



State Revolving Fund Loan Programs Drinking Water, Wastewater, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

TOWN OF CHESTERTON MORNINGSIDE SEWER SUPPORTS REPLACEMENT STATE REVOLVING FUND PROJECT WW13 10 64 02 & WW13 10 64 03

DATE: April 10, 2014

TARGET PROJECT APPROVAL DATE: May 12, 2014

I. INTRODUCTION

The above entity has applied to the State Revolving Fund (SRF) Loan Program for a loan to finance all or part of the wastewater project described in the Environmental Assessment (EA) attached to this Finding of No Significant Impact (FNSI). 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.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF 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 project approval date. 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 -- IGCN 1275
100 N. Senate Ave.
Indianapolis, IN 46204
317-232-8623
mhensche at ifa.in.gov

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address: **Morningside Sewer Supports Replacement**
Chesterton Utility Service Board
726 Broadway
Chesterton, IN 46304

SRF Project Number: WW 13 10 64 02; WW 13 10 64 03

Authorized Representative: Mr. Lawrence Brandt, Board Chairman

II. PROJECT LOCATION

Chesterton is located in Porter County, approximately 20 miles east of Gary. The proposed project is located approximately 500 feet northwest of the Chesterton Wastewater Treatment Plant (WWTP) and approximately 500 feet south of Frontage Road in the Chesterton 7.5' USGS quadrangle, Westchester civil township, Township 37 North, Range 6 West, NW ¼ of Section 36. See Figure 1.

III. PROJECT NEED AND PURPOSE

An 18-inch ductile iron sewer installed in 1977 runs underground south from the Morningside Subdivision under I-94. Approximately 700 feet south of I-94, the line emerges from the ground and becomes an aerial line approximately eight- to ten feet high, supported by steel I-beams on concrete piers. Originally, only steel I-beams supported the pipe, but in the 1990s, concrete caissons were installed extending about three feet above the ground, and steel I-beams were placed on top of the caissons to support the sewer pipe. The elevated sewer makes a turn to the southeast to cross under a railroad and then turns southwest to cross the Little Calumet River via a steel bridge to support the pipe, then directed underground to the wastewater treatment plant.

The elevated sewer route is in a wetland and a floodplain/floodway. A 2008 inspection noted that the supports are in poor condition; some have holes at ground level and others have settled and no longer provide support. The unstable supports need replacing to avoid a failure that could cause the pipe to break and spill raw wastewater into the wetland/floodplain and possibly into the East Branch of the Little Calumet River.

IV. PROJECT DESCRIPTION

The town will remove the old supports and install new supports which can be adjusted as needed due to possible settling in the wet ground. Only the supports north of the railroad will be replaced. The sewer pipe will not be replaced.

V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Estimated Cost Summary

Construction Costs

Morningside Sewer Supports Replacement	\$180,000
Mobilization	\$9,000
Contingency	<u>\$18,000</u>
Construction Sub-total	\$207,000

Non-Construction Costs

Administrative and Legal	2,000
Design	<u>11,000</u>
Non-Construction Sub-total	\$ 13,000

Total Estimated Project Cost \$220,000

B. Chesterton will use funds from its existing SRF loans to pay for the projects. Monthly user rates will not have to be adjusted.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

The "no-action" alternative was rejected, since the deteriorating supports would only get worse and eventually collapse, breaking the sewer pipe and causing a significant wastewater spill into the wetland and Little Calumet River.

The selected alternative is to replace the deteriorating support structures.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Disturbed/Undisturbed Land: The proposed project area has been previously disturbed by the installation of the original sewer supports. An archaeological survey of the proposed project did not find archaeological materials.

Structural Resources (Figure 2): Construction and operation of the project will not alter, demolish or remove historic properties. If any visual or audible impacts to historic properties occur, they will be temporary and will not alter the characteristics that qualify such properties for inclusion in or eligibility for the National Register of Historic

Places. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "no historic properties affected."

Surface Waters: The Little Calumet River is near the project area and is listed on the Outstanding Rivers List by the Indiana Natural Resources Commission. The city will not replace the supports beyond what is illustrated in the attached graphics, so the river should not be affected, as long as proper mitigation to limit siltation into the river is implemented.

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).

Wetlands: The project will occur in a forested wetland. The city will obtain a 401 wetland permit from the U.S. Army Corps of Engineers, and the Indiana Department of Environmental Management's Wetlands and Storm Water Section has issued a 404 wetland permit.

Floodplain: Although the project is in the 100-year floodplain, it will not affect the floodplain.

Groundwater: The project will not impact a drinking water supply or sole source aquifer. If dewatering is required, the dewatering flows should be settled before being discharged to surface waters or the wetland.

Plants and Animals: Some trees and smaller vegetation will be removed. The project will not affect endangered species as long as seasonal tree clearing restrictions by environmental review authorities are followed.

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.

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

Lake Michigan Coastal Zone: The project is in this zone, but will not affect it.

B. Indirect Impacts

Chesterton'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 collection system or treatment works projects connecting to SRF-funded facilities, will not adversely affect 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 March 13, 2014, the **Indiana Department of Natural Resources (IDNR) Division of Historic Preservation and Archaeology** stated:

Pursuant to IC 13-18-21 and 327 IAC 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 February 13, 2014, and received by the Indiana SHPO on September 19, 2013, for the above indicated project in Chesterton, Porter 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.

In correspondence dated February 25, 2014, the **U.S. 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 consists of the replacement of a series of failed supports which elevate an existing 18-inch diameter ductile iron pipe across approximately 460 linear feet of the floodplain of the East Branch Little Calumet River; this pipe carries raw sewage via gravity feed from areas north of the river to the waste water treatment plant south of the river. There currently are 19 support pipes, including several of which are double, consisting of the original and an adjacent replacement pipe; some of the pipes and their concrete piers are lying on the ground because the unstable wetland soil has caused them to be heaved out of the ground and some are no longer in contact with the pipe, which is simply suspended above them. It is proposed to replace these supports with 15 inverted-U pipes with the 2 ends screwed into the ground to provide as much soil-pipe contact as possible to prevent heaving. Nine of the supports would be placed within wetlands while the other 6 would be placed within upland. The sewer continues south under the raised embankment of the Amtrak railroad and then over the East Branch, which it crosses on a metal support bridge; the bridge does not need any work and will not be affected by this project.

To access the site it is proposed to extend an existing gravel drive which descends the hill on the north side of the river from a water tower to the wetland/floodplain. Timber mats will be placed adjacent to the existing supports across the floodplain, temporarily impacting about 0.1 acre of wetland. When construction is complete, the mats will be removed, the soil will be turned over to alleviate compaction, and the affected site will be reseeded with a native emergent wetland seed mix.

The wetland at the site is a good quality Palustrine forested type with an emergent understory. Staff from the U.S. Fish and Wildlife Service accompanied Chesterton waste water department staff and the Huff & Huff biologist during the wetland delineation, conducted on June 10, 2013, at which time the river was in flood and the wetland was inundated. Tree species present include silver maple, eastern cottonwood, green ash, American elm, and boxelder, with spicebush, multi-flora rose, blueflag, marsh marigold, rice cut-grass, reed canary grass, wood nettle, and various goldenrods in the understory. A number of birds were observed within the forested wetland, as were sign of various mammal species.

We believe that the project as proposed has avoided and minimized wetland impacts to the extent possible. It is readily apparent that the pipeline needs to have the supports replaced, with catastrophic failure of the pipe and the spilling of raw sewage into the wetland and river being the alternative. It is also apparent that the pipeline itself needs regular monitoring to ensure its integrity against corrosion and other structural failure, and that the sanitary district needs to have a contingency plan to address transport of the sewage in the event of such a failure.

The U.S. Fish and Wildlife Service supports issuance of this SRF Grant and the permits necessary to replace the pipe supports. However, we request that the permits be conditioned to require that the mats and equipment be cleaned of all soils and seeds from any other sources prior to placement and use within the wetland to prevent transmission of invasive species of plants or animals; that the equipment not be left on the mats in the wetland during non-work hours in case of thunderstorms that could raise water levels in the wetland; and that contingency plans be in place to contain any petroleum or other pollutant spills into the wetland/floodplain.

ENDANGERED SPECIES

The proposed project is within the range of the Federally endangered Indiana bat (*Myotis sodalis*) and Karner blue butterfly (*Lycæides melissa samuelis*), the proposed endangered northern long-eared bat (*Myotis septentrionalis*), the threatened Pitcher's thistle (*Cirsium pitcheri*), and the candidate eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*). There is no habitat in the area for the Karner blue butterfly, Pitcher's thistle, and eastern massasauga; however, there may be suitable summer nursery habitat for the 2 bat species.

Project plans show that approximately 25 trees close to the elevated pipe will be removed in order to have the space necessary to place the timber mats that will provide access to the site; our records show that these are primarily various-sized dead or dying green ash and small boxelder.

Although the boxelder and small green ash are unlikely to provide habitat for either bat species, the larger ash may do so if sufficient loose bark is present to provide the necessary roosting habitat. These trees either need to be removed during the time of year when the bats would not be present, which is between October 1 and April 1, or emergence surveys need to be conducted to determine whether or not individual trees are being utilized by bats; if no bats emerge, the trees can be cut immediately or as soon thereafter as possible. Please see the FWS's 2014 Range-wide Indiana Bat Summer Survey Guidelines, December 2013, Appendix E, for information on conducting emergence surveys; as indicated in the Guidelines, if bats emerge from a specific tree, it is not to be cut and further coordination will be necessary. With these tree removal restrictions in place, we agree with your determination that the proposed project is not likely to adversely affect these endangered, proposed endangered, threatened, and candidate species. 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 species list be published, or if bats emerge from a specific tree during emergence surveys, it will be necessary for the Federal agency to reinstate consultation.

We appreciate the opportunity to comment on this proposal. If project plans change, please recoordinate with our office as soon as possible.

In correspondence dated September 13, 2012, the **Natural Resources Conservation Service** stated that the project will not convert prime/unique farmland.

In correspondence dated March 20, 2014, the **IDNR Environmental Unit** stated:

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

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

Regulatory Assessment: *This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of the Little Calumet River. Please submit more detailed plans to the Division of Water's Technical Services Section if you are unsure whether or not a permit will be 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 and 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) Riparian Habitat: Construction and equipment access should be confined to the existing disturbed or cleared areas to the greatest extent possible. Based on 2011 aerial images, a cleared path exists from the water tower south near the project area. Using this path will help to reduce impacts to the surrounding 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://in.gov/legislative/iac/20120801-IR-312120434NRA.xml.pdf>. You may contact Lori White, North Region Environmental Biologist, at (765) 472-7981 for guidance regarding development of the plans.

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).

A native riparian forest mitigation plan should use at least 5 canopy trees and 5 understory trees or shrubs selected from the Woody Riparian Vegetation list or an approved equal. A native riparian forest mitigation plan for impacts of less than one acre in an urban area may involve fewer numbers of species, depending on the level of impact. Additionally, a native herbaceous seed mixture should be planted consisting of at least 10 species of grasses, sedges, and wildflowers selected from the Herbaceous Riparian Vegetation list or an approved equal.

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).

3) Exposed Soils: All exposed soil areas should be stabilized with temporary or permanent vegetation by November 1. Between November 1 and April 1, all exposed soils idle for longer than 7 days should be stabilized with erosion control blankets or with a bonded fiber matrix hydro-mulch. Sites should be protected from seasonal flooding by keeping traffic areas covered with stone and soil stockpiles seeded, stable and contained with silt fencing.

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 all tree and brush clearing.

3. *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.*
4. *Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.*
5. *Seed and protect all disturbed streambanks and slopes 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.*

In correspondence dated April 7, 2014, the IDNR Environmental Unit further stated:

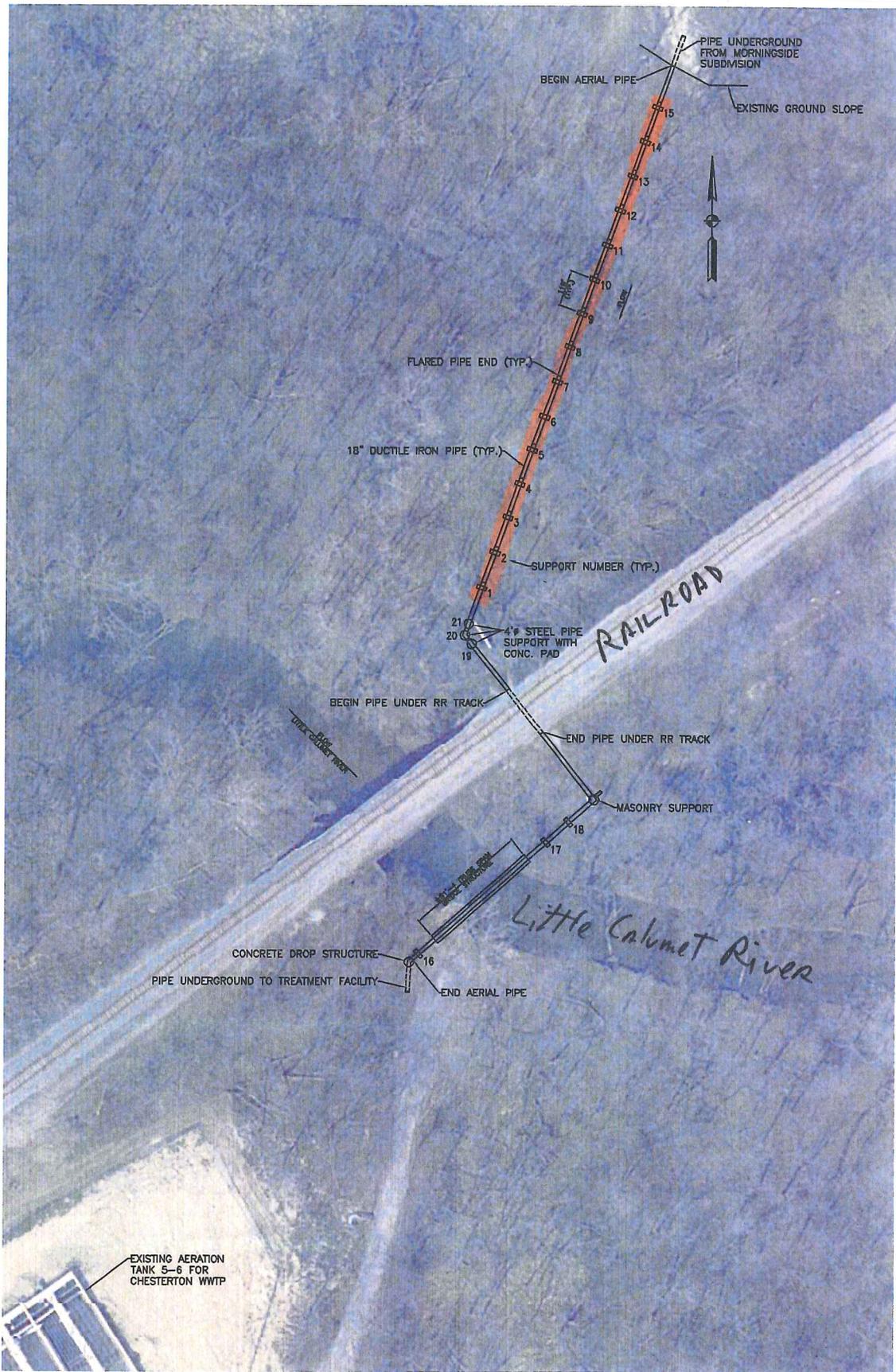
Regulatory Assessment: ****NOTE**:** *The Lake Michigan Coastal Zone Program has found in its final determination that this project is consistent with the laws of Indiana. This determination indicates that the project as stated conforms to applicable state laws, but it does not relieve you of the requirement to obtain any application local, state, or federal permits.*

VIII. MITIGATION MEASURES

Chesterton's PER states: *As determined appropriate, precautions shall be taken during construction to prevent erosion and sediment transport. Efforts shall be made during construction to minimize disturbance of stream and wetlands. Mitigation measures suggested in comment letters received from the reviewing agencies will be implemented as determined appropriate. Project plans shall include requirements for construction sequencing, as well as permanent and temporary erosion control measures. All disturbed areas shall be restored to their pre-construction condition. All vegetated areas shall be permanently seeded and maintained as necessary until vegetation is established. If dewatering is necessary, water shall be pumped through a filter bag prior to discharge into a swale or storm sewer. Applicable permits shall be obtained prior to construction. The Town of Chesterton shall routinely inspect the construction area to ensure the appropriate measures are taken to minimize erosion and sediment transport off-site.*

IX. PUBLIC PARTICIPATION

A properly noticed public hearing was held on October 29, 2012, at 6 pm at the Chesterton Town Hall. There were no questions about the Morningside Sewer Supports replacement project. The city did not receive any written comments in the 5-day period following the hearing.



TOWN OF CHESTERTON, INDIANA

MORNINGSIDE AERIAL SEWER
LINE SITE LAYOUT

 Project Area



Figure 1: Morningside Sewer Supports
Replacement Project Area

1-21-13

Westchester Township (05001-054)

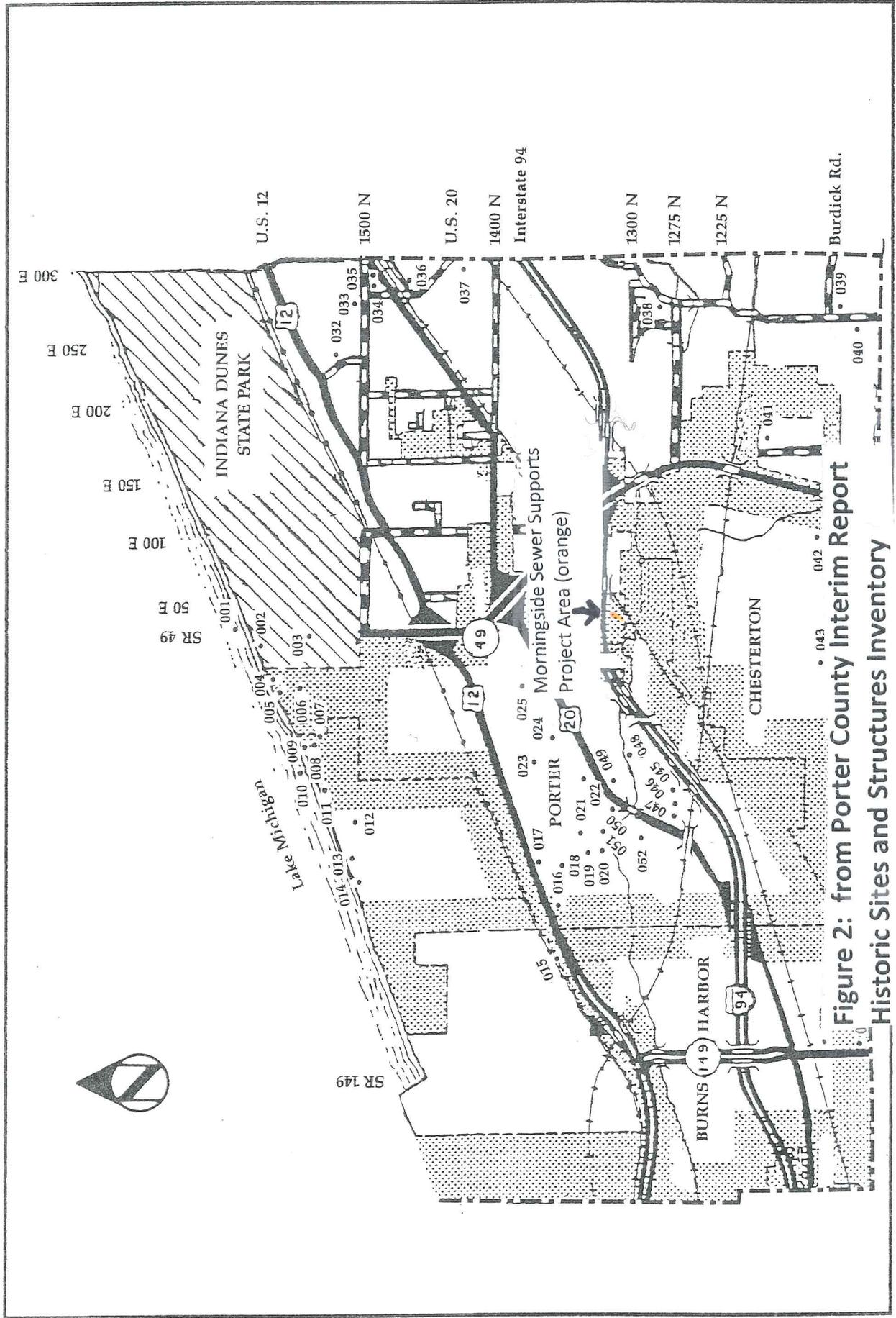


Figure 2: from Porter County Interim Report
Historic Sites and Structures Inventory