



# State Revolving Fund Loan Programs

## Drinking Water, Wastewater, Nonpoint Source

---

### ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

---

**CLARK COUNTY BOARD OF COMMISSIONERS**  
Henryville Sanitary Sewer Improvement Project  
**STATE REVOLVING FUND PROJECT SRF# WW 10161001**

**DATE: December 28, 2009**

**TARGET PROJECT APPROVAL DATE: January 28, 2010**

#### I. INTRODUCTION

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

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

The WWSRF 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:

**Sarah Hudson**  
**Senior Environmental Manager**  
**State Revolving Fund**  
100 N. Senate Ave. IGCN 1275  
Indianapolis, IN 46204  
317-232-8663; [sahudson@ifa.in.gov](mailto:sahudson@ifa.in.gov)



INDOT Rest Areas <sup>2</sup>	11,000 gpd
IDOC Henryville Correctional Facility <sup>3</sup>	36,000 gpd
Horseman's Camp <sup>4</sup>	5,000 gpd
IDNR Office <sup>4</sup>	300 gpd
Total Existing Flow:	<u>252,300 gpd</u>

<sup>1</sup> gpd = gallons per day

<sup>2</sup> Flow based on data from existing treatment plant

<sup>3</sup> 36,000 gpd is the design flow. This source currently produces 12,000 gpd of sewage.

<sup>4</sup> Flow estimated based on site and type of facility.

Peak Hourly Existing Flow: 883,500 gpd or 613 gallons per minute (gpm)

Based on service limits and the type of land use, the Clark County Census Data was used to project flows to the Henryville Lift Station for the 20 year planning period. A growth rate of 20% was used for the lift station. The projected 2030 design year flows are summarized as follows:

Average Daily Design Year Flow - 302,300 gal

Peak Hourly Design Year Flow (gpd) -1,027,800 or 714 gpm (The proposed pump station design capacity- 800 gpm)

If significant development occurs in the area (or if a large manufacturing plant is located in the area) that increases the flow rates, the developer(s) will be required to make all system improvements required to transport and treat the increased flow.

#### IV. PROJECT DESCRIPTION

Area 1- Service to IDNR Office, IDOC and Horseman Camp Pump Station- The IDOC segment of the Project includes approximately 6,416 feet of 8-inch diameter gravity sanitary sewer, 4,230 feet of 4-inch diameter force main and a lift station equipped with two 100 gpm submersible pumps. The IDNR segment includes the installation of approximately 1,847 feet of 8-inch diameter gravity sewer; this sewer will connect to the proposed IDOC gravity sewer main before connection to the Henryville System. The Horseman Camp segment includes the installation of a new Lift Station (equipped with two submersible pumps) and approximately 4,442 feet of 4-inch diameter force main. The proposed force main will connect to the IDOC 4-inch diameter force main. Wastewater collected at the Horseman's Camp will be directed to the Horseman Camp proposed Lift Station. The Horseman's Camp Lift Station will discharge to a 4" Force Main. The Henryville Correctional Facilities' Wastewater Treatment Plant will be abandoned and replaced with a Lift Station. The Correctional Facilities' Lift Station will discharge to a 4" Force Main and combine with the Force Main from the Horseman's Camp. Collected sewage will be pumped to a point just South of Interstate 65. At this location the system will convert to gravity and convey the collected sewage to the existing Henryville System.

Area 2- Service to INDOT Rest Area- Sewage collected at the existing Southbound Rest Area currently flows by gravity to the Northbound Rest Area. Here all sewage is collected in a Lift Station and pumped to a small package plant. The existing wastewater treatment will be removed from service and the existing Lift Station will be renovated as required to pump all collected sewage to the Henryville System. The renovated Lift Station will discharge to a 4" Force Main that will be routed east to US 31. At this point, the Force Main will increase to 6" and extend southward to the Henryville System. This segment of the project will include the installation of approximately 4,405 feet of 4-inch diameter and 12,030 feet of 6-inch diameter force main and the renovation of the existing pump station equipped with two 190 gpm capacity submersible pumps.

Area 3- Henryville Improvements -Henryville Lift Station and Force Main will be upgraded to accommodate the 20 year projected peak hourly flow. Improvements to this system include: installation of

a new wet well, duplex pumps (each with 800 gpm capacity), controls, and approximately 11, 250 feet of 12-inch diameter force main to the existing Henryville Lagoon Treatment System. The existing Henryville Lagoon Treatment Plant has a permitted average daily treatment capacity of 0.2734 MGD and the current average flow to this facility is 0.132 MGD. The plant is currently meeting all permit limitations. However, this facility is permitted as a Hydragraph Controlled Release System. Consequently, during restricted discharge periods, there is concern that the new sewage flow may stress and/or complicate the management of the discharge. To mitigate this issue, control valves will be added at the lagoon to allow a portion of the new sewage to flow to the existing Memphis Lift Station via an existing sewer line. The Memphis Lift Station discharges to Henryville's Memphis Wastewater Treatment Plant, which is permitted to treat an average flow of 0.35 MGD and is currently an average flow of 0.21 MGD. Unlike the Lagoon System, the Memphis facility is permitted to discharge continuously.

**V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING**

**A. Selected Plan Estimated Cost Summary**

<u>Project Areas</u>	<u>Estimated Cost</u>
<b>Area 1- Service to IDNR Office and IDOC</b>	
Construction, Engineering, Legal, etc.	\$794,700
Horseman's Camp Pumps and Controls	\$150,000
Contingency (5%) for all Area 1 Work	\$ 48,000
<b>Area 2- Service to INDOT Rest Area</b>	
Construction, Engineering, Legal, etc. and Construction Contingency	\$925,000
Demolition and Disposal of the Existing Rest Area WWTP	\$ 40,000*
Area 1 and 2 Inspection Costs	\$ 61,540
<b>Area 3- Henryville Improvements</b>	
Lift Station Upgrade /Improvement Construction Cost	\$137,500
Force Main from Lift station to Lagoons Construction Cost and 5% contingency	\$617,000
Total Non Construction Costs for Area 3	\$108,900
<b><u>General Project Costs For All Areas</u></b>	
Inspection and Start up Training (HMSC Project Management)	\$ 62,000
Legal Fees	\$ 28,000
Rate Consultant	\$ 25,000
Connection Fees	\$237,200
Easement Acquisition Costs	\$ 50,000*
Non Construction Cost contingencies (5%)	<u>\$ 26,000</u>
<b>Total Estimated Project Cost</b>	<b>\$3,310,840</b>
<b>Total SRF Eligible Project Cost:</b>	<b>\$3,247,840</b>

\*The cost to purchase land and easements is estimated at \$23,000. The demolition and disposal cost of the existing INDOT, IDOC wastewater treatment plants and the IDNR office on-site system is not SRF Loan Program. In addition, the costs associated with the sanitary service laterals outside the public right of way or those laterals that are not owned and maintained publically are not eligible the SRF Loan Program. INDOT, IDOC and IDNR will be responsible for abandoning and disposing of the exiting WWTPs and onsite systems according to Indiana Department of Environmental Management (IDEM) and the State Department of Health guidance and requirements.

- B. Clark County Board of Commissioners will finance the proposed Project through a 20-year loan from the State Revolving Fund (SRF) Loan Program at a fixed interest rate to be determined at loan closing.

## VI. DESCRIPTION OF EVALUATED ALTERNATIVES

No-Action: The No Action alternative consists of maintaining the current methods of wastewater collection and treatment. The existing wastewater treatment plants at the INDOT Rest Area and the Henryville Correctional Facility routinely experience problems with meeting permit limitations. The wastewater flows to these facilities vary widely as do the loadings. This creates significant challenges for the operational staff. If this Project is not implemented major renovations will be required at both facilities. Considering the issues with variable flows and loadings, even if these facilities are renovated, they may still have significant issues meeting permit limitations. If no action is taken to provide sanitary sewer service to the Horseman's Camp this facility will be underutilized. The existing dump pit/holding tank has limited capacity and will limit site usage. The onsite septic system at the IDNR office site is old and deteriorating and the onsite septic system will not meet the future needs of the office expansion.

Optimization of the Existing Treatment Systems: This alternative would include renovating the existing treatment plants at the Rest Area and the Henryville Correctional Facility. Considering the flow and loading variations at these facilities, even after renovations they may not be able to consistently meet permit limitations. At the Horseman's Camp, additional holding tanks could be installed and the frequency of the renewal could be increased. The issue is that it will be difficult to manage the system as wastewater flow (and loading) will be event driven and vary significantly. If a given event produces more sewage flow than anticipated, the holding tanks could overflow contaminating the receiving waters in this Area.

If sewer service is provided to the INDOT, IDOC and IDNR facilities the wastewater flow from these new connections will exceed the capacity of the existing Henryville Lift Station and Force Main. If the capacity of these facilities is not increased overflows will occur at the station. The existing Force Main is at its capacity and must be upsized to carry the additional flow. The existing pumps are under sized for the proposed application and must be replaced to increase the capacity of the station. For these reasons the implementation of this option is not practical, environmentally sound, technically feasible or cost effective.

Installation of a Sanitary Sewer System: The third alternative considered was to provide sanitary sewer service to the study areas. All sewage generated at these Facilities would be conveyed to Henryville wastewater control and treatment facilities. The general layout of the proposed collection and conveyance system is shown in Figure 1 and 2.

Above alternatives were evaluated based on cost effectiveness, practicality, technical feasibility, reliability, ease of implementation and environmental soundness. The only option that satisfies all criteria is the installation of a sanitary sewer system.

## VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

The evaluation of environmental impacts of the project is divided into three areas, which are described in the above sections.

1. Area 1 provides service to the IDNR Office, IDOC and Horseman's Camp Pump Station (Figure 1). The IDNR has taken responsibility for evaluation of the environmental impacts in this area.
2. Area 2 provides service to the INDOT Rest Area (Figure 1). INDOT has completed the environmental review of this area.
3. Area 3 is comprised of improvements to the Henryville Lift Station and Force Main to the existing Henryville wastewater treatment lagoon (Figure 2).

Section A, Direct Impacts of Construction and Operation, of this environmental assessment is dedicated to describing the Area 3, Henryville Improvements, only. Section B, Indirect Impacts, Section C, Comments from Environmental Review Authorities, and Part VIII, Mitigation Measures, apply to all three parts of the project: Area 1, Area 2, and Area 3.

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

**Undisturbed/Disturbed Land:** The proposed lift station will be constructed at the site of the existing lift station, which is considered disturbed by the construction of the existing lift station. The proposed lift station will be located within the disturbed limits of the original construction.

From the lift station, the proposed force main will be routed along the existing access road parallel to the existing 6-foot force main, which is considered previously disturbed by the installation of the existing force main. The proposed force main will be installed within the disturbed limits of the existing force main.

From the access road, the proposed force main will be routed south and installed within the paved limited of Pennsylvania Street, which is considered disturbed by the existing road construction.

From Pennsylvania Street, the force main will be directionally drilled under Miller Fork (a branch of Silver Creek) and continue south in farmland to the Henryville Lagoon Treatment Plant. The farmland is considered undisturbed. An archaeology report for this area was prepared and found that “no historically or archaeologically significant sites will be impacted by the proposed undertaking”.

The final area of work is the yard piping at the Henryville Lagoon Treatment Plant, which is considered previously disturbed by the construction of the lagoon and plant.

**Structural Resources:** Based on a review of the Clark County Interim Report, the Indiana Register of Historic Sites and Structures, and the National Register of Historic Places, the project will not affect historic sites or districts. Audible, atmospheric or visual effects of the projects will be temporary. The SRF’s finding pursuant to Section 106 of the National Historic Preservation Act is: “no historic properties affected.”

**Wetlands:** Wetlands will not be affected by the construction of this project.

**Surface Waters:** The project includes three stream crossings, all of Miller Fork, which is a branch of Silver Creek. To mitigate impacts to these areas, the force main will be installed by the directional drill method. If site conditions prohibit installation by this method, below low-water work will be limited to that area necessary for line installation. In these areas, the stream bottom will be restored to original contours and the use of riprap for bank stabilization will be minimized.

The project will not adversely affect exceptional use streams, outstanding state resources water or natural and scenic recreational rivers and streams.

**100-Year Floodplain and Floodway:** The lift station and a portion of the force main will be in the 100-year floodplain. The lift station controls and mechanical equipment will be protected from physical damage by the 100-year flood.

**Groundwater:** The seasonal high groundwater table is approximately 6 feet below grade. The construction will not adversely affect groundwater. The project will not affect a sole source aquifer.

**Plants and Animals:** Trees will not be removed as part of area 3 “Henryville” project. The directional drilling segments have been extended far enough to clear the trees at the stream crossings. For areas 1 and

2, trees will be removed but removal will not occur later than April 1 to protect bat habitat. During the preliminary planning phase, all efforts were made to avoid impacts to forested areas and other areas of good wildlife habitat such as scrub/shrub areas and wetlands.

The construction and operation of the project will not negatively impact State or Federal listed endangered species or their habitat. The project will be implemented to minimize impact to non-endangered species or their habitat. Mitigation measures cited in comment letters from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

**Prime Farmland:** The proposed projects will not affect prime farmland.

**Air Quality:** Noise, dust, and odors will be short-term and construction related. The contractor shall use all necessary measures to reduce their impacts. The project is located in a non-compliant ozone area, but there will be no long-term impact on air quality as a result of the project.

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

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

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

#### B. Indirect Impacts

The Preliminary Engineering Report (PER) states: *The Henryville Membership Sewer Corporation (HMSC) will ensure through local zoning laws and other means that future development, as well as pumping stations, force mains, collector sewers or wastewater treatment Projects connecting to SRF funded facilities, will not adversely impact wetlands, archeological/historical/structural resources, or other sensitive environmental resources. The HMSC will require new development and treatment work Projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, DNR, IDEM and other environmental review authorities.*

#### C. Comments from Environmental Review Authorities

##### Area 1:

IDNR Division of Water December 8, 2009 comments on the **IDNR/IDOC** area:

Formal approval by the DNR under the regulatory programs administered by the Division of Water is not required for this project. The Natural Heritage Program's data have been checked. The worm-eating warbler (*Helminthos vermivorus*), a state species of special concern has been documented on the north shore and the southwest shore of Franke Lake. To minimize impacts to forested habitat, where the utility line is to be placed along a road, place the line on the side of the road containing the least amount of woody vegetation. If both sides of the road are forested, place the line within or as close to the existing cleared road right-of-way as possible. We recommend that the creek crossing be done using the directional bore method. If open trench method is necessary, then the crossing should be timed to coincide with the low-water time of year (typically mid- to late-summer). Restore disturbed streambanks using bioengineering bank stabilization methods and revegetate disturbed banks with native trees, shrubs and herbaceous plants. Banks slopes after project completion should be restored to a stable-slope steepness (not steeper than 2:1). Fish, wildlife, and botanical resource losses as a result of this project can be minimized through implementation of the following measures:

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 inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without 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 diameter-at-breast height (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 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.

IDNR Division of Historic Preservation and Archaeology April 2, 2009 comments on the **IDNR/IDOC** area: We do not believe that any historic properties will be altered, demolished or removed by the proposed project.

USDA Natural Resources Conservation Service December 16, 2009 comments on the **IDNR/IDOC** area: ...the project will not cause a conversion of prime farmland.

The US Fish and Wildlife Service is reviewing the **IDNR/IDOC** project.

#### Area 2:

IDNR Division of Water July 10, 2008 comments on the **INDOT** area:

The proposal will require the formal approval of our agency for construction in a floodway... A portion of this project passes by Clark State Forest. Where possible, we recommend placing the line in previously cleared areas along the road or along the side of the road containing the least amount of woody vegetation to avoid tree clearing. Where the lines can't be placed in the existing cleared road r-o-w, the line should be placed as close to the cleared r-o-w as possible to avoid creating a thin strip of woods with cleared easements/r-o-w on either side. Where the line easement is forested, the use of directional bore in that easement at a depth of 3-4ft (deeper depth is recommended where trees are mature, shallower where trees are young) will avoid impacts to most of the tree root zone and avoid tree removal. Creek crossings should also be done using the directional bore method. Impacts to non-wetland forest under 1 acre should be mitigated at a 1:1 ratio. Impacts to non-wetland forests over 1 acre should be mitigated at a minimum 2:1 ratio. Fish, wildlife, and botanical resource losses as a result of this project can be minimized through implementation of the following measures:

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 inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without 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 diameter-at-breast height (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 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.

IDNR Division of Historic Preservation and Archaeology June 16, 2008 comments on the **INDOT** area: We concur...that there are no historic buildings, structure, districts, objects or archaeological resources within the area of potential effects that will be affected by the project.

USDA Natural Resources Conservation Service May 6, 2008 comments on the **INDOT** area: ...the project will not cause a conversion of prime farmland.

US Fish and Wildlife Service May 9, 2008 comments on the **INDOT** area: We recommend the following measures to minimize physical impacts on streams and aquatic habitat:

1. Maintain a vegetated buffer between construction and streams, except at stream crossings. Ideally, the buffer should be at least 25 feet wide, but otherwise as wide as possible. Where maintenance of an adequate buffer is not possible because of other physical constraints, locate the sewer line to minimize clearing of woody riparian vegetation and destabilization of steep stream banks.
2. Minimize erosion and cover or contain soil piles to prevent runoff to streams during construction. Re-stabilize disturbed stream banks as quickly as possible after construction is completed. Re-vegetate with native plant species in areas that are currently dominated by natural vegetation.

The proposed project is within the range of the federally endangered Indiana bat (*Myotis sodalis*). While some foraging habitat, and possible roosting habitat, may exist in the project area, we concur that the proposed project is not likely to adversely affect this listed species.

#### Area 3:

This is the first notice of the **Henryville** project to the IDNR Division of Water, IDNR Division of Historic Preservation and Archaeology, US Fish and Wildlife Service.

USDA Natural Resources Conservation Service is reviewing the **Henryville** area.

### **VIII. MITIGATION MEASURES**

In addition to following the above listed comments from the environmental review authorities, the Preliminary Engineering Report (PER) states: *Erosion from the construction activities will be mitigated by requiring the contractor to implement the requirements of Indiana Rule 5.*

### **IX. PUBLIC PARTICIPATION**

A properly noticed public hearing is scheduled for 6:00 p.m. on January 7, 2010, at the Monroe Township Fire Department Building 315 Ferguson Street, Henryville, Indiana 47126. The installation of the recommended Sanitary Sewer Improvement Project will be discussed during the hearing. A copy of the Preliminary Engineering Report will be available for public review at the Clark County Commissioners office 10 days in advance of the public hearing date. Written comments from the public will also be accepted for 5 days following the date of the public hearing.



**GRAPHIC SCALE**

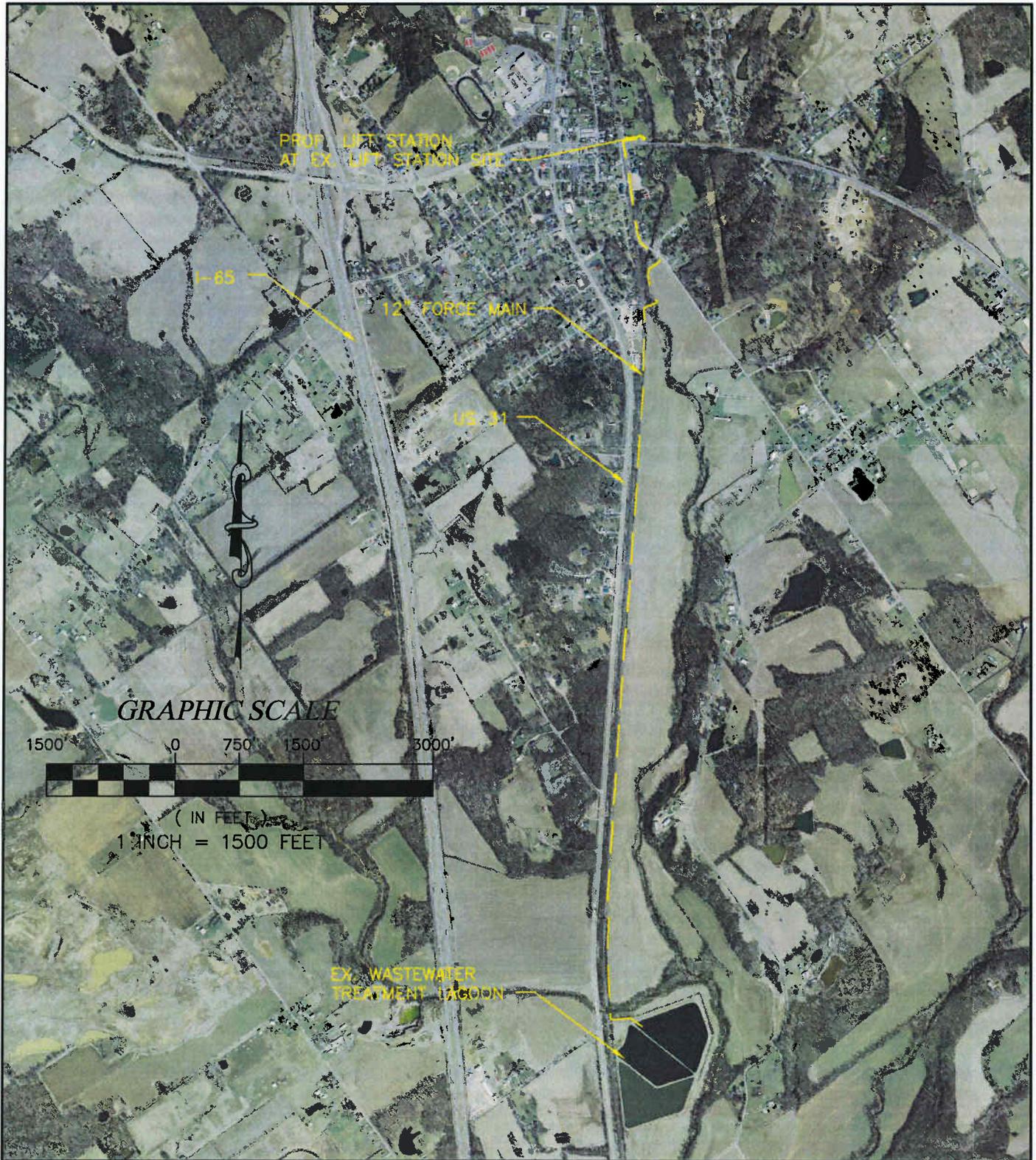


( IN FEET )

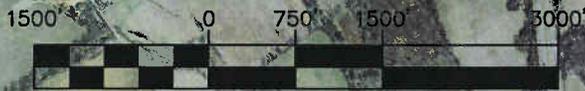
1 INCH = 500 FEET

12/19/00

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED:	CHECKED:	DRAWN:	CHECKED:
<b>HENRYVILLE SANITARY SEWER OVERALL LAYOUT</b>			
HORIZONTAL SCALE		VERTICAL SCALE	
SHEET BOOK		SHEET	
CONTRACT		PROJECT	
<b>FIGURE 1</b>		<b>PROJECT AREAS 1 AND 2</b>	

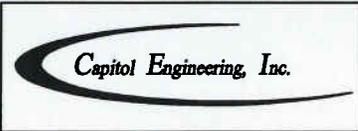


**GRAPHIC SCALE**



( IN FEET )  
 1 INCH = 1500 FEET

NO.	REVISIONS
1	
2	
3	
4	
5	
6	
7	
8	



6200 E. HWY 62, SUITE 250  
 JEFFERSONVILLE, IN 47130  
 PHONES (812) 280-4701  
 FAX (812) 280-0221

**HENRYVILLE MEMBERSHIP  
 SANITATION CORPORATION**

**FIGURE 2  
 PROJECT AREA 3**

PROJECT NO. CE0210	
FILE NO. aerial-proj-layout	
DATE 1/30/09	SCALE 1"=600'
DRAWN BY: DLP	
1	SHEET OF 1