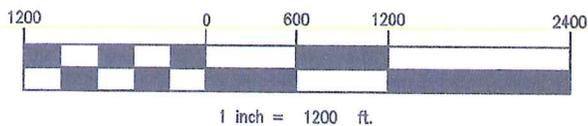
**Legend**

- QUADRANGLES
- Civil Townships
- Project Area



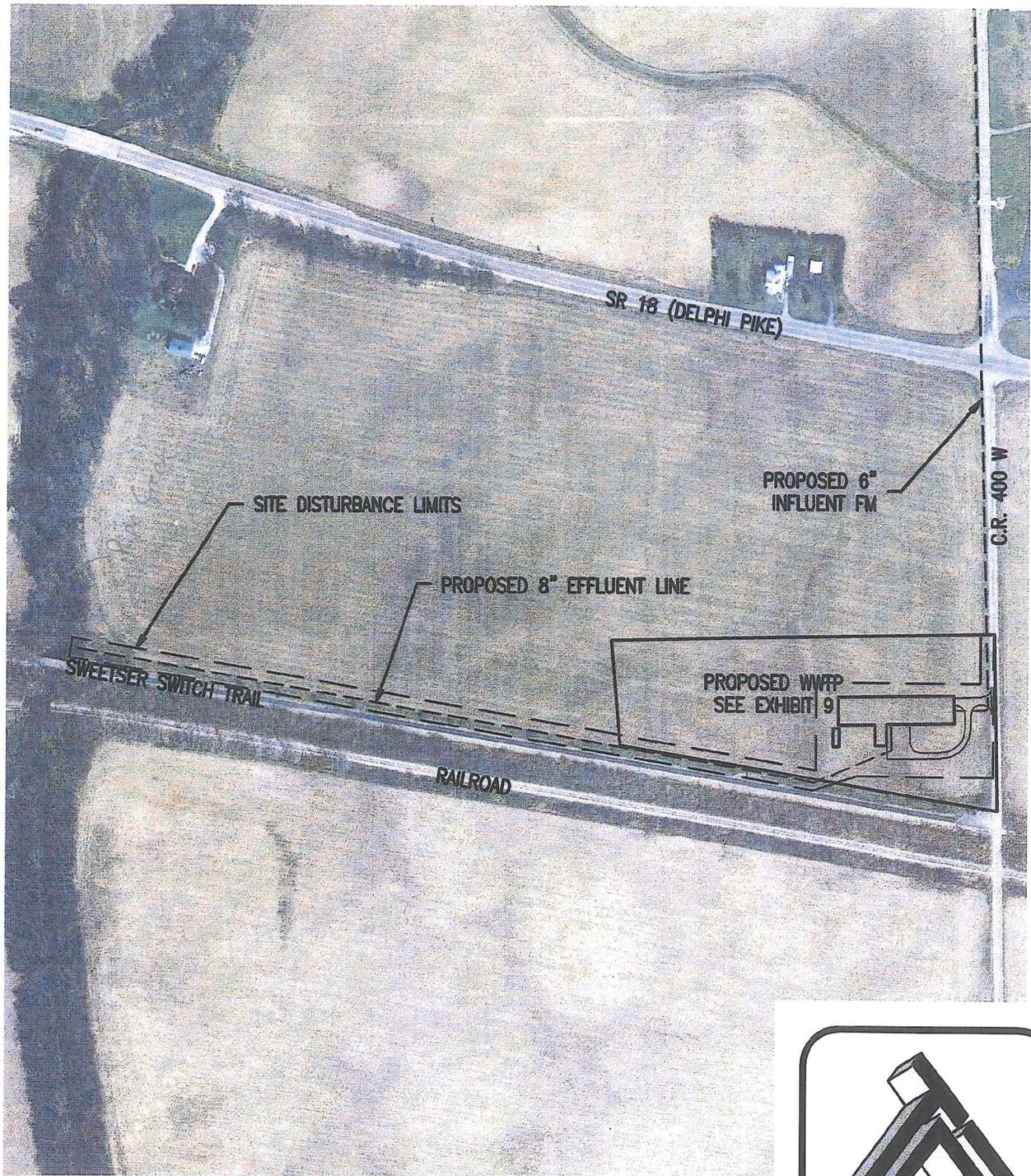


## TOWN OF SWEETSER PROPOSED WASTEWATER IMPROVEMENTS

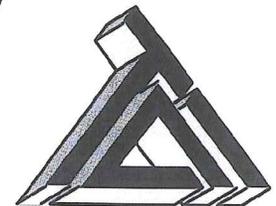
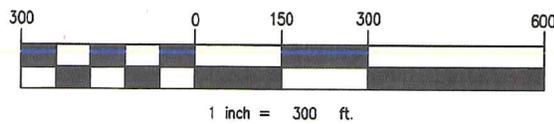


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WWTP PER  
Figure 2

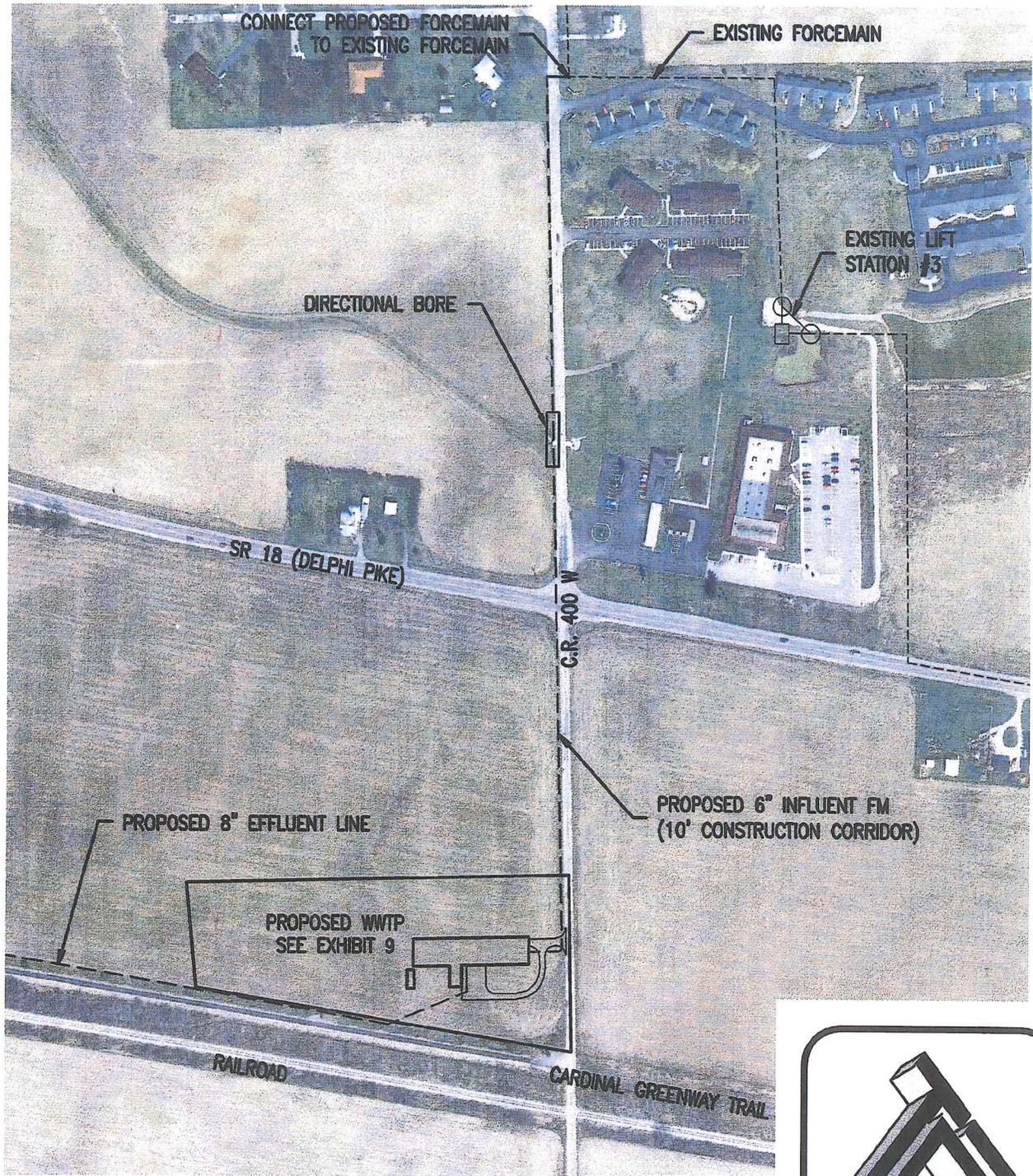


### TOWN OF SWEETSER PROPOSED WWTP SITE

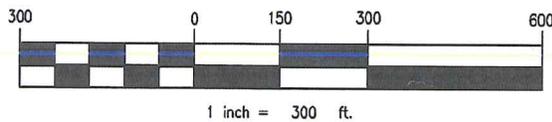


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**WWTP PER  
Figure 3**



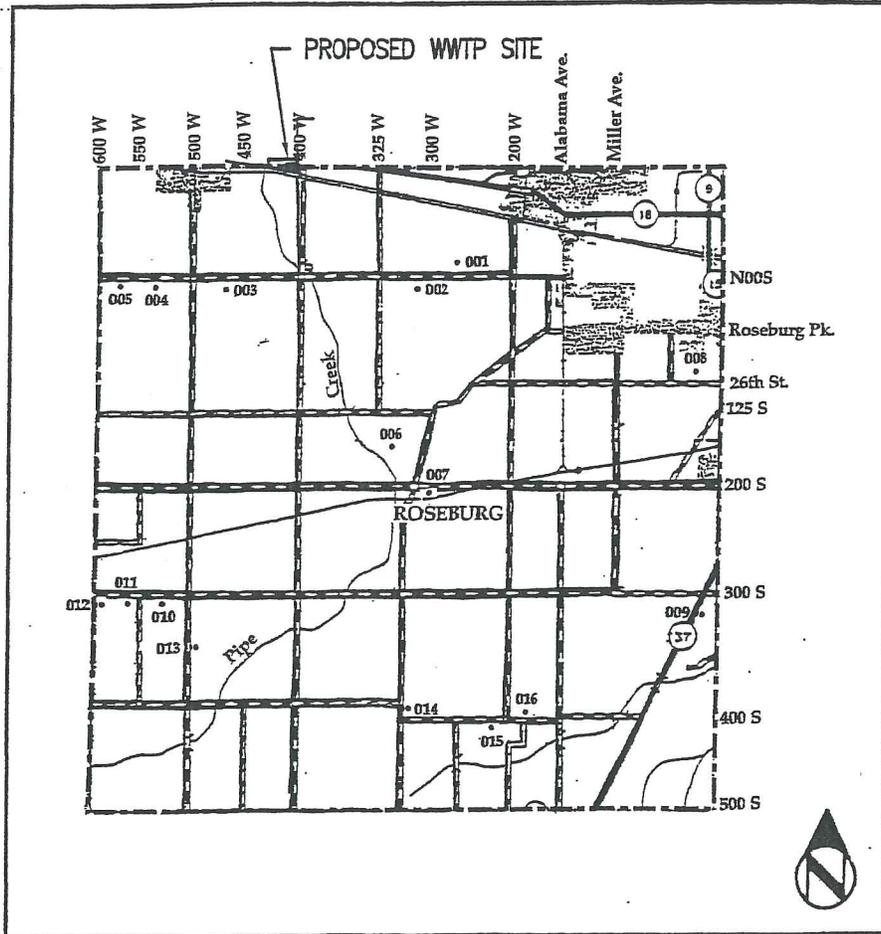
**TOWN OF SWEETSER  
PROPOSED WWTP SITE**



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**WWTP PER  
Figure 4**

# Franklin Township (25001-016)



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Franklin Township, the last of the county's townships to be established, was organized in 1852. Located in central Grant County, the first settlers came to the area during the 1830s. The township is primarily rolling farmland with Pipe Creek flowing through the area's western section.

Roseburg and Michaelsville are the township's only two villages. Both towns were laid out along the Toledo, Cincinnati and St. Louis Railroad during the late nineteenth century and today consist of only a few houses and the township school at Roseburg (25007).

A number of significant residences are found in the township. The Shugart House (25009) was constructed in 1847 by George Shugart, a prominent Quaker. The house served as a stop on the Underground Railroad. The Henry Shugart House (25016), built in 1853, is one of the township's most prominent residences. The J. E. Ratliff House (25015), also built by a prominent Quaker family has the house's construction date of 1868 inscribed in the gable.

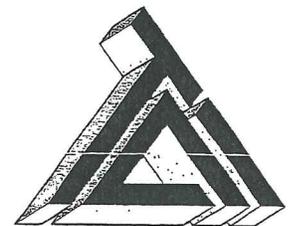
Two noteworthy Italianate style houses include the Willcut House (25006) and the house on 400 W (25013). Both of these large, brick homes were built during the 1870s.

The house on N00S (25003) is one of the township's most noteworthy early twentieth century houses. This elaborate Craftsman style home exhibits a porte-cochere, a feature seldom seen in the county's rural areas.

## TOWN OF SWEETSER HISTORIC SITES - FRANKLIN TWP.

SCALE: NONE

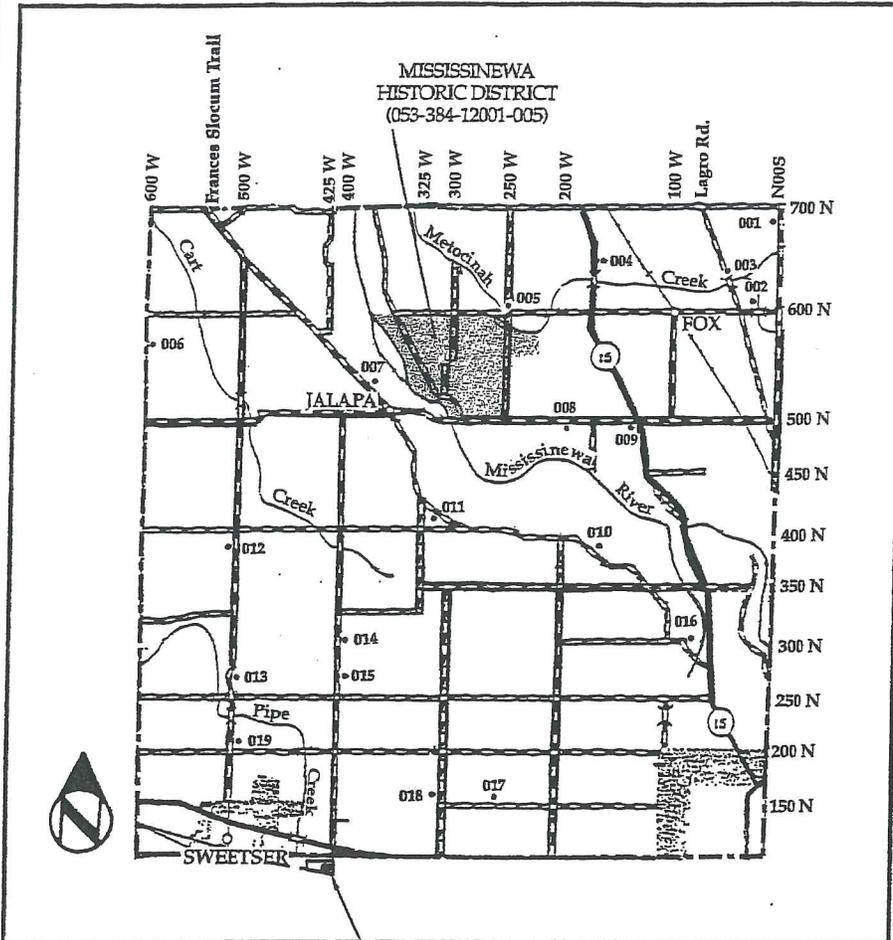
Figure 5: from Grant County Interim Report Historic Sites and Structures Inventory



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WWTP PER

# Pleasant Township (10001-019)



Pleasant Township, organized in 1831, is located in northern Grant County. Its topography is hilly with the Mississinewa River and Pipe and Cart Creeks flowing through the area.

The township has a rich Native American heritage. The Miami chief Meshingomesia and his family lived in the area. They are buried in the state's largest Native American cemetery (12001) adjacent to the site of a school and church used by the Native American population. The Frances Slocum Trail, a winding road between Marion and Peru linking early trading posts and settlements, was named for Frances Slocum who was taken from her family by the Delaware tribe at age five. She was brought to Indiana where she lived with the Miamis along the Mississinewa River.

Pleasant Township was also the site of the Battle of the Mississinewa in December of 1812. The battle was one of two War of 1812 battles fought on American land. An area along the Mississinewa River is now recognized as an historic battlefield with marble monuments commemorating those who died in the battle.

Two towns are located in the township. Jalapa, located along the Frances Slocum Trail, was laid out in 1849 by Jacob Sprecher. By 1877 the town had grown to include several churches, a school, general stores and a post office. Today only a cluster of houses and a Methodist Episcopal church (10007) remain from this early town.

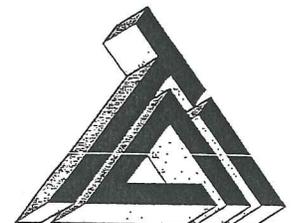
Sweetser was laid out in 1871 along the Columbus, Chicago and Indiana Central line. The town remains as the township's commercial center.

Pleasant Township contains a number of significant late nineteenth century farmsteads. The Winger Farm (10012) includes the township's only example of a brick I-house. The house's highly elaborate wood porch is a unique feature. The house on the Frances Slocum Trail (10011) is a rare example of the upright-and-wing form. The house on 600 N (10002) is a typical example of an

PROPOSED WWTP SITE

## TOWN OF SWEETSER HISTORIC SITES - PLEASANT TWP.

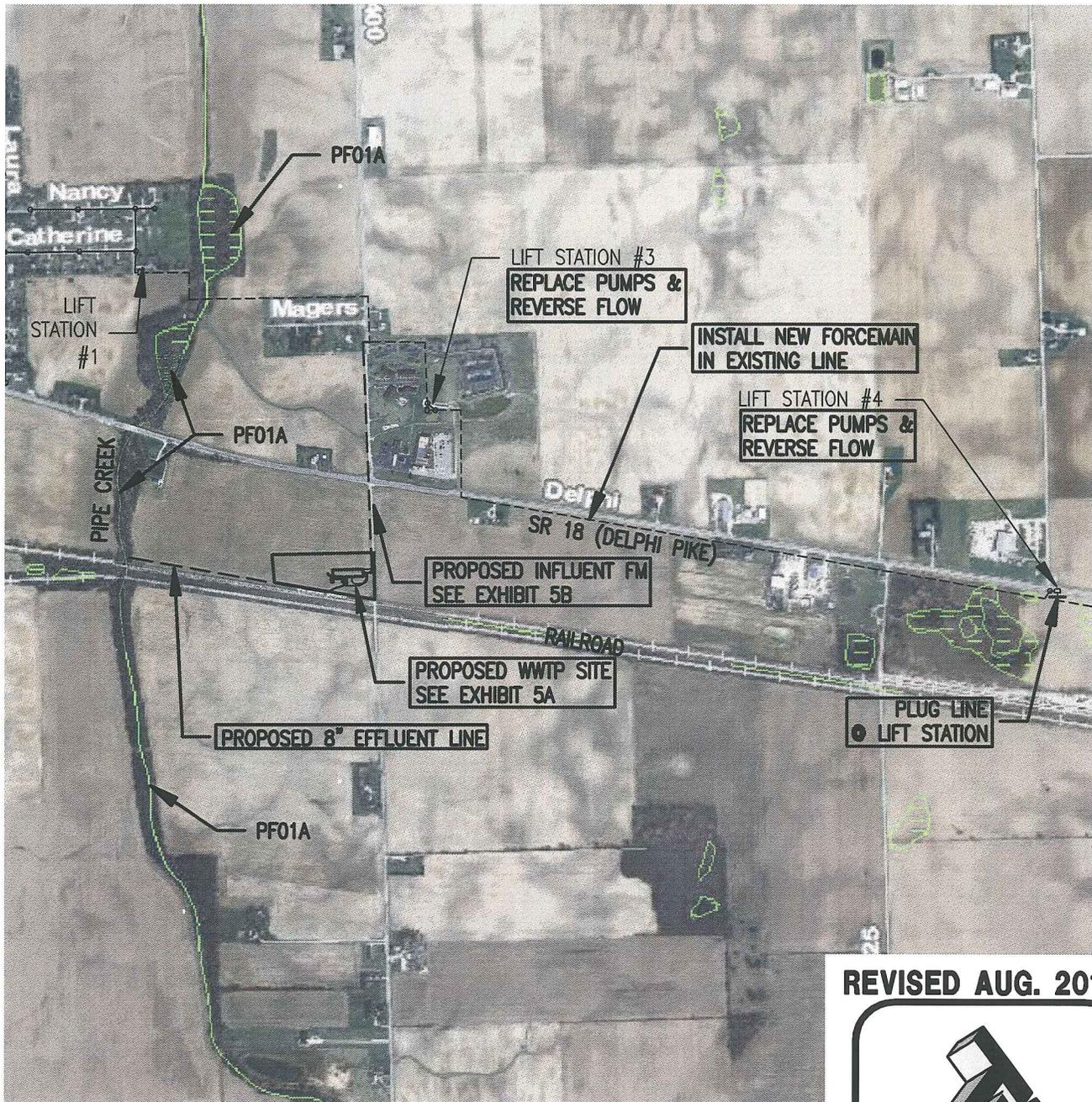
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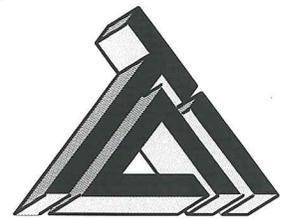
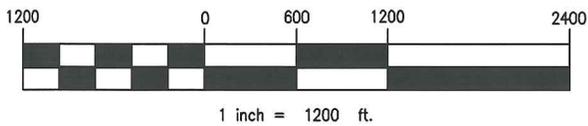
WWTP PER

Figure 6: from Grant County Interim Report Historic Sites and Structures Inventory



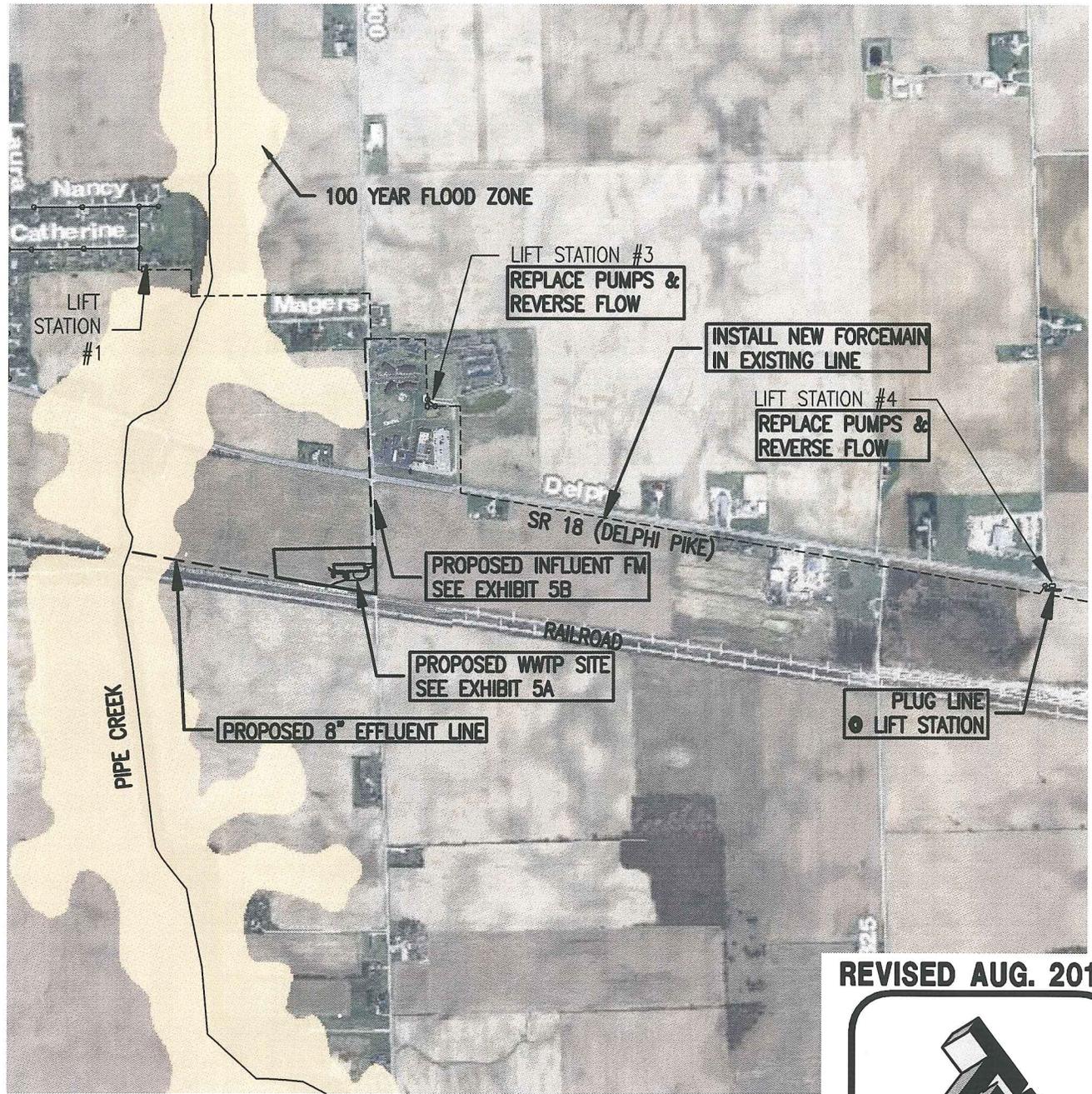
REVISED AUG. 2013

### TOWN OF SWEETSER WETLANDS MAP



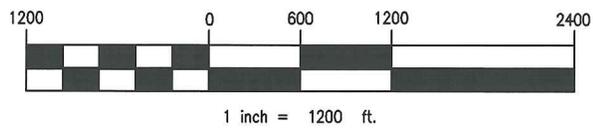
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**WWTP PER  
 Figure 7**



REVISED AUG. 2013

### TOWN OF SWEETSER FLOOD MAP



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**WWTP PER  
Figure 8**