

# **BROWN COUNTY RSD**

**BROWN COUNTY, INDIANA**

## **PRELIMINARY ENGINEERING REPORT**

**FOR:**

**BEAN BLOSSOM, WOODLAND LAKE, LITTLE FOX  
LAKE AND FREEMAN RIDGE WASTEWATER  
FACILITIES**

**March 2018  
REVISED FEBRUARY 2020**

**PREPARED FOR:**

### **BROWN COUNTY RSD BOARD MEMBERS**

<b>MIKE LEGGINS</b>	<b>PRESIDENT</b>
<b>CLINT STUDABAKER</b>	<b>VICE PRESIDENT</b>
<b>PHIL LEBLANC</b>	<b>TREASURER</b>
<b>DEBBIE LARSH</b>	<b>SECRETARY</b>
<b>RICHARD HALL</b>	<b>MEMBER</b>

**PREPARED BY:**

**LADD ENGINEERING, INC.**  
1127 Brookside Drive  
Lebanon, IN 46052  
765-482-9219

## GLOSSARY OF TERMS

Abbreviation of some technical terms is used throughout this report for brevity. Terms are listed as follows:

BCRSD	-	Brown County Regional Sewer District
BOD5	-	5-Day Biological Oxygen Demand
CBDG	-	Community Development Block Grant
CFF	-	Community Focus Fund
CFR	-	Code of federal Regulations
<i>E. Coli</i>	-	Escherichia coli (coliform bacteria)
EA	-	Each
EDA	-	Economic Development Administration
EDIT	-	Economic Development Income Tax
EDU	-	Equivalent Dwelling Unit
FIRM	-	Flood Insurance Rate Map
gal	-	gallons
gpd	-	gallons per day
gpm	-	gallons per minute
IDEM	-	Indiana Department of Environmental Management
HRSD	-	Helmsburg Regional Sewer District
IAC	-	Indiana Administrative Code
IDNR	-	Indiana Department of Natural Resources
IN-RCAP	-	Indiana Rural Community Assistance Programs
IOCRA/OCRA	-	Indiana Office of Community and Rural Affairs
LF	-	Linear Feet
LS	-	Lump Sum
lbs	-	pounds
mg/l	-	milligrams per liter
mgd/MGD	-	million gallons per day
ml	-	milliliters
MBR	-	Membrane Bioreactor
MBBR	-	Moving Bed Biofilm Reactor
MG	-	million gallons
MHI	-	Median Household Income
MHP	-	Mobile Home Park
O, M, & R	-	Operation, Maintenance and Replacement
NH3	-	Ammonia Nitrogen
NPDES	-	National Pollutant Discharge Elimination System
P	-	Phosphorus
PER	-	Preliminary Engineering Report
PW	-	Present Worth
RCAP	-	Rural Community Assistance Programs
RD	-	Rural Development
RFM	-	Re-Circulating Filter Media
RSD	-	Regional Sewer District



RUS	-	Rural Utility Service
s.u.	-	standard unit
SDI	-	Subsurface Drip Irrigation
SRF	-	State Revolving Fund
STEP	-	Septic Tank Effluent Pressure
TSS	-	Total Suspended Solids
UV	-	Ultraviolet
WW	-	wastewater
WWTP	-	Wastewater Treatment Plant
USDA	-	United States Department of Agriculture

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- C Brown County Interim Report
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- E Helmsburg RSD Design Summary
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- G Project Need Information
- H Helmsburg WWTP Evaluation Report
- I Nashville Wastewater Treatment Agreement
- J. Preliminary Design Summary for Proposed Project



## **SECTION 1**

### **GENERAL INFORMATION AND PROJECT PLANNING AREA**

#### **1.1 Location**

The Bean Blossom Regional Sewer District (BBRSD), recently renamed the Brown County Regional Sewer District, is located in Brown County, Indiana. The BBRSD was originally formed in 2006, was expanded in April 2013, then renamed to the Brown County Regional Sewer District. The District boundary includes all unincorporated areas of Brown County, and excludes the existing Helmsburg Regional Sewer District, Gnaw Bone Regional Sewer District, Cordry Sweetwater Conservancy District, and Town of Nashville. This study focuses on the unincorporated Bean Blossom Area, Woodland Lake Area, Little Fox Lake Area, Freeman Ridge Road Area, and Greasy Creek Road Area as there is a history of septic system problems and these areas have concentrated homes and/or businesses. The service area includes portions of Sections 25 and 36 of Jackson Township, portions of Sections 28, 29, 30 and 31 of Hamblen Township, and portions of Sections 6, 7 and 18 of Washington Township, of the Second Principal Meridian, as shown on the Bean Blossom, Morgantown and Nashville Quadrangles, State of Indiana, United States Geological Survey map. The Greasy Creek Road Area will only be within the service area if the conveyance to Nashville for treatment alternative is selected. Refer to Appendix A for the 2006 IDEM Notice of Decision and correspondence related to the expansion of the Regional Sewer District in 2013, and Exhibit 1.1 for a topographical map of the proposed service areas. Refer to Exhibit 1.1A for a District Boundary Map.

#### **1.2 Environmental Resources Present**

An environmental review was undertaken in 2009 for a project to install a wastewater collection system in Bean Blossom and conveying the wastewater to the Helmsburg WWTP. A copy of the correspondence received from the review agencies is included in Appendix B.

##### **1.2.1 Land Use/Farmland/Previously Classified Lands**

The land use within the service area primarily consists of low and medium density residential areas. There are a few small businesses that are spread throughout Bean Blossom. A 27-lot mobile home park and the Bill Monroe Music Festival properties are located in Bean Blossom. The Woodland and Little Fox Lake Areas are surrounded by residential homes, some occupied seasonally and some year-round. The proposed sewers

will be installed within existing roadway right-of-way, or within easements in residential areas. No impact, except for the wastewater treatment plant site alternative, to prime farmland will occur as a result of this project. The construction and operation of the proposed project will not impact any known monuments, National Natural Landmarks, wild and scenic rivers, wilderness areas, State or National Parks, reservations or recreational areas. As such, there are no environmental consequences and no need for mitigation efforts related to these concerns.

### **1.2.2 Flood Plains**

A construction in a Floodway Permit from the Indiana Department of Natural Resources, Division of Water will be required where structures are constructed within the Beanblossom Creek, Hoppers Branch or Greasy Creek flood plain. This permit will require that the top of all proposed structures be designed at a minimum of two feet above the 100-year flood elevation. A utility crossing a creek is exempt from a permit as long as the crossing meets the IDNR requirements. A copy of the Flood Insurance Rate Map (FIRM) is presented on Exhibit 1.2.

### **1.2.3 Wetlands**

According to the National Wetlands Inventory Map, the wetlands within the study area impacted by this project are primarily the water bodies. Crossing of any streams will be accomplished via directional boring, which will not disturb any designated Wetlands. Refer to Exhibit 1.3 for a wetlands map.

### **1.2.4 Historic Sites and Structures**

There are several historic sites and structures located within the study area. Maps and descriptions for identified historic sites and structures are taken from the Brown County Interim Report and provided in Appendix C. Refer to Exhibits 1.4 (A & B) for maps showing historic sites and structures in the planning area. The SHPO letter dated October 26, 2009, located in Appendix B, indicated that no historic buildings, structures, districts, or objects listed in or eligible for inclusion in the National Register of Historic Places with the probable area of potential effects.

### **1.2.5 Biological Resources**

Plant life in the project planning area consists of residential landscaping and open fields. Typical wildlife such as rabbit, squirrel, raccoon, opossum, chipmunk and various birds comprise the animal community. A portion of the proposed project is within the range of the federally endangered Indiana bat. Refer to the October 7, 2009 letter from the

United States Department of Interior Fish and Wildlife Service in Appendix B. The construction and operation of the project is not anticipated to negatively impact any known habitats, as construction will be undertaken considering the requirements outlined in the 10/7/09 Fish and Wildlife letter.

The project will be implemented to minimize any impact to endangered and non-endangered species and their habitat. Where applicable, bare and disturbed areas will be re-vegetated with a mixture of grasses (excluding all varieties of fescue), legumes, native shrubs and hardwood tree species, upon completion. Some tree clearing is anticipated for this project.

#### **1.2.6 Water Quality Issues**

Water quality will not be negatively impacted as a result of the construction and operation of the proposed project. The pipes crossing the larger streams will be installed via directional drilling to avoid negative water quality impacts. Water quality in the service areas will be improved with the installation of the proposed wastewater system, as current failing on-site septic systems that degrade the water quality will be eliminated. During construction the contractor will be required to comply with a Stormwater Pollution Prevention Plan that addresses sedimentation, petroleum products, hazardous materials, etc. to reduce the risks of water pollution, which will be reviewed and approved by the Brown County Soil Water Conservation Service and IDEM.

#### **1.2.7 Coastal Resources**

The project will have no effect on the Lake Michigan Coastal Zone.

#### **1.2.8 Socio-Economic Issues**

There will be no negative effect on the economics or location of minority and/or low-income populations.

#### **1.2.9 Miscellaneous Issues**

##### **1.2.9.1 Air Quality**

Construction activities should not impact ozone, airborne pollutants or other current or future air quality concerns other than minor fumes and dust typically generated during such activity. The adverse impacts caused by dust may be alleviated by periodically wetting the exposed soil and unpaved roadways to reduce suspension of particles, constructing wind barriers, or treating the area with chemical stabilizers, if applicable. The dust and fumes are short term impact, lasting only during the construction phase.

#### **1.2.9.2 Noise**

Construction activities may generate noise which typically results from such activities. To reduce noise impacts, work activities can be limited to normal daytime hours. The noise is a short-term impact, lasting only during the construction phase.

#### **1.2.9.3 Open Space and Recreational Opportunities**

The proposed project's construction and operation will neither create nor destroy open space and recreational opportunities.

#### **1.2.9.4 Transportation**

The proposed pipe installation for this project will be parallel to or cross several county roads, State Road 135, State Road 45, and State Road 46. It is anticipated that the pipes will be directional drilled across the roads, thereby minimizing the impacts to them. Traffic control measures will be required in the plans if it becomes necessary to temporarily close a lane off, etc. A permit will be required from the Indiana Department of Transportation and most likely the Brown County Highway Department for work done adjacent to these roads.

### **1.3 Population Trends**

An income survey conducted by Ball State University in 1998, demonstrated that the population of the Bean Blossom and Woodland Lake planning areas was 471 persons. An income survey conducted by Ball State University in 2002 for the Bean Blossom Area indicated a population of approximately 160 persons. There has not been any significant changes since these surveys were conducted. Approximately 90% of the Bean Blossom Area land area has been developed into an estimated 74 residential, single-family homes and 12 business, commercial, or institutional establishments listed as follows:

- Staley's 27-Lot Mobile Home Park
- Bill Monroe Music Park and Campground
- St. David's Episcopal Church
- Brownie's Restaurant (Currently closed but anticipated to open when sewer available)
- Bean Blossom Mennonite Church
- Fire Department
- Lutheran Church
- Veterinary Clinic

- Beauty Salon
- Brown County Water
- Antique Store
- Dollar General

Also included in the Bean Blossom planning area is the Old Settler's Road Area, which is located west of St. Rd. 135 and North of Hoppers Branch and includes 19 residential homes and Brownies Restaurant. Also located in the Old Settler's Road Area is a Lutheran Church. The Woodland Lake and Little Fox Lake portion of the planning area includes two residential lake community containing approximately 91 existing residential homes and approximately 22 existing residential homes between Woodland Lake/Little Fox Lake and Bean Blossom. The Freeman Ridge Area is comprised of approximately 38 residential homes. The Greasy Creek Road Area proposed to be served consists of approximately 46 residential equivalent homes/businesses.

The estimated future customers for the service area based on undeveloped land are shown in Table 1.1.

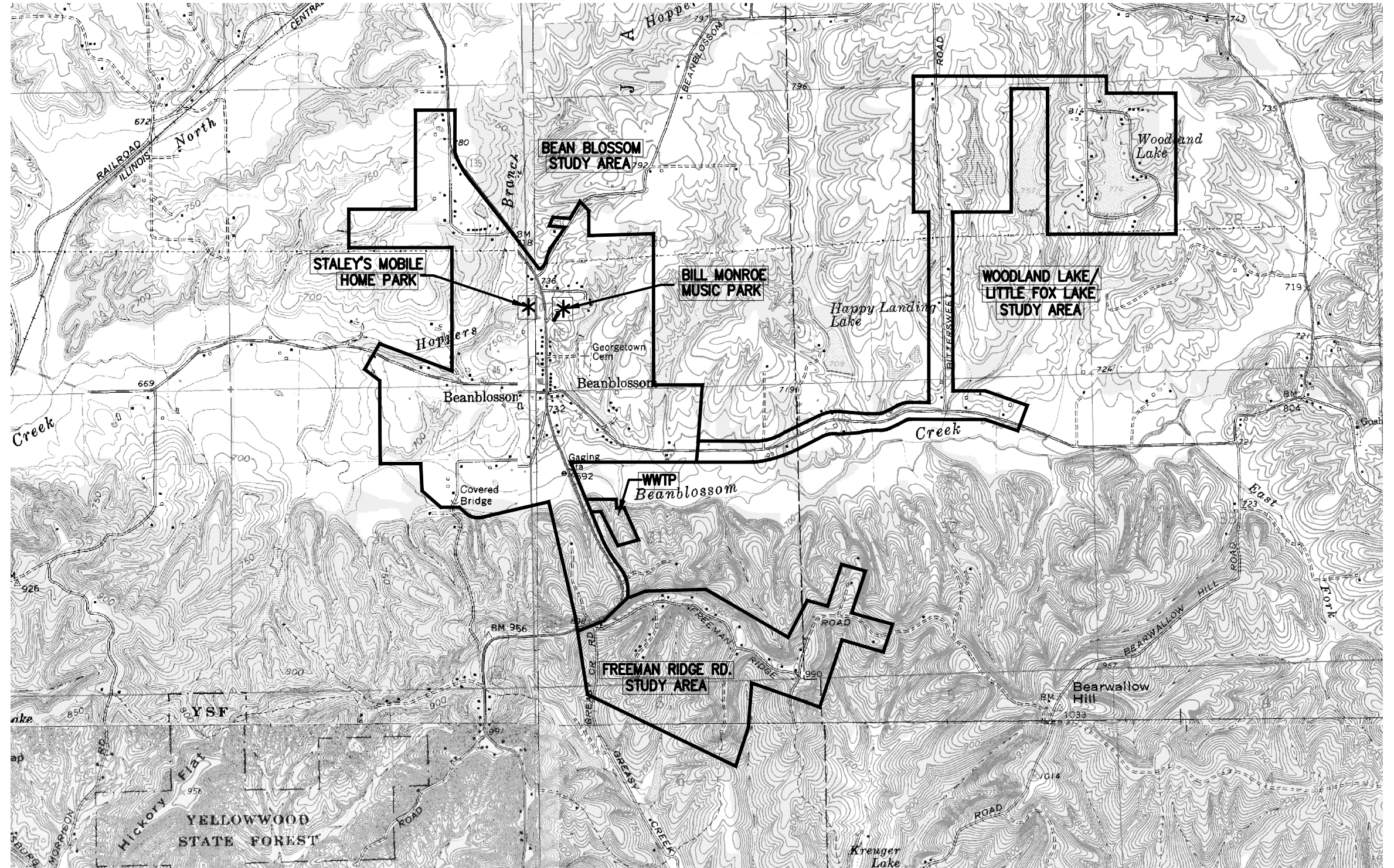
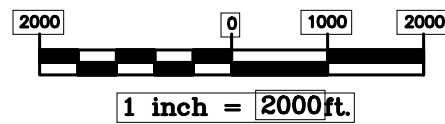
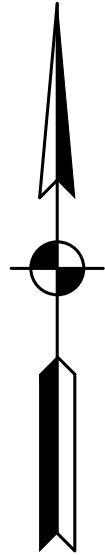
<b>Table 1.1</b> <b>Estimated Future Development In Planning Area</b>		
<b>Study Area</b>	<b>Residential</b>	<b>Business/Commercial</b>
Bean Blossom	19	5
Old Settler's Road	4	1
Woodland Lake	16	0
Little Fox Lake	4	0
Freeman Ridge Road	4	0
Greasy Creek Road	10	2
Total	57	8

In addition, there are potential future customers north and northeast of Bean Blossom (SR 135 and Spearsville Road). For purposes of this report, approximately 250 additional customers are projected.

#### **1.4 Community Engagement**

Previous studies have been prepared, one by R.W. Armstrong & Associates in January 2001, one by Ladd Engineering, Inc. in September 2003 and another by Ladd Engineering, Inc. in September 2009. Each of these studies included a public hearing, which drew in residents of the proposed service area. In addition, several letters of support for a project were received in 1998 from local residents and businesses, and are provided in Appendix D. Letters from the District Board have been sent out to potential customers and many have attended the District Board Meetings during the development of this PER. Continued efforts will be

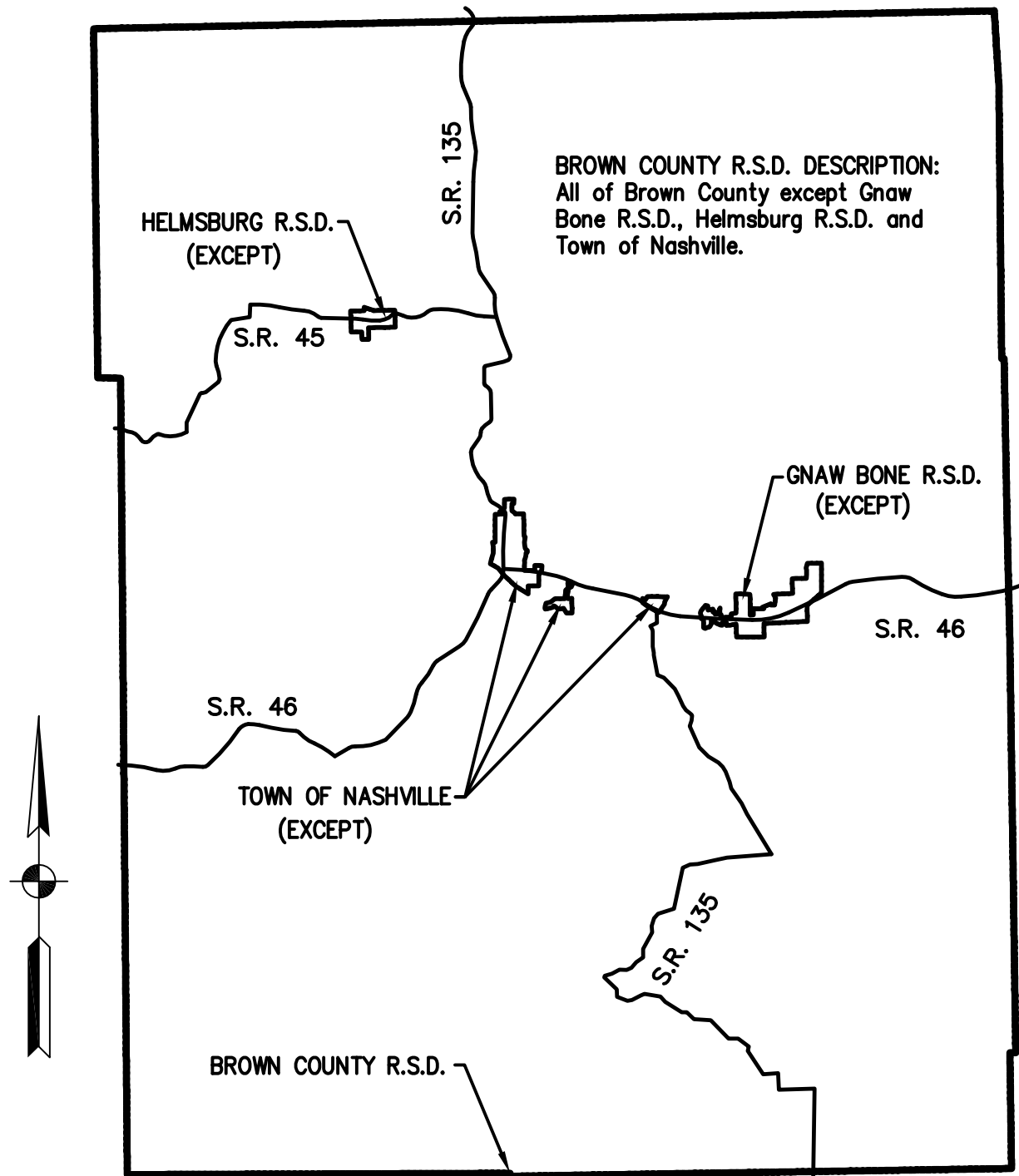
offered by the Brown County RSD to keep the local citizens informed. The Brown County RSD meets monthly and these meetings are open to the public.



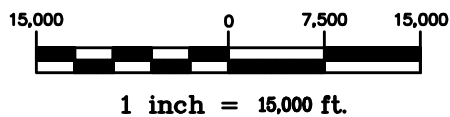
**LADD ENGINEERING, INC.**  
**LEBANON, INDIANA**

**Brown County RSD**  
PRELIMINARY ENGINEERING REPORT

Exhibit 1.1  
SERVICE AREA  
TOPOGRAPHIC MAP



**BROWN COUNTY R.S.D. DESCRIPTION:**  
All of Brown County except Graw Bone R.S.D., Helmsburg R.S.D. and Town of Nashville.

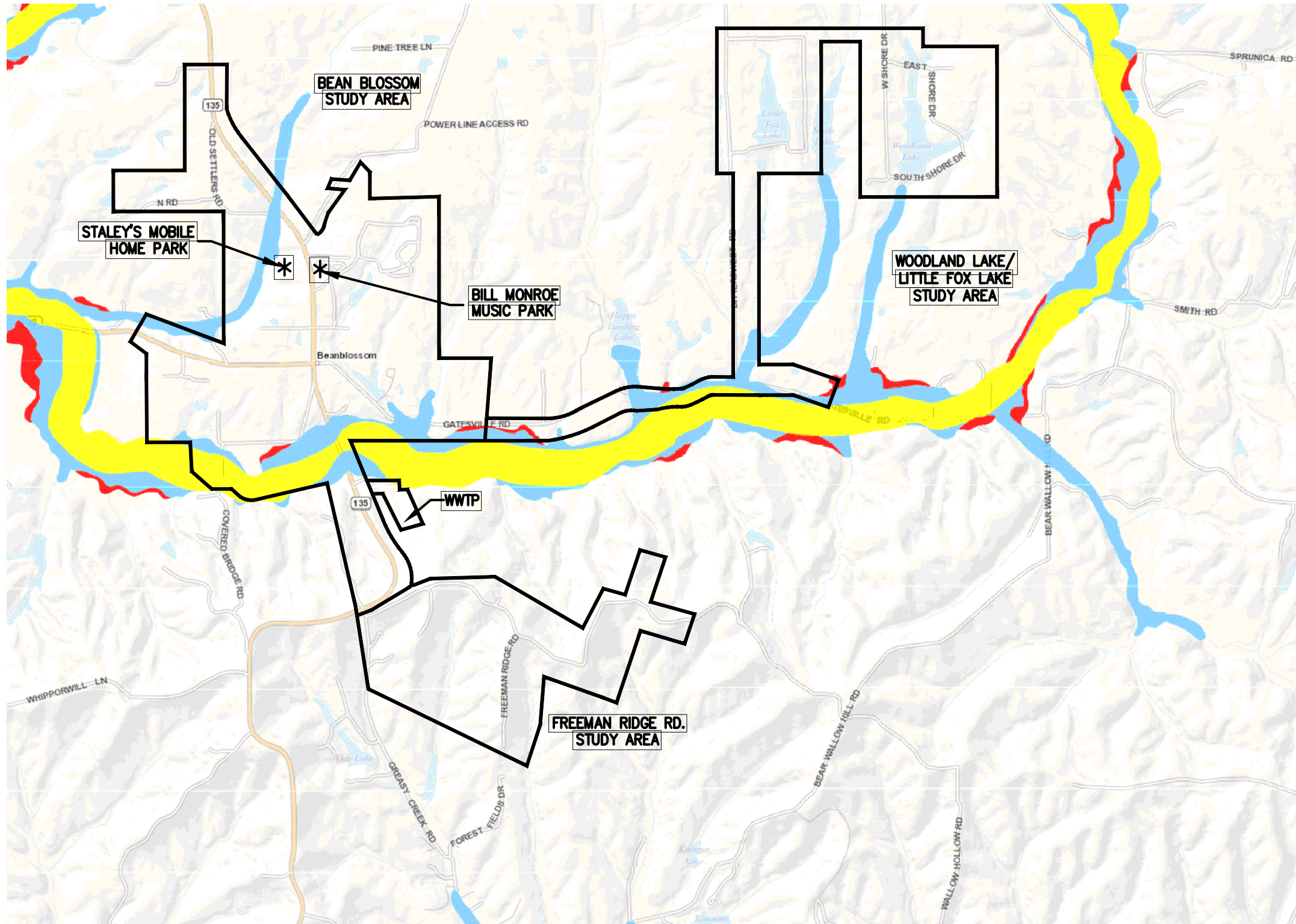


**LADD ENGINEERING, INC.**  
LEBANON, INDIANA

**Brown County RSD**  
PRELIMINARY ENGINEERING REPORT

Exhibit 1.1A  
District  
Boundary Map





November 8, 2016

Floodplains - FIRM (June 2016)

Yellow Floodway

Blue 1% Annual Chance Flood Hazard

Orange 0.2% Annual Chance, Protected by Levee

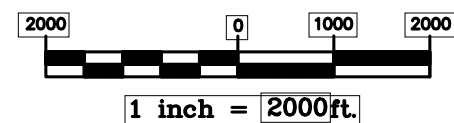
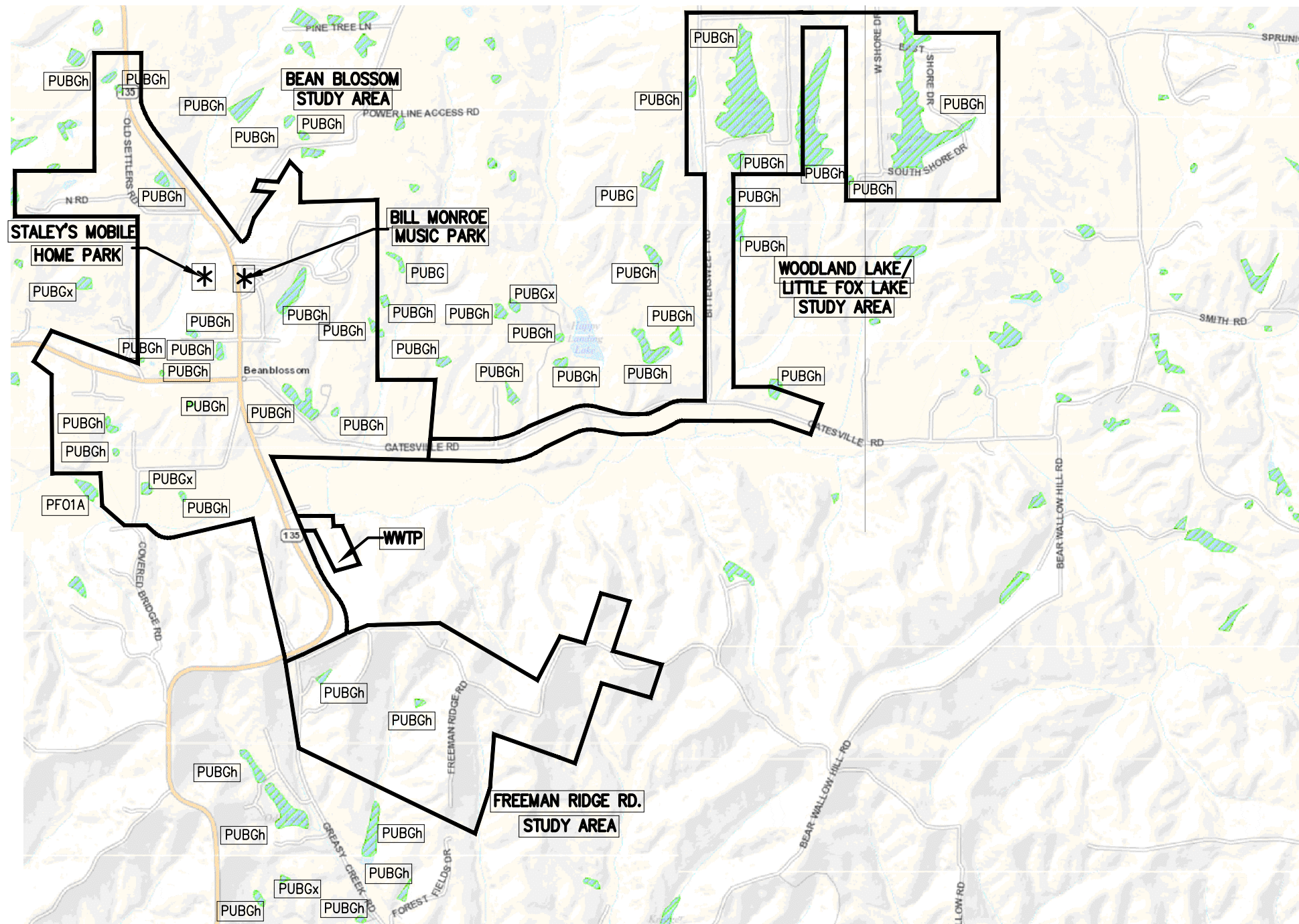
Red 0.2% Annual Chance Flood Hazard

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**Brown County RSD**  
PRELIMINARY ENGINEERING REPORT

Exhibit 1.2  
FLOOD MAP

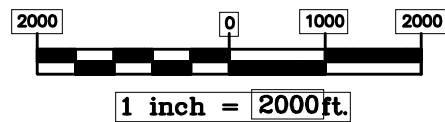
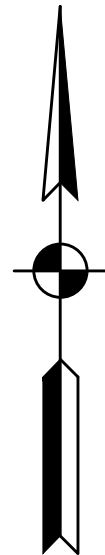
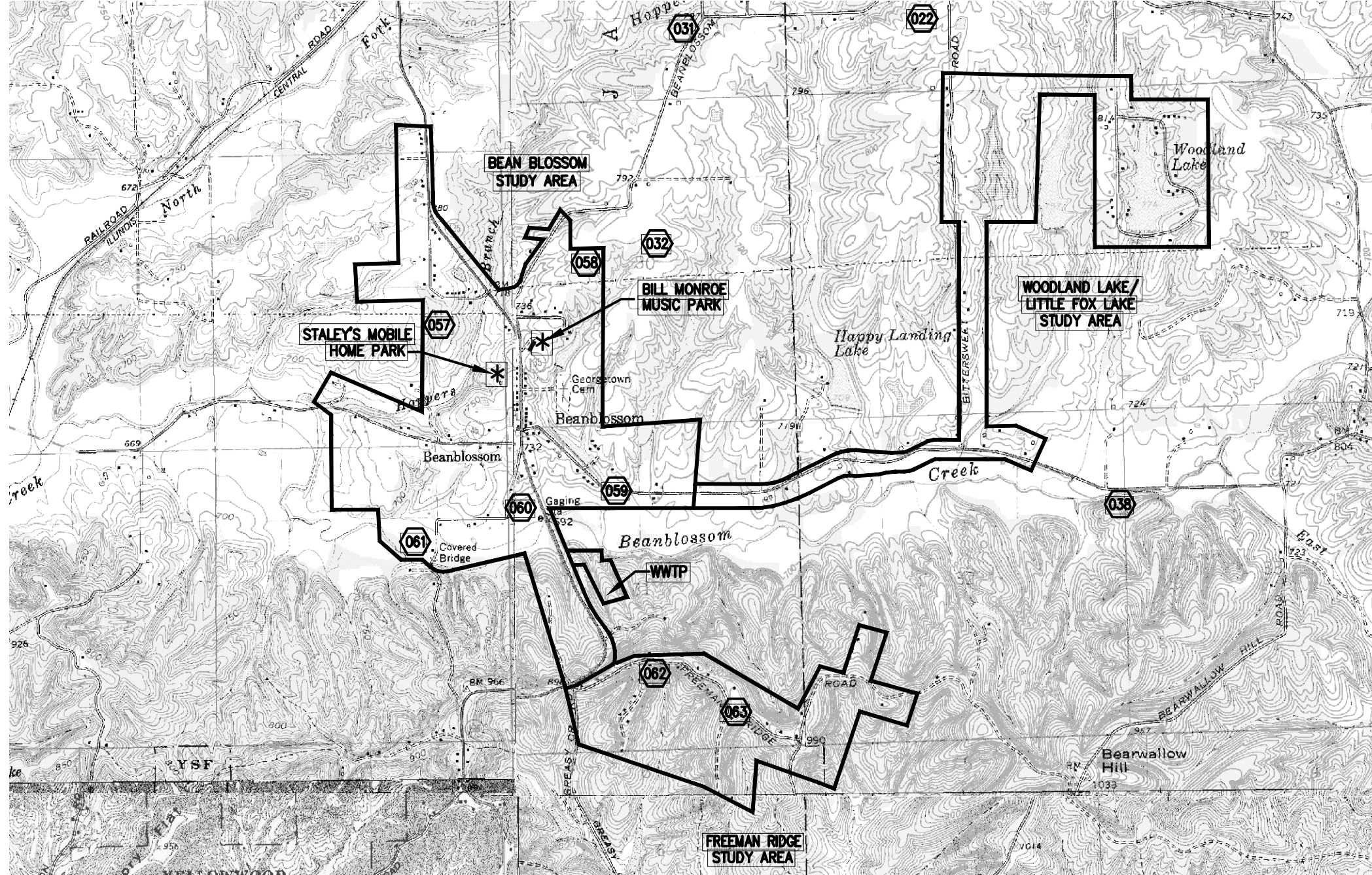




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PRELIMINARY ENGINEERING REPORT

Exhibit 1.3  
WETLANDS MAP



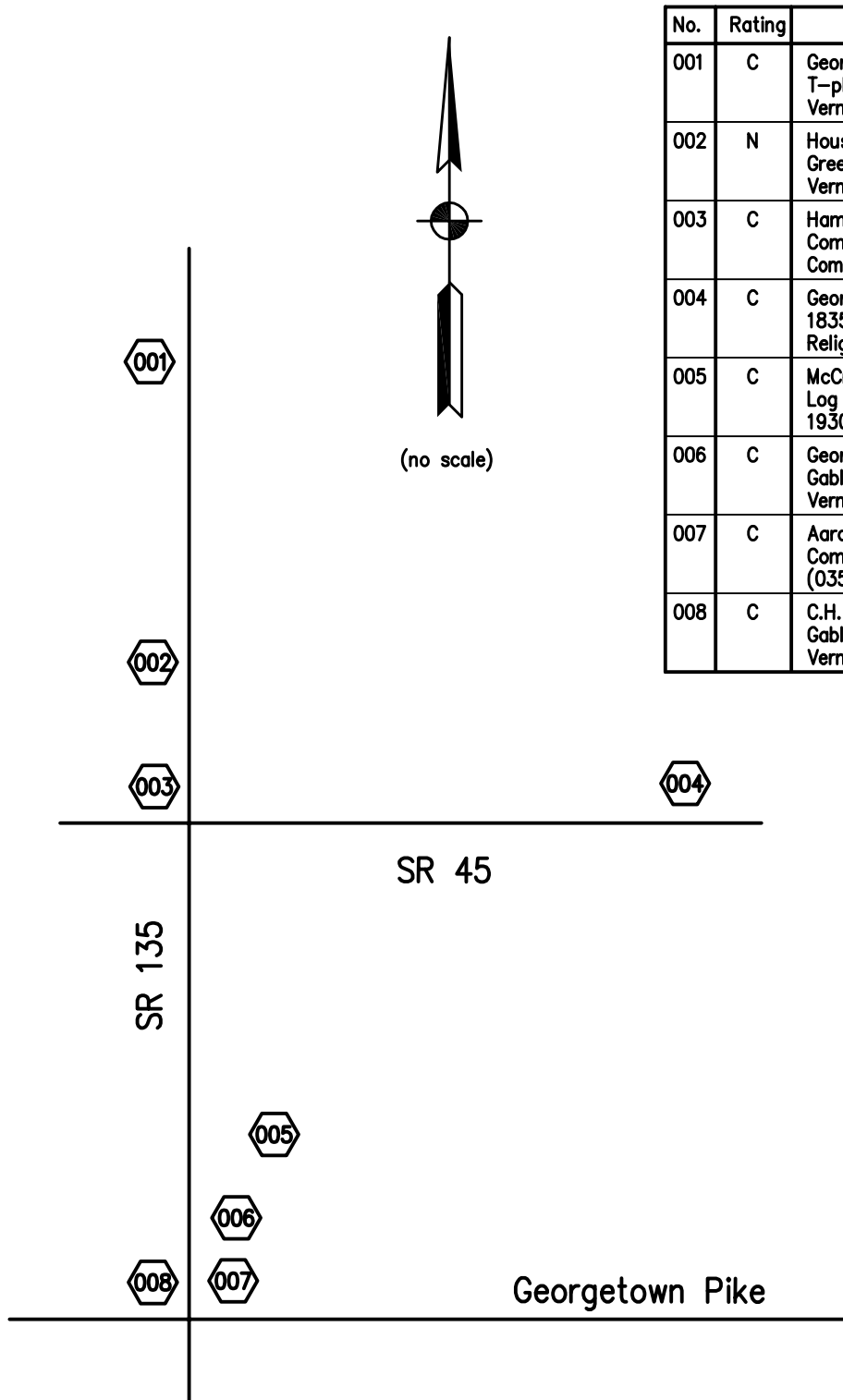
No.	Rating	Description
022	C	Bethel Cemetary
031	N	Bind Farm
032	C	Hartman House
038	N	Columbus Parsley Farm
057	C	Waltman's Grove - Clupper's Grove
058	C	House, Bean Blossom-Spearsville Road

No.	Rating	Description
059	C	Brummet House
060	N	Lowell Waltman House
061	O	Bean Blossom Covered Bridge
062	C	Center House
063	C	Freeman Orchard

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PRELIMINARY ENGINEERING REPORT

Exhibit 1.4A  
HISTORICAL  
SITES MAP



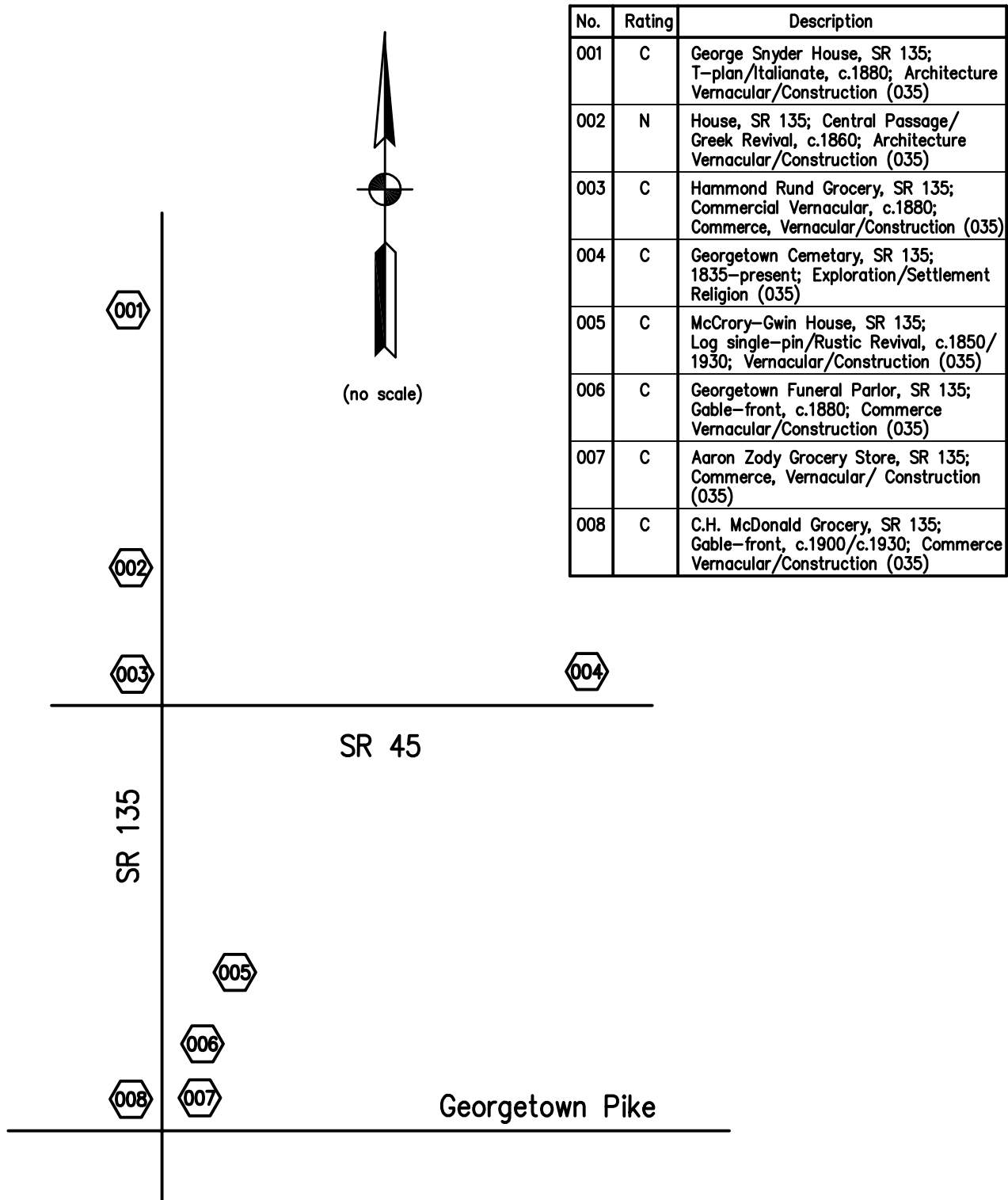
No.	Rating	Description
001	C	George Snyder House, SR 135; T-plan/Italianate, c.1880; Architecture Vernacular/Construction (035)
002	N	House, SR 135; Central Passage/ Greek Revival, c.1860; Architecture Vernacular/Construction (035)
003	C	Hammond Rund Grocery, SR 135; Commercial Vernacular, c.1880; Commerce, Vernacular/Construction (035)
004	C	Georgetown Cemetary, SR 135; 1835–present; Exploration/Settlement Religion (035)
005	C	McCrory–Gwin House, SR 135; Log single-pin/Rustic Revival, c.1850/ 1930; Vernacular/Construction (035)
006	C	Georgetown Funeral Parlor, SR 135; Gable–front, c.1880; Commerce Vernacular/Construction (035)
007	C	Aaron Zody Grocery Store, SR 135; Commerce, Vernacular/ Construction (035)
008	C	C.H. McDonald Grocery, SR 135; Gable–front, c.1900/c.1930; Commerce Vernacular/Construction (035)

LADD ENGINEERING, INC.  
LEBANON, INDIANA

Brown County RSD  
PRELIMINARY ENGINEERING REPORT

Exhibit 1.4B  
Bean Blossom  
Historical Sites





LADD ENGINEERING, INC.  
LEBANON, INDIANA

**Brown County RSD**  
PRELIMINARY ENGINEERING REPORT

Exhibit 1.4C  
Bean Blossom  
Historical Sites

## **SECTION 2**

### **EXISTING FACILITIES**

#### **2.1 General**

This section of the report presents conditions of the existing wastewater facilities within the Bean Blossom, Woodland Lake, Little Fox Lake, Freeman Ridge Road and Greasy Creek Road Areas. In addition, this section of the report will describe the existing facilities located with the Helmsburg Regional Sewer District (HRSD), as combining the HRSD and Brown County RSD into one, or conveyance of wastewater from Helmsburg, Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Road Areas to a centrally located treatment plant, or the Town of Nashville may be prudent.

#### **2.2 Study Area Facilities**

The study area residents and businesses currently have individual onsite wastewater treatment and disposal systems located on individual properties, generally consisting of a septic tank and soil absorption disposal system. Several of these on-site systems are in, or near failure.

The Bill Monroe Music Park and Campground hosts numerous music festivals, including a large bluegrass festival, during which the population can temporarily increase to nearly 25,000 people over an 8-day period. Most of the festivals are weekend-long events and occur throughout the festival season from early April to late October. They utilize an 850-gpd septic tank and on-site Presby system for wastewater disposal from the office/museum. Besides the on-site system for the office/museum the park has three (3) holding tanks having a combined capacity of 7,500 gallons, which receive wastewater from semi-trailer type restroom facilities and three cabins. In addition, there are several port-o-lets scattered throughout the park. Currently there are no sewer hook-ups for individual campground lots. The wastewater from the holding tanks and port-a-lets are pumped and hauled to the City of Bloomington WWTP for disposal. Approximately 16,000 gpd was reported to be pumped and hauled by Bill Monroe staff over the 2016 Memorial Weekend Festival.

Staley's Mobile Home Park's system consists of 7 septic tanks and 2 on-site absorption disposal fields for treatment and disposal. There have been several concerns and issues over the past several years by Health Department officials with this system. The system has been repaired and "band-aided" over the years to keep it functioning.

Helmsburg, an unincorporated area, which is located about 2.5 miles west of Bean Blossom, is the closest community to the planning area that has an existing pressure sewer with grinder pumps sanitary sewer system and an extended

aeration activated sludge treatment facility. The Helmsburg collection system was designed to handle those existing and future residents within the planning area boundaries of the Helmsburg Regional Sewer District. Any additional flows from outside the existing service area would have to be connected directly to the existing treatment facility. Based on information obtained, the Helmsburg WWTP was sized to include the unincorporated areas of Trevlec, located approximately 2 miles west and Bean Blossom. However, Trevlec nor Bean Blossom ever connected to the Helmsburg WWTP.

### **2.3 History and Condition of Helmsburg Wastewater Facilities**

The existing sanitary sewer system and treatment facilities in the community of Helmsburg consists of a low-pressure/grinder pumping system, which conveys flows to a 25,000 gpd extended aeration packaged-type treatment system. The collection system and treatment facilities were constructed in 1995, and were funded, in part, by a Community Focus Fund Grant from the Indiana Department of Commerce, and local Brown County EDIT Funds.

The existing Helmsburg Wastewater Treatment Plant is a conventional extended aeration package plant consisting of a flow equalization tank, aeration tank with a diffused aeration system, clarification facilities, chlorination/dechlorination facilities, surge control facilities and a tertiary filter to provide nitrification and a good quality effluent.

The disinfection facilities consist of chlorination and dechlorination tablet-type feeders, which feeds calcium hypochlorite and sodium sulfite tablets. The sodium sulfite is fed into the treatment stream at the effluent end of the chlorine contact tank.

Post aeration is provided in a 120-gallon chamber using air from the filter air scour blower. Post aeration occurs after the dechlorination process.

A 2,500-gallon aerated sludge holding tank is also provided as part of the package plant. Sludge is stored in this tank and then hauled for treatment at other wastewater treatment facilities. This design summary for the existing Helmsburg wastewater collection system and treatment plant, taken from the R.W. Armstrong Preliminary Engineering Report dated January 2001, is located in Appendix E.

Based on information obtained from a Helmsburg Regional Sewer District representative in 2009, the average daily flow received by the Helmsburg wastewater treatment plant is approximately 6,000 to 8,000 gpd, but has been as high as 18,000 gpd during a wet weather event.

The Helmsburg Elementary School is connected to the Helmsburg system, which provides approximately 1,000 gpd of flow to the treatment plant.

Based on a 2009 inspection, the condition of the existing steel plant tankage, grating, etc. are badly corroded and in need of rehabilitation or replacement. Photographs of the existing HRSD treatment plant and IDEM inspection reports are provided in Appendix F. Recent information provided by the HRSD Board Members indicates that the existing steel package plant had recently been recoated.

## **2.4 Financial Status**

The Brown County RSD has no income or debt at the current time. The District has a banking account balance of approximately \$125,000, which came from the Brown County Council.



## **SECTION 3**

### **NEED FOR PROJECT**

#### **3.1 Wastewater Facilities Needs**

The Brown County Health Department has reported numerous problems with the existing on-site septic systems within the planning area over the last 20 years. The soils within the study area are not conducive to the proper operation of on-site soil absorption septic systems. Problems range from too small of lot size to soil impermeability or permeability and hilly terrain, which limit the space available for an on-site septic system. Pollution of surface water and ground water resources has been a major health issue and concern throughout the study area. Nearly all of the septic systems in the study area have experienced some problems, many have experienced complete failure. In the past there has been some modifications and repairs made in the Woodland Lake area due to inoperable on-site septic systems. Soil absorption fields are clogged, causing holding tanks to fill to their capacity, overflow, and discharge untreated wastewater directly onto the ground.

The Bean Blossom business area has been in a state of decline since most all of the businesses do not have the necessary land available to either upgrade or even repair their septic systems. The Woodland Lake, Little Fox Lake, Freeman Ridge Road and Greasy Creek Road Areas has many homes with grossly undersized septic systems on lots with no more space available for needed absorption field expansion, replacement, or repairs.

The Brown County Health Department has cited several homeowners within the planning area for septic tank and absorption field system failures. That office has denied issuing septic permits to several potential businesses and residences because of inadequate space, poor soil structure or seasonal high ground water tables that cannot be successfully lowered for a septic system. In some cases, expensive mound systems have been the only type of on-site disposal system that could be approved. Because many septic tank and absorption field systems are more than 50 years old, future additional failures are anticipated.

The Brown County Health Department has also conducted stream analysis testing at several locations throughout the Bean Blossom area. These tests revealed E coli counts of 2,400 parts per million at a location downstream of the 27-lot mobile home park, and 690 parts per million at a roadside ditch located on the north side of Covered Bridge Road.

The Bill Monroe Music Park and Campground is referred to as the “Mecca of Bluegrass Music” hosting several major Bluegrass Music events during the summer. The music park and campground owner expends considerable amounts of money for holding tank pump-out and disposal of their wastewater, and for

port-a-let rental. The music park and campground owner and maintenance personnel have expressed a need for a permanent solution to their wastewater management dilemma. A representative from the music park and campground had previously expressed a desire to provide sewer hook ups to approximately 35 campsites located at the front of the facilities should a permanent wastewater system be available. Refer to Appendix G for information to further document the project need.

### **3.2 Helmsburg WWTP Needs**

Ladd Engineering, Inc. completed an evaluation of the Helmsburg WWTP in 2009. This evaluation was for considering the needs associated with connection of the Bean Blossom area. A copy of this evaluation summary, which documents the needs, is provided in Appendix H.

### **3.3 Wastewater Flows and Loadings**

The wastewater flows and waste loads must be estimated for sizing the wastewater system components. For the purpose of project phasing effects on the costs for a wastewater system, the flows and waste loads for the Bean Blossom, Woodland Lake/Little Fox Lake and Freeman Ridge Areas have been analyzed and estimated separately. Previous studies completed estimated sewage flows and waste loads for Bean Blossom and Woodland Lake Areas by utilizing the existing Brown County Water Company and Town of Nashville Water Utility water usage records and then adding a 20% increase assuming that the water usage will increase when adequate wastewater facilities are provided. In addition, an allowable infiltration rate is commonly added for gravity sewer piping and is based on the length and diameter of the gravity sewer collection piping system. The water usage records for the period June 2012 through May 2014 were obtained from the Brown County Water Company and Town of Nashville. In reviewing the water usage records for residential users (equivalent dwelling unit – EDU), the average usage was approximately 125 gpd for Bean Blossom customers and 57 gpd for Woodland Lake customers. Considering that water usage varies considerably for the EDU's being served, people move in and out of homes periodically who may have different water usage habits, water usage will probably increase when wastewater facilities are provided by an unknown percentage, and some EDU's have private wells, the wastewater flows for each area for sizing wastewater system components will be considered by comparing the flows utilizing Table 11-1 in 327 IAC 3-6-11 (utilized by the IDEM) and the water usage, including allowable infiltration. The actual water usage obtained in 2003 will be utilized to determine the number of EDU's for business customers in Bean Blossom, as Brown County Water did not provide a breakdown by customer for their Bean Blossom customers. Water usage information within the September 28, 2009 Preliminary Financial Rate Study by Patrick Callahan, CPA will be utilized for Staley's MHP and Bill Monroe Music Park. The following influent wastewater concentrations, which are approximately the same as received at the

Helmsburg WWTP, except for phosphorus that is not monitored, will be utilized in determining the estimated waste loads from a grinder pump or conventional gravity sewer system:

BOD5 – 370 mg/l

TSS – 250 mg/l

NH3 – 60 mg/l

P-10 mg/L

The following influent wastewater concentrations will be utilized in determining the estimated waste loads from a septic tank effluent sewer system:

BOD5 – 150 mg/l

TSS – 50 mg/l

NH3 – 45 mg/l

P-10 mg/L

### 3.3.1 Bean Blossom Area

There are currently approximately 74 residential and 12 commercial/business users located within the Bean Blossom Area. The estimated water usage and wastewater flows for the Bean Blossom Area are shown in Table 3.1.

<p align="center"><b>Table 3.1</b></p> <p align="center"><b>Estimated Wastewater Flows – Bean Blossom Area</b></p>						
Service Connection Description	Flow Calc. Factor per Table 11-1 (gpd)	Total Est. Flow from Table 11-1 (gpd)	Equiv. No. of EDU's (Total WW Flow/310 gpd)	Avg. Water Usage (gpd)	Average Water Usage Increased By 20% (gpd)	Equivalent No. of EDU's (Avg. Water Use/125 gpd)
74 Residential	310	22,940	74	9,250 (*1)	11,560	74
Staley's Mobile Home Park 27 MH's 1 Residential	200/MH 310/EDU	5,710	22	3,570	4,284	34
Bill Monroe Facility 35 c'ground sites w/sewer, 315w/o sewer, museum/office 4 employees & 3 cabins	100/site 50/site 20/empl. 100/cabin (*4)	19,630	63	2,048	2,458	30 (*2)
Beauty Salon Est. 10 customers	10	100	1	38	46	1
Dollar General 5 emp.	20	100	1	125 (*3)	150	1

<b>Table 3.1 Continued</b> <b>Estimated Wastewater Flows – Bean Blossom Area</b>						
Service Connection Description	Flow Calc. Factor per Table 11-1 (gpd)	Total Est. Flow from Table 11-1 (gpd)	Equiv. No. of EDU's (Total WW Flow/310 gpd)	Avg. Water Usage (gpd)	Average Water Usage Increased By 20% (gpd)	Equivalent No. of EDU's (Avg. Water Use/125 gpd)
Vet Clinic 1 Vet. 1 Asst. 2 Support 30 cages 1 Surgery Rm.	75 75 20 5 50	225	1	125 (*3)	150	1
Fire Dept. Est. 10 Firemen	35	350	1	48	58	1
Brown County Water Co. Est. 3 emp.	20	60	1	125 (*3)	150	1
B'Blossom Mennonite Church - 90 seats	4	360	1	80	96	1
St. David's Episcopal Church - 60 seats	5	300	1	33	40	1
Antique Store Est. 2 employees	20	40	1	125 (*3)	150	1
Lutheran Church – 80 seats	4	320	1	60	72	1
<b>Total Current</b>		50,135	168	15,627	19,214	147
23 Residential	310	7,130	23	2,875	3,450	23
6 Com/Bus. Est. 2 emp.	20	240	6	750 (*3)	900	6
Brownies Rest. 50 seats	35	1,750	6	39	47	2
<b>Total Current + Future</b>		<b>59,255</b>	<b>203</b>	<b>19,291</b>	<b>23,611</b>	<b>178</b>

Notes for Table 3.1:

\*1 – 125 gpd/EDU

\*2 – 30 EDU's based on treating 3,736 gpd (2015 pumped wastewater flow + 2015 water usage/365 days)

\*3 - 125 gpd/small business used if the actual water usage unknown

\*4 – Average day flow during a festival estimated at 16,000 gpd per owner

The total future estimated water usage, including a 20% increase, is 23,611 gpd. An allowable infiltration volume estimated for a gravity sewer collection system is 4,000 gpd, which results in a total future flow of 27,611 (23,611 + 4,000) gpd. The allowable infiltration volume

estimated for a pressure or vacuum sewer collection system is 400 gpd, which results in a total future flow of 24,011 (23,611 + 400) gpd.

Considering that the average water usage is very low when compared to the flow calculation factors per Table 11-1 from 327 IAC 3-6-11, an average flow of 5,000 gpd for the Bill Monroe Facility and 150 gpd/EDU times 178 EDU's will be utilized to determine the total flow for sizing system components in the Bean Blossom area. This equates to a total average daily flow of 31,700 (5,000 gpd + 150 gpd/EDU x 178 EDU's) gpd. Rounding up to a flow of 32,000 gpd is recommended. This 32,000 gpd does not take into account the high periodic flows coming from the Bill Monroe Facility during festival times.

The projected waste loads for a conventional gravity or grinder pump pressure system are calculated as follows:

$$\text{BOD5} - 0.032 \text{ mgd} \times 370 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 98.7 \text{ lbs/day}$$

$$\text{TSS} - 0.032 \text{ mgd} \times 250 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 66.7 \text{ lbs/day}$$

$$\text{NH}_3 - 0.032 \text{ mgd} \times 60 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 16.0 \text{ lbs/day}$$

$$\text{P} - 0.032 \text{ mgd} \times 10 \text{ mg/L} \times 8.34 \text{ lbs/gal} = 2.7 \text{ lbs/day}$$

The projected waste loads for a septic tank effluent pump pressure system are calculated as follows:

$$\text{BOD5} - 0.032 \text{ mgd} \times 150 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 40.0 \text{ lbs/day}$$

$$\text{TSS} - 0.032 \text{ mgd} \times 50 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 13.3 \text{ lbs/day}$$

$$\text{NH}_3 - 0.032 \text{ mgd} \times 45 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 12.0 \text{ lbs/day}$$

$$\text{P} - 0.032 \text{ mgd} \times 10 \text{ mg/L} \times 8.34 \text{ lbs/gal} = 2.7 \text{ lbs/day}$$

### **3.3.2 Woodland Lake and Little Fox Lake Area**

There are currently approximately 113 residential users located within the Woodland Lake/Little Fox Lake Area. There are approximately 20 residential homes or approximately 18% additional that will be considered in the future estimated wastewater flows. The estimated water usage and wastewater flows for the Woodland Lake/Little Fox Lake Area are shown in Table 3.2.

<b>Table 3.2</b> <b>Estimated Wastewater Flows – Woodland Lake/Little Fox Lake Area</b>						
Service Connection Description	Flow Calc. Factor per Table 11-1 (gpd)	Total Est. Flow from Table 11-1 (gpd)	Equiv. No. of EDU's (Total WW Flow/310 gpd)	Avg. Water Usage (gpd)	Average Water Usage Increased By 20% (gpd)	Equivalent No. of EDU's (Avg. Water Use/57 gpd)
113 Residential	310	35,030	113	6,441 (*1)	7,729	113
<b>Total Current</b>		35,030	113	6,441	7,729	113
20 Residential	310	6,200	20	1,140	1,368	20
<b>Total Current + Future</b>		<b>41,230</b>	<b>133</b>	<b>7,581</b>	<b>9,097</b>	<b>133</b>

Notes for Table 3.2:

\*1 – 57 gpd/EDU

The total future estimated water usage, including a 20% increase, is 9,097 gpd. The allowable infiltration volume estimated for a pressure sewer collection system is 500 gpd, which results in a total future flow of 9,597 (9,097 + 500) gpd. For the same reasons previously stated, in section 3.3.1, it is recommended that a wastewater flow of 19,950 (150 gpd/EDU x 133 EDU's) gpd rounded up to 20,000 gpd be utilized for sizing system components in the Woodland Lake/Little Fox Lake Area.

The projected waste loads for a conventional gravity or grinder pump pressure system are calculated as follows:

$$\text{BOD5} - 0.020 \text{ mgd} \times 370 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 61.7 \text{ lbs/day}$$

$$\text{TSS} - 0.020 \text{ mgd} \times 250 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 41.7 \text{ lbs/day}$$

$$\text{NH}_3 - 0.020 \text{ mgd} \times 60 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 10.0 \text{ lbs/day}$$

$$\text{P} - 0.020 \text{ mgd} \times 10 \text{ mg/L} \times 8.34 \text{ lbs/gal} = 1.7 \text{ lbs/day}$$

The projected waste loads for a septic tank effluent pump pressure system are calculated as follows:

$$\text{BOD5} - 0.02 \text{ mgd} \times 150 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 25.0 \text{ lbs/day}$$

$$\text{TSS} - 0.02 \text{ mgd} \times 50 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 8.3 \text{ lbs/day}$$

$$\text{NH}_3 - 0.02 \text{ mgd} \times 45 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 7.5 \text{ lbs/day}$$

$$\text{P} - 0.02 \text{ mgd} \times 10 \text{ mg/L} \times 8.34 \text{ lbs/gal} = 1.7 \text{ lbs/day}$$

### 3.3.3 Freeman Ridge Area

There are currently approximately 38 residential users located within the Freeman Ridge Area. There are approximately 4 residential homes or approximately 10.5% additional that will be considered in the future estimated wastewater flows. No water usage was obtained for this area, as it was added to the study area following completion of the original PER. The estimated wastewater flows for the Freeman Ridge Area are assumed to be similar to those in the Bean Blossom Area and are shown in Table 3.3.

<b>Table 3.3</b>						
<b>Estimated Wastewater Flows – Freeman Ridge Road Area</b>						
Service Connection Description	Flow Calc. Factor per Table 11-1 (gpd)	Total Est. Flow from Table 11-1 (gpd)	Equiv. No. of EDU's (Total WW Flow/310 gpd)	Avg. Water Usage (gpd)	Average Water Usage Increased By 20% (gpd)	Equivalent No. of EDU's (Avg. Water Use/125 gpd)
38 Residential	310	11,780	38	4,750 (*1)	5,700	38
<b>Total Current</b>		11,780	38	4,750	5,700	38
4 Residential	310	1,240	4	500	600	4
<b>Total Current + Future</b>		<b>13,020</b>	<b>42</b>	<b>5,250</b>	<b>6,300</b>	<b>42</b>

Notes for Table 3.3:

\*1 – 125 gpd/EDU

The total future estimated water usage, including a 20% increase, is 6,300 gpd. The allowable infiltration volume estimated for a pressure sewer collection system is 180 gpd, which results in a total future flow of 6,480 (6,300 + 180) gpd. For the same reasons previously stated, in section 3.3.1, it is recommended that a wastewater flow of 6,300 (150 gpd/EDU x 42 EDU's) gpd rounded up to 6,500 gpd be utilized for sizing system components in the Little Fox Lake Area.

The projected waste loads for a conventional gravity or grinder pump pressure system are calculated as follows:

BOD5 –  $0.0065 \text{ mgd} \times 370 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 20.1 \text{ lbs/day}$

TSS –  $0.0065 \text{ mgd} \times 250 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 13.6 \text{ lbs/day}$

NH3 -  $0.0065 \text{ mgd} \times 60 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 3.3 \text{ lbs/day}$

P –  $0.0065 \text{ mgd} \times 10 \text{ mg/L} \times 8.34 \text{ lbs/gal} = 0.5 \text{ lbs/day}$

The projected waste loads for a septic tank effluent pump pressure system are calculated as follows:

BOD5 – 0.0065 mgd x 150 mg/l x 8.34 lbs/gal. = 8.1 lbs/day

TSS – 0.0065 mgd x 50 mg/l x 8.34 lbs/gal. = 2.7 lbs/day

NH3 - 0.0065 mgd x 45 mg/l x 8.34 lbs/gal. = 2.4 lbs/day

P – 0.0065 mgd x 10 mg/L x 8.34 lbs/gal = 0.5 lbs/day

### 3.3.4 Greasy Creek Road Area

There are currently approximately 46 residential users located within the Greasy Creek Road Area. There are approximately 12 residential homes/small businesses or approximately 26% additional that will be considered in the future estimated wastewater flows. No water usage was obtained for this area, as it was added to the study area following completion of the original PER. The estimated wastewater flows for the Greasy Creek Road Area are assumed to be similar to those in the Bean Blossom Area and are shown in Table 3.4.

<b>Table 3.4</b>						
<b>Estimated Wastewater Flows – Greasy Creek Road Area</b>						
Service Connection Description	Flow Calc. Factor per Table 11-1 (gpd)	Total Est. Flow from Table 11-1 (gpd)	Equiv. No. of EDU's (Total WW Flow/310 gpd)	Avg. Water Usage (gpd)	Average Water Usage Increased By 20% (gpd)	Equivalent No. of EDU's (Avg. Water Use/125 gpd)
46 Residential	310	14,260	46	5,750 (*1)	6,900	46
<b>Total Current</b>		14,260	46	5,750	6,900	46
12 Residential/ Small Bus.	310	3,720	12	1,500	1,800	12
<b>Total Current + Future</b>		<b>17,980</b>	<b>58</b>	<b>7,250</b>	<b>8,700</b>	<b>58</b>

Notes for Table 3.4:

\*1 – 125 gpd/EDU

The total future estimated water usage, including a 20% increase, is 8,700 gpd. The allowable infiltration volume estimated for a pressure sewer collection system is 176 gpd, which results in a total future flow of 8,876 (8,700 + 176) gpd. For the same reasons previously stated, in section 3.3.1, it is recommended that a wastewater flow of 8,700 (150 gpd/EDU x 58 EDU's) gpd rounded up to 10,000 gpd be utilized for sizing system components in the Greasy Creek Road Area.



The projected waste loads for a conventional gravity or grinder pump pressure system are calculated as follows:

$$\text{BOD5} - 0.01 \text{ mgd} \times 370 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 30.9 \text{ lbs/day}$$

$$\text{TSS} - 0.01 \text{ mgd} \times 250 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 20.9 \text{ lbs/day}$$

$$\text{NH}_3 - 0.01 \text{ mgd} \times 60 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 5.0 \text{ lbs/day}$$

$$\text{P} - 0.01 \text{ mgd} \times 10 \text{ mg/L} \times 8.34 \text{ lbs/gal} = 0.8 \text{ lbs/day}$$

The projected waste loads for a septic tank effluent pump pressure system are calculated as follows:

$$\text{BOD5} - 0.01 \text{ mgd} \times 150 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 12.5 \text{ lbs/day}$$

$$\text{TSS} - 0.01 \text{ mgd} \times 50 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 4.2 \text{ lbs/day}$$

$$\text{NH}_3 - 0.01 \text{ mgd} \times 45 \text{ mg/l} \times 8.34 \text{ lbs/gal.} = 3.8 \text{ lbs/day}$$

$$\text{P} - 0.01 \text{ mgd} \times 10 \text{ mg/L} \times 8.34 \text{ lbs/gal} = 0.8 \text{ lbs/day}$$

### 3.3.5 Flow and Loadings Summary

A summary of future estimated wastewater flows and waste loads for each study area based on type of collection system are shown in Table 3.5.

<b>Table 3.5</b>					
<b>Summary of Future Flows And Waste Loads By Service Area</b>					
Area	Bean Blossom	Woodland Lake/Fox Lake	Freeman Ridge	Greasy Creek	Totals
<b>Conventional Gravity/Grinder Pumps &amp; Pressure Sewers</b>					
Flows (mgd)	0.032	0.020	.0065	.010	0.0685
BOD (lbs/day)	98.7	61.7	20.1	30.9	211.4
TSS (lbs/day)	66.7	41.7	13.6	20.9	142.9
NH3 (lbs/day)	16.0	10.0	3.3	5.0	34.3
P (lbs/day)	2.7	1.7	0.5	0.8	5.7
<b>Septic Tank Effluent &amp; Pressure Sewers</b>					
BOD (lbs/day)	40.0	25.0	8.1	12.5	85.6
TSS (lbs/day)	13.3	8.3	2.7	4.2	28.5
NH3 (lbs/day)	12.0	7.5	2.4	3.8	25.7
P (lbs/day)	2.7	1.7	0.5	0.8	5.7

## SECTION 4

### ALTERNATIVES CONSIDERED

#### 4.1 Introduction

This chapter will describe the alternatives considered to meet the current and future needs of the District's wastewater facilities.

A cost and effectiveness analysis was completed herein, and meets the minimum requirements of the Water Resources Reform and Development Act of 2014.

Non-construction costs are those costs that are associated with preparing a project for construction, monitoring the project during construction, and follow-up after construction is completed. Non-construction costs generally include engineering, legal and administrative, grant administration, land acquisition and easements, sometimes direct equipment purchases, accounting services, start-up costs and contingencies. As a whole, non-construction costs can range between 15% and 50% of the total project cost depending the method utilized to finance the project and size and complexity of the project. For this section of the report a non-construction cost of 25% of the construction cost will be used for evaluating the various alternatives.

#### 4.2 Collection System Alternatives

The following alternatives were considered for wastewater collection in the Bean Blossom, Woodland Lake/Little Fox Lake and Freeman Ridge Road Areas:

- No Action
- Conventional Gravity Sewer System
- Low Pressure Sewer System with Grinder Pump Stations
- Vacuum Sewer System
- Septic Tank Effluent Pressure Sewer System

##### **Alternative No. 1 - No Action:**

##### **Description:**

The current wastewater system for the study area consists of septic tanks for treatment and on-site soil absorption for disposal. There are port-o-lets located on some of the properties within the study area. Many of the existing on-site septic systems are more than 50 years old and are experiencing frequent failures. Adequate repairs to these existing systems to comply with County and State (410 IAC 6-8.2) requirements cannot be made due to small lot sizes and poor soil conditions. The no action alternative would continue to create adverse

environmental impacts to the watershed and to Beanblossom Creek, which is a tributary to Lake Lemon located approximately 6 miles downstream from Bean Blossom. Inadequate wastewater collection and disposal facilities presently limit economic growth of the study area. Copies of letters from local residents and businesses, taken from the R.W. Armstrong Preliminary Engineering Report dated January 2001, provided in Appendix D, describe some of the present septic treatment/disposal problems. The No Action Alternative would provide the study areas with neither short nor long term benefits.

Design Criteria:

Not applicable.

Map:

Not applicable for this alternative.

Environmental Impacts:

The no action alternative would continue to pollute nearby waterways, potentially pollute the groundwater and therefore have a negative impact on the environment.

Land Requirements:

Not applicable.

Potential Construction Problems:

Not applicable.

Sustainability Considerations:

Not applicable.

Cost Estimates:

Not applicable.

**Alternative No. 2 - Conventional Gravity Sewer System:**

Description:

Conventional gravity sewer systems have been in use for years as the usual method of conveying sanitary sewage. The operation and maintenance costs are low, but the construction costs can be high. With a conventional gravity system,

sewers are laid to a slope to maintain scouring velocity in the pipe. Too low of a velocity will result in sedimentation in the pipe with subsequent degradation in sewer performance. The major disadvantage of a conventional gravity sewer is the need, at times, for excessively deep trenches to maintain slope on a sewer or to avoid a natural barrier such as a creek or hill, at which time a lift station may become necessary. Lift stations are used to pump the flow up to a higher level, either to a treatment plant or to another portion of the collection system, through a conveyance line (force main) for further processing. A conventional gravity sewer system was not considered practical for the Woodland Lake/Little Fox Lake and Freeman Ridge Road Areas due to its rolling topography, which would require several, lift stations and multiple pumping of the wastewater. There are a few existing buildings that either sit below the street level, or that have significant topography changes between the building and proposed sewer main that will most likely require grinder pump stations, which have been considered in the conventional gravity sewer system alternative cost tables for Bean Blossom. Adjustments to the final collection system layouts will be required during the design phase when more accurate survey information is obtained. For purposes of this study there have been a few grinder pump stations proposed for a few buildings to eliminate the need for deep gravity sewers and additional lift stations in the conventional gravity sewer system alternatives.

#### Design Criteria:

The design criteria for this alternative comply with 10-States Standards, 327 IAC 3 and RUS design policies (7 CFR 1780.57).

#### Map:

Refer to Exhibit 4.1 for a layout map of the gravity sewer system alternative for Bean Blossom.

#### Environmental Impacts:

This alternative would involve the installation of sewers, some within road or alley right-of-ways and some within private easements. The removal of a few trees where sewers are proposed within private easements will most likely be required. Hoppers Branch will be crossed, and other smaller ditches will be crossed, or the sewer will parallel it. Directional drilling of the pipe across Hoppers Branch and other precautions along or across small ditches will be taken to minimize erosion and environmental impacts. The proposed lift stations are anticipated to be installed outside of existing public right-of-ways, which may require archaeological and other environmental reviews. Gravity sewer depths will be greater than the other collection system alternatives meaning wider trenches and larger areas of disturbances, which may result in increased environmental impacts. Wider trenches will result in more excess dirt that will need to be hauled off and disposed of.

#### Land Requirements:

Permanent and temporary construction easements will be needed for some of the proposed sewers. Land acquisition will be required for the proposed lift stations.

#### Potential Construction Problems:

According to the Brown County Soils Report, most all soils within the service areas are very limited in respect to shallow excavations. The rating on the soil properties that influence the ease of digging, depth to bedrock or a cemented pan, hardness of bedrock, depth to the seasonal high-water table, flooding, the amount of large stones, etc. Therefore, the construction of a conventional gravity sewer system may be difficult.

#### Sustainability Considerations:

A conventional gravity sewer system will be easier to operate and maintain when comparing it to the other alternatives evaluated. This alternative would use less energy than the other alternatives evaluated, as there is less pumping of the wastewater. However, the larger pipes associated with this alternative use more materials and most likely more energy in the manufacturing process.

#### Water and Energy Efficiency:

This alternative does not have any known water efficiency cost savings. However, this alternative would eliminate the need for grinder or effluent pumps at every building being served and thereby result in some overall energy cost savings. But the BCRSD would pay more in energy cost for the lift stations. Whereas with the other considered alternatives, the building owner would pay for energy costs.

#### Cost Estimates:

The estimated construction and non-construction costs for a conventional gravity sewer system in Bean Blossom are provided in Table 4.1.

<b>Table 4.1</b>					
<b>Estimated Construction and Non-Construction Cost for Conventional Gravity</b>					
<b>Construction</b>					
<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Amount</b>
1	8" Gravity Sewer	17,000	LF	\$55	\$935,000
2	6" Force Main	4,000	LF	\$30	\$120,000
3	3" Force Main	950	LF	\$20	\$19,000
4	2-1/2" Force Main	900	LF	\$19	\$17,100
5	2" Force Main	3,600	LF	\$18	\$64,800
6	1-1/4" Pressure Sewer	3,500	LF	\$15	\$52,500
7	6" Laterals (*1)	12,500	LF	\$40	\$500,000
8	8" x 6" Wyes	78	EA	\$90	\$7,020
9	Simplex Grinder Pump Stations	25	EA	\$6,500	\$162,500
10	Pressure Sewer Valve Assemblies	25	EA	\$1,000	\$25,000
11	4' Diameter Manholes	60	EA	\$4,500	\$270,000
12	Force Main Air Release Valves	12	EA	\$3,000	\$36,000
13	Compacted Granular Backfill	3,500	LF	\$30	\$105,000
14	Pavement Replacement	3,000	LF	\$60	\$180,000
15	Main Lift Station	1	LS	\$200,000	\$200,000
16	Staley's Mobile Home Park Grinder Pump Lift Station	1	LS	\$175,000	\$175,000
17	SR 45 W. Grinder Pump Lift Station	1	LS	\$125,000	\$125,000
18	Covered Bridge Road Grinder Pump Lift Station	1	LS	\$100,000	\$100,000
19	Old Settler's Road Grinder Pump Lift Station	1	LS	\$100,000	\$100,000
20	6" Force Main, Directional Bores	250	LF	\$40	\$10,000
21	3" Force Main, Directional Bores	80	LF	\$33	\$2,640
22	2-1/2" Force Main, Directional Bores	150	LF	\$30	\$4,500
23	2" Force Main, Directional Bores	400	LF	\$28	\$11,200
24	1.25" Force Main, Directional Bores	400	LF	\$20	\$8,000
25	8" Gravity Sewer Stream Crossing	100	LF	\$150	\$15,000
26	Miscellaneous (Site Restoration, Traffic Control, Rule 5 Permit, etc.)	1	LS	\$175,000	\$175,000
27	Mobilization, Bond & Insurance	1	LS	\$170,000	\$170,000
<b>Subtotal Construction</b>					<b>\$3,590,260</b>
<b>Construction Contingencies</b>					<b>\$359,000</b>
<b>Non-Construction</b>					<b>\$897,500</b>
<b>Total Cost</b>					<b>\$4,846,760</b>

Notes for Table 4.1:

\*1 – 6" lateral quantity includes extending pipe to near the building to be served for purposes of comparing to the low-pressure sewer alternatives, which includes extending the lateral to near the building where it is assumed that the existing septic tank is located. If it is determined that gravity is the selected alternative in this chapter then the lateral quantity will be reduced in the project cost estimate, provided later in this report, to extend only from the mainline sewer to the right-of-way, or edge of easement line. The building owner would be responsible for extending the lateral from the right-of-way line to the building.

Based on the need for five (5) lift stations for the Bean Blossom Area, as well as the high capital cost for this alternative, and that this system is not considered for the other Areas to be served; this alternative has been deemed unfeasible and will not be considered further.

### **Alternative No. 3 – Low Pressure Sewer System with Grinder Pump Stations:**

#### **Description:**

Low-pressure sewer systems consist of low-pressure pipes that generally are buried below the frost line following the land contours and grinder pump stations. The grinder pump station consists of a wet well (usually 2-foot diameter and 6-foot deep) which includes the pump and level controls. Each grinder pump station has its own control panel, which is either mounted, at the pump unit or on the building owners' structure. There are some major disadvantages with the pressure systems including higher maintenance cost with each building owner having a grinder pump station and the possibility of grease build-up and pump clogging. The major advantage of the pressure system is that the pipes are buried shallower and are smaller sized than conventional gravity sewers and therefore can sometimes result in a lower construction cost.

#### **Design Criteria:**

The design criteria for this alternative comply with 10-States Standards, 327 IAC 3 and RUS design policies (7 CFR 1780.57).

#### **Map:**

Refer to Exhibit 4.2 for a layout map of the low-pressure sewer system for Bean Blossom, Woodland Lake/Little Fox Lake and Freeman Ridge respectively.

#### **Environmental Impacts:**

This alternative would involve the installation of sewers, some within road or alley right-of-ways and some within private easements. The removal of a few trees where sewers are proposed within private easements will most likely be required. Hoppers Branch and Bean Blossom Creek will be crossed, and other smaller ditches will be crossed, or the sewer will parallel it. Unlike conventional gravity sewers that need to be laid on line and grade, the pressure sewers can be directional bored, or auger bored in many instances, and the pipes can be installed following the contour of the ground or zigzagged around obstacles, which minimizes surface disruptions and reduces the environmental impacts. Directional drilling of the pipe across Hoppers Branch and Bean Blossom Creek, in addition to other precautions along or across small ditches will be taken to minimize erosion and environmental impacts. The proposed grinder pump

stations and some of the pipes are anticipated to be installed outside of existing public right-of-ways, which may require archaeological and other environmental reviews. However, much of the land where the system will be installed has been previously disturbed.

#### Land Requirements:

Permanent and temporary construction easements will be needed for some of the proposed sewers.

#### Potential Construction Problems:

As referenced under the conventional gravity sewer alternative, according to the Brown County Soils Report, most all soils within the service areas are very limited in respect to shallow excavations. The rating on the soil properties that influence the ease of digging, depth to bedrock or a cemented pan, hardness of bedrock, depth to the seasonal high-water table, flooding, the amount of large stones, etc. Therefore, the construction of a low-pressure system may encounter some challenges, but not as many as with a deeper installed conventional gravity sewer system.

#### Sustainability Considerations:

A low-pressure sewer system will require more to operate and maintain when comparing it to the conventional gravity sewer alternative evaluated. This alternative would use more energy than the other alternatives evaluated, as there is more pumping of the wastewater. However, the pipes are smaller than the other alternatives meaning less material used, which equates to less energy usage in the manufacture of the pipe.

#### Water and Energy Efficiency:

This alternative does not have any known water efficiency cost savings. Considering this alternative, requires the building owner to provide electrical power to the grinder pump, the building owner may reduce their water usage to save in power costs.

#### Cost Estimates:

The estimated construction and non-construction costs for a low-pressure sewer system with grinder pump stations in Bean Blossom, Woodland Lake/Little Fox Lake, and Freeman Ridge Road Areas are provided in Table's 4.2, 4.3 and 4.4 respectively. The estimated replacement costs (short-term assets) for these same Areas are provided in in Table's 4.5, 4.6 and 4.7, respectively. The total estimated operation, maintenance and replacement (short-lived assets) for the Areas are provided in in Table's 4.8, 4.9 and 4.10, respectively.



<b>Table 4.2</b> <b>Estimated Construction and Non-Construction Cost for Low Pressure Grinder Pump</b> <b>Sewers – Bean Blossom</b>					
<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Amount</b>
1	6" Force Main	14,000	LF	\$30	\$420,000
2	4" Pressure Sewer	4,200	LF	\$25	\$105,000
3	2" Pressure Sewer	3,500	LF	\$18	\$63,000
4	1.5" Pressure Sewer	4,800	LF	\$17	\$81,600
5	1-1/4" Pressure Sewer	16,000	LF	\$15	\$240,000
6	Simplex Grinder Pump Stations (*1)	102	EA	\$6,500	\$663,000
7	Pressure Sewer Valve Assemblies	102	EA	\$1,000	\$102,000
8	Pressure Sewer/Force Main Air Release Valves	32	EA	\$2,800	\$89,600
9	Line Flushing Valve Pits	28	EA	\$2,000	\$56,000
10	Compacted Granular Backfill	1,200	LF	\$18	\$21,600
11	Stone Drive/Roadway Replacement	1,000	LF	\$12	\$12,000
12	Bill Monroe C'Ground/Festival Park Lift Station	1	LS	\$175,000	\$175,000
13	Staley's Mobile Home Park Grinder Pump Lift Station	1	LS	\$125,000	\$125,000
14	Brownies Grinder Pump Lift Station	1	LS	\$125,000	\$125,000
15	Electric Conduit & Pump Control Panels	102	EA	\$1,000	\$102,000
16	6" Pressure Sewers, Directional Bores	1,900	LF	\$40	\$76,000
17	4" Pressure Sewer, Directional Bores	500	LF	\$35	\$17,500
18	2" Pressure Sewer, Directional Bores	600	LF	\$28	\$16,800
19	1.5" Pressure Sewer, Directional Bores	150	LF	\$26	\$3,900
20	1-1/4" Pressure Sewer, Directional Bores	2,000	LF	\$20	\$40,000
21	Spare Parts	1	LS	\$3,000	\$3,000
22	Miscellaneous (Site Restoration, Traffic Control, Rule 5 Permit, etc.)	1	LS	\$110,000	\$110,000
23	Mobilization, Bond & Insurance	1	LS	\$132,000	\$132,000
<b>Subtotal Construction</b>					<b>\$2,780,000</b>
<b>Construction Contingencies</b>					<b>\$278,000</b>
<b>Non-Construction</b>					<b>\$695,000</b>
<b>Total Cost</b>					<b>\$3,753,000</b>

<b>Table 4.3</b> <b>Estimated Construction and Non-Construction Cost for Low Pressure Grinder Pump</b> <b>Sewers – Woodland Lake/Little Fox Lake</b>					
<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Amount</b>
1	4" Pressure Sewer	12,500	LF	\$25	\$312,500
2	3" Pressure Sewer	4,800	LF	\$20	\$96,000
3	2" Pressure Sewer	1,700	LF	\$18	\$30,600
4	1-1/4" Pressure Sewer	23,000	LF	\$15	\$345,000
5	Simplex Grinder Pump Stations (*1)	113	EA	\$6,500	\$734,500
6	Pressure Sewer Valve Assemblies	113	EA	\$1,000	\$113,000
7	Pressure Sewer/Force Main Air Release Valves	32	EA	\$2,800	\$89,600
8	Line Flushing Valve Pits	15	EA	\$2,000	\$30,000
9	Compacted Granular Backfill	3,800	LF	\$18	\$68,400
10	Stone Drive/Roadway Replacement	3,500	LF	\$12	\$42,000
11	Electrical Conduit & Pump Control Panels	113	EA	\$1,000	\$113,000
12	4" Force Main, Directional Bores	2,400	LF	\$35	\$84,000
13	3" Pressure Sewer, Directional Bores	1,000	LF	\$33	\$33,000
14	2" Pressure Sewer, Directional Bores	100	LF	\$28	\$2,800
15	1-1/4" Pressure Sewer, Augured Bores	2,500	LF	\$20	\$50,000
16	Spare Parts	1	LS	\$3,000	\$3,000
17	Miscellaneous (Site Restoration, Traffic Control, Rule 5 Permit, etc.)	1	LS	\$95,000	\$95,000
18	Mobilization, Bond & Insurance	1	LS	\$112,000	\$112,000
<b>Subtotal Construction</b>					<b>\$2,354,400</b>
<b>Construction Contingencies</b>					<b>\$235,440</b>
<b>Non-Construction</b>					<b>\$588,600</b>
<b>Total Cost</b>					<b>\$3,178,440</b>

The Woodland Lake cost estimate (Table 4.3) includes the conveyance system from Woodland Lake to Bean Blossom.

<b>Table 4.4</b> <b>Estimated Construction and Non-Construction Cost for Low Pressure Grinder Pump Sewers</b> <b>– Freeman Ridge Road Area</b>					
<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Amount</b>
1	4" Pressure Sewer	4,100	LF	\$25	\$102,500
2	3" Pressure Sewer	5,000	LF	\$20	\$100,000
3	2" Pressure Sewer	3,000	LF	\$18	\$54,000
4	1-1/4" Pressure Sewer	7,500	LF	\$15	\$112,500
5	Simplex Grinder Pump Stations (*1)	38	EA	\$6,500	\$247,000
6	Pressure Sewer Valve Assemblies	38	EA	\$1,000	\$38,000
7	Pressure Sewer/Force Main Air Release Valves	11	EA	\$2,800	\$30,800
8	Line Flushing Valve Pits	7	EA	\$2,000	\$14,000
9	Compacted Granular Backfill	2,800	LF	\$18	\$50,400
10	Stone Drive/Roadway Replacement	2,700	LF	\$12	\$32,400
11	Electrical Conduit & Pump Control Panels	38	EA	\$1,000	\$38,000
12	4" Pressure Sewer, Directional Bores	600	LF	\$35	\$21,000
13	3" Pressure Sewer, Directional Bores	650	LF	\$33	\$21,450
14	2" Pressure Sewer, Directional Bores	200	LF	\$28	\$5,600
15	1-1/4" Pressure Sewer, Augured Bores	900	LF	\$20	\$18,000
16	Spare Parts	1	LS	\$2,500	\$2,500
17	Miscellaneous (Site Restoration, Traffic Control, Rule 5 Permit, etc.)	1	LS	\$40,000	\$40,000
18	Mobilization, Bond & Insurance	1	LS	\$46,000	\$46,000
<b>Subtotal Construction</b>					<b>\$974,150</b>
<b>Construction Contingencies</b>					<b>\$97,400</b>
<b>Non-Construction</b>					<b>\$243,500</b>
<b>Total Cost</b>					<b>\$1,315,050</b>

Notes for Table's 4.4 through 4.6:

\*1 – The potential for clustering buildings into one simplex grinder pump station may be possible but cannot be determined until a detailed topographical survey is obtained during the engineering design phase of the project. For conservative purposes this study assumes one simplex grinder pump station per building being served.

<b>Table 4.5</b> <b>Estimated Fixed Assets Costs for Low Pressure Sewers with Grinder Pumps –</b> <b>Bean Blossom</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Grinder Pumps and Controls	\$14,960
Lift Station Pumps and Controls	\$2,000
Air Release Valve Replacement	\$3,200
<b>Total</b>	<b>\$20,160</b>

<b>Table 4.6</b> <b>Estimated Fixed Assets Costs for Low Pressure Sewers with Grinder Pumps – Woodland Lake/Little Fox Lake</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Grinder Pumps and Controls	\$16,570
Air Release Valve Replacement	\$3,200
<b>Total</b>	<b>\$19,770</b>

<b>Table 4.7</b> <b>Estimated Fixed Assets Costs for Low Pressure Sewers with Grinder Pumps – Freeman Ridge</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Grinder Pumps and Controls	\$5,560
Air Release Valve Replacement	\$1,100
<b>Total</b>	<b>\$6,660</b>

<b>Table 4.8</b> <b>Estimated O, M &amp; R Costs for Low Pressure Sewers with Grinder Pumps – Bean Blossom</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$28,800
Energy (Power Costs) (*1)	\$2,760
Materials & Supplies	\$550
Repairs	\$550
Fixed Assets Costs (From Table 4.8)	\$20,160
Outside Services (Tank Cleaning, Billing, etc.)	\$4,500
Insurance	\$2,500
Conferences, Training, etc.	\$350
Professional Services (Attorney, Engineer, Financial, etc.)	\$1,000
<b>Total</b>	<b>\$61,170</b>

<b>Table 4.9</b> <b>Estimated O, M &amp; R Costs for Low Pressure Sewers with Grinder Pumps</b> <b>– Woodland Lake/Little Fox Lake</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$14,400
Energy (Power Costs) (*1)	\$1,020
Materials & Supplies	\$300
Repairs	\$300
Fixed Assets Costs (From Table 4.9)	\$19,770
Outside Services (Tank Cleaning, Billing, etc.)	\$3,500
Insurance	\$1,800
Conferences, Training, etc.	\$200
Professional Services (Attorney, Engineer, Financial, etc.)	\$600
<b>Total</b>	<b>\$41,890</b>

<b>Table 4.10</b> <b>Estimated O, M &amp; R Costs for Low Pressure Sewers with Grinder Pumps</b> <b>– Freeman Ridge</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$0
Energy (Power Costs) (*1)	\$340
Materials & Supplies	\$600
Repairs	\$300
Fixed Assets Costs (From Table 4.11)	\$6,660
Outside Services (Tank Cleaning, Billing, etc.)	\$1,500
Insurance	\$500
Conferences, Training, etc.	\$200
Professional Services (Attorney, Engineer, Financial, etc.)	\$600
<b>Total</b>	<b>\$10,700</b>

Note for Table's 4.8 through 4.10:

\*1 – For purposes of comparing alternatives, includes estimated power cost for simplex grinder pumps, which would be paid by the customer

#### **Alternative No. 4 – Vacuum Sewer System:**

##### **Description:**

Vacuum sewer systems consist of low-pressure pipes that generally are buried beneath the frost line at a slope with periodic step-ups to avoid deep installation. The wastewater flows from the building by gravity to a vacuum pit. A vacuum pit can serve each building, or a few buildings located close together can be clustered to one vacuum pit. The vacuum pit has an interface valve that automatically opens when a certain volume of sewage is collected in the vacuum pit. A central

collection system station generates vacuum, which sucks the sewage from the vacuum pit when the interface valve opens. The advantage of a vacuum system is that pipe sizes are kept to a minimum; usually 4 to 8-inch and major spills of sewage are impossible. The disadvantage of the vacuum system is that the collector station is very expensive unless the cost can be shared amongst several users.

Based on input received from a representative of AIRVAC, a vacuum sewer system company, a vacuum system was determined to be feasible for the Bean Blossom Area but was not for the Old Settler's Road Area and Woodland Lake Area. In addition, a representative of AIRVAC has indicated that when there are less than 90 customers; this alternative not practical due to the high cost of the vacuum station. Considering the separation of the service areas from the Bean Blossom area, the low number of customers in each area and the AIRVAC correspondence, this alternative has been deemed unfeasible and will not be considered further.

#### **Alternative No. 5 – Septic Tank Effluent Pressure (STEP) System:**

##### Description:

The STEP sewer system is very similar to the low-pressure grinder pump sewer system except for the following:

- Septic tanks (watertight) are used in lieu of grinder pump stations
- Effluent pumps are used following the septic tank in lieu of grinder pumps, as the larger solids in the wastewater settle out in the septic tank prior to reaching the pump
- Preliminary treatment is being achieved in the septic tank, which requires periodic (estimated every 8 to 10 years) solids removal and disposal, whereas the grinder pump stations convey all of the wastewater, including ground up solids to the treatment plant site

As with the low-pressure grinder pump sewer system, the STEP sewer system requires similar installation complexity, and electrical service provided for the pump controls.

##### Design Criteria:

The design criteria for this alternative comply with 10-States Standards, 327 IAC 3, and RUS design policies (7 CFR 1780.57).

##### Map:

Refer to Exhibit 4.2 for a layout map of the STEP system for Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Areas, respectively. These

exhibits are the same as those for Alternative No. 3 except in lieu of grinder pumps there would be 1,000-gallon septic tanks with effluent pumps for the residential customers and larger tanks for Bill Monroe Park, Staley's Mobile Home Park and Brownie's Restaurant.

#### Environmental Impacts:

This alternative would involve the installation of sewers, some within road or alley right-of-ways and some within private easements. The removal of a few trees where sewers are proposed within private easements will most likely be required. Hoppers Branch and Beanblossom Creek will be crossed, and other smaller ditches will be crossed, or the sewer will parallel it. Unlike conventional gravity sewers that need to be laid on line and grade, the pressure sewers can be directional bored, or auger bored in many instances, and the pipes can be installed following the contour of the ground or zigzagged around obstacles, which minimizes surface disruptions and reduces the environmental impacts. Directional drilling of the pipe across Beanblossom Creek and Hoppers Branch, in addition to other precautions along or across small ditches will be taken to minimize erosion and environmental impacts. The proposed septic tanks and some of the pipes are anticipated to be installed outside of existing public right-of-ways, which may require archaeological and other environmental reviews. However, much of the land where the system will be installed has been previously disturbed.

#### Land Requirements:

Permanent and temporary construction easements will be needed for some of the proposed sewers.

#### Potential Construction Problems:

As referenced under the conventional gravity and low pressure with grinder pump stations sewer alternatives, according to the Brown County Soils Report, most all soils within the service areas are very limited in respect to shallow excavations. The rating on the soil properties that influence the ease of digging, depth to bedrock or a cemented pan, hardness of bedrock, depth to the seasonal high-water table, flooding, the amount of large stones, etc. Therefore, the construction of a low-pressure system will most likely encounter some challenges, but not as many as with a deeper installed conventional gravity sewer system.

#### Sustainability Considerations:

A low-pressure sewer system, with grinder pumps, or septic tanks and effluent pumps will require more to operate and maintain when comparing it to the conventional gravity sewer alternative evaluated. This alternative would use more energy than the conventional gravity sewer alternative but less than the low-

pressure sewer with grinder pump stations alternative, as there is pumping of the wastewater, but it is partially treated septic tank effluent. The pipes are similar in size to the low pressure with grinder stations and smaller than the conventional gravity sewer pipes meaning less material used, which equates to less energy usage in the manufacture of the pipe.

#### Water and Energy Efficiency:

This alternative does not have any known water efficiency cost savings. Low-pressure sewer systems consist of low-pressure pipes that generally are buried below the frost line following the land contours and effluent pumps station. The effluent pump station consists of a wet well (usually 2-foot diameter and 6-foot deep) which includes the pump and level controls. Each effluent pump station has its own control panel, which is either mounted, at the pump unit or on the building owners' structure. There are some major disadvantages with the pressure systems including higher maintenance cost with each building owner having a effluent pump station and the possibility of grease build-up and pump clogging. The major advantage of the pressure system is that the pipes are buried shallower and are smaller sized than conventional gravity sewers and therefore can sometimes result in a lower construction cost. The effluent pumps alternative uses less energy than the grinder pump/pressure sewer alternative.

#### Cost Estimates:

The estimated construction and non-construction costs for a STEP system in Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge are provided in Table's 4.11, 4.12 and 4.13, respectively. The estimated replacement costs (short-lived assets) for the Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Areas are provided in in Table's 4.14, 4.15 and 4.16, respectively. The total estimated operation, maintenance and replacement (short-lived asset) for the Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Areas are provided in in Table's 4.17, 4.18 and 4.21, respectively.



**Table 4.11**  
**Estimated Construction and Non-Construction Cost for Septic Tank Effluent Pressure Sewers – Bean Blossom**

<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Amount</b>
1	6" Force Main	14,000	LF	\$30	\$420,000
2	4" Pressure Sewer	4,200	LF	\$25	\$105,000
3	2" Pressure Sewer	3,500	LF	\$18	\$63,000
4	1.5" Pressure Sewer	4,800	LF	\$17	\$81,600
5	1.25" Pressure Sewer	16,000	LF	\$15	\$240,000
6	Septic Tanks w/Effluent Pump (*1)	102	EA	\$7,500	\$765,000
7	Pressure Sewer Valve Assemblies	102	EA	\$1,000	\$102,000
8	Pressure Sewer/Force Main Air Release Valves	32	EA	\$2,800	\$89,600
9	Line Flushing Valve Pits	28	EA	\$2,000	\$56,000
10	Compacted Granular Backfill	1,200	LF	\$18	\$21,600
11	Bill Monroe C'Ground/Festival Park Septic Tanks & Pumps	1	LS	\$150,000	\$150,000
12	Staley's Mobile Home Septic Tanks and Pumps	1	LS	\$45,000	\$45,000
13	Brownie's Restaurant Septic Tank and Pumps	1	LS	\$28,000	\$28,000
14	Electrical Conduit & Pump Control Panels	102	EA	\$1,000	\$102,000
15	6" Force Main, Directional Bores	1,900	LF	\$40	\$76,000
16	4" Pressure Sewer, Directional Bores	500	LF	\$35	\$17,500
17	2" Pressure Sewer, Directional Bores	600	LF	\$28	\$16,800
18	1.5" Pressure Sewer, Directional Bores	150	LF	\$26	\$3,900
19	1.25" Pressure Sewer, Directional Bores	2,000	LF	\$20	\$40,000
20	Spare Parts	1	LS	\$3,000	\$3,000
21	Miscellaneous (Site Restoration, Traffic Control, Rule 5 Permit, etc.)	1	LS	\$106,000	\$106,000
22	Mobilization, Bond & Insurance	1	LS	\$126,600	\$126,600
<b>Subtotal Construction</b>					<b>\$2,658,600</b>
<b>Contingencies</b>					<b>\$265,800</b>
<b>Non-Construction</b>					<b>\$664,600</b>
<b>Total Cost</b>					<b>\$3,589,000</b>

<b>Table 4.12</b> <b>Estimated Construction and Non-Construction Cost for Septic Tank Effluent Pressure</b> <b>Sewers – Woodland Lake/Little Fox Lake</b>					
<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Amount</b>
1	4" Pressure Sewer	12,500	LF	\$25	\$312,500
2	3" Pressure Sewer	4,800	LF	\$20	\$96,000
3	2" Pressure Sewer	1,700	LF	\$18	\$30,600
4	1.25" Pressure Sewer	23,000	LF	\$15	\$345,000
5	Septic Tanks w/Effluent Pump (*1)	113	EA	\$7,500	\$847,500
6	Pressure Sewer Valve Assemblies	113	EA	\$1,000	\$113,000
7	Pressure Sewer/Force Main Air Release Valves	32	EA	\$2,800	\$89,600
8	Line Flushing Valve Pits	15	EA	\$2,000	\$30,000
9	Compacted Granular Backfill	3,800	LF	\$18	\$68,400
10	Stone Drive/Roadway Replacement	3,500	LF	\$12	\$42,000
11	Electrical Conduit & Pump Control Panels	113	EA	\$1,000	\$113,000
12	4" Force/Pressure Main, Directional Bores	2,400	LF	\$35	\$84,000
13	3" Pressure Sewer, Directional Bores	1,000	LF	\$33	\$33,000
14	2" Pressure Sewer, Directional Bores	100	LF	\$28	\$2,800
15	1.25" Pressure Sewer, Directional Bores	2,500	LF	\$20	\$50,000
16	Spare Parts	1	LS	\$3,000	\$3,000
17	Miscellaneous (Site Restoration, Traffic Control, Rule 5 Permit, etc.)	1	LS	\$102,000	\$102,000
18	Mobilization, Bond & Insurance	1	LS	\$118,000	\$118,000
<b>Subtotal Construction</b>					<b>\$2,480,400</b>
<b>Construction Contingencies</b>					<b>\$248,000</b>
<b>Non-Construction</b>					<b>\$620,000</b>
<b>Total Cost</b>					<b>\$3,348,400</b>

<b>Table 4.13</b> <b>Estimated Construction and Non-Construction Cost for Septic Tank Effluent Pressure Sewers – Freeman Ridge</b>					
<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Amount</b>
1	4" Pressure Sewer	4,100	LF	\$25	\$102,500
2	3" Pressure Sewer	5,000	LF	\$20	\$100,000
3	2" Pressure Sewer	3,000	LF	\$18	\$54,000
4	1.25" Pressure Sewer	7,500	LF	\$15	\$112,500
5	Septic Tanks w/Effluent Pump (*1)	38	EA	\$7,500	\$285,000
6	Pressure Sewer Valve Assemblies	38	EA	\$1,000	\$38,000
7	Pressure Sewer/Force Main Air Release Valves	11	EA	\$2,800	\$30,800
8	Line Flushing Valve Pits	7	EA	\$2,000	\$14,000
9	Compacted Granular Backfill	2,800	LF	\$18	\$50,400
10	Stone Drive/Roadway Replacement	2,700	LF	\$12	\$32,400
11	Electrical Conduit & Pump Control Panels	38	EA	\$1,000	\$38,000
12	4" Pressure Sewer, Directional Bores	600	LF	\$35	\$21,000
13	3" Pressure Sewer, Directional Bores	650	LF	\$33	\$21,450
14	2" Pressure Sewer, Directional Bores	200	LF	\$28	\$5,600
15	1.25" Pressure Sewer, Directional Bores	900	LF	\$20	\$18,000
16	Spare Parts	1	LS	\$2,500	\$2,500
17	Miscellaneous (Site Restoration, Traffic Control, Rule 5 Permit, etc.)	1	LS	\$40,000	\$40,000
18	Mobilization, Bond & Insurance	1	LS	\$48,000	\$48,000
<b>Subtotal Construction</b>					<b>\$1,014,150</b>
<b>Construction Contingencies</b>					<b>\$101,400</b>
<b>Non-Construction</b>					<b>253,500</b>
<b>Total Cost</b>					<b>\$1,369,050</b>

Note for Table's 4.11 through 4.13:

\*1 – The potential for clustering buildings into one septic tank may be possible but cannot be determined until a detailed topographical surveying is obtained during the engineering design phase of the project. For conservative purposes this study assumes one septic tank per building being served.

The Woodland Lake/Little Fox Lake cost estimate (Table 4.12) includes the conveyance system from Woodland Lake/Little Fox Lake to Bean Blossom.

<b>Table 4.14</b> <b>Estimated Fixed Assets Costs for Septic Tank Effluent Pressure Sewers – Bean Blossom</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
STEP Pumps and Controls	\$8,160
Lift Station Pumps and Controls	\$980
Air Release Valve Replacement	\$3,200
<b>Total</b>	<b>\$12,340</b>

<b>Table 4.15</b> <b>Estimated Fixed Assets Costs for Septic Tank Effluent Pressure Sewers –</b> <b>Woodland Lake/Little Fox Lake</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
STEP Pumps and Controls	\$9,035
Air Release Valve Replacement	\$3,200
<b>Total</b>	<b>\$12,235</b>

<b>Table 4.16</b> <b>Estimated Fixed Assets Costs for Septic Tank Effluent Pressure Sewers –</b> <b>Freeman Ridge</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
STEP Pumps and Controls	\$3,040
Air Release Valve Replacement	\$1,100
<b>Total</b>	<b>\$4,140</b>

<b>Table 4.17</b> <b>Estimated O, M &amp; R Costs for Septic Tank Effluent Pressure Sewers –</b> <b>Bean Blossom</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$28,800
Energy (Power Costs)	\$1,300
Materials & Supplies	\$550
Repairs	\$550
Fixed Assets Costs (From Table 4.14)	\$12,340
Outside Services (Tank Cleaning, Billing, etc.)	\$3,500
Insurance	\$2,500
Conferences, Training, etc.	\$350
Professional Services (Attorney, Engineer, Financial, etc.)	\$1,000
<b>Total</b>	<b>\$50,890</b>

<b>Table 4.18</b> <b>Estimated O, M &amp; R Costs for Septic Tank Effluent Pressure Sewers –</b> <b>Woodland Lake/Little Fox Lake</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$14,400
Energy (Power Costs) – STEP Pumps and Lift Station	\$510
Materials & Supplies	\$1,100
Repairs	\$300
Fixed Assets Costs (From Table 4.15)	\$12,235
Outside Services (Tank Cleaning, Billing, etc.)	\$3,500
Insurance	\$1,800
Conferences, Training, etc.	\$200
Professional Services (Attorney, Engineer, Financial, etc.)	\$600
<b>Total</b>	<b>\$34,645</b>

<b>Table 4.19</b> <b>Estimated O, M &amp; R Costs for Septic Tank Effluent Pressure Sewers –</b> <b>Freeman Ridge</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$0
Energy (Power Costs) – STEP Pumps and Lift Station	\$170
Materials & Supplies (incl. Odor Control Chemical)	\$600
Repairs	\$300
Fixed Assets Costs (From Table 4.16)	\$4,140
Outside Services (Tank Cleaning, Billing, etc.)	\$1,200
Insurance	\$500
Conferences, Training, etc.	\$200
Professional Services (Attorney, Engineer, Financial, etc.)	\$600
<b>Total</b>	<b>\$7,710</b>

Note for Tables 4.17 through 4.19:

For purposes of comparing alternatives, includes estimated power cost for simplex grinder pumps, which would be paid by the customer.

### 4.3 Treatment and Disposal System Alternatives

The following alternatives were considered for wastewater treatment for the Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Areas:

- No Action
- Conveyance to Helmsburg WWTP
- Conveyance to Town of Nashville WWTP
- Extended Aeration Activated Sludge WWTP
- Algaewheel WWTP
- Membrane Bioreactor (MBR) or Moving Bed Biofilm Reactor (MBBR)
- Constructed Wetlands
- Facultative Lagoons with Land Application of Effluent
- Re-circulating Filter Media

The Bill Monroe Facility has approximately six 3-day weekend festivals and one 8-day festival per year. Each of these festivals can generate a daily wastewater flow of approximately 20,000 gpd. Considering that these festivals are periodic, it does not seem prudent to size a wastewater treatment plant to handle these peak flows. Therefore, a flow equalization tank was determined to make the most sense in handling the Bill Monroe peak flows. In addition, in anticipation of a higher than normal wastewater strength, due to a low water usage, an aerated flow equalization tank would provide for some preliminary treatment and allow the small treatment plant to receive a constant flow rate. Three scenarios for determining the size of the flow equalization tank were evaluated, and are as follows:

- #1 – Daily flow during festivals of 20,000 gpd, 500 gpd during non-festival days, and treating 3,000 gpd – Flow equalization volume determined is approximately 200,000 gallons
- #2 – In anticipation of adding festival events, daily flow during festivals of 40,000 gpd, 500 gpd during non-festival days, and treating 3,000 gpd – Flow equalization volume determined is approximately 500,000 gallons
- #3 - In anticipation of adding festival events, daily flow during festivals of 40,000 gpd, 500 gpd during non-festival days, and treating 5,000 gpd – Flow equalization volume determined is approximately 400,000 gallons

Estimated cost scenarios were present to Bill Monroe staff on June 28, 2016 and Scenario #3 was selected. Considering Scenario #3, a 400,000-gallon capacity aerated flow equalization tank would be required for the local WWTP alternatives. Scenario #1 was determined sufficient, after further evaluating their projected expenses, which includes a 200,000-gallon flow equalization tank. The flow equalization tank would also be needed if conveying to Nashville, as their Wastewater Agreement limits the maximum daily flow to 52,560 gpd.

**Alternative No. 1 - No Action:**

Description:

For the same reasons indicated in the Collection System Alternatives section, the no action alternative would continue to create adverse environmental impacts to the watershed and to Beanblossom Creek, which is a tributary to Lake Lemon, located approximately 6 miles downstream from Bean Blossom. Inadequate wastewater collection and disposal facilities presently limit economic growth of the study area. The No Action Alternative would provide the study areas with neither short nor long term benefits.

Design Criteria:

Not applicable.

Map:

Not applicable for this alternative.

Environmental Impacts:

The no action alternative would continue to pollute nearby waterways, potentially pollute the groundwater and therefore be a negative impact to the environment.

Land Requirements:

Not applicable.

Potential Construction Problems:

Not applicable.

Sustainability Considerations:

Not applicable.

Water and Energy Efficiency:

Not applicable.

Cost Estimates:

Not applicable.

## **Alternative No. 2 – Conveyance to Helmsburg RSD:**

### **Description:**

Conveyance of wastewater from the Bean Blossom planning area to the existing treatment plant at Helmsburg is a considered alternative. The Helmsburg Regional Sewer District (RSD) operates a 25,000-gpd extended aeration steel packaged-type treatment plant that was constructed in 1995. The treated flow is discharged into Beanblossom Creek. The condition of the existing plant appears fair but in need of maintenance, as the steel components above the water level are showing significant corrosion deterioration caused by the release of hydrogen sulfide gas. The average daily and maximum daily flow to the plant for the period of March 2008 through May 2009 was 5,000 and 11,000 gpd, respectively. The influent BOD concentration during that same period averaged 368 mg/L, which is considerably higher than the 210 mg/L the plant was designed for. The higher BOD concentration is most likely due to long detention times within the collection system and low levels of flow into the collection system. Considering the volume available in the existing aeration chamber and the maximum BOD organic rate allowed by IDEM of 15 lbs BOD/1,000 cft, the actual average plant capacity is approximately 20,500 gpd. Considering that the community has remained status quo, this daily flow and BOD loading is assumed to be the same today. It is suspected that the significant corrosion of the plant components is caused by anaerobic wastewater, possibly from low flows within Helmsburg's low-pressure/grinder pump collection system.

The estimated future flow from the Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Areas is 0.060 mgd. In order for the existing Helmsburg plant to receive this additional flow it would need to be expanded. Besides, based on the condition of the existing steel plant components, a new plant would need to be constructed so that its projected useful life would exceed the duration of any loan period, assuming that a loan would be needed for the project financing. The reuse of the existing steel plant structure could be considered for sludge digestion, sludge storage or flow equalization if a new plant was constructed. Based on information obtained in 2009, the Helmsburg system currently has approximately 63 customers. The estimated number of current users from the Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Areas are 236. However, it is anticipated that some will be eligible for an exemption to connect to the system due to them having newer on-site wastewater systems.

A new plant is suggested at Helmsburg due to the existing plants lack of capacity and condition. One option would be for Helmsburg to construct a new plant with other improvements to existing facilities and the Brown County RSD would then pay an upfront connection charge to help offset a significant portion of the costs. A second option would be for the Helmsburg RSD to merge with the Brown County RSD and then the Brown County RSD would take over the Helmsburg



treatment property and other facilities then finance the treatment plant improvements. Under the first option, the Helmsburg RSD would need to incur some debt to finance a portion of the proposed WWTP.

A 200,000-gallon flow equalization tank with aeration would be included to handle the peak flows generated by the Bill Monroe Facility during their periodic festival events.

The general improvements associated with this alternative include the following:

- Lift Station at Bean Blossom with Odor Control
- Conveyance force main from Lift Station to Helmsburg WWTP
- Influent flow splitter box
- Construct 0.20 MG Flow Equalization Tank for Bill Monroe
- Construct 70,000 gpd AeroMod plant
- Standby Generator
- Piping and Valves
- Existing plant upgrades and painting
- Ultraviolet (UV) disinfection system and post aeration
- Geotextile bag system for sludge drying
- Control/Storage Building (30' x 40')
- Administration Building (26' x 48')
- Electrical
- Site Work and restoration of disturbed areas

Design Criteria:

The design criteria for this alternative comply with 10-States Standards, 327 IAC 3 and RUS design policies (7 CFR 1780.57).

Map:

Refer to Exhibit 4.3 for a map showing conveyance to Helmsburg and Exhibit 4.4 for a flow schematic of the treatment plant.

Environmental Impacts:

It is anticipated that the new WWTP would mostly be constructed on the existing Helmsburg WWTP property, which has been previously disturbed. No negative environmental impacts are anticipated. The IDEM NPDES permit effluent limits are anticipated to be more stringent than the existing limits, due to their anti-degradation rules. This would benefit the environment.

#### Land Requirements:

An additional 1 acre of land (minimum) would be required for this alternative.

#### Potential Construction Problems:

Considering that most of the new WWTP would be elevated to be above the 100-year flood elevation, no construction problems related to excavation are anticipated. There will most likely be minor construction problems associated with switchover from the existing plant to a new plant.

#### Sustainability Considerations:

Considering that the proposed WWTP will be an extended aeration type plant, additional energy use will be required. In addition, the lift station at Bean Blossom conveying the flow to Helmsburg will require more energy when compared to having a treatment near Bean Blossom. This alternative would improve the existing WWTP condition and thus make the system more reliable and sustainable.

#### Water and Energy Efficiency:

This alternative does not have any known water efficiency cost savings. The consideration of dissolved oxygen probes that control the speed of blowers will be considered as a part of this alternative. The use of LED light fixtures will be utilized to save costs.

#### Cost Estimates:

The estimated construction and non-construction costs for the conveyance and treatment facilities to Helmsburg is provided in Table 4.22. The estimated replacement costs (short-lived assets) for this alternative are provided in in Table 4.23. The total estimated operation, maintenance and replacement (short-lived asset) for this alternative are provided in in Table 4.24.

<b>Table 4.20</b> <b>Estimated Construction and Non-Construction Cost – Conveyance to Helmsburg RSD for Treatment</b>	
<b>Item</b>	<b>Amount</b>
6" Force Main – Open Cut (12,800 LF)	\$384,000
Road/Driveway Crossings – Open Cut (400 LF)	\$26,000
Highway/Railroad Crossings – Jack & Bore (200 LF)	\$100,000
6" Force Main – Directional Bore (2,500LF)	\$100,000
Force Main Air Release Valves (15 EA)	\$45,000
Force Main Connection at Helmsburg RSD WWTP	\$3,000
0.20 MG Flow Equalization Tank	\$285,300
Influent Flow Splitter Box	\$30,000
.07 MGD AeroMod Plant	\$550,000
Existing Plant Upgrades/Conversions	\$20,000
UV Disinfection System & Post Aeration	\$45,000
Plant Drain Lift Station	\$50,000
Standby Generator	\$35,000
Piping & Valves	\$25,000
Control/Storage Building	\$140,000
Administration Building	\$250,000
Electrical	\$80,000
Geotextile Bag System for Sludge Drying	\$30,000
Miscellaneous (Site Restoration, Painting, Fence, Flow Meter, etc.)	\$150,000
Bond, Mobilization & Insurance	\$116,000
<b>Subtotal Construction</b>	<b>\$2,464,300</b>
<b>Contingencies</b>	<b>\$246,400</b>
<b>Non-Construction</b>	<b>\$616,000</b>
<b>Total Cost</b>	<b>\$3,326,700</b>

<b>Table 4.21</b> <b>Estimated Fixed Assets Costs for Conveyance &amp; Treatment at Helmsburg</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Blowers and Controls	\$6,135
Sludge Pump	\$200
Chemical Feed Polymer Pumps	\$215
UV Bulbs	\$200
Air Release Valve Replacement	\$1,200
<b>Total</b>	<b>\$7,950</b>

<b>Table 4.22</b>	
<b>Estimated O, M &amp; R Costs for Conveyance &amp; Treatment at Helmsburg</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$28,800
Energy (Power Costs)	\$31,200
Materials & Supplies (incl. Chemicals)	\$3,000
Repairs	\$1,000
Fixed Assets Costs (From Table 4.21)	\$7,950
Outside Services (Certified Operator)	\$12,000
Biosolids Handling & Disposal	\$5,000
Insurance	\$4,500
Conferences, Training, etc.	\$700
Professional Services (Attorney, Engineer, Financial, etc.)	\$1,000
<b>Total</b>	<b>\$95,150</b>

### **Alternative No. 3 – Conveyance to Town of Nashville:**

#### **Description:**

Conveyance of wastewater from the Bean Blossom planning area to the existing treatment plant at Nashville is a considered alternative. The Town of Nashville operates an extended aeration treatment plant that was upgraded and expanded recently. The Town has indicated that they have 100,000 gpd of excess capacity available. Therefore, there would be available capacity, the Town's cost for treatment capacity is \$291,000. The Town has indicated that the conveyance line from Bean Blossom would connect to their existing wastewater treatment plant, located in the southwest corner of town. The Town's wholesale rate for treatment is \$4.00/1,000 gallons for septic tank effluent wastewater. Refer to Appendix I for the wholesale wastewater treatment agreement from the Town of Nashville. There are approximately 46 additional customers that could be connected to the conveyance line for this alternative.

A 200,000-gallon flow equalization tank with aeration would be included to handle the peak flows generated by the Bill Monroe Facility during their periodic festival events. The O, M & R costs would be paid for by the Bill Monroe Facility.

#### **Design Criteria:**

The design criteria for this alternative comply with 10-States Standards, 327 IAC 3 and RUS design policies (7 CFR 1780.57).

#### Map:

Refer to Exhibit 4.3 for a map showing conveyance options to Nashville. A second conveyance option is shown if HRSD and Bean Blossom/Woodland Lake both conveyed their wastewater to Nashville. Per the Town of Nashville, either option would be required to connect directly into the Nashville WWTP.

#### Environmental Impacts:

The conveyance line route would be south of Bean Blossom along SR 135 to Greasy Creek Road then south along Greasy Creek Road to Nashville. The areas along the way, just south of Bean Blossom are steep and wooded, requiring the construction of pipe through hills and ravines. Therefore, it is anticipated that some tree clearing will be needed and some potentially archeological reconnaissance along the proposed conveyance line route. Some of the conveyance line will be directional drilled in an attempt to minimize environmental impacts.

#### Land Requirements:

Permanent and temporary construction easements will be required for this alternative.

#### Potential Construction Problems:

A considerable amount of the proposed conveyance line will be installed through hilly wooded topography. Some of the proposed conveyance line will be directional drilled in an effort to minimize disturbances and to reduce potential negative environmental impacts.

#### Sustainability Considerations:

Considering that the Nashville WWTP is existing, the energy used to operate the plant would most likely not increase as a result of adding the Brown County RSD as a customer. The lift station at Bean Blossom conveying the flow to Nashville will require more energy when compared to having a treatment near Bean Blossom, or conveyance to Helmsburg, as it would be larger in size. Due to the length of conveyance line and the elevation differences between Bean Blossom and Nashville, the conveyance line will allow for future connections, avoiding future sewer extensions, which makes for a sustainable future situation.

#### Water and Energy Efficiency:

This alternative does not have any known water efficiency cost savings. This alternative would yield the least energy cost of any of the other alternatives.

Cost Estimates:

The estimated construction and non-construction costs for the conveyance to Nashville are provided in Table 4.23. The estimated replacement costs (short-term assets) for this alternative are provided in in Table 4.24. The total estimated operation, maintenance and replacement (short-lived assets) for this alternative are provided in in Table 4.25.

<b>Table 4.23</b>	
<b>Estimated Construction and Non-Construction Cost – Conveyance to Nashville</b>	
<b>Item</b>	<b>Amount</b>
Bean Blossom Lift Station, including Odor Control, Flow Meter & Standby Generator	\$250,000
6" Force Main – Open Cut (24,000 LF)	\$720,000
6" Force Main – Directional Bore (2,000 LF)	\$80,000
Force Main Air Release Valves (21 EA)	\$65,000
Compacted Backfill & Stone Drive Replacement	\$25,000
Flow Meter & Force Main Connection at Nashville	\$30,000
0.20 MG Flow Equalization Tank Including Aeration	\$285,300
Administration Building	\$250,000
Miscellaneous (Site Restoration, Traffic Control, Rule 5 Permit, etc.)	\$167,000
Bond, Mobilization & Insurance	\$93,000
<b>Subtotal Construction</b>	<b>\$1,965,300</b>
<b>Contingencies</b>	<b>\$196,500</b>
<b>Non-Construction</b>	<b>\$491,000</b>
<b>Total Cost</b>	<b>\$2,652,800</b>

Table Notes:

The 6-inch force main quantity is from the proposed lift station near the Freeman Ridge Road intersection to the Nashville WWTP.

<b>Table 4.24</b>	
<b>Estimated Fixed Assets Costs for Conveyance to Nashville</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Lift Station Pumps and Controls	\$2,920
Chemical Feed Pumps	\$110
Air Release Valve Replacement	\$2,100
Flow Meters	\$1,000
<b>Total</b>	<b>\$6,130</b>

<b>Table 4.25</b> <b>Estimated O, M &amp; R Costs for Conveyance to Nashville</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$14,400
Energy (Power Costs) – Lift Station & Flow Meter	\$4,450
Materials & Supplies (incl. Odor Control Chemical)	\$1,000
Repairs	\$600
Fixed Assets Costs (From Table 4.24)	\$6,130
Outside Services (Tank Cleaning, etc.)	\$500
Treatment Cost (Based on 0.0566 MGD @ \$4.00/1,000 Gal.)	\$82,650
Insurance	\$1,000
Conferences, Training, etc.	\$500
Professional Services (Attorney, Engineer, Financial, etc.)	\$1,000
<b>Total</b>	<b>\$112,230</b>

#### **Alternative No. 4 – Extended Aeration Activated Sludge WWTP**

##### **Description:**

The extended aeration activated sludge process uses microorganisms to feed on organic contaminants in wastewater, producing a high-quality effluent for discharge to a nearby receiving stream, or into a subsurface elevated mound, drip irrigation system, or other land application technique. The activated sludge plant is probably the most popular biological treatment process. It is used for both large and small installations. These plants are capable of producing a high-quality effluent for the price. Activated sludge package plants are used by isolated facilities such as hospitals or hotels, cluster situations, subdivisions and small communities. The basic activated sludge process consists of several interrelated components including; an aeration tank where the biological reaction takes place; an aeration source that provides oxygen and mixing; a clarifier tank where the solids settle and are separated from wastewater treatment and; a means of collecting the solids either to return them to the aeration tank, or to remove them from the process. The removed solids are then further processed and disposed of. There are several types of extended aeration activated sludge processes including oxidation ditches, sequential batch reactors, vertical loop reactors, etc. The extended activated sludge process is a viable alternative for the planning area and a packaged type AeroMod plant will be further evaluated.

A 200,000-gallon flow equalization tank with aeration would be included to handle the peak flows generated by the Bill Monroe Facility during their periodic festival events.

Based on preliminary conversations with a property owner, the WWTP location is shown on Exhibit 4.4. The plant effluent will be discharged to Beanblossom Creek.

Design Criteria:

The design criteria for this alternative comply with 10-States Standards and RUS design policies (7 CFR 1780.57).

Map:

Refer to Exhibit 4.2 for a map showing the WWTP location and Exhibit 4.5 for a flow schematic of the WWTP.

Environmental Impacts:

An archeological reconnaissance at the proposed treatment plant site may be required. The site is in an open area, so no trees will need to be removed for the proposed treatment plant. A few trees may need to be removed for the installation of the plant effluent pipe.

Land Requirements:

The purchase of land will be required for the WWTP. Approximately 1.5 acres of property is anticipated.

Potential Construction Problems:

No construction problems are anticipated with this alternative, as the plant will be elevated above grade minimizing excavation required.

Sustainability Considerations:

This alternative will use energy, comparable to the Helmsburg treatment alternative and more than the conveyance to Nashville alternative.

Water and Energy Efficiency:

This alternative does not have any known water efficiency cost savings. Low-pressure sewer systems consist of low-pressure pipes that generally are buried below the frost line following the land contours and grinder pump stations. The grinder pump station consists of a wet well (usually 2-foot diameter and 6-foot deep) which includes the pump and level controls. Each grinder pump station has its own control panel, which is either mounted, at the pump unit or on the building owners' structure. There are some major disadvantages with the pressure systems including higher maintenance cost with each building owner having a grinder



pump station and the possibility of grease build-up and pump clogging. The major advantage of the pressure system is that the pipes are buried shallower and are smaller sized than conventional gravity sewers and therefore can sometimes result in a lower construction cost.

Cost Estimates:

The estimated construction and non-construction costs for the extended aeration treatment plant are provided in Table 4.26. The estimated replacement costs (short-term assets) for this alternative are provided in in Table 4.27. The total estimated operation, maintenance and replacement (short-lived assets) for this alternative are provided in in Table 4.28.

<b>Table 4.26</b>	
<b>Estimated Construction and Non-Construction Cost – Extended Aeration Treatment</b>	
<b>Item</b>	<b>Amount</b>
6" Force Main – Open Cut (1,500 LF)	\$45,000
Force Main Connection at WWTP	\$1,800
0.20 MG Flow Equalization Tank, including Aeration	\$285,300
0.075 mgd AeroMod Plant	\$650,000
UV Disinfection & Post Aeration	\$40,000
Standby Generator	\$40,000
Piping, Valves	\$25,000
Control Storage Building	\$140,000
Administration Building	\$250,000
Geotextile Bag System for Sludge Drying	\$25,000
Plant Drain Lift Station	\$50,000
Sitework	\$50,000
Electrical	\$90,000
Miscellaneous (Site Restoration, Painting, Fence, Flow Meter, etc.)	\$169,200
Bond, Mobilization & Insurance	\$93,000
<b>Subtotal Construction</b>	<b>\$1,954,300</b>
<b>Contingencies</b>	<b>\$195,400</b>
<b>Non-Construction</b>	<b>\$488,500</b>
<b>Total Cost</b>	<b>\$2,638,200</b>

<b>Table 4.27</b>	
<b>Estimated Fixed Assets Costs for Extended Aeration WWTP</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Chemical & Polymer Feed Pumps	\$220
Blowers and Controls	\$5,480
UV Bulbs	\$200
Sludge Pump	\$200
Air Release Valve Replacement	\$200
<b>Total</b>	<b>\$6,300</b>

<p align="center"><b>Table 4.28</b>  <b>Estimated O, M &amp; R Costs for Extended Aeration WWTP</b></p>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$28,800
Energy (Power Costs)	\$32,800
Materials & Supplies (incl. Chemicals)	\$3,000
Repairs	\$1,000
Fixed Assets Costs (From Table 4.27)	\$6,300
Outside Services (Certified Operator)	\$12,000
Biosolids Handling & Disposal	\$5,000
Insurance	\$4,500
Conferences, Training, etc.	\$700
Professional Services (Attorney, Engineer, Financial, etc.)	\$1,000
<b>Total</b>	<b>\$95,100</b>

#### **Alternative No. 5 – Algaewheel WWTP**

##### **Description:**

The Algaewheel process uses algae and bacteria to feed on organic contaminants in wastewater, producing a high-quality effluent for discharge to a nearby receiving stream, or into a subsurface elevated mound, drip irrigation system, or other land application technique. The Algaewheel process utilizes rotating wheels, using light, carbon dioxide and nutrients. Algae produce oxygen, consume carbon dioxide, and generate polysaccharides (sugars). Bacteria consume the oxygen and sugars and produce carbon dioxide, completing the cycle. When subjected to light the algal biofilms become saturated with oxygen and when combined with wheel rotation, high dissolved oxygen levels enhance BOD reduction and nitrification. A small air blower generates bubbles that lift and slowly rotate the buoyant Algaewheels. The plant components would consist of a primary clarifier, shallow concrete tanks for the Algaewheels, secondary clarifier, post treatment tank and sludge holding tank. The removed solids are then further processed and disposed of.

A 200,000-gallon flow equalization tank with aeration would be included to handle the peak flows generated by the Bill Monroe Facility during their periodic festival events.

Based on preliminary conversations with a property owner, the WWTP location is shown on Exhibit 4.2. The plant effluent will be discharged to a tributary ditch, which flows a short distance to Beanblossom Creek.

#### Design Criteria:

The design criteria for this alternative comply with 10-States Standards and RUS design policies (7 CFR 1780.57).

#### Map:

Refer to Exhibit 4.2 for a map showing the WWTP location and Exhibit 4.6 for a flow schematic of the WWTP.

#### Environmental Impacts:

An archeological reconnaissance at the proposed treatment plant site may be required. The site is in an open area, so no trees will need to be removed for the proposed treatment plant. A few trees may need to be removed for the installation of the plant effluent pipe.

#### Land Requirements:

The purchase of land will be required for the WWTP. Approximately 1.5 acres of property is anticipated.

#### Potential Construction Problems:

No construction problems are anticipated with this alternative, as the plant will be elevated above grade minimizing excavation required.

#### Sustainability Considerations:

This alternative will use the least amount of energy compared to the other alternatives.

#### Water and Energy Efficiency:

This alternative does not have any known water efficiency cost savings. This alternative uses the least energy of any of the other new treatment plant alternatives.

#### Cost Estimates:

The estimated construction and non-construction costs for the Algaewheel treatment plant are provided in Table 4.29. The estimated construction cost was based on a proposal from Algaewheel considering the organic waste loads from a grinder pump pressure system. Their costs may be able to be reduced if a STEP system is utilized, as the organic waste loads are anticipated to be lower. The estimated replacement costs (short-term assets) for this alternative are provided in

in Table 4.30. The total estimated operation, maintenance and replacement (short-lived assets) for this alternative are provided in in Table 4.31.

<b>Table 4.29</b>	
<b>Estimated Construction and Non-Construction Cost – Algaewheel Treatment</b>	
<b>Item</b>	<b>Amount</b>
6” Force Main – Open Cut (1,500 LF)	\$45,000
Force Main Connection at WWTP	\$1,800
0.20 MG Flow Equalization Tank, including Aeration	\$285,300
0.075 mgd Algaewheel including Sludge Holding, Screening & Disinfection Plant	\$1,600,000
Standby Generator	\$20,000
Piping, Valves	\$15,000
Control Storage Building	\$50,000
Administration Building	\$250,000
Geotextile Bag System for Sludge Drying	\$25,000
Plant Drain Lift Station	\$50,000
Sitework	\$50,000
Electrical	\$60,000
Miscellaneous (Site Restoration, Painting, Fence, Flow Meter, etc.)	\$242,000
Bond, Mobilization & Insurance	\$134,700
<b>Subtotal Construction</b>	<b>\$2,828,800</b>
<b>Contingencies</b>	<b>\$282,800</b>
<b>Non-Construction</b>	<b>\$707,000</b>
<b>Total Cost</b>	<b>\$3,818,600</b>

<b>Table 4.30</b>	
<b>Estimated Fixed Assets Costs for Algaewheel WWTP</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Chemical & Polymer Feed Pumps	\$220
Blowers and Controls	\$3,880
Algaewheel Air Diffusers	\$200
UV Bulbs	\$200
Sludge Pump	\$200
Air Release Valve Replacement	\$200
<b>Total</b>	<b>\$4,900</b>

<b>Table 4.31 Estimated O, M &amp; R Costs for Algaewheel WWTP</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$28,800
Energy (Power Costs)	\$19,500
Materials & Supplies (incl. Chemicals)	\$3,000
Repairs	\$1,000
Fixed Assets Costs (From Table 4.30)	\$4,900
Outside Services (Certified Operator)	\$12,000
Biosolids Handling & Disposal	\$4,000
Insurance	\$4,500
Conferences, Training, etc.	\$700
Professional Services (Attorney, Engineer, Financial, etc.)	\$1,000
<b>Total</b>	<b>\$79,400</b>

#### **Alternative No. 6 – MBR or MBBR WWTP**

##### Description:

The Membrane Bioreactor (MBR) is essentially a version of the conventional activated sludge system. While the conventional activated sludge process uses a secondary clarifier or settlement tank for solid/liquid separation, an MBR uses a membrane for this function. This provides a number of advantages relating to process control and product water quality.

The Moving Bed Biofilm Reactor (MBBR) technology employs thousands of polyethylene biofilm carriers operating in mixed motion within an aerated wastewater treatment basin. Each individual biocarrier increases productivity through providing protected surface area to support the growth of heterotrophic and autotrophic bacteria within its cells. It is this high-density population of bacteria that achieves high-rate biodegradation within the system, while also offering process reliability and ease of operation.

A 200,000-gallon flow equalization tank with aeration would be included to handle the peak flows generated by the Bill Monroe Facility during their periodic festival events.

The MBR or MBBR process is a viable alternative for the planning area and therefore will be further evaluated.

Based on preliminary conversations with a property owner, the WWTP location is shown on Exhibit 4.4. The plant effluent will be discharged to Beanblossom Creek.

#### Design Criteria:

The design criteria for this alternative comply with 10-States Standards and RUS design policies (7 CFR 1780.57).

#### Map:

Refer to Exhibit 4.2 for a map showing the WWTP location and Exhibit 4.7 for a flow schematic of the WWTP.

#### Environmental Impacts:

An archeological reconnaissance at the proposed treatment plant site may be required. The site is in an open area, so no trees will need to be removed for the proposed treatment plant. A few trees may need to be removed for the installation of the plant effluent pipe.

#### Land Requirements:

The purchase of land will be required for the WWTP. Approximately 1.5 acres of property is anticipated.

#### Potential Construction Problems:

No significant construction problems are anticipated with this alternative. The plant tankage will be located below grade level, except for the flow equalization tank.

#### Sustainability Considerations:

This alternative is estimated to use more energy than the other treatment alternatives evaluated.

#### Water and Energy Efficiency:

This alternative does not have any known water efficiency cost savings. This alternative yields the least energy cost of any of the alternatives.

#### Cost Estimates:

The estimated construction and non-construction costs for the MBR or MBBR treatment plant are provided in Table 4.32. The estimated replacement costs (short-term assets) for this alternative are provided in in Table 4.33. The total estimated operation, maintenance and replacement (short-lived assets) for this alternative are provided in in Table 4.34.

<b>Table 4.32</b> <b>Estimated Construction and Non-Construction Cost – MBR or MBBR Treatment</b>	
<b>Item</b>	<b>Amount</b>
6" Force Main – Open Cut (1,500 LF)	\$45,000
Force Main Connection at WWTP	\$1,800
0.20 MG Flow Equalization Tank, including Aeration	\$285,300
0.075 mgd Aqua Point or Inceptor Plant	\$800,000
UV Disinfection & Post Aeration	\$40,000
Standby Generator	\$35,000
Piping, Valves	\$35,000
Control Storage Building	\$140,000
Administration Building	\$250,000
Geotextile Bag System for Sludge Drying	\$25,000
Plant Drain Lift Station	\$50,000
Sitework	\$50,000
Electrical	\$90,000
Miscellaneous (Site Restoration, Painting, Fence, Flow Meter, etc.)	\$184,500
Bond, Mobilization & Insurance	\$101,500
<b>Subtotal Construction</b>	<b>\$2,133,100</b>
<b>Contingencies</b>	<b>\$213,300</b>
<b>Non-Construction</b>	<b>\$533,200</b>
<b>Total Cost</b>	<b>\$2,879,600</b>

<b>Table 4.33</b> <b>Estimated Fixed Assets Costs for MBR or MBBR WWTP</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Chemical & Polymer Feed Pumps	\$214
Blowers and Controls	\$4,833
UV Bulbs	\$200
Pumps and Controls	\$833
Sludge Pump	\$200
Air Release Valve Replacement	\$200
<b>Total</b>	<b>\$6,480</b>

<b>Table 4.34</b> <b>Estimated O, M &amp; R Costs for MBR or MBBR WWTP</b>	
<b>Item</b>	<b>Estimated Annual Cost</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$28,800
Energy (Power Costs)	\$41,350
Materials & Supplies (incl. Chemicals)	\$3,000
Repairs	\$1,000
Fixed Assets Costs (From Table 4.33)	\$6,480
Outside Services (Certified Operator)	\$12,000
Biosolids Handling & Disposal	\$4,000
Insurance	\$4,500
Conferences, Training, etc.	\$700
Professional Services (Attorney, Engineer, Financial, etc.)	\$1,000
<b>Total</b>	<b>\$102,830</b>

### **Alternative No. 7 – Constructed Wetlands**

#### **Description:**

The Constructed Wetlands utilizes a combination of chemical and biological processes to remove nutrients from wastewater. The wetlands system is preceded with preliminary treatment consisting of individual septic tanks at each property, or large septic tank treatment at the centralized plant location. After preliminary treatment is achieved the wastewater flows into a wetland cell or cells. A system of plants planted in a sand/gravel medium provides a natural treatment within the cell(s) by up taking the nutrients. Constructed wetland effluent would either be disinfected and discharged into a surface water-receiving stream or disposed of by drip irrigation or into an elevated mound. The constructed wetland cannot meet the NPDES permit limits for discharge into a surface water-receiving stream. While discharging constructed wetland effluent into a subsurface source can be viable, it is not considered to be for the Bean Blossom area due to the soils limitations for septic system discharge and shallow excavations. Therefore, the constructed wetland alternative will not be considered further.

### **Alternative No. 8 – Facultative Lagoons with Land Application of Effluent**

#### **Description:**

A facultative lagoon system consists of a series of ponds, which hold the wastewater until a sufficient level of treatment is achieved, and the effluent can be safely discharged to a surface water-receiving stream. Facultative lagoons can be either aerated or non-aerated (stabilization lagoons). Stabilization lagoons systems are usually 5 to 6 feet deep where aerated lagoons may be 10 to 20 foot deep. Advantages of lagoon systems include their relatively low maintenance



requirements and relatively small quantities of sludge production. Disadvantages of a lagoon system are that the lagoon cannot be located within ¼-mile to the nearest residence, they experience reduced biological activity and treatment efficiency during cold weather, ice formation can hamper the operation and in overloading situations, or spring and fall periods when turnover occurs, odors can be produced and lagoons require more property area. The facultative lagoon system cannot consistently meet NPDES permit limits associated with a surface water discharge, however an option is to land apply lagoon effluent. This alternative has been deemed unfavorable due to the site location requirements and unavailability of known land for land application. Therefore, the facultative lagoon system alternative will not be considered further.

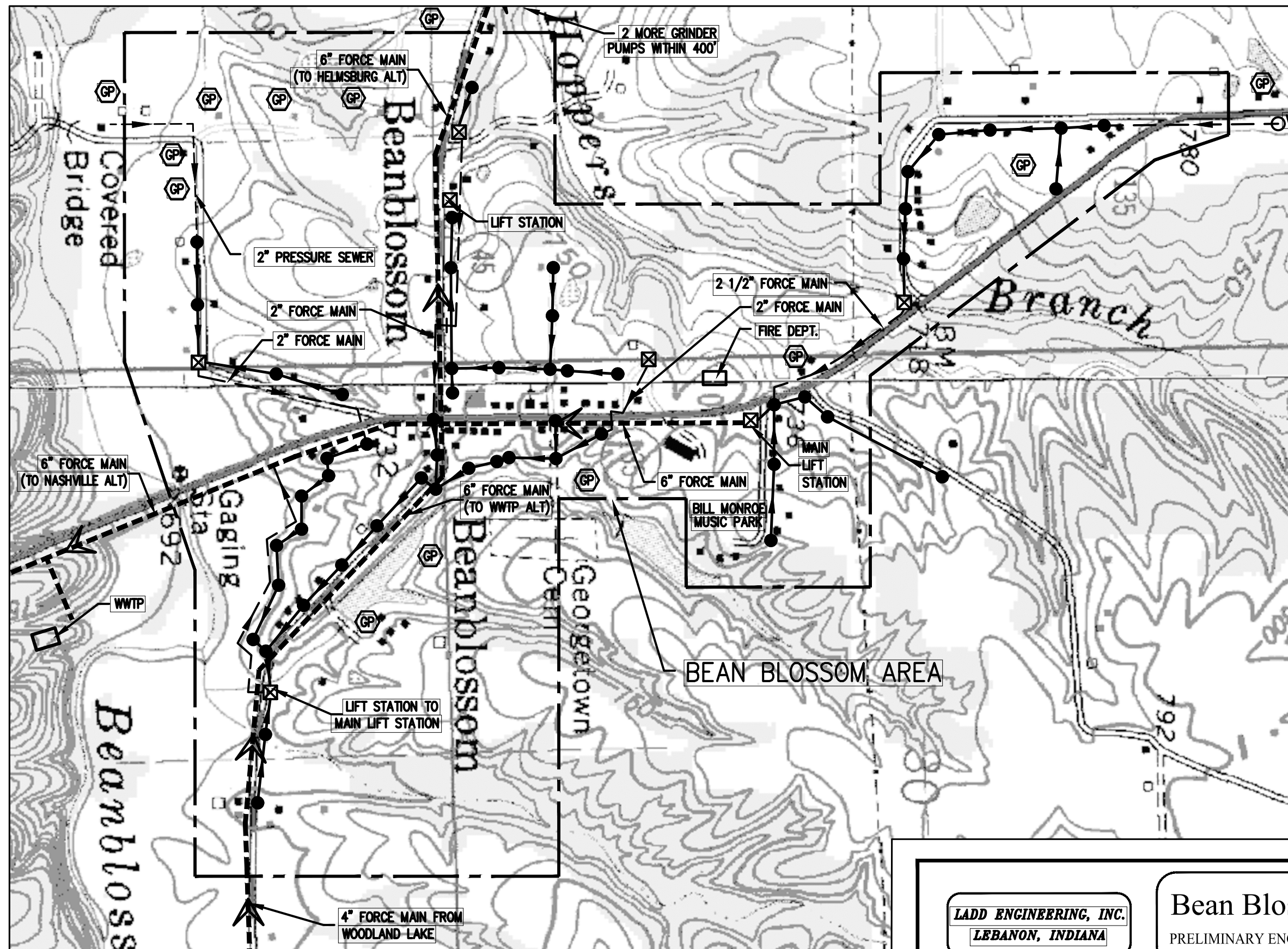
Land application is permitted through IDEM under 327 IAC 6.1-7 as forms of land application of pollutant-bearing water. Sizing for the reuse field is based on the hydraulic capacity of the soil and the nitrogen uptake of the crop in the field. The proposed crop is usually an alfalfa and/or hardwood tree to maximize nitrogen uptake of the system. Spray irrigation discharges using mechanical irrigation equipment to apply treated wastewater over a wide area that can be used for agricultural purposes. Spray irrigation is limited to slopes less than 6% to prevent runoff of the applied wastewater, requires a 90-day minimum storage for periods when it cannot be applied during wet conditions or on frozen ground, and requires either significant setbacks or effluent disinfection with a high degree of treatment. Because of these limitations, spray irrigation was not considered further for disposal.

### **Alternative No. 9 – Re-circulating Filter Media**

#### **Description:**

A re-circulating filter media (RMF) system consists of a tank, or earth-lined vessel filled with a bed of graded media (sand, gravel, textiles, etc.) and pump(s). Septic tank effluent enters the filter media tank and pumped onto the media bed where it flows through the media bed. As the partially treated wastewater passes through the media, a combination of physical, chemical, and biological processes consistently treat the wastewater. A portion of the flow that passes through the media is re-circulated over the media and a portion is discharged into either a collection system or for further treatment processing prior to its discharge to a surface water-receiving stream or disposed of by drip irrigation, spray irrigation, or into an elevated mound. Re-circulating filter media systems are fairly simple to operate and include only a few mechanical components (i.e. pumps and controls). Either individual treatment RMF's serving one or two buildings, or a centralized RMF could be considered but both would require preliminary septic tank treatment ahead of the units. The RMF cannot meet the NPDES permit limits for discharge into a surface water-receiving stream. While discharging RMF effluent into a subsurface source or via spray irrigation may be viable, for

the same reasons listed for Alternative No. 8 this alternative is deemed to be unfeasible. Therefore, the RMF alternative will not be considered further.



LEGEND

●

PROPOSED MANHOLE

—●—

8" GRAVITY SEWER W/DIRECTION OF FLOW

—X—

LIFT STATION

—GP—

FORCE MAIN W/DIRECTION OF FLOW

—GP—

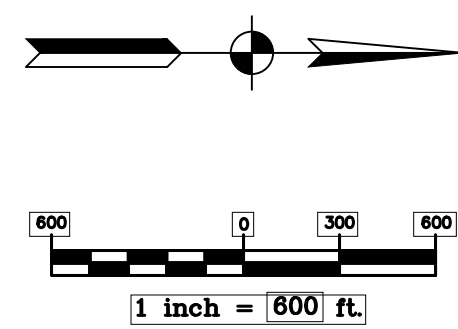
GRINDER PUMP

--->---

PRESSURE SEWER W/DIRECTION OF FLOW

○VP

VALVE PIT



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**Bean Blossom RSD**  
PRELIMINARY ENGINEERING REPORT

Exhibit 4.1  
Conventional Gravity Sewer  
Bean Blossom

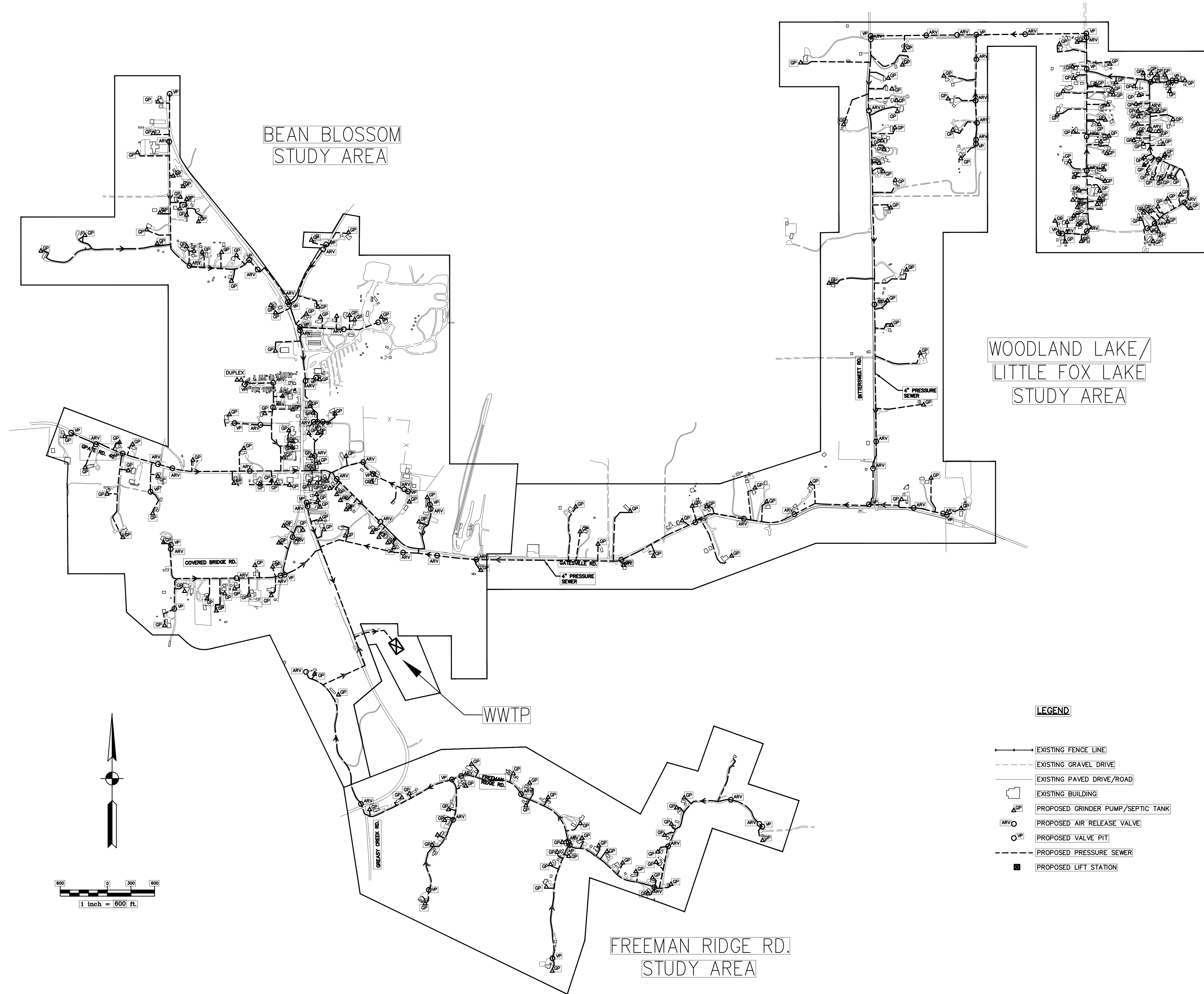
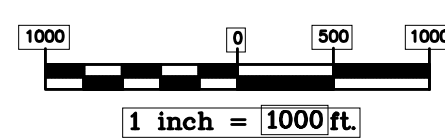
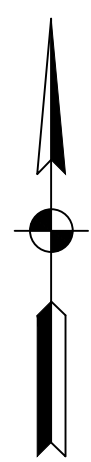
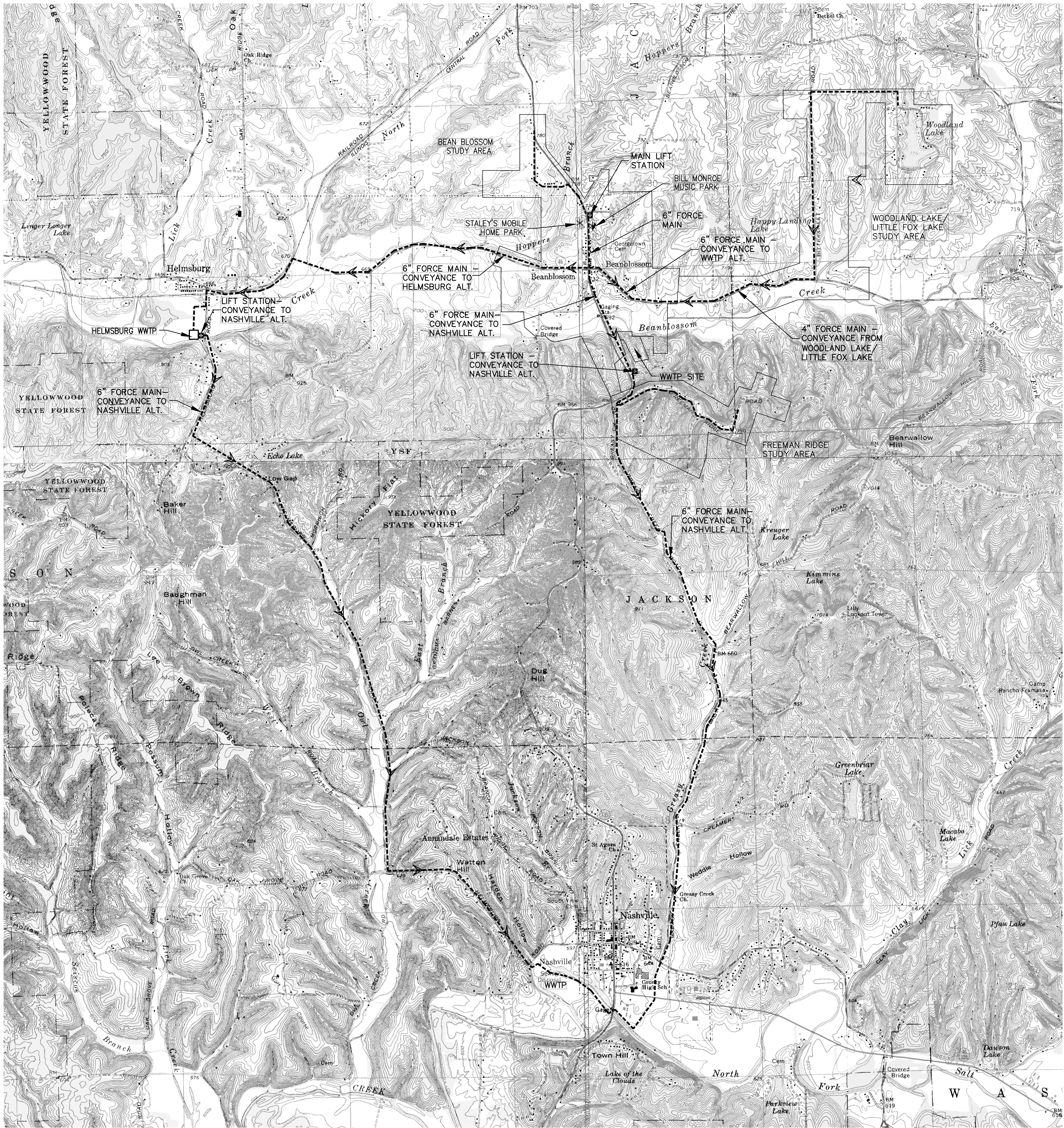


Exhibit 4.2  
Low Pressure System

Brown County RSD  
PRELIMINARY ENGINEERING REPORT

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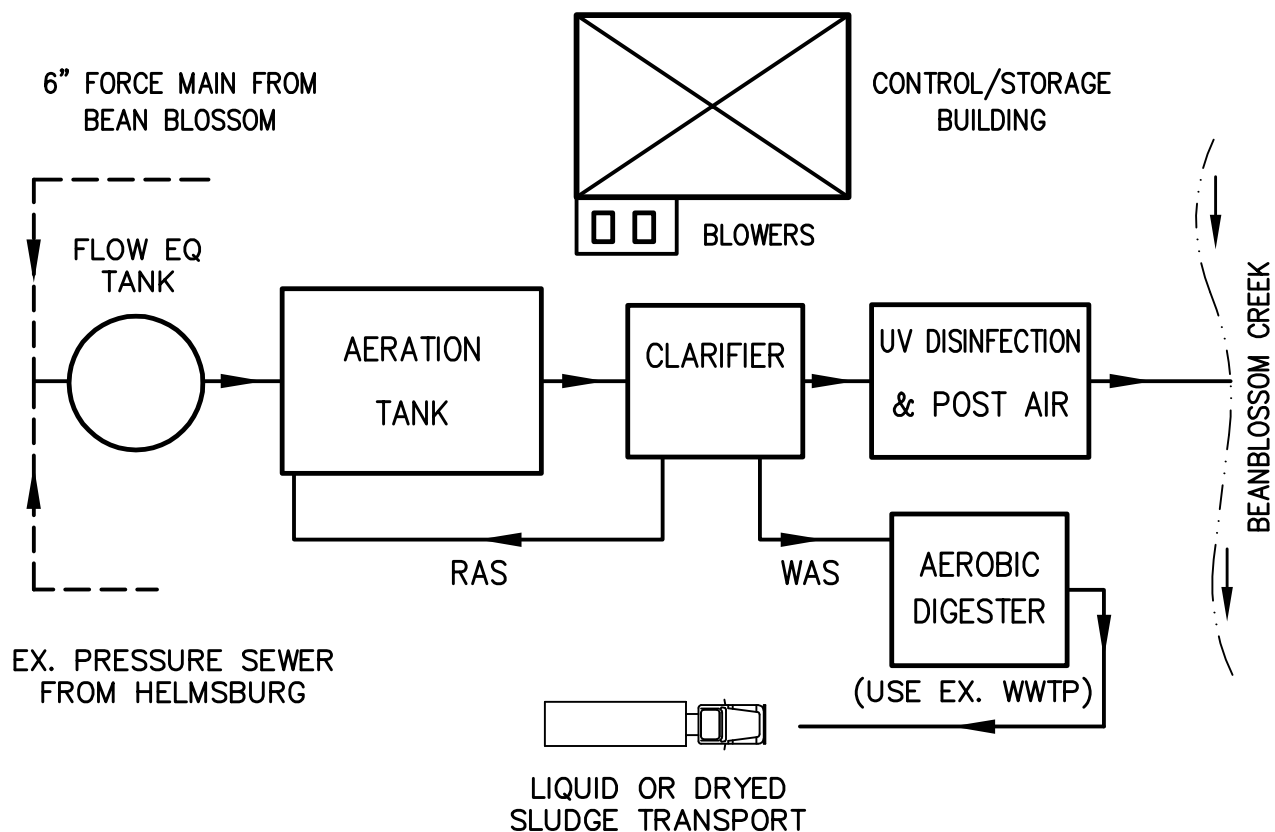


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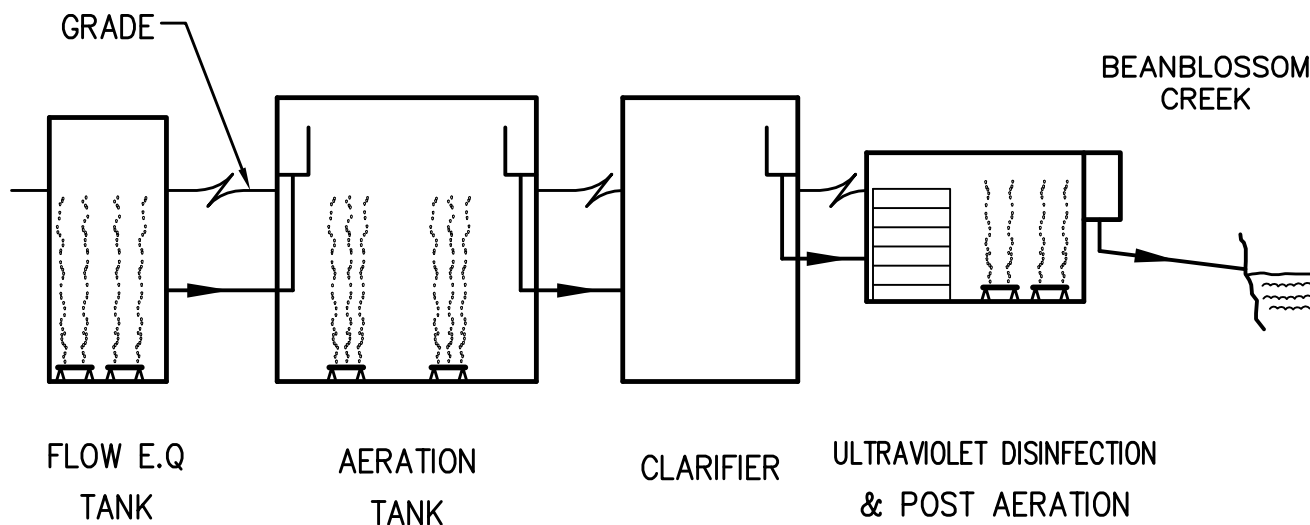
Bean Blossom RSD  
PRELIMINARY ENGINEERING REPORT

Exhibit 4.3  
Conveyance Alternative  
Map





FLOW SCHEMATIC – PLAN

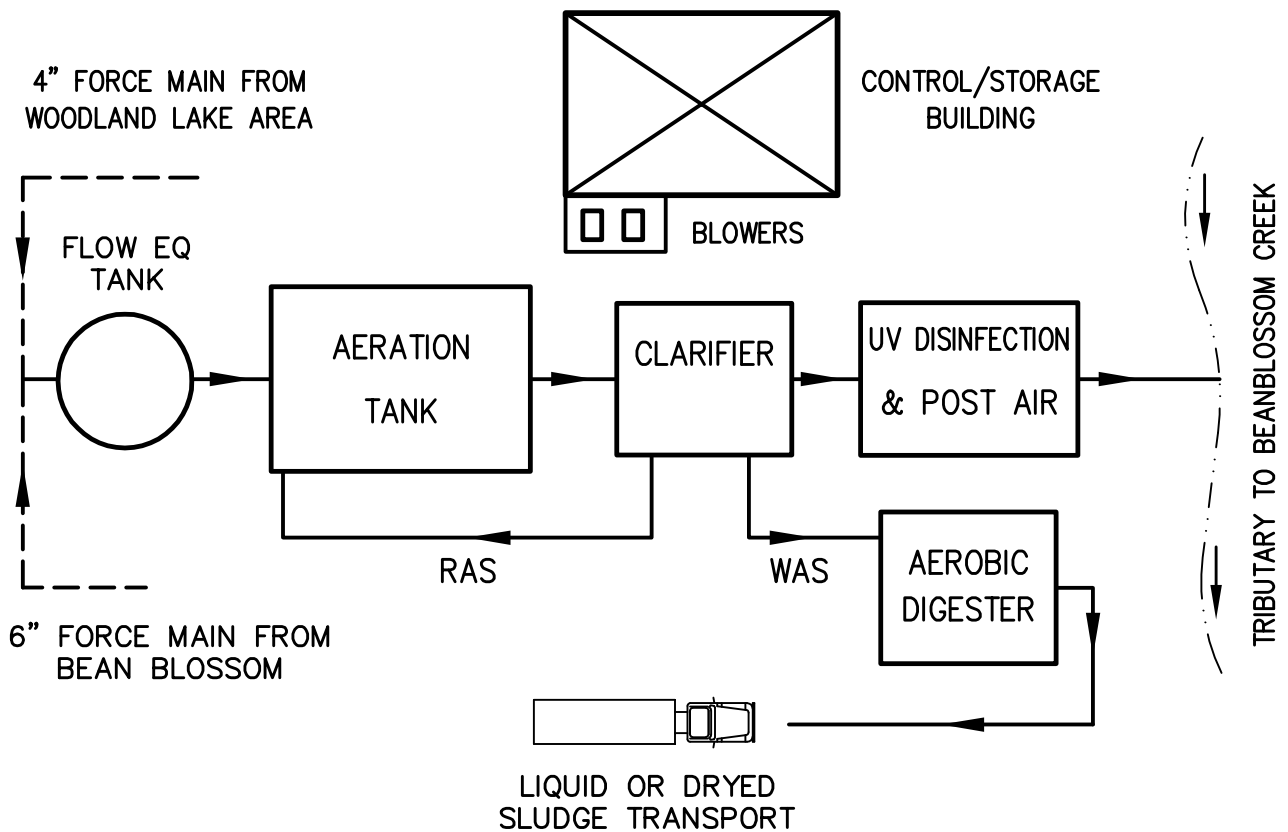


FLOW SCHEMATIC – ELEVATION

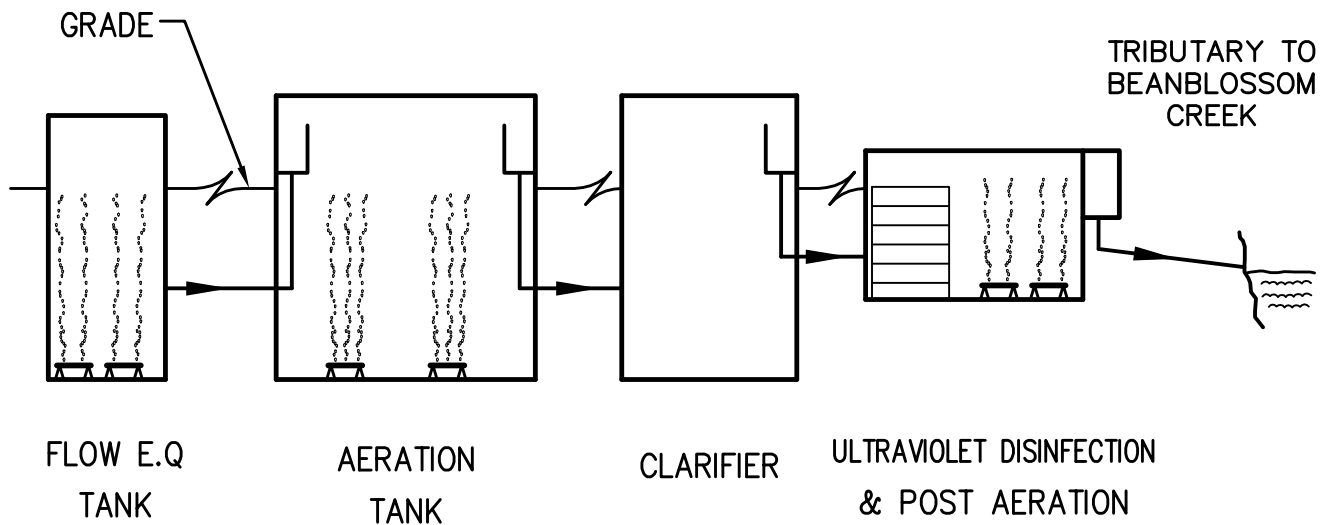
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**Brown County RSD**  
PRELIMINARY ENGINEERING REPORT

Exhibit 4.4  
Extended Aeration Activated  
Sludge Treatment Plant  
Helmsburg Alt.



FLOW SCHEMATIC – PLAN

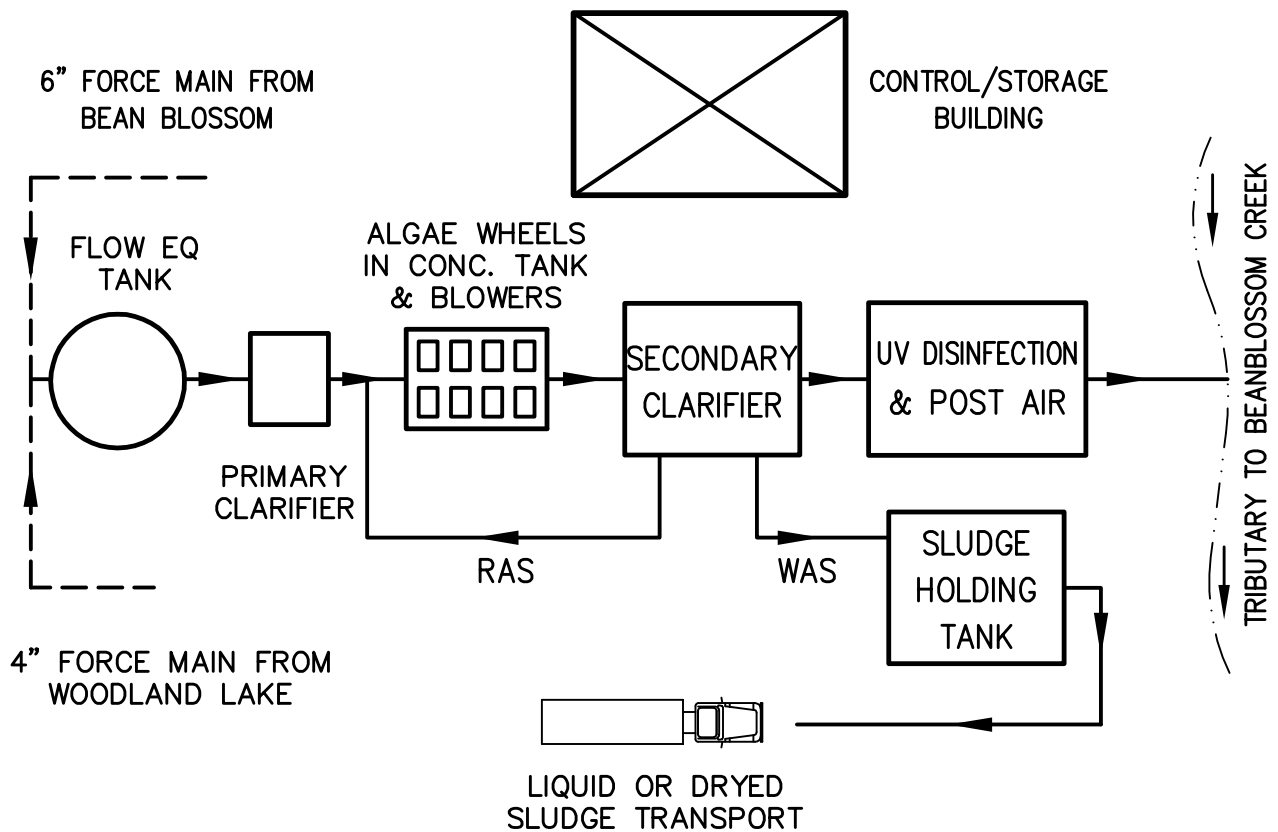


FLOW SCHEMATIC – ELEVATION

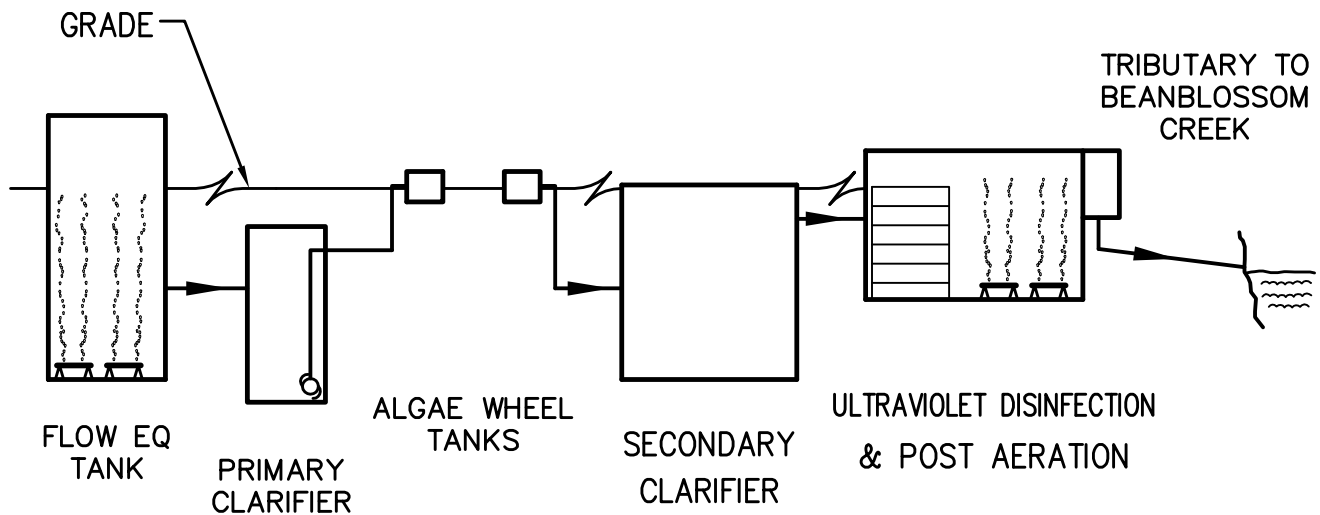
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**Brown County RSD**  
PRELIMINARY ENGINEERING REPORT

Exhibit 4.5  
Extended Aeration Activated  
Sludge Treatment Plant  
Bean Blossom Alt.



FLOW SCHEMATIC – PLAN



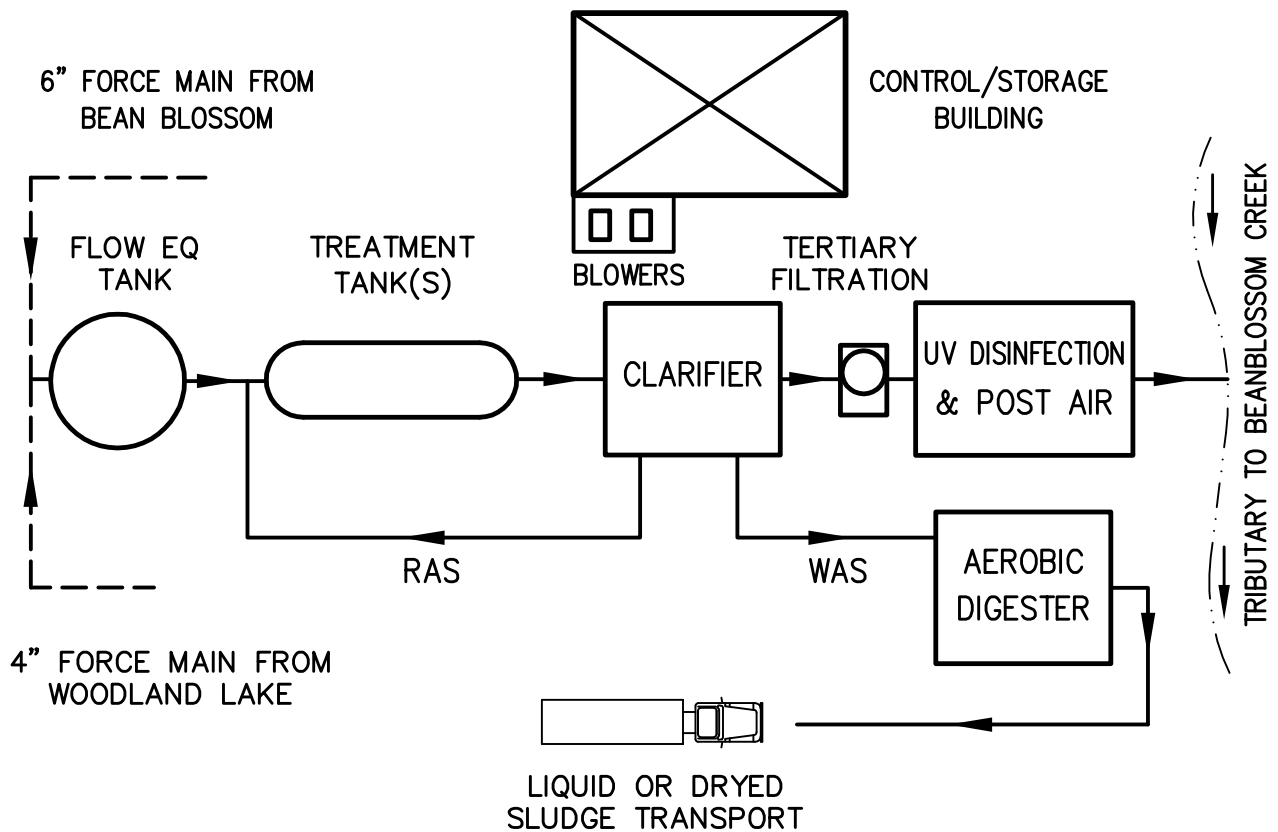
FLOW SCHEMATIC – ELEVATION

LADD ENGINEERING, INC.  
LEBANON, INDIANA

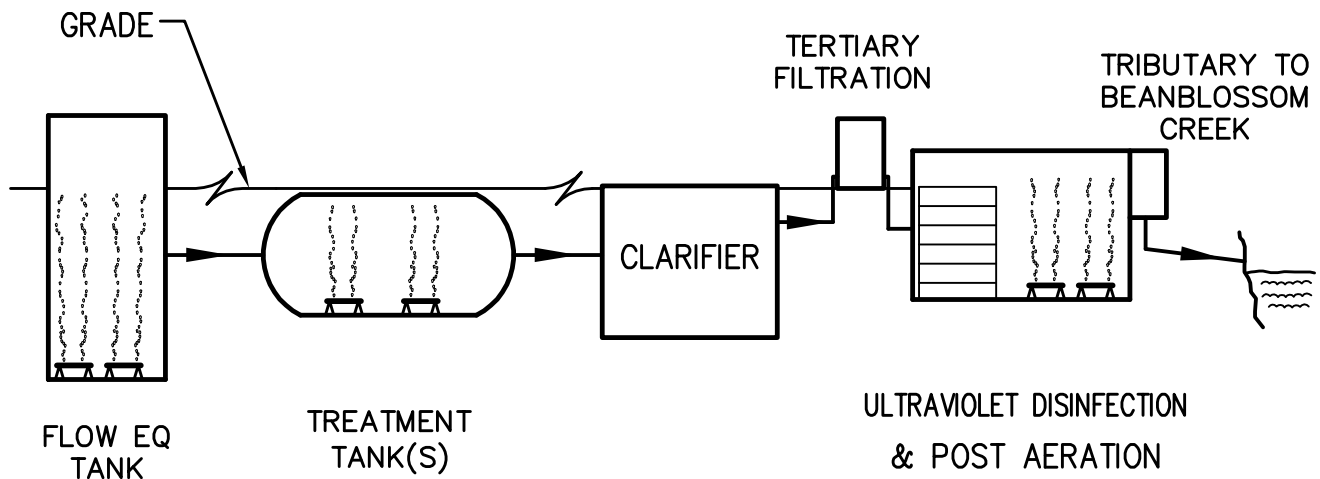
**Brown County RSD**  
PRELIMINARY ENGINEERING REPORT

Exhibit 4.6  
Algae Wheel  
Treatment Plant  
Bean Blossom Alt.





FLOW SCHEMATIC – PLAN



FLOW SCHEMATIC – ELEVATION

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**Brown County RSD**  
PRELIMINARY ENGINEERING REPORT

Exhibit 4.7  
MBR/MBBR  
Treatment Plant  
Bean Blossom Alt.

## **SECTION 5**

### **SELECTION OF AN ALTERNATIVE**

#### **5.1 General Information**

##### **5.1.1 Introduction**

A cost-effective-analysis was prepared for each of the feasible alternatives listed in Section 4. The cost-effective-analysis takes into consideration the initial capital (project) costs; annual operation, maintenance and replacement cost, and salvage values. All of the estimated costs were brought back into today's costs for comparison purposes. A current Federal discount interest rate of 1.2% was utilized for the cost-effective-analysis. A 20-year planning period is used for the cost-effective-analysis.

The estimated construction costs are based on manufacturer's quotations, estimating manuals, recent bid construction prices and estimating experience and have been slightly inflated, as the construction bids would most likely not be received until sometime next year.

The estimated salvage values are arrived at based on their future worth at the end of the 20-year planning period.

Besides the estimated construction costs there are other costs associated with undertaking a project. These other costs are identified as non-construction costs, which are explained in the following paragraphs of this section.

##### **5.1.2 Non-Construction Costs**

###### **1. General**

Non-construction costs are those costs that are associated with preparing a project for construction, monitoring the project during construction, and follow-up after construction is completed. Non-construction costs generally include engineering, legal and administrative, land acquisition and easements, grant administration, sometimes direct equipment purchases, accounting services, start-up costs and contingencies. As a whole, non-construction costs can range between 10% and 40% of the total project cost depending on the method utilized to finance the project and size of the project.

## **2. Engineering**

Engineering generally includes the associated costs for preparing detailed studies, design plans and specifications, assisting with project financing, field exploration surveys, preparing permit applications, easement preparation, and construction shop drawing review, construction observation and post construction follow-up activities.

## **3. Legal and Administrative**

Legal services are often required to assist with the preparation of bond and/or rate ordinances that may be required. Some of the funding agencies for projects of this type require additional legal documents. Administrative costs include such things as permit fees, bid advertising fees, newspaper legal advertising, etc. A bond council may need to be retained depending on the method utilized to fund the project.

## **4. Grant Administration**

A certified Grant Administrator is required for projects that are partially funded by the Indiana Office of Community and Rural Affairs Community Focus Fund. The Grant Administrator is generally responsible for handling the forms and paperwork associated with this funding program, reviewing payrolls during construction, drawing-down funds and performs several other miscellaneous duties.

## **5. Land Acquisition**

Land acquisition is commonly referred to as the process of obtaining needed site property and easements for pipelines, lift stations and wastewater treatment plant.

## **6. Contingencies**

Budgeted contingency money is used to pay for unexpected, unforeseen, or unanticipated costs associated with the project. Contingency money may be needed for construction or non-construction items. Contingencies are typically based on a percentage of the project cost and that percentage is determined by the project complexity. During the study and design phases of a project contingency is usually estimated at 10% of the construction costs and after construction bids are received and the costs are better known, then the contingency amount is reduced to 3% to 5%.

## 5.2 Life-Cycle Cost Analysis - Collection System Alternatives

Based on the information provided in Section 4, the following collection system alternatives have been deemed feasible:

- Conventional gravity for Bean Blossom and low pressure with grinder pumps for Woodland Lake, Little Fox Lake and Freeman Ridge Areas
- Low pressure with grinder pumps for Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Areas
- Low pressure with septic tanks (STEP) for Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Areas

The opinion of probable project costs associated with the listed collection system alternatives is provided in Table 5.1.

<b>Table 5.1</b>	
<b>Collection System Alternatives - Opinion of Probable Project Costs</b>	
<b>Alternative</b>	<b>Project Cost</b>
Low pressure with grinder pumps for Bean Blossom, Woodland Lake, Little Fox Lake & Freeman Ridge Areas	\$8,246,490
Low pressure with septic tanks (STEP) for Bean Blossom, Woodland Lake, Little Fox Lake & Freeman Ridge Areas	\$8,306,450

The following salvage values for the listed alternatives is provided in Table's 5.2 through 5.10.

<b>Table 5.2</b>			
<b>Estimated Salvage Value – Pressure Sewers with Grinder Pump Stations</b>			
<b>Bean Blossom</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Lift Station Pumps	\$48,000	15	\$27,000
Grinder Pumps	\$204,000	15	\$153,000
Air Release Valves	\$48,000	15	\$36,000
Pressure Sewers	\$126,049	50	\$75,630
Valve Vaults	\$22,400	50	\$13,440
Simplex Grinder Pump Tanks	\$183,600	50	\$110,160
<b>Total</b>			<b>\$415,230</b>

<b>Table 5.3</b> <b>Estimated Salvage Value – Pressure Sewers with Grinder Pump Stations</b> <b>Woodland Lake/Little Fox Lake</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Grinder Pumps	\$226,000	15	\$169,500
Air Release Valves	\$48,000	15	\$36,000
Pressure Sewers	\$65,211	50	\$39,127
Valve Vaults	\$12,000	50	\$7,200
Simplex Grinder Pump Tanks	\$203,400	50	\$122,040
<b>Total</b>			<b>\$373,867</b>

<b>Table 5.4</b> <b>Estimated Salvage Value – Pressure Sewers with Grinder Pump Stations</b> <b>Freeman Ridge</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Grinder Pumps	\$76,000	15	\$57,000
Air Release Valves	\$16,500	15	\$12,375
Pressure Sewers	\$29,150	50	\$17,490
Valve Vaults	\$5,600	50	\$3,360
Simplex Grinder Pump Tanks	\$68,400	50	\$41,040
<b>Total</b>			<b>\$131,265</b>

<b>Table 5.5</b> <b>Estimated Salvage Value – Pressure Sewers with Septic Tanks Bean Blossom</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Lift Station Pumps	\$12,000	15	\$9,000
Effluent Pumps	\$81,600	15	\$48,960
Air Release Valves	\$48,000	15	\$36,000
Pressure Sewers	\$126,049	50	\$75,630
Valve Vaults	\$22,400	50	\$13,440
Septic Tanks	\$212,000	50	\$127,200
<b>Total</b>			<b>\$310,230</b>

<b>Table 5.6</b> <b>Estimated Salvage Value – Pressure Sewers with Septic Tanks Woodland Lake/Little Fox Lake</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Effluent Pumps	\$90,400	15	\$54,240
Air Release Valves	\$48,000	15	\$36,000
Pressure Sewers	\$65,211	50	\$39,127
Valve Vaults	\$12,000	50	\$7,200
Septic Tanks	\$113,000	50	\$67,800
<b>Total</b>			<b>\$204,367</b>

<b>Table 5.7</b> <b>Estimated Salvage Value – Pressure Sewers with Septic Tanks Freeman Ridge</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Effluent Pumps	\$30,400	15	\$18,240
Air Release Valves	\$16,500	15	\$12,375
Pressure Sewers	\$29,150	50	\$17,490
Valve Vaults	\$5,600	50	\$3,360
Septic Tanks	\$36,000	50	\$22,800
<b>Total</b>			<b>\$74,265</b>

A life-cycle-cost summary of the collection system alternatives for Bean Blossom, Woodland Lake/Little Fox Lake and Freeman Ridge are provided in Table's 5.8 through 5.10.

<b>Table 5.8</b> <b>Present Worth Cost Comparison of Collection Alternatives – Bean Blossom</b>		
<b>Item</b>	<b>Alternative</b>	
	<b>Pressure w/ Grinder Pumps</b>	<b>Pressure w/Effluent Pumps</b>
Project Cost	\$3,753,000	\$3,589,000
Annual O, M & R Cost	\$61,170	\$50,890
Salvage Value at year 20	\$415,230	\$310,230
<b>Present Worth Summary</b> (20 years @ 3% interest)		
a) Total Project Cost	\$3,753,000	\$3,589,000
b) PW of Annual O, M & R (PW factor 14.877)	\$910,026	\$757,091
c) PW of Salvage Value (PW factor 1.806)	\$749,905	\$560,275
<b>Total (a+b-c)</b>	<b>\$3,913,121</b>	<b>\$3,785,816</b>
<b>Ranking</b>	<b>2</b>	<b>1</b>

<b>Table 5.9</b>		
<b>Present Worth Cost Comparison of Collection Alternatives – Woodland Lake/Little Fox Lake</b>		
<b>Item</b>	<b>Alternative</b>	
	<b>Pressure w/ Grinder Pumps</b>	<b>Pressure w/Effluent Pumps</b>
Project Cost	\$3,178,440	\$3,348,400
Annual O, M & R Cost	\$41,890	\$34,645
Salvage Value at year 20	\$373,867	\$204,367
Present Worth Summary (20 years @ 3% interest)		
a) Total Project Cost	\$3,178,440	\$3,348,400
b) PW of Annual O, M & R (PW factor 14.877)	\$623,198	\$515,414
c) PW of Salvage Value (PW factor 1.806)	\$675,204	\$369,087
<b>Total (a+b-c)</b>	<b>\$3,126,434</b>	<b>\$3,494,727</b>
<b>Ranking</b>	<b>2</b>	<b>1</b>

<b>Table 5.10</b>		
<b>Present Worth Cost Comparison of Collection Alternatives – Freeman Ridge</b>		
<b>Item</b>	<b>Alternative</b>	
	<b>Pressure w/ Grinder Pumps</b>	<b>Pressure w/Effluent Pumps</b>
Project Cost	\$1,315,050	\$1,369,050
Annual O, M & R Cost	\$10,700	\$7,710
Salvage Value at year 20	\$131,265	\$74,265
Present Worth Summary (20 years @ 3% interest)		
a) Total Project Cost	\$1,315,050	\$1,369,050
b) PW of Annual O, M & R (PW factor 14.877)	\$159,184	\$114,702
c) PW of Salvage Value (PW factor 1.806)	\$237,065	\$134,123
<b>Total (a+b-c)</b>	<b>\$1,237,169</b>	<b>\$1,349,629</b>
<b>Ranking</b>	<b>1</b>	<b>2</b>

A summary of the present worth costs for the pressure with grinder pumps and pressure with septic tanks for all of the Areas combined is provided Table 5.11.

<b>Table 5.11</b>		
<b>Present Worth Cost Comparison Alternatives – All Areas Combined</b>		
<b>Item</b>	<b>Alternative</b>	
	<b>Pressure w/ Grinder Pumps</b>	<b>Pressure w/Effluent Pumps</b>
<b>Total Present Worth</b>	<b>\$8,276,724</b>	<b>\$8,630,172</b>
<b>Ranking</b>	<b>1</b>	<b>2</b>

### 5.3 Non-Monetary Factors - Collection System Alternatives

A listing of the advantages and disadvantages of each collection system considered are listed in Table 5.12.

<b>Table 5.12</b>		
<b>Collection System Types – Advantages/Disadvantages</b>		
<b>Collection System</b>	<b>Advantages</b>	<b>Disadvantages</b>
Low Pressure w/Grinder Pump Sta's	<ul style="list-style-type: none"><li>• Not terrain dependent</li><li>• Solids ground up</li><li>• Less excavation for basin</li><li>• No periodic septic tank pumping reqd.</li></ul>	<ul style="list-style-type: none"><li>• Some policing of what is conveyed to the pumping structure</li><li>• Higher O, M &amp; R cost</li><li>• 2-pole 30 Amp Breaker Req'd.</li><li>• Higher strength waste resulting in more aeration needed at WWTP</li></ul>
Low Pressure w/Septic Tanks	<ul style="list-style-type: none"><li>• Some policing of what is conveyed to the pumping structure but filtered (cleaning outlet filters)</li><li>• Not terrain dependent</li><li>• Results in smaller pipe sizes due to lower pipeline velocity requirement</li><li>• Requires fewer lift stations</li><li>• Lower O, M &amp; R costs</li><li>• 1-pole 20 Amp Breaker Req'd.</li><li>• Lower strength waste at WWTP</li></ul>	<ul style="list-style-type: none"><li>• Periodic solids removal from septic tanks</li><li>• More prone to I/I than low pressure w/grinder pumps</li><li>• Septic tanks larger than grinder basins</li></ul>

The small diameter pressure sewer collection systems are the least cost based on the life-cycle-cost summary and offer the greatest flexibility because they can overcome hilly terrain, such as that found in most of the study areas. In addition, a smaller quantity of excavation is required for these types of systems lessening negative environmental impacts. With the recent advancement and increased popularity of the directional drilling (boring) method of utility pipeline installation, pressure sewers could be installed in the study area with minimized disturbance to the public. Considering that the present worth value of the grinder pump stations and septic tank effluent systems on a present-worth analysis basis are less than 12% differential, and taking into consideration the advantages and disadvantages of the alternatives, and the lower O, M & R costs, it is recommended that the low pressure system with septic tanks be selected for all Areas.

### 5.4 Life-Cycle Cost Analysis - Treatment Plant

Based on the information provided in Section 4, the following conveyance and treatment system alternatives have been deemed feasible:



- Conveyance and treatment at Helmsburg
- Conveyance to Nashville for treatment
- Extended Aeration Activated Sludge WWTP at Bean Blossom
- Algaewheel WWTP at Bean Blossom
- MBR or MBBR WWTP at Bean Blossom

The opinion of probable project costs associated with the listed conveyance and treatment system alternatives is provided in Table 5.13.

<b>Table 5.13</b> <b>Conveyance &amp; Treatment System Alternatives - Opinion of Probable Project Costs</b>	
<b>Alternative</b>	<b>Project Cost</b>
Conveyance and treatment at Helmsburg	\$3,326,700
Conveyance to Nashville for treatment	\$2,652,800
Extended aeration (AeroMod) WWTP at Bean Blossom	\$2,638,200
Algaewheel WWTP at Bean Blossom	\$3,818,600
MBR or MBBR WWTP at Bean Blossom	\$2,879,600

The following salvage values for the listed alternatives are provided in Table's 5.14 through 5.18.

<b>Table 5.14</b> <b>Estimated Salvage Value – Conveyance &amp; Treatment at Helmsburg</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Lift Station Pumps & Controls	\$12,000	15	\$9,000
Blowers	\$50,000	15	\$37,500
Chemical Feed Pumps	\$3,200	15	\$2,400
Air Release Valves	\$22,500	15	\$16,875
Plant Piping & Valves	\$12,000	50	\$7,200
Force Main	\$67,000	50	\$40,000
Concrete Structures	\$25,000	50	\$15,000
Wet Well & Valve Vault	\$17,000	50	\$10,200
Control/Storage Building	\$35,000	50	\$21,000
<b>Total</b>			<b>\$159,175</b>

<b>Table 5.15</b> <b>Estimated Salvage Value – Conveyance to Nashville</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Lift Station Pumps & controls	\$54,000	15	\$40,500
Air Release Valves	\$27,000	15	\$20,250
Force Main	\$208,750	50	\$125,250
Wet Wells & Valve Vaults	\$24,400	50	\$14,650
<b>Total</b>			<b>\$200,650</b>

<b>Table 5.16</b> <b>Estimated Salvage Value – Extended Aeration WWTP</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Blowers	\$40,000	15	\$30,000
Chemical Feed Pumps	\$3,200	15	\$2,400
Air Release Valves	\$7,500	15	\$4,500
Force Main	\$29,400	50	\$17,640
Plant Piping & Valves	\$12,000	50	\$7,200
Concrete Structures	\$22,500	50	\$13,500
Valve Vaults	\$4,000	50	\$2,400
Control/Storage Building	\$35,000	50	\$21,000
<b>Total</b>			<b>\$98,640</b>

<b>Table 5.17</b> <b>Estimated Salvage Value – Algaewheel WWTP</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Chemical Feed Pumps	\$3,200	15	\$2,400
Air Release Valves	\$7,500	15	\$4,500
Force Main	\$29,400	50	\$17,640
Plant Piping & Valves	\$12,000	50	\$7,200
Concrete Structures	\$48,000	50	\$28,800
Valve Vaults	\$4,000	50	\$2,400
Greenhouse Building	\$100,000	50	\$60,000
Control/Storage Building	\$25,000	50	\$15,000
<b>Total</b>			<b>\$137,940</b>

<b>Table 5.18</b> <b>Estimated Salvage Value – MBR or MBBR WWTP</b>			
<b>Item</b>	<b>Estimated Current Value</b>	<b>Estimated Life (years)</b>	<b>Estimated Value at Year 20</b>
Blowers	\$33,500	15	\$25,125
Chemical Feed Pumps	\$3,200	15	\$2,400
Air Release Valves	\$7,500	15	\$4,500
Force Main	\$29,400	50	\$17,640
Plant Piping & Valves	\$12,000	50	\$7,200
Tanks & Structures	\$100,000	50	\$60,000
Valve Vaults	\$4,000	50	\$2,400
Control/Storage Building	\$35,000	50	\$21,000
<b>Total</b>			<b>\$140,265</b>

A life-cycle-cost summary of the conveyance and treatment system alternatives for Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Areas are provided in Table 5.19.

<b>Table 5.19</b> <b>Present Worth Cost Comparison of Conveyance &amp; Treatment Alternatives</b>					
<b>Item</b>	<b>Alternative</b>				
	<b>Conveyance to Helmsburg</b>	<b>Conveyance to Nashville</b>	<b>Extended Aeration WWTP</b>	<b>Algaewheel WWTP</b>	<b>MBR or MBBR WWTP</b>
Project Cost	\$3,326,700	\$2,652,800	\$2,638,200	\$3,818,600	\$2,879,600
Annual O, M & R Cost	\$95,150	\$112,230	\$95,100	\$79,400	\$102,830
Salvage Value at year 20	\$159,175	\$200,650	\$98,640	\$137,940	\$140,265
Present Worth Summary (20 years @ 3% interest)					
a) Total Project Cost	\$3,326,700	\$2,652,800	\$2,638,200	\$3,818,600	\$2,879,600
b) PW of Annual O, M & R (PW factor 14.877)	\$1,415,545	\$1,669,645	\$1,414,800	\$1,181,235	\$1,529,800
c) PW of Salvage Value (PW factor 1.806)	\$287,470	\$362,375	\$178,145	\$249,120	\$253,320
<b>Total (a+b-c)</b>	<b>\$4,454,775</b>	<b>\$3,960,070</b>	<b>\$3,874,855</b>	<b>\$4,750,715</b>	<b>\$4,156,080</b>
<b>Ranking</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>3</b>

## 5.5 Non-Monetary Factors – Treatment System Alternatives

A listing of the advantages and disadvantages of each conveyance and treatment system considered are listed in Table 5.20.

Table 5.20 Treatment System Types – Advantages/Disadvantages		
Treatment System	Advantages	Disadvantages
Conveyance and Treatment at Helmsburg RSD	<ul style="list-style-type: none"> <li>No operation and maintenance associated with treatment and disposal if under the control of the Helmsburg RSD</li> <li>Potentially lowest user rate with added Helmsburg customers if HRRSD &amp; Brown Co. RSD combine</li> </ul>	<ul style="list-style-type: none"> <li>Treatment costs would be under the control of an outside entity unless regionalization occurred with local representation</li> <li>Requires a conveyance line and lift station with odor control</li> <li>Requires significant plant upgrade</li> <li>Higher project cost</li> <li>NPDES permit required if under the control of Brown Co. RSD, otherwise would be required of HRSD</li> <li>HRSD does not want to regionalize or accept wastewater if existing rates are affected</li> </ul>
Conveyance to Nashville	<ul style="list-style-type: none"> <li>No maintenance associated with treatment and disposal</li> <li>No NPDES permit required</li> <li>Additional customers can be served along the conveyance route</li> </ul>	<ul style="list-style-type: none"> <li>Treatment costs would be under the control of an outside entity</li> <li>Requires a long conveyance line and lift station with odor control</li> <li>Unknown as to whether Nashville needs to make WWTP upgrades to accept Brown Co. RSD flow</li> <li>Potential resistance from property owners along the conveyance route for easements &amp; annexation waivers</li> </ul>
Extended Aeration Activated Sludge	<ul style="list-style-type: none"> <li>Capable of producing high quality effluent</li> <li>Minimal land use</li> <li>Most used of local treatment alternatives</li> <li>Lowest cost on a PW basis</li> <li>Capable of expansion with common wall concrete construction</li> <li>More control of operations and user rate impacts</li> </ul>	<ul style="list-style-type: none"> <li>Certified operator attention required</li> <li>Routine sludge removal and disposal</li> <li>NPDES permit required</li> <li>Higher O, M&amp;R cost</li> <li>Potential resistance from nearby neighbors</li> </ul>
Algaewheel WWTP	<ul style="list-style-type: none"> <li>Minimal land use</li> <li>Lowest O, M&amp;R cost</li> <li>Lowest energy use local treatment alternative</li> <li>More control of operations and user rate impacts</li> </ul>	<ul style="list-style-type: none"> <li>Certified operator attention required</li> <li>Routine sludge removal and disposal</li> <li>NPDES permit required</li> <li>Technology fairly new</li> <li>Highest cost on a PW basis</li> <li>Potential resistance from nearby neighbors</li> </ul>
MBR or MBBR WWTP	<ul style="list-style-type: none"> <li>Minimal land use</li> <li>More control of operations and user rate impacts</li> </ul>	<ul style="list-style-type: none"> <li>Certified operator attention required</li> <li>Routine sludge removal and disposal</li> <li>Highest O, M&amp;R cost</li> <li>NPDES permit required</li> <li>MBR biofilm membranes most likely to require more operator attention</li> <li>Potential resistance from nearby neighbors</li> </ul>

As can be seen from Table 5.19, the extended aeration treatment plant at Bean Blossom is the most cost-effective alternative on a present worth basis. The Conveyance to Helmsburg alternative is not feasible, as the HRSD Board has indicated that they do not want to receive the study area flows, or merge with the Brown County RSD and impact their existing users. However, there other factors besides monetary such as reliability, expandability and implementability that should be considered in selecting the best alternative. The conveyance to Nashville and the extended aeration plant at Bean Blossom alternatives are

considered equal and best when it comes to reliability. The WWTP at Bean Blossom alternatives are considered equal and best in regard to implementability, as environmental considerations, easement acquisition and construction obstacles may be encountered with the Conveyance to Nashville alternative. In addition, the Nashville Agreement includes a requirement that anyone being served within 3 – miles from their Corporation boundary be requested to sign an annexation waiver, which could potentially impact the implementability. As far as expandability, the AeroMod WWTP or the Algaewheel WWTP at Bean Blossom being the easiest to expand. The 6-inch conveyance force main to Nashville has excess capacity available, however due to its length, additional flows would be limited. In addition, an estimated 46 additional customers could be connected along the conveyance line to Nashville. Considering monetary and other factors, the WWTP at Bean Blossom alternative is recommended.

## SECTION 6

### PROPOSED PROJECT

#### 6.1 Wastewater Improvements

The wastewater improvements consist of the construction of a septic tank effluent sewer (STEP) at Bean Blossom, Woodland Lake, Little Fox Lake and Freeman Ridge Areas, with a WWTP south of Beanblossom Creek near Bean Blossom.

Refer to Exhibits 6.1 for a map showing the proposed wastewater improvements.

#### 6.2 Project Cost Estimate

An opinion of probable project costs for the recommended improvements described in Section 5, is provided in Table 6.1. The non-construction costs in Table 6.1 should be considered as preliminary until the various professionals are contracted for services and the funding sources determined.

<b>Table 6.1</b>					
<b>Proposed Wastewater Project</b>					
<b>Opinion of Probable Project Costs</b>					
<b>Construction</b>					
<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total</b>
1	6" Pressure Sewer	14,000	LF	\$30	\$420,000
2	4" Pressure Sewer	20,800	LF	\$25	\$520,000
3	3" Pressure Sewer	9,800	LF	\$20	\$196,000
4	2" Pressure Sewer	8,200	LF	\$18	\$147,600
5	1.5" Pressure Sewer	4,800	LF	\$17	\$81,600
6	1.25" Pressure Sewer	46,500	LF	\$15	\$697,500
7	1,000-Gallon Septic Tanks w/Effluent Pump	253	EA	\$7,500	\$1,897,500
8	Effluent Pump Electrical & Control Panels	253	EA	\$1,000	\$253,000
9	Pressure Sewer Valve Assemblies	253	EA	\$1,000	\$253,000
10	Pressure Sewer/Force Main Air Release Valves	75	EA	\$2,800	\$210,000
11	Line Flushing Valve Pits	50	EA	\$2,000	\$100,000
12	Compacted Granular Backfill	7,800	LF	\$18	\$140,400
13	Stone Driveway/Roadway Replacement	7,200	LF	\$12	\$86,400
14	Bill Monroe C'Ground/Festival Septic Tank & Pumps	1	LS	\$150,000	\$150,000
15	Staley's Mobile Home Park Septic Tank & Pumps	1	LS	\$45,000	\$45,000

<b>Table 6.1 Continued</b>					
<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total</b>
16	Brownie's Restaurant Septic Tank & Pumps	1	LS	\$28,000	\$28,000
17	6" Pressure Sewer, Directional Bores	1,900	LF	\$40	\$76,000
18	4" Pressure Sewer, Directional Bores	3,500	LF	\$35	\$122,500
19	3" Pressure Sewer, Directional Bores	1,650	LF	\$33	\$54,450
20	2" Pressure Sewer, Directional Bores	900	LF	\$28	\$25,200
	1.5" Pressure Sewer, Directional Bores	150	LS	\$26	\$3,900
21	1.25" Pressure Sewer, Directional Bores	5,400	LS	\$20	\$108,000
22	Treatment Plant	1	LS	\$1,692,100	\$1,692,100
23	Spare Parts	1	LS	\$8,500	\$8,500
24	Miscellaneous (Site Restoration, Traffic Control, Rule 5 Permit, etc.)	1	LS	\$617,000	\$617,000
25	Mobilization, Bond & Insurance	1	LS	\$336,000	\$336,000
<b>Subtotal Construction</b>					<b>\$8,269,650</b>
<b>Non-Construction</b>					
Engineering Design and Construction					\$642,000
Additional Engineering					\$75,000
Construction Inspection					\$194,700
Legal					\$20,000
Financial Advisor & Bond Council					\$160,000
Land/Easement Acquisition					\$110,000
Soils Evaluation					\$12,000
Administrative					\$2,450
Maintenance Equipment (Truck & Portable Generator)					\$59,300
Construction Contingency					\$826,900
<b>Subtotal Non-Construction</b>					<b>\$2,102,350</b>
<b>Total Project</b>					<b>\$10,372,000</b>

### 6.3 Annual Operating Budget

In addition to covering operation and maintenance expenses there is a need for funding reserve amounts to fund short-lived assets (i.e. equipment, etc. that has less than a 20-year life). These amounts may also be referred to as replacement costs. In addition to these assets previously shown in the Section 4 tables a maintenance truck will be included having a value of \$28,000 and an estimated 10-year life, which equates to an annual amount needed of \$2,800 are included. The energy costs shown in the O, M & R tables for the STEP Collection Systems in Section 4 have been removed from the estimated O, M & R for the Sewer District, as these costs will be borne by the customer.

A summary of the estimated operation and maintenance expenses, including the short-lived assets in provided in Table 6.2.

<b>Table 6.2</b>	
<b>Estimated Annual O, M &amp; R Costs for Proposed Project</b>	
<b>Item</b>	<b>Estimated Annual Amount</b>
Labor (Salary, Benefits, Payroll Tax, Insurance, etc.)	\$57,600
Energy (Power Costs)	\$32,800
Materials and Supplies (including chemicals)	\$5,200
Repairs	\$2,150
Short-Lived Assets (Replacement)	\$35,000
Outside Services (Tank Cleaning, Billing, Certified Operator, etc.)	\$25,000
Biosolids Handling and Disposal	\$5,000
Insurance	\$8,500
Conferences, Training, etc.	\$1,200
Professional Services (Attorney, Engineer, Financial Advisor, etc.)	\$5,000
<b>Total</b>	<b>\$177,450</b>

The potential sources for funding the proposed project is a CFF grant an RD grant and RD loan, or SRF loan. The RD issues direct loans for wastewater projects of this type and are available to rural areas and to cities and towns with a population of 10,000 or less. Funds are available to public entities, such as municipalities, counties, special-purpose districts and Indiana tribes. In addition, funds may be made available to corporations operated on a not-for-profit basis. Priority will be given to public entities, in areas with less than 5,500 people, to construct, extend or improve wastewater facilities. The maximum term for loans is 40 years. The interest rate is based on the MHI. Based on the 2010 census tract map, both the Bean Blossom, Woodland Lake and Little Fox Lake Areas could qualify for the RD poverty rate if adequate documentation was provided that there exists a health and safety issue. The Freeman Ridge Area is assumed to qualify for the RD poverty interest rate. An RD grant up to 75% of the eligible project costs could be available if in the poverty range. RD grant amounts are also based on the reasonable level of user rates determined by the RD and project need. The CFF is a grant program administered by the IDOC and funded with federal Community Development Block Grant (CBDG) dollars. These grants support a variety of construction projects that either benefit low to moderate-income persons or eliminate blight in communities. At least 51% of the population must be at the low to moderate-income level. The CFF program is generally only available to cities, incorporated towns and counties. The CFF program is very competitive and requires a minimum 10% match with the maximum grant amount being \$700,000. Therefore, the County would need to apply for the grant on behalf of the sewer district. The SRF is a federal loan program available to cities, towns, counties, regional sewer districts, conservancy districts and Water Authorities and is administered by the IDEM. The loan money is provided for treatment plant improvements, sewer line extensions, upgrades, combined sewer overflow corrections and infiltration/inflow projects.



Table 6.3 provides various funding amounts and estimated user rates based on 280 EDU's. There is a total of approximately 298 EDU's, however it is anticipated that a few will qualify for the exemption to connect to the system, as there are some septic systems less than 10 years old. A RD loan for a 40-year financing period at an interest rate of 2.00% was used to estimate a user rate. An interest rate of 2.00%- and 20-year financing period was utilized for an SRF loan. These interest rates are subject to change on a quarterly basis. In addition, considering that the proposed 200,000-gallon Flow Equalization Tank is required for the Bill Monroe Facility, the associated capital and O,M&R costs are shown to be their responsibility in Table 6.3.

<b>Table 6.3</b> <b>Estimated User Rates – Funding Scenarios</b>						
<b>Funding Scenario</b>	<b>Loan Amount</b>	<b>Total Annual Debt Service Amount</b>	<b>Total Annual Reserve Amount</b>	<b>O, M &amp; R</b>	<b>Bill Monroe Amount for Eq. Tank</b>	<b>Est. Monthly Rate/EDU</b>
RD Loan – 2.00%	\$10,372,000	\$379,615	\$37,962	\$177,450	\$25,140	\$169.61
75% RD Grant & RD Loan @ 2.00%	\$2,593,000	\$94,904	\$9,490	\$177,450	\$25,140	\$76.40
75% RD Grant + \$700k CFF Grant & RD Loan @ 2.00%	\$2,418,000	\$88,499	\$8,850	\$177,450	\$25,140	\$74.30
SRF Loan @ 2% - 20 years	\$10,372,000	\$634,766	\$158,692	\$177,450	\$25,140	\$281.48
SRF Loan @ 2.25% - 30 years	\$10,372,000	\$479,186	\$119,797	\$177,450	\$25,140	\$223.60



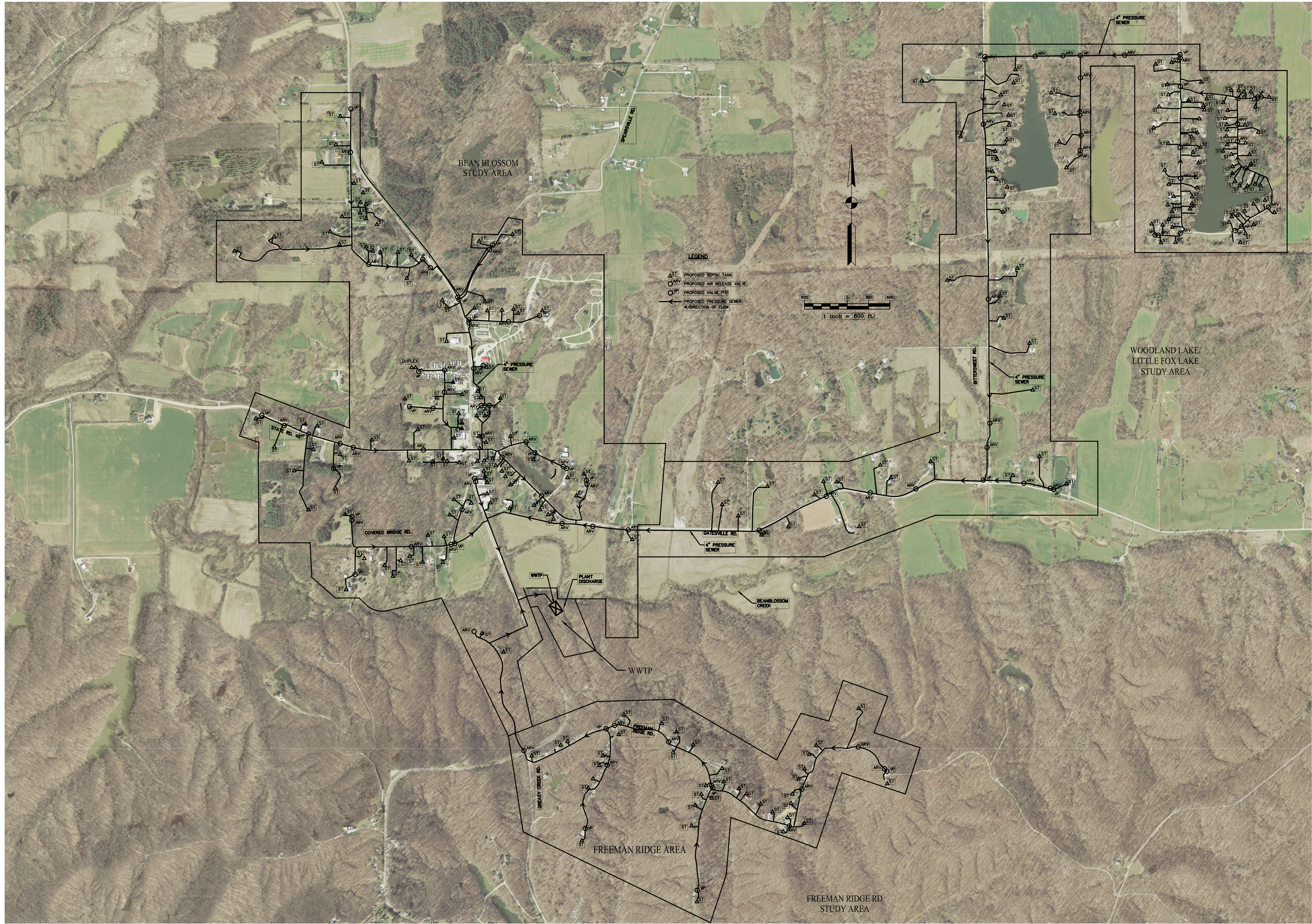


Exhibit 6.1  
Selected Plan Layout  
Bean Blossom

**Brown County RSD**  
PRELIMINARY ENGINEERING REPORT

LADD ENGINEERING, INC.  
LEBANON, INDIANA



## SECTION 7

### CONCLUSIONS AND RECOMMENDATIONS FOR IMPLEMENTATION

#### 7.1 Proposed Project Implementation

Considering the project recommendations discussed in previous sections of this report, Table 7.1 provides a listing of recommended implementation steps along with an anticipated schedule for completion of the project.

<b>Table 7.1 Project Implementation Steps and Schedule</b>	
<b>Activity</b>	<b>Anticipated Completion Date</b>
Preliminary engineering report submittal to SRF and USDA RD	February 2020
Public Meeting on Report	July 2019
Antidegradation Report for WWTP to IDEM	February 2020
SRF & USDA RD Approval of PER	May 2020
Finalize Design Plans, Project Manual & Permit Applications	June 2020
Easement Acquisition Finalized	July 2020
Secure Construction Permits	August 2020
Receive Construction Bids	September 2020
Construction Completion	December 2021
Project Close-out	January 2022

#### 7.2 Customer Billing

Considering that the flows from the Bill Monroe facility will be variable, a wastewater flow meter is recommended for monthly billing. A wastewater flow meter is also recommended at Staley's Mobile Home Park due to concerns about the water tightness of their existing sewer pipes. All other customers would be billed monthly either based on water usage or a flat rate, to be determined by the District Board.

## **CHAPTER 8**

### **LEGAL, FINANCIAL AND MANAGERIAL CAPABILITIES**

#### **8.0 Introduction**

This chapter provides information pertaining to the legal, financial and managerial capabilities of the Town in implementing the proposed project improvements.

#### **8.1 Resolutions**

The initial and updated Signatory Resolutions a PER Acceptance Resolution is provided on the following pages.

#### **8.2 SRF Financial Information Form**

The initial and updated SRF Financial Information Form is provided on the following pages.

#### **8.3 Fiscal Sustainability Plan Certification Form**

The Fiscal Sustainability Plan Certification Form is provided in the following pages.

#### **8.4 Asset Management Program Plan Form**

The Asset Management Program Certification Form is provided in the following pages.

**SRF Loan Program  
Signatory Authorization Resolution**

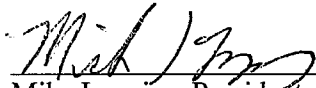
Whereas, the Brown County Regional Sewer District of Nashville, Indiana, (the "Participant") has plans for a wastewater infrastructure improvement project to meet State and Federal regulations and the Participant intends to proceed with the construction of such project:

Now, therefore, be it resolved by the Sewer District Board, the governing body of the Participant, that:

1. Mike Leggins be authorized to make application for a State Revolving Fund Loan ("SRF Loan") and provide the SRF Loan Program such information, data and documents pertaining to the loan process as may be required, and otherwise act as the authorized representative of the Participant; and
2. The Participant agrees to comply with State and Federal requirements as they pertain to the SRF Loan Program; and
3. Two certified copies of this Resolution be prepared and submitted as part of the Participant's Preliminary Engineering Report.

Adopted and Passed by the Brown County Regional Sewer District Board, Nashville, Indiana, this 9<sup>th</sup> day of July of 2019.

Town Council

  
Mike Leggins, President

Attest:

  
Deborah Larsh, Secretary

**SRF Loan Program  
Signatory Authorization Resolution**


Whereas, the Brown County Regional Sewer District of Nashville, Indiana, (the "Participant") has plans for a wastewater infrastructure improvement project to meet State and Federal regulations and the Participant intends to proceed with the construction of such project:

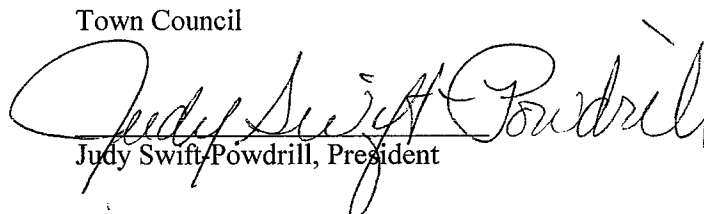
Now, therefore, be it resolved by the Sewer District Board, the governing body of the Participant, that:

1. Judy Swift-Powdrill be authorized to make application for a State Revolving Fund Loan ("SRF Loan") and provide the SRF Loan Program such information, data and documents pertaining to the loan process as may be required, and otherwise act as the authorized representative of the Participant; and
2. The Participant agrees to comply with State and Federal requirements as they pertain to the SRF Loan Program; and
3. Two certified copies of this Resolution be prepared and submitted as part of the Participant's Preliminary Engineering Report.

Adopted and Passed by the Brown County Regional Sewer District Board, Nashville, Indiana, this 3<sup>rd</sup> day of April of 2018.

Attest:

  
\_\_\_\_\_  
Phil LeBlanc, Vice-President

Town Council  
  
\_\_\_\_\_  
Judy Swift-Powdrill, President

**SRF Loan Program  
PER Acceptance Resolution**

Whereas, the Brown County Regional Sewer District of Nashville, Indiana, has caused a Preliminary Engineering Report ("PER"), dated March 2018, to be prepared by the consulting firm of Ladd Engineering, Inc.; and

Whereas, said PER has been presented to the public at a public hearing held on June 19, 2018, at Brown County Government Center, 201 Locust Lane, Nashville, IN. for public comment; and

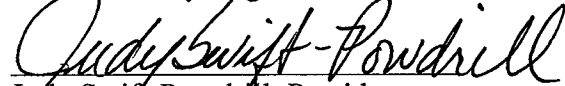
Whereas, the Brown County Regional Sewer District finds that there was not sufficient evidence presented in objection to the recommended project in the PER.

Now, therefore be it resolved that:

1. The PER dated March 2018 be approved and adopted by the Brown County Regional Sewer District; and
2. Said PER be submitted to the State Revolving Fund Loan Program for review and approval.

Adopted and Passed by the Brown County Regional Sewer District of Nashville, Indiana, this 10th day of July 2018.

Brown County Regional Sewer District

  
Judy Swift-Powdrill, President

Attest:

  
Deborah Larsh, Secretary/Treasurer

## SELECTED PLAN COST SUMMARY

<u>Item</u>	<u>Total Cost</u>
<b>Non-Construction Costs</b>	
Administrative and Legal	<u>\$115,000</u>
* Land & Rights-of-way Acquisition	<u>\$110,000</u>
Relocation	<u>\$0</u>
Engineering Fees Design	<u>\$477,000</u>
Construction	<u>\$165,000</u>
Other (Engineering Planning, Environmental Work, Soils & Maintenance Truck & Equipment)	<u>\$154,450</u>
Project Inspection	<u>\$194,700</u>
Costs Related to Plant Start-up	<u>\$0</u>
<b>Non-Construction Subtotal</b>	<u>\$1,216,150</u>
<b>Construction and Equipment Subtotal</b>	<u>\$8,328,950</u>
Contingencies (not to exceed 10%)	<u>\$826,900</u>
<b>TOTAL PROJECT COST</b>	<u><b>\$10,372,000</b></u>

\* Ineligible for SRF unless it represents administrative costs to acquire easements and/or land.  
Land may be eligible if it is an integral part of the treatment process.



## SRF PROJECT FINANCING INFORMATION

### 1. Project Cost Summary

a. Collection/transport system cost	<u>\$6,492,945</u>
b. Treatment System cost	<u>\$1,836,005</u>
c. Non-Point-Source (NPS) cost (septic tank removal)	<u>\$0</u>
<u>Subtotal Construction Cost</u>	<u>\$8,328,950</u>
d. Capacity Reservation Fees	<u>\$0</u>
e. Contingencies (should not exceed 10% of construction cost)	<u>\$826,900</u>
f. Non-construction Cost	<u>\$1,216,150</u>
e.g., engineering/design services, field exploration studies, project management & construction inspection, legal & administrative services, land costs (including capitalized costs of leased lands, ROWs, & easements), start-up costs (e.g., O&M manual, operator training).	
g. Total Project Cost (lines a+b+c+d+e+f)	<u>\$10,372,000</u>
h. Total ineligible SRF costs* (see next page)	<u>\$20,000</u>
Total ineligible SRF costs will not be covered by the SRF loan.	
i. Other funding sources (list other grant/loan sources & amounts)	
(1) Local Funds (hook-on fees, connection fees, capacity fees, etc.)	
(2) Cash on hand	<u>\$0</u>
(3) Community Development Block Grant - Community Focus Fund (CFF)	
(4) US Dept. of Agriculture Rural Development (RD)	<u>\$5,186,000</u>
(5) Other _____	
<b>Total Other Funding Sources</b>	<u>\$5,186,000</u>

2. SRF Loan Amount (line g minus line item h+i\*) \$5,186,000  
\* If there are adequate funds available under (i) to cover (h) then subtract (i) only.

### 3. Financial Advisor

- a. Firm Therber, Brock & Assoc., LLC  
b. Name Steven Brock  
c. Phone Number 317-637-9572

### 4. Bond Counsel

- a. Firm Unknown at this time  
b. Name \_\_\_\_\_  
c. Phone Number \_\_\_\_\_

The following costs are not eligible for SRF reimbursement:

1. Land cost (unless it's for sludge application) \$20,000

Only the actual cost of the land is not eligible; associated costs (such as attorney's fees, site title opinion and the like) are eligible.

2. Materials & work done on private property \$0

(Installation/repair of laterals, including disconnection of inflow into laterals; abandonment of on-site systems [septic tank or mound systems]). Grinder pumps, vacuum stations and other appurtenances/installations on private property to treat/transport ARE fundable IF owned and maintained by the participant.

3. Grant applications and income surveys done for other agencies (e.g., OCRA, RUS, etc.) \$0

4. Any project solely designed to promote economic development and growth is ineligible.

5. Costs incurred for preparing NPDES permit applications and other tasks unrelated to the SRF project. \$0

6. Cleaning of equipment, such as digesters, sand filters, grit tanks and settling tanks. These items should have been maintained through routine operation, maintenance and replacement by the political subdivision. Sewer cleaning is ineligible for SRF unless the cleaning is required for sewer rehabilitation such as sliplining and cured in place piping (CIPP) \$0

## Cost & Effectiveness Certification Form

(Pursuant to Section 602(B)(13) of the Federal Water Pollution Control Act)  
(Applies to all assistance recipients submitting an application on or after October 1, 2015)  
(To be submitted prior to Participant's Wastewater Loan Closing)

Participant Name <b>BROWN COUNTY RSD</b>		
Street Address		P. O. Box Number <b>1881</b>
City <b>HAMMILLVILLE</b>	State <b>IN</b>	Zip Code <b>47448</b>

Section 602(B)(13) of the Federal Water Pollution Control Act (FWPCA) requires a recipient of a loan to certify that the recipient:

- 1) has studied and evaluated the cost and effectiveness of the processes, materials, techniques, and technologies for carrying out the proposed project or activity for which assistance is sought under the Clean Water State Revolving Fund Loan Program; and
- 2) has selected, to the maximum extent practicable, a project or activity that maximizes the potential for efficient water use, reuse, recapture, and conservation, and energy conservation, taking into account –
  - (i) the cost of constructing the project or activity;
  - (ii) the cost of operating and maintaining the project or activity over the life of the project or activity; and
  - (iii) the cost of replacing the project or activity

### Certification

We hereby certify pursuant to Section 602(B)(13) that the Participant has completed the requirements of Section 602(B)(13) as set forth in items (1) and (2) above.

Signature of the Authorized Representative

Signature of Consulting Engineer

Printed Name: **JUDY SWIFT-POWDRILL**

Printed Name: **GARY D. LADD**

Signature: **Judy Swift-Powdrill**

Signature: **Gary D. Ladd**

Date: **5-15-18**

Date: **4/26/2018**

## Fiscal Sustainability Plan Certification Form

(Pursuant to Section 603(d)(1)(E)(i) of the Federal Water Pollution Control Act)  
(To be submitted prior to final disbursement of Participant's loan proceeds related to the project)

Participant Name <i>BROWN COUNTY RSD</i>		
Street Address		P. O. Box Number <i>1881</i>
City <i>HASHVILLE</i>	State <i>IN</i>	Zip Code <i>47448</i>

Section 603(d)(1)(E) of the Federal Water Pollution Control Act (FWPCA) requires a recipient of a loan for a project that involves the repair, replacement or expansion of a publically owned treatment works to develop and implement a Fiscal Sustainability Plan (FSP). The requirement pertains to those portions of the treatment works paid for with Clean Water SRF Loan Funds. The FSP must include the following minimum requirements as set forth in Section 603(d)(1)(E)(i): (I) an inventory of critical assets that are a part of the treatment works; (II) an evaluation of the condition and performance of inventoried assets or asset groupings; (III) a certification that the recipient has evaluated and will be implementing water and energy conservation efforts as part of the plan; and (IV) a plan for maintaining, repairing, and as necessary, replacing the treatment works and a plan for funding such activities; or per Section 603(d)(1)(E)(ii) certify that the recipient has developed and implemented a plan that meets the requirements above.

I certify that I am an authorized representative for the above listed Participant. I hereby certify pursuant to Section 603(d)(1)(E)(i) that the Participant has developed an FSP that meets the above minimum requirements and the FSP is being implemented and will be updated as necessary. I further certify that the Participant has evaluated and will be implementing water and energy conservation efforts as part of the FSP. Upon the request of the Environmental Protection Agency (EPA) or the Indiana State Revolving Fund Loan Program (SRF), the Participant agrees to make the FSP available for inspection and/or review.

<i>Judy Swift Powderill</i> Signature of Authorized Representative	<i>5-15-18</i> Date
<i>JUDY SWIFT-POWDRILL</i> Printed Name	<i>812-988-5462</i> Phone Number

## **CHAPTER 9**

### **PUBLIC PARTICIPATION**

#### **9.1 Public Hearing**

A public hearing to discuss the proposed project was held on June 19, 2018. A sign-in sheet and the public hearing minutes are included on the following pages.

No written comments were received following the public hearing.

## BROWN COUNTY DEMOCRAT

AIM MEDIA INDIANA d/b/a BROWN COUNTY DEMOCRAT, P.O. BOX 3213, McALLEN, TX 78502-3213, FED I.D. #32-0472774

Prescribed by State Board of Accounts

General Form No 99P (Rev. 2009A)

FTN: VICKI  
NAME: BROWN CO REGIONAL SEWER DIST  
ADDRESS: PO BOX 1881  
CITY/STATE: NASHVILLE IN 47448

Government Unit) County: Brown Acct # C11157287 Ord. # 32044679

## PUBLISHERS CLAIM

NE COUNT Display Master (Must not exceed two actual lines, neither of which shall total more than four solid lines of the type in which the body of the advertisement is set).

Number of equivalent lines ----- 41

Head -- number of lines -----

Body -- number of lines -----

Mail -- number of lines -----

Total number of lines in notice ----- 41

## COMPUTATION OF CHARGES

41 lines, 1 columns wide equals 41 equivalent lines at 0.4954  
cents per line -----

Additional charges for notices containing rule or tabular work

(50 percent of above amount) -----

Charges for extra proofs of publication (\$1.00 for each proof in excess of two) -----

TOTAL AMOUNT OF CLAIM ----- \$20.31

## DATA FOR COMPUTING COST

Width of single column in picas 11 Size of type 7 point

Number of insertions 1

Pursuant to the provisions and penalties of IC 5-11-10-1, I hereby certify that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.

I also certify that the printed matter attached hereto is a true copy, of the same column width and type size, which was duly published in said paper 1 times. times. The dates of publication are as follows:

6/6/18

Additionally, the statement checked below is true and correct:

       Newspaper does not have a Web site.

  X   Newspaper has a Web site and this public notice was posted on the same day as it was published in the newspaper.

       Newspaper has a Web site, but due to technical problem or error, public notice was posted on       .

       Newspaper has a Web site, but refuses to post the public notice.

Name: Vicki Fields

Title: Legal Advertising Clerk

Date: 6/6/2018

Page : 1 of 1 06/26/2018 11:58:45

Order Number : 32044679  
PO Number : Vicki  
Customer : B11157287 BROWN COUNTY REGIONAL  
Contact : STEVE STALEY  
Address1 : PO BOX 1881  
Address2 :  
City St Zip : NASHVILLE IN 47448  
Phone : (812) 988-9305  
Fax :  
Credit Card :  
Printed By : Vicki Fields  
Entered By : Keith Fleener

Keywords : Engineering Report  
Notes :  
Zones :

Ad Number : 22312042  
Ad Key :  
Salesperson : 87 - Keith Fleener  
Publication : BC Democrat  
Section: DIST : Legal  
Sub Section : Legal  
Category : Legal  
Dates Run : 06/06/2018-06/06/2018  
Days : 1  
Size : 1 x 4.46, 41 lines  
Words : 200  
Ad Rate : Open  
Ad Price : 20.31  
Amount Paid : 0.00  
Amount Due : 20.31

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Notice of Public Hearing

Brown County Regional  
Sewer District

Wastewater Preliminary  
Engineering Report (PER)

The Brown County Regional Sewer District (BCRSD) will hold a public hearing at 6:00 pm on Tuesday, June 19, 2018 at the Brown County Government Center, 201 Locust Lane, Nashville, Indiana, in the Salmon Room.

BCRSD's engineering consultant, Ladd Engineering, Inc., will present the recommended project, which will include construction of a new wastewater collection system and treatment plant.

The project will be funded through a USDA Rural Development and/or a Wastewater State Revolving Fund (WWSRF) loan and grant package.

Copies of the required Preliminary Engineering Report (PER) are available for public viewing starting June 5th through June 26th at the County Recorder's office, 201 Locust Lane, Nashville.

There will be the opportunity for questions and comments from the public at this meeting. Written comments from the public will be accepted through June 26, 2018. Your participation is welcomed and encouraged. If you will require special assistance at the meeting, please contact Judy Swift at 812-988-5462.

Written comments regarding this project should be sent to Brown County Regional Sewer District, PO Box 1881, Nashville, IN 47448 prior to June 26, 2018.

32044679 6/6, 2018 hspaxlp 18-112

# Brown County Regional Sewer District

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## Public Hearing/Brown County Regional Sewer District

### Agenda

**Date: June 19, 2018**

**Salmon Room 6:00 p.m.**

**Hearing Assistance Available. Please ask for a receiver**

**Call to order**

**Pledge of Allegiance**

**Presentation of the proposed Sewer Project. Please with hold your questions and comments until the end of the presentation.**

**We appreciate your input**

Written statements will be collected as well as public comments.

### **SPEAKERS:**

- **Please state your name/position for the record**
- **In order to allow everyone an opportunity to participate, please limit your public statements to two minutes. Additional comments may be submitted in writing.**
- **This is a presentation..... not a discussion with the audience**
- **Presentation v Argumentative**
  - No personal attacks**
  - Focus on the facts**
  - Civil and Respectful**

Specific Written Comments related to the proposed project

Adjournment

Next Regular BCRSD meeting will be July 10, 2018 at 6:00 p.m. at the county Annex Building

\*ADA Notice: Brown County, will upon request, provide appropriate aids and services leading to effective communication for qualified persons with disabilities so that they can participate equally in Brown County's public meetings. For special accommodations for a meeting contact the ADA coordinator/Commissioner's office at 812 988 4901 at least 2 business days prior to the scheduled meeting or event to request an accommodation.



**BROWN COUNTY REGIONAL SEWER DISTRICT  
WASTEWATER TREATMENT PLANT PROJECT**

**PUBLIC HEARING**

**BEAN BLOSSOM, INDIANA**

**JUNE 19, 2018**

**SIGN-IN SHEET**

NAME	ADDRESS	EMAIL ADDRESS	PHONE NUMBER
GARY LARO	1127 BRIDGEVIEW DR. <del>PARADE</del>	gary2-ladd@spr.com	765.482.9219
Steve Brunk	11550 N. Meridian Canal IN	Steve.Brunk@leatherbark.com	317-457-5680
STEVE STALEY	5148 SR 135 N. MORGANTOWN		812-988-8305
KELLY ROBERTS	5148 SR 135 N. MORGANTOWN		812-988-8305
Jacob Parsons	23 Bean Blossom CT.		1317-460-9926
<del>WILLIAM HARRIS</del>	<del>1127 BRIDGEVIEW DR. <del>PARADE</del></del>		<del>812-988-8305</del>
<del>JOHN HARRIS</del>	<del>1127 BRIDGEVIEW DR. <del>PARADE</del></del>		<del>812-988-8305</del>
Tom Smither	7964 Duck CT. <sup>NV</sup>	Tomcat46164@gmail.com	
<del>WILLIAM HARRIS</del>	<del>1127 BRIDGEVIEW DR. <del>PARADE</del></del>		<del>812-988-8305</del>
Rod Strong	2154 SOUTH SHORE DR 46160		
JOAN HRYNOK	2117 E. SOUTH SHORE DR. <sup>46160</sup>		812 929 7292

[illegible]

[illegible]

June 19 BCRSD Presentation

<u>Slide #'s</u>	<u>Presenter</u>
1 & 2	Judy
3	Transition slide - Judy opens, Debbie steps in
4 & 5	Debbie
6	Transition slide - Debbie opens, Clint steps in
7 -16	Clint
17	Transition slide - Clint opens, Phil steps in
18 -21	Phil
22	Transition slide - Phil opens, Gary steps in
23 - 36	Gary
37	Transition slide - Gary opens, Steve steps in
38 - 46	Steve
47	Transition slide - Steve opens, Mike steps in
48 & 49	Mike

*Brown County Regional Sewer District*

Public meeting  
June 19, 2018

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■ **Today's Purpose**

- Share and Inform of past and present efforts
- Update Everyone on Status of Current Project
- Satisfy Financial Requirements for Project Funding
- Gather Community Input

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Background Information  
for  
Evaluation of Sewerage Collection and  
Treatment in the greater Bean Blossom and  
Helmsburg Areas

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**Initial Studies**

- R.W. Armstrong's Preliminary Engineering Report (PER) dated January 2001
  - Began at request of of the Helmsburg Regional Sewer District
  - Included Bean Blossom area with conveyance in a 6" force main to the existing HRSD treatment plant
  - Expansion needed @ Helmsburg to accept Woodland Lake areas

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**Initial Studies**

- Monarch Engineering (Rose Hulman University) in May 2003
- Ladd Engineering, Inc. in 2003
  - Utilized information from both the R.W. Armstrong and Monarch Engineering reports
  - Ladd Engineering, Inc. updated in February 2009 to meet the requirements of the USDA RD funding agency

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- Why Today?

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**Trouble in River City**




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*Escherichia coli* – otherwise known as  
**E. coli**

- *Coliform bacteria* = organisms present in the waste of humans and animals
- *E. coli* are pathogenic and can cause illness if ingested
- Bacteria can enter the environment from failed septic systems
- IDEM sets and enforces water quality standards for safe bacteria levels

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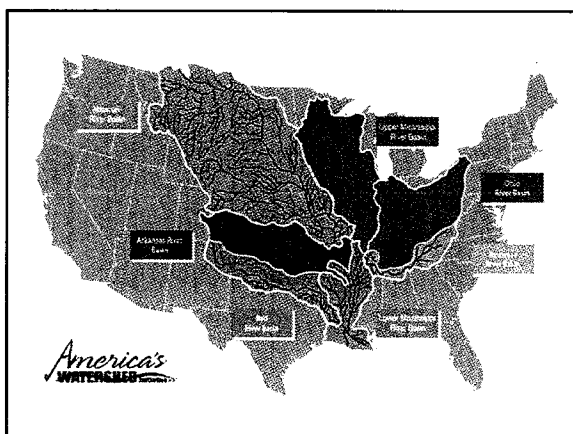
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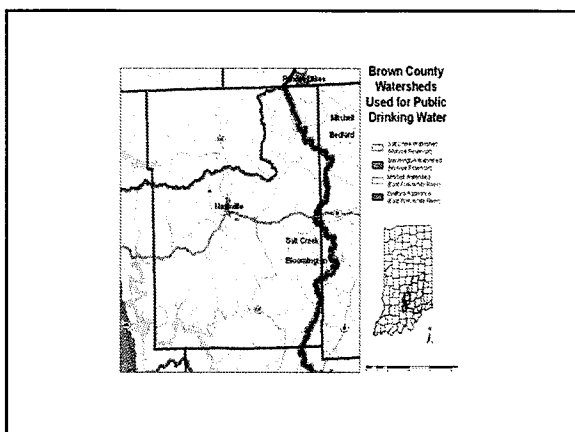
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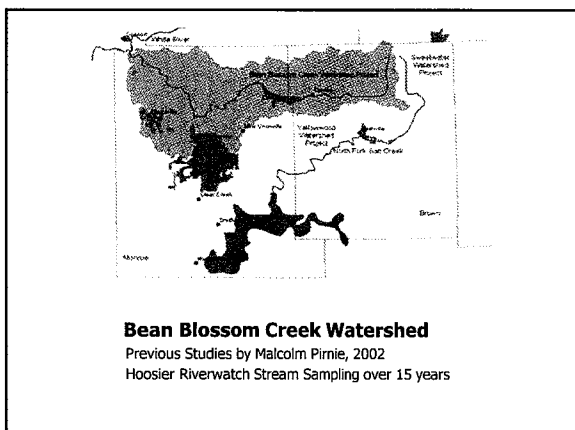
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**Bean Blossom Creek Watershed**

- Feeds Lake Lemon and beyond
- *Lake Lemon Watershed Management Plan* by Malcolm Pirnie, Inc., January 2002
- *Watershed Management Plan for Restoration and Protection of Bean Blossom Creek and Lake Lemon* by the Hoosier Environmental Council, April 2008

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■ **Environmental Reports:**

"Failing septic systems...are believed to be sources of isolated bacterial contamination because of older on-site septic systems and poorly suitable soils for on-site septic systems."  
*Lake Lemon Watershed Management Plan, Malcolm Pirnie, 2002*

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■ **A Call to Action**

■ *Environmental concerns:*

Bean Blossom Creek exceeds state of Indiana Department of Environmental Management standards for ***Safe Recreational Use*** (Category 4A) along most of the stream reaches due to *E.coli* contamination:

"High *E. coli* levels are the primary reason that the IDEM has included the Bean Blossom Creek on the Indiana 303 (d) list of impaired waters."  
Hoosier Environmental Council, 2008

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**Findings**

- The Brown County Health Department reports:
  - Numerous problems over the last 20 years
  - Many homes/systems built prior to 1960
  - Lot sizes too small for adequate septic systems
  - Hilly terrain, which limit the space available for an on-site septic system.
  - Over time, soil absorption fields become clogged, causing septic tanks to overflow, which leads to the discharge of untreated wastewater directly onto the ground.

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**Common Threads**

"The Bean Blossom Creek is a beautiful stream...in spite of this, water quality data indicates the *E. coli* levels exceed state standards for safe recreational use along most of the stream reaches."

- *Bean Blossom Creek Watershed Management Plan*, Hoosier Environmental Council, 2008

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Bean Blossom Wastewater  
Preliminary Engineering  
Report

June 19, 2018

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**Current Effort**

- Contracted *Ladd Engineering, Inc.*, 2014
- Evaluated Bean Blossom plus Woodland Lake and conveying the wastewater to Helmsburg or to Nashville for treatment
- Since 2014 several reiterations of the PER have taken place
- Introduced new treatment plant in Bean Blossom area

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**Scope of our Issue:**

- Most residential homes and business/ commercial establishments have on-site septic systems
- The Bill Monroe Music Park and Campground
  - 850-gpd septic tank and on-site mound system for wastewater disposal from the office/ museum.
  - During Events:
  - Additionally, 3 holding tanks (combined capacity of 7,500 gallons)
  - Many Port-O-Lets scattered throughout the park
  - Pumping and hauling waste on a regular basis

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**Current Planning Area**

- **Bean Blossom Area** – Consists of approximately 71 residential homes and 12 business/ commercial establishments.
- **Woodland Lake Area** – Consists of approximately 79 residential homes.
- **Little Fox Lake Area** – Consists of approximately 18 residential homes.
- **Freeman Ridge Area** - Consists of approximately 32 residential homes.

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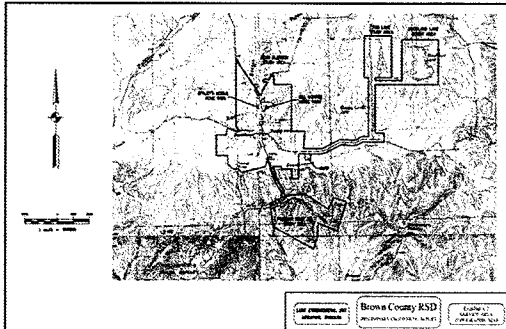
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## Existing Conditions

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### **Findings**

The Bean Blossom business area:

- Has been in a recent state of decline
- Most all of the businesses do not have the necessary land available to either upgrade or even repair their septic systems
- Limits future development
- BC Redevelopment Commission (RDC) Helmsburg/Bean Blossom Revitalization 2028 Plan

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### **Findings**

The Woodland Lake Area (BC Health Department):

- Many homes with grossly undersized septic systems on lots with no more space available for needed absorption field expansion, replacement, or repairs.
- Because many septic tank and absorption field systems are more than 50 years old, it is likely that future failures will occur.

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**Findings**

- Helmsburg system:
  - 25,000 gpd extended aeration packaged-type treatment system.
  - Constructed in late 1990's
  - Average daily flow is approximately 6,000 to 8,000 gpd
  - As high as 18,000 gpd during a wet weather event.

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**Findings**

- Nashville system:
  - 600,000 GPD aerated lagoon type with mechanical fine screen, two final clarifiers, and ultraviolet light disinfection.
  - Sludge treatment is provided in aerobic digesters. The solids are then either landfilled or land applied.
  - WWTP at 60 to 81% capacity
  - 2 to 3 additional commercial developments are anticipated in the near future.

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**Alternatives Considered**

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■ Collection system alternatives considered:

➤ No action; conventional gravity; low pressure with grinder pump stations and with septic tank effluent; and vacuum.

■ Treatment alternatives considered:

➤ Extended aeration activated sludge; constructed wetlands; facultative lagoons; re-circulating media filter; Algaewheel, MBR or MBBR, conveyance to Nashville; and conveyance to Helmsburg RSD.

■ Disposal alternatives considered:

➤ Surface water receiving stream (Bean Blossom Creek); spray irrigation; subsurface drip irrigation; and elevated mounds.

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Proposed Project

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**Recommended System**

1. Low pressure sewer system with septic tank effluent for all service areas
2. Each home with new septic tank and small effluent pump
3. 50,000 GPD (expandable) extended aeration activated sludge treatment plant
4. Discharge to Bean Blossom Creek

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- Recommended future wastewater flows for each study area, allowing for some slight growth:

Study Area	Estimated Wastewater Flow (GPD)
Bean Blossom	23,536
Woodland Lake	13,050
Little Fox Lake	3,300
Freeman Ridge	5,400
Total	45,286

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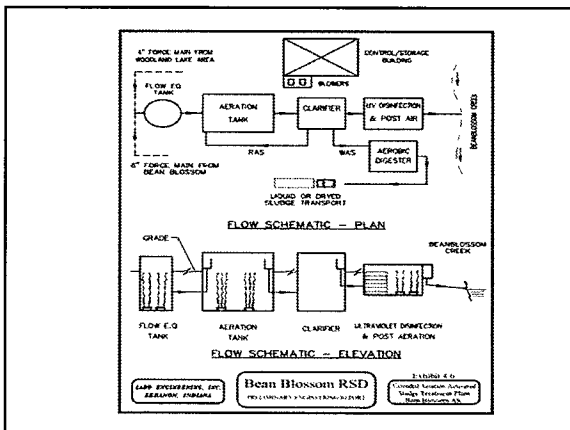
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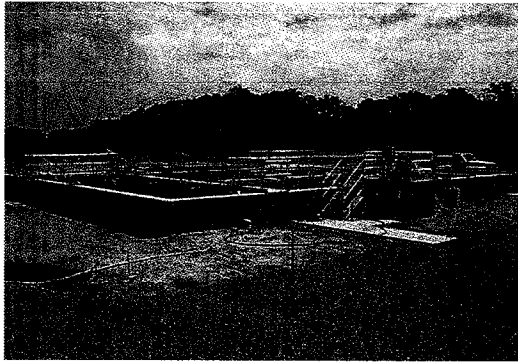
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AeroMod Plant – Morocco, IN

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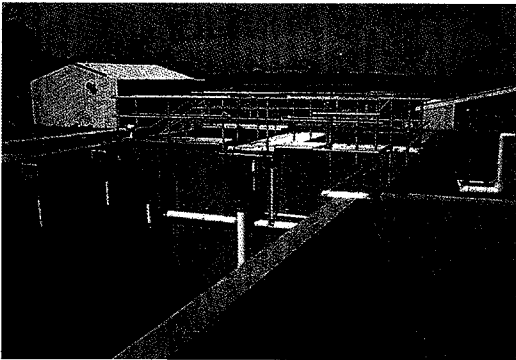
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AeroMod Plant – McCordsville, IN

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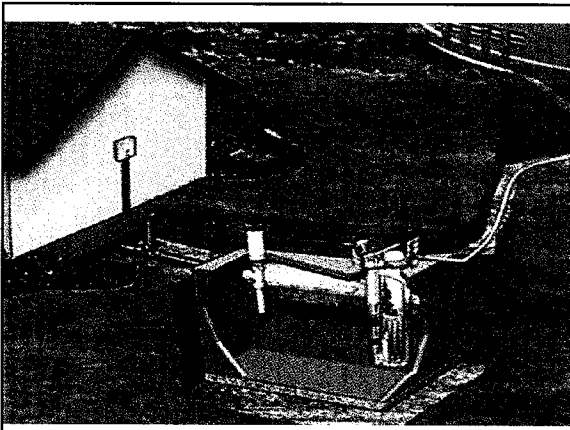
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**How do we pay for it?**

- The Indiana Finance Authority State Revolving Loan Fund (SRP)
- USDA Rural Development Grant/Loan Program
- Indiana Office of Community and Rural Affairs (OCRA) Community Focus Fund (CFF) Grant Program

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**The Indiana State Revolving Fund (SRF)**

1. Funding Source: US EPA grants generate SRF Loan funds
2. Authorized by Federal 1987 Clean Water Act & 1996 Safe Drinking Water Act
3. Low interest loan @ 20 years with Re-payment Plan
4. Used for Planning/Design/Construction of Public Owned Treatment Works (POTW)
5. Requires a Preliminary Engineering Report (PER) submitted to SRF
6. Requires a Construction Permit from IDEM

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**The USDA Rural Development Grants/Loans**

1. Funding Source: Consolidated Farm & Rural Development Act
2. Eligibility is based on the median household income level within the planning area –
3. Lower income areas qualify for more Grant Assistance
- Preliminary indications are that the proposed service areas may qualify for up to a maximum of 75% of the project costs
4. Requires an up-front Engineering Study
5. Requires an Environmental Review

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**Community Focus Fund (CFF)**

1. Funding Source: Housing and Community Development Act of 1974 - Indiana office of Community and Rural Affairs (OCRA)
2. Provides for Community Development Block Grants (CDBG)
3. Area served has 51% or greater low-to-moderate income population
4. Community has demonstrated strong commitment to the project
5. Grant up to \$700,000 with 10% local match

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**Estimated Project Costs**

✓ Initial Total Project cost is estimated @ \$7,355,445.

✓ The Operation, Maintenance and Replacement costs are estimated @ \$175,670 per year.

✓ The estimated average Monthly User Rate for a household, or an equivalent dwelling unit (EDU), which is equal to a residential home, is anticipated to be between \$65 and \$85 per month.

✓ Actual Rate to be determined after the amount of grant support is known.

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**Homeowner Responsibilities**

- Maintain your current septic system until the new sewers are in place
- Inform the Health Department if you notice seepage
- When available, connect to new sewer
- Remove or abandon your existing septic tank and drainage field
- Receive and pay Interim Rate (1/2 of monthly) at start of construction so RSD can pay loan interest charges
- Receive and pay monthly sewer utility bill when WWTP begins processing waste water flow

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**One - Time Homeowner Costs:**

- Approximate Up-front cost for the customer to abandon their existing septic tank and connect to the new system:

1. Septic Tank Pump & Fill = \$600
2. 4" Lateral @ 20' X \$12/foot = \$240
3. Electrical for Pump Control Panel = \$400

Total estimated cost to the customer = \$1,200-\$1,500

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■ **Available Loans and Grants for Homeowners**

- > Section 504 Home Repair Loan Program:
  - > Up to \$20,000 for 20 years @ 1% interest
  - > For Families with income below 50% of median income
- > Home Repair Grant:
  - > Up to \$7,500 (repay only if home is sold during first 3 years)
  - > For individuals or families 62 years or older of very low income per USDA guidelines

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**Cost Comparison**

Compare to amortized cost of putting in a new septic and lateral field or mound system with 20 year life:

\$15,000 @ 20 years @ 1% = \$69/month  
 \$20,000 @ 20 years @ 1% = \$92/month

Or, if you cannot qualify for assistance:  
 \$20,000 @ 20 years @ 6% = \$143/month

Vs. the projected \$65 - \$85/month sewer fee

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**Summary**

**Public Health –**

- ✓ Reduces risk of disease transmission and human exposure

**Environmental –**

- ✓ Removes pollution from soils, surface waters, and groundwater

**Economic –**

- ✓ Increases current property values and helps attract new families, homes and businesses

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■ **What's Next?**

- Initial Funding from BC Council – June 18
- Application Submittals for Financial Loans/Grants
- Letter to Homeowners
- Receive Funding Approvals
- Begin Final Design
- Begin Easement Approvals
- Continue Planning and Preparations

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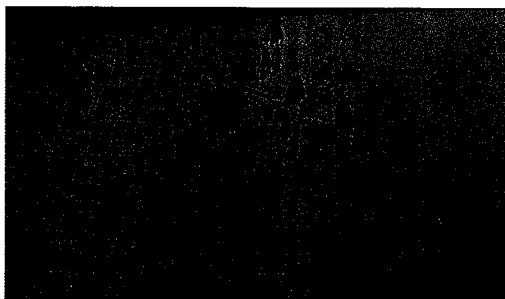
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Thank You




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# **Brown County Regional Sewer District**

## **Project Summary Sheet - Bean Blossom Sewer System**

June 2018

The Brown County Regional Sewer District (BCRSD) is a non-profit organization formed to provide sanitary sewer service to un-sewered areas with failing or non-existent septic systems in Brown County Indiana.

The District is currently working to provide sanitary sewer service to the area in and around Bean Blossom, Indiana.

This area is characterized by failing and non-existent septic systems.

The distance to the nearest sanitary sewer systems (Town of Nashville) is approximately 6 miles. Due to the cost of the additional main to reach this treatment system and the connection fee/availability fee to hook onto this system and available capacity at the Nashville treatment plant, this option has been determined not to be cost-effective.

The failing septic systems create an unsafe environment for approximately 275 households and small businesses in the area and an environmental hazard for the area and the local waterways.

The Brown County RSD has been working for approximately 10 years to put together the financing and funding package from subsidized state and federal agencies necessary to provide affordable monthly user fees for the users of the sanitary sewer system once it is constructed.

The construction of the needed sanitary sewer system is estimated to cost over \$7,500,000. Grant funding and loan financing from both the Indiana State Revolving Loan Fund (SRF) and the Indiana United States Department of Agriculture (USDA) and the Office of Community and Local Affairs (OCRA) is being applied for in order for the project to be affordable to the homes in the area.

Based on estimated project costs and estimated annual operating costs, the project would require over \$6 million in grant to buy user fees down to a \$65.00 per month level.

\$65 per month is the target affordability level for most of the State and Federal loan and grant programs and is the user fee level these agencies try to "buy down" user fees to when sufficient grant funding is available. Due to the high demand for grant funding for these types of projects in Indiana – sufficient grant money is not always available to reach this target user fee level. Recent projects of this type have ended up with monthly user fees in the \$65 to \$85 range for residential properties.

The District is working to acquire its funding commitments to allow construction to begin sometime in the 2019 to 2020 time frame.

## FACT SHEET

IDEM



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

# *E. coli* in the Environment

(317) 232-8670 • (800) 451-6027

[www.idem.IN.gov](http://www.idem.IN.gov)

100 N. Senate Ave., Indianapolis, IN 46204

### Description:

- *Escherichia coli*, or *E. coli*, is a common example of coliform bacteria. Coliform bacteria are organisms that are present in the environment and in the waste of warm-blooded animals and humans.
- Public water systems monitor for coliform, as the presence of coliform bacteria in drinking water indicates an increased likelihood that other organisms may be present.
- Many types of coliform bacteria are not harmful. A few strains of coliform such as *E. coli* are pathogenic and can cause illness if ingested. Ingesting *E. coli* may cause severe diarrhea and abdominal cramps.
- During rainfalls, snow melts, or other types of precipitation, untreated sewage containing *E. coli* may wash into creeks, rivers, streams, or lakes.

### Sources of *E. coli* in the environment:

- There are many pathways through which *E. coli* can enter and contaminate water:
  - Combined sewer overflows (CSOs) – When it rains, those systems can become overburdened and release excess storm water and untreated sewage. Communities must post warning sign near where outfalls are located.
  - Sanitary sewer overflow bypasses – Separate sanitary sewer and wastewater treatment plants occasionally experience unauthorized discharges of untreated or partially treated wastewater.
  - Septic systems – When septic systems fall into disrepair or reach capacity, the sewage can leak into nearby waterways. Because of this, the absorption field, or area over which the discharged sewage is dispersed into the ground, should be located away from waterways and wells.
  - Straight pipes – Some individual homes or subdivisions have pipes that transfer untreated waste directly from septic tanks to a river or lake. This illegal practice should be corrected and is punishable by fines if continued.
  - Wildlife – Waste from ducks, geese, deer, raccoons, and other fauna living on or near water can contaminate waterways with *E. coli*.
  - Urban and agricultural run-off – Waste from pets and farm animals is a source of *E. coli*.

### IDEM's Role:

- The Indiana Department of Environmental Management (IDEM) is responsible for protecting human health and the environment while providing for safe industrial, agricultural, commercial, and governmental operations vital to a prosperous economy.
- IDEM sets and enforces water quality standards for safe bacteria levels.
- IDEM requires municipal wastewater systems to test for *E. coli*.
- IDEM's Office of Water Quality periodically tests *E. coli* levels in waters throughout Indiana to assess bacteria levels in rivers and streams. IDEM uses this assessment to



help local entities develop pollution reduction plans to address *E. coli* contamination originating from non-point sources.

- IDEM requires public drinking water systems to conduct tests to regularly monitor bacterial levels in drinking waters provided to customers.
- IDEM maintains a searchable database of drinking water quality reports submitted by each community water system in Indiana.
- IDEM does **not** monitor or regulate food products for compliance with *E. coli* regulations. That falls under the responsibility of the U.S. Department of Agriculture and its agents.

### **Citizen's Role:**

- There are a number of actions every citizen can take to reduce *E. coli* contamination in the environment:
  - Regularly inspect private, residential wells to ensure that there are not pathways for surface water to enter the well, such as a cracked casing or missing cap.
  - Properly dispose of pet waste, which can contain bacteria, viruses, and parasites; and contaminate the environment.
  - Have septic tanks regularly checked and emptied to prevent overflows or leaks.
- There are actions citizens can take to reduce their exposure to *E. coli* at the beach or during recreational activities:
  - Find out which beaches are regularly monitored and have posted advisories.
  - In areas not monitored regularly, choose swimming sites with good water circulation.
  - When canoeing, kayaking, fishing, or boating, avoid accidental ingestion of surface water.
  - Wash your hands before eating, and shower after coming in contact with surface water.

### **More Information:**

- For more information on *E. coli* and IDEM's water quality monitoring programs, please visit IDEM's website at <http://www.IN.gov/idem/4114.htm>.
- For more information on Indiana Lake Michigan beach monitoring, visit IDEM's Indiana Beach Guard Monitoring System website at <http://www.IN.gov/idem/4151.htm>.
- For more information about the quality of your drinking water system, consult the annual water quality report provided by a local water system. Water quality data and reports are available by searching IDEM's Drinking Water Facility Database at <https://myweb.in.gov/IDEM/DWWW/> or the U.S. Environmental Protection Agency's (U.S. EPA's) website at <http://cfpub.epa.gov/safewater/ccr/index.cfm?OpenView>.
- For more information on home water testing, private well disinfection, and annual compliance reports from public water systems, visit IDEM's website at <http://www.in.gov/idem/cleanwater/2386.htm>.
- For information about *E. coli* from the Indiana State Department of Health, visit <http://www.in.gov/isdh/25489.htm>.
- For questions and concerns, please call IDEM's Office of Water Quality, Drinking Water Branch at (317) 232-8670.



# **WHO CAN HELP ME PAY FOR MY INDOOR PLUMBING, LATERAL, AND SEPTIC ABANDONMENT?**

Grants and loans are available if you qualify:

- **Individual application-504 grant/loan program:** Through your local Rural Development office. Call your local RD Community Development Officer.
- **Group application-Owner Occupied Rehabilitation Grant:** Through the Indiana Housing and Community Development Authority.
- For information for your area, contact the Indiana Rural Community Assistance Program at (800) 382 9895.

## **WHAT ELSE SHOULD I KNOW?**

Your participation in public meetings is very useful. Your town, district and/or county representatives are willing to answer your questions or have their professional consultants available to answer your questions and concerns. The key to a successful project is to stay informed.



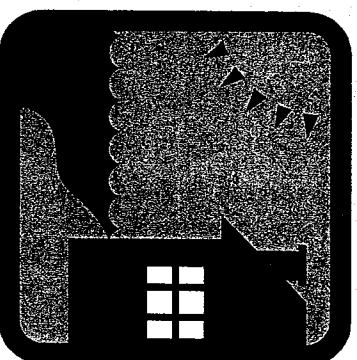
**Indiana Rural  
Community**

**Assistance Program**  
1845 West 18<sup>th</sup> Street  
Indianapolis, IN 46202

**(800) 382-9895**  
(Indiana only)  
**(317) 638-9302**  
[www.in-rcap.org](http://www.in-rcap.org)

# **Homeowner's Guide**

**Connecting to the  
Sewer Line**



**INDIANA RURAL COMMUNITY  
ASSISTANCE PROGRAM**



## WHAT DOES THE NEW SEWER LINE MEAN TO ME?

As a homeowner, you are responsible for connecting your home to the sewer line stub (connection point). Contact your county health department for local plumbing/excavating contractors' information. The stub will be made available to you on the public sewer line.

- All plumbing will be connected to the lateral pipe connecting to the stub.
- The lateral may come out the back and around the house, if clean-outs are installed at the 45 degree bends.
- The lateral cannot be driven on, paved over, or have a structure built on top of it.
- The lateral must be **50 feet** from your private well or **10 feet** from your city water service line.

## WHAT'S A LATERAL?

A lateral, also known as a "building sewer", is the pipe that connects your home to the public sewer line. Specifications for the lateral will be given to you by the sewer utility when you apply for the permit to install the lateral. You will no longer use your septic system once connected to the public sewer system.

## WHAT IS SEPTIC ABANDONMENT?

You will be required to abandon your current onsite septic system. The tank must be pumped and the lid must be crushed and filled with pea gravel or other granular material. The Indiana State Department of Health has protocol for proper abandonment. Ask your local health department for this information if you are not given this with your lateral permit.

## WHAT NEEDS TO BE CONNECTED?

Every wastewater source in the home must be connected to the lateral except sources of rain or ground water. The lateral must be connected to the public sewer. Every homeowner will be required to connect the following to the lateral:

- Kitchen, bathroom or other sinks
- Toilets
- Bathtubs and showers
- Clothes washer
- Dishwasher
- And others

## WHAT IF I USE WATER IN MY BASEMENT?

Your lateral will most likely be connected near the surface of the ground at a plumbing outlet outside your home. Your lateral will need to flow by gravity to the public sewer line. If you use water in your basement for a utility sink or clothes washer, you may have to use a small pump to push the wastewater to the same level as your lateral.

## ILLEGAL CONNECTIONS

The following sources of water are considered illegal connections and will not be allowed to be connected to the public sewer:

- Cellar drainage
- Swimming pool drainage
- Water cooled air-conditioned system
- Any storm water or surface water roof drains, foundation drains, sump pumps or area drains



***Who can I call for more information?***



Call your local Rural Development office today and learn if you are eligible for assistance.

**Contact**

**USDA - Rural Development**

2600 Hwy 7 North  
North Vernon, IN 47265

812-346-3411, Ext. 134  
855-541-9022 Fax

Serving  
22 counties

**Indiana continues to be one of the nation's best sources for repair funds for eligible homeowners.**

Revised February 2015



**At USDA Rural Development, we work for the people! We dream big and work hard, just like the citizens we serve!**

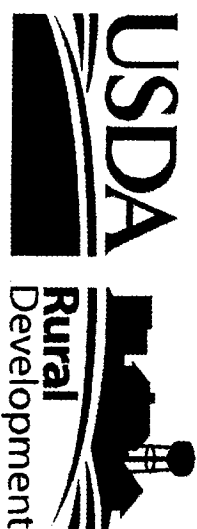


**Equal Opportunity Lender**

The USDA prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination write:

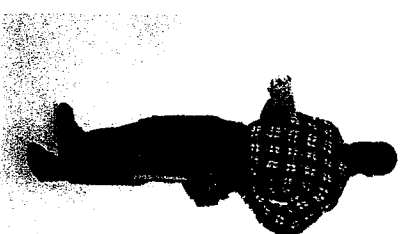
USDA, Director, Office of Civil Rights,  
Room 326-W, Whitten Building, 14th  
and Independence Avenue, SW,  
Washington, D.C., 20250-9410 or  
call 202-720-5964 (voice and TDD).  
USDA is an Equal Opportunity lender,  
provider, and employer.



Committed to the future of rural communities.



**Home Repair  
Loans &  
Grants**



## What is a Repair Loan?

The Rural Development repair loan is similar to a home improvement loan. USDA Rural Development provides loans and grants to eligible rural homeowners to improve or modernize their homes, to make them safer and more sanitary or to remove health and safety hazards.

## How do I qualify?

Home repair loans may be made to applicants who have very-low income.

Income limits vary by county. Call your local Rural Development office to find out the limit in your county.

In addition to the income criteria, applicants must also meet the following criteria:

- Acceptable credit history
- Ability to repay the loan
- Be a US citizen or permanent resident
- Own and occupy the home

**Applicants must reside in eligible rural areas.**

**Call your local Rural Development office to learn more!**



## What repairs are eligible for loan funds?

- \*New roof \*New siding \*New windows
- \*Foundation repairs \*New kitchen cabinets
- \*New septic system \*New furnace/AC

Other qualifying repairs include those needed to remove a health hazard from the home, as well as cosmetic improvements if they are needed.

## What do I need to apply?

- Application, 410-4
- Budget, 1944-3
- Verification of Income, 1910-5
- Authorization to Release Information 3550-1
- Proof of homeownership, such as a copy of the deed or a real estate tax statement

Forms are available at your local USDA - Rural Development office.



## How much can I borrow?

The maximum loan amount is \$20,000. The interest rate is 1%. Loans can be made for a term of 20 years.

Payment example:

If you borrow \$5,000 from Rural Development for a new roof at 1% interest for 20 years, your cost is \$23 a month.

## Home Repair GRANTS

### Who is eligible?

Applicants must

- Be 62 years of age or older
- Be very low income per guidelines
- Demonstrate an inability to make loan payments
- Show proof of ownership of the home
- To repay the grant if the home is sold anytime during the first three years
- Live in an eligible rural area

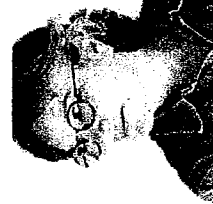
### What is the grant limit?

**There is a \$7,500 limit on grant funds!**

### What do I need to apply?

Grant applicants need to submit the same documents as loan applicants.

The same type of repairs are eligible for grants and loans.



**Call your local Rural Development office if you have any questions!**

Brown County Regional Sewer District  
Public Hearing Minutes  
June 19, 2018  
6:00 pm

Attendance: See attached sign in sheet. There were 35-40 people in the audience.

Judy Swift-Powdrill called the meeting to order at 6:00 pm.

Broad members Phil LeBlanc, Clint Studabaker, Debbie Larsh, Mike Leggins and Judy Swift-Powdrill introduced themselves and shared their backgrounds. Judy introduced John Reames, Attorney, Jim Kemp president of the BCRDC, Steve Brock, Financial Advisor, Gary Ladd, Engineer, and Vicki Perry with RCAP. This is a board of volunteers, who don't have all the answers but has a presentation to share.

Ms. Swift-Powdrill requested comments and questions be held until the end of the presentation, Ms. Swift-Powdrill indicated there would be a two-minute limit for comment. The audience was asked to state their names when they approached the podium. The board will take written comments until June 26, please send them to the Brown County Regional Sewer District, PO Box 1881, Nashville, IN 47448.

A power point presentation was shared by the board and is attached. Judy Swift-Powdrill started with slides 1 and 2, Debbie Larsh then shared slides 4 and 5, which was background information on the project. Clint Studabaker using slides 7 through 16 went into the details about E. coli and how it is affecting the water supply in the area. Phil LeBanc with slides 18 through 21 addressed the findings from the Brown County Health Department. Gary Ladd, engineer, using slides 23 through 36 explained the proposed project, as well as the issues that have brought the Brown County Regional Sewer District to this point and the alternatives that have been considered in the past. He explained because of the type of funding the board is seeking the public meeting is required and to please make sure to sign in to show public participation. He indicated this is still a study and the service area is our best estimate until design is started. Steve Brock, financial advisor and Vicki Perry with RCAP used slides 38 through 46 to address the financial considerations, talking about how the project could be funded, cost to the property owners and how they would pay for it. Mike Leggins used slides 48 and 49 summarized the presentation, he shared how the sewer would positively impact the area as well as what the next steps are in the process.

Ms. Swift-Powdrill opened the floor for comment.

Sheri Mitchell 7:08-7:12 had questions and statements regarding new septic costs, economic costs, previous development, is the E. coli human or animal, the environmental study, the Health Department and stated that Brown County was the 4<sup>th</sup> healthiest county in the state. Ms. Mitchell clearly was not in favor of the project was very aggressive causing Ms. Swift-Powdrill to threaten to adjourn the meeting. Someone called the police.

Paul Nelson 7:13 – 7:15 had questions about the administration of the sewer, specifically he wanted to know if the service would be between only him and the sewer district, he was assured it would be.

Kris Ross 7:15 – 7:19 asked if a final decision had been made? Board indicated the plan is to move forward. She asked if the residents had a say in this? Ms. Ross indicated the board of health says there isn't a problem, there is no data to support the homeowners wanting this system and that it would cost a lot of money. Mike Leggins pointed out he walked the Old Settlers Road and says people indicated they have problems.

Jim Kemp RDC wants to know about what the problem is, the audience indicates distrust is the main issue.

Clint Studabaker says he hears issues that skirt around the issue being addressed. He indicated this kind of project affects the people who currently live here and have septic problems, if a sewer system is put in it gives the property owners their yards back. He talked about how the community can attack the problems. He requested that the audience write down your questions and submit them.

Paul Naverro 7:27-7:29 stated there is a state law to have open discussion and that debate is constitutional. He addressed distrust by sighting the police officer who was there and asked why the town is involved. He indicated on December 16, 2016 Nashville wanted to address annexation as part of hooking up to Nashville's system. The board indicated there is no intention of Nashville annexing any part of the district. He also wanted to know the plans for the sewer lines and would the homeowners be contacted about the running of the lines. Gary Ladd explained letters would be going out to each homeowner, meetings would be set up to talk about easements and how the lines would be run on their property.

Kyle Hayward 7:30-7:34 – had questions about the cost of the project to the home owners. He specifically asked if the sewer cost is over and above the water? Is there going to be a metering system on the sewer? Is it a flat rate for sewer? Steve Brock said it is a flat rate. Kyle asked about the possibility of sewer back up in a house? Gary Ladd says there is a check valve in the septic tank pump discharge. A high level in the septic tank will trigger an alarm and home owner should call for sewer maintenance.

Tim Clark 7:36-7:37 asked about having a link for the presentation on the website. He asked about the Brown County study findings. Project ranking info – also add to link. How was the data gathered for this plan?

Bob Crockrean – 7:37-7:38 indicated he has nothing to do with Bean Blossom but he is there because of his distrust for John Kennard.

Paul Nelson says he was told by a biologist that there was a normal level of E. coli, Clint do you know about this? Clint Studabaker says there are state standards for E. coli and this bug would be the one that would affect the quality of the water.

Kyle Hayward asked if there were plans yet for the lines and about property restoration, Gary Ladd says not yet, the plan involves contacting the home owner and the property will be returned to the same or better condition. Each home owner will be asked to sign an easement.

Cheryl Luna from Annandale Estates heard this would encompass the entire county, how will this affect her property? She wants to know why we are concerning ourselves with the future and not the current issues. Mike Leggins says we are trying to address the current issues, Annandale is now serviced by Nashville, if you have issues you should contact them.

Paul Navarroe asked about the Annandale Estates, were they annexed? Jim Kemp RDC says there is a MOU between the BBRSD and Nashville, what was sought after by Nashville and was a buffer zone, not annexation. Jim says legally the BBRSD reaches around Gnaw Bone and Nashville. Paul says it is dishonest that the town and board decided something without notifying the citizens involved and this creates a lack of trust.

Kris Ross asked will all people who live within the project area will be required to hook up? Gary Ladd says you can get a 10-year exemption from hook up if you have an exemption that comes from the health department. Wants to know if Mapleleaf was the reason why the board did the MOU. No. Then why was the MOU done? It was done to serve people in the most economical way possible.

Sandy Fields –concerned that survey wasn't sent out to check their systems, wants to know what happens if someone doesn't sign up now. Gary Ladd says the project cost includes septic and line from the septic tank to the sewer line. She asked about the distance from the house to the line. Gary Ladd says the home owner will be responsible for the cost of the line from the tank to the house, however it is our intent to locate the new septic tank close to the existing one to minimize the property owner cost. She was concerned that by signing the attendance sheet it implies everyone is for this project, she scratched her name off. Gary Ladd explained SRF requirements include a sign in sheet. She asked if it weren't for Brownie's, Monroe, and Staley's would we be here today? What if someone doesn't sign the easement? Gary Ladd says then the line will be placed at the front to the property and the home owner is responsible for the cost of the line from there to the house. She asked about restoration of property, Gary Ladd says research hasn't been done yet for line layout and easements. She says the Board got the cart before the horse. She says she heard all landowners have been notified. She asked where is the plant going to be located? Gary Ladd says it is on the property across from the drag strip. She is the owner of the drag strip and expressed her concerns about odor.

Tim Clark would like to know what his risk of annexation by the town will be because of the MOU. Please post the MOU on the website.

Janet Stout wants to know where the subdivisions are going in? She says she is not for the project.

There was unidentified discussion about subdivisions as well wanting to address the map and taxes.

Jane Gore VP of the Nashville Town Council says they have not taken over any area, they are trying to serve the public in the area, there is no plan to annex to Nashville. Nashville will not come to the public you will need to contact them if you want service.

Nina Leggett, Freeman Ridge homeowner. wants the board to just try to be more open.

Paul Nelson wants to know if this is what IDEM wants or what we want, why don't we tell IDEM what we want. What about dairy farmers? Clint says the project is trying to find the best solution for the area.

Kyle Hayward asked if you will pay the property owner if you run a line through their property and they don't hook up. Yes, but the fewer people who hook up the higher rate and having to pay for easements will increase the project costs and in turn increase the user rate. Gary Ladd stated the board will have to comply with state land acquisition laws.

Tim Clark - there should be long term planning done trying to get some idea what direction the county wants to go. Maybe a plant at all the areas separately. Environmental study should include Wagler Dairy Farm. How will the easements be decided? Gary Ladd says letters will go out to homeowners.

Sheri Mitchell – hand delivered 100 letters to Bean Blossom residents, she didn't smell sewer anywhere, she doesn't know where the failed systems are. She wanted everyone to know the sewer district can charge you even if you don't hook up. She felt like this was being sold to them, facts should have been gathered before not after.

Kyle Burk, commissioner candidate said as far as he understands and knows there has not been a survey sent out to the district, this needs to be done. He appreciates you did not adjourn the meeting.

Someone shouted out Sheri Mitchell walked and talked to the people, did any of you talk to anyone. Mike says he talked to everyone on Old Settlers Road. And everyone he talked with said they were interested in hooking up.

Judy Swift-Powdrill adjourned the 8:28 pm stating that additional questions and comments could be sent to the Brown County Regional Sewer District, PO Box 1881, Nashville, IN 47448. Clint Studabaker moved to adjourn, and Mike Leggins seconded the motion, which passed unanimously.

960 Freeman Ridge Road  
Nashville, IN 47448

June 20, 2018

Brown County Regional Sewer District  
P.O. Box 1881  
Nashville, IN 47448

Judy Swift Powdrill:

I recently read in the Brown County Democrat about plans to run a sewer line up our road. I don't believe we were ever asked if we wanted one. But for the record, I don't want it, don't need it, don't want to pay for it, and don't really care if Bean Blossom grows. I expect our road has been included to help cover the cost for other areas since the houses are all fairly close together.

We have had some utility work done on our road in the past years and it has never turned out well. Our road is currently torn up for a water line. The first phase of the water line messed up the road passing our house, and it was never fixed. The water service doesn't seem to be any more reliable, and monthly charges have more than doubled. I have no confidence that another project would turn out any better. The terrain is challenging, and the records are incomplete and sometimes inaccurate. These projects always go over budget and end up costing more than anticipated. And maintenance is always low-balled only to come back and need to be increased.

Put us down in the "ABSOLUTELY NO!" column.

*Bette & Don DeWies*



## NEW GUYS IN TOWN

Brown Bike, Bird's Nest,  
Goey Goey Cinnamon  
Rolls restaurants open



## TOUCH-A-TRUCK

Fundraiser set for next

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S1 P1 8

SHELLY LADD

1127 BROOKSIDE DR

LEBANON IN 46052-1993

# Brown County Democrat

148th year, Issue No. 26 | [bcdemocrat.com](http://bcdemocrat.com)

June 27, 2018

Nashville, Indiana | \$1.00

# Sewer project details discussed

## Hearing on Bean Blossom wastewater punctuated by public debate

By SARA CLIFFORD | THE DEMOCRAT  
[scifford@bcdemocrat.com](mailto:scifford@bcdemocrat.com)

Mike Leggins bought six lots on Old Settlers Road in 1988. He razed the vacant, condemned or burned-out homes that stood on them and put up five new ones — family homes, with three or four bedrooms.

**INSIDE:** About the Bean Blossom Sewer Project, questions from the public hearing. **Page A7**

The septic systems that served them soon failed, even though the systems were new. Leggins said the high water table was to blame; waste was hitting the groundwater before

it had been sufficiently filtered and cleaned.

Now, Leggins, the landlord, has to use those homes as if they were two-bedroom homes in order to not put strain on

the septic systems — and even that doesn't prevent them from sending waste downhill, he said.

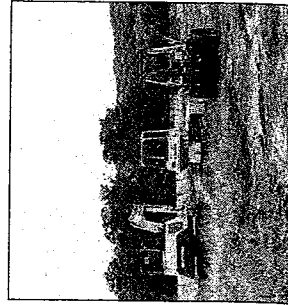
He isn't the only business owner who's dealing with sewage flowing where it shouldn't, including at the back door of his own home, he said. Brownie's restaurant, the Bill

Monroe Music Park, the Bean Blossom Trailer Court — all of these have been put on one-year state waivers that allow them to operate despite their wastewater challenges, as long as they follow procedures, Leggins said. But it isn't guaranteed

(SEE SEWER PAGE A7)

BROWN COUNTY PLAYHOUSE

# IN NEED OF



that the state will keep giving waivers.

Bean Blossom needs to do something to fix this, or it's going to lose the few businesses it does have left, Leggins told the crowd at a public hearing last week about installing sewers in the Bean Blossom area.

"This is the answer for the community, I think, and it's what we all need," he said.

He didn't find much support for that idea in the audience.

"I think you made a really bad real estate purchase and you're trying to put it on the taxpayers to bail your tail out," said resident Sherrie Mitchell.

About 40 people showed up on June 19 to hear

from the Brown County Regional Sewer District Board about the need for this sewer project, what it's going to cost residents, and what building it — or not building it — might mean for the future of their community.

A few speakers, after hearing the board's hour-long presentation, said they hadn't made up their minds because they had unanswered questions.

However, most voiced their objections to the project. A Nashville police officer was called shortly into the start of the comment period when Mitchell refused to yield the floor after her two minutes at the mic were up.

"I'm sorry, I'm not going to allow that," she answered when censored

## ABOUT THE PROJECT

**Cost:** \$7,355,445 to build; \$175,670 to maintain and operate each year

**Funding:** Planning on a mix of grants and low-interest loans from USDA Rural Development and State Revolving Loan Fund. Preliminary indications are that this area may qualify for up to a maximum 75-percent loan.

**Customers:** About 275 total at and near Woodland Lake, Little Fox Lake, Freeman Ridge and the general Bean Blossom area.

**Timeframe:** The board estimates the system could be in place in three years.

**Learn more:** View the PowerPoint presentation that was shown at the meeting at [bcdemocrat.com](http://bcdemocrat.com). It is posted with this story.

**RELATED STORY:** Town council, sewer board agree on "buffer" around service areas, [Page A10](#)

Larsh, said she initially joined the board to fight the project, but as she learned more about it, she decided it would be a positive thing because she wants to see the community grow back into the thriving place it used to be.

Bean Blossom used to have three or four gas stations, three restaurants and beautiful trees that arched over the highway like big umbrellas, she said. Now it has no gas stations, and its only grocery store closed and was later turned into a Dollar General.

## QUESTIONS FROM THE PUBLIC HEARING

Some of the many questions answered at the public hearing included the following. Other questions (not listed here) were not immediately answered; they are to be addressed at the board's July 10 meeting.

**What will property owners have to pay to hook up to the sewer?**

Estimates given at the hearing totaled \$1,200 to \$1,500 for one-time fees when the system is built. That will go toward pumping and filling in current septic systems, running a line from the house to the new sewer tank, and installing an electrical panel for the pump. Financial assistance programs are available for very low-income or senior residents, said Vicki Perry, state director of the Indiana Rural Community Assistance Program.

After the system is running, the monthly bill estimate is \$65 to \$85, but that won't be definite until the funding agencies weigh in.

During system construction, customers will be charged half of the monthly bill, Perry said.

**Will the sewer bill be tied to my water bill?**

The sewer bill will not change based on how much water a household uses; it will be a flat rate, said sewer board member Clint Studabaker.

**What if my septic system is working? Do I have to connect to the sewer?**

If you can get a certification through the Brown County Health Department that your septic system is currently working, you can get a 10-year exemption from hooking onto sewer, said project engineer Gary Ladd, citing state code 36-9-23-30.1. Two additional five-year exemptions can be received through the same process, he said.

If a person decides to hook up to the sewer after the initial build-out has been finished, they will have to pay for equipment that the other customers didn't have to pay for outright, such as the new sewer tank and connecting line. So it would be cheaper to hook up sooner rather than later, Ladd said.

**Can I be billed for sewer service even if I don't choose to take it?**

Yes, nodded Perry and sewer board financial adviser Steve Brock. State law allows that, Brock said. The sewer board did not say if they would actually charge non-users.

**Will the sewer plant stink?**

Sandy Fields was concerned about this. She's the owner of the Brown County Dragway, across the street from where the sewer plant is envisioned to go. She is concerned she'll lose business, like she has after the surrounding fields were fertilized

## Are you going to build subdivisions in Bean Blossom?

Mention of this concept was made in a different meeting, the Brown County Redevelopment Commission, on June 14. The question was not answered at the June 19 sewer hearing because the person who asked it walked out of the meeting.

The long-range goal of the redevelopment commission is to grow the local tax base of residents and businesses.

The Bean Blossom-Helmsburg 2028 Revitalization Project, which the redevelopment commission approved in theory on June 14, revolves around supporting the Bean Blossom sewer project and building different types of housing in that area, so that new residents and existing ones have options to live in Brown County in different stages of their lives.

There are no concrete plans for a specific Bean Blossom-Helmsburg "project," but the commission members and about 20 other people in the audience at the meeting said they supported the concept.

The Bean Blossom-Helmsburg corridor is on state highways, much of it has high-speed internet access, and it's not a far drive from Bloomington or other commuter destinations. Helmsburg already has a sewer system and needs more customers to help support it; Bean Blossom doesn't yet, but the plan the sewer board is planning could support future growth.

There are also several large tracts of land in the Bean Blossom-Helmsburg area where small clusters of houses could go, said redevelopment commission President Jim Kemp. Other speakers at that June 14 meeting suggested condos or apartments, which could appeal to young people just starting out or retired folks who don't want to live out in the country anymore.

Without sewers, the Bean Blossom-Helmsburg revitalization concept is dead, Kemp said.

"Because we don't have that sewer system, that limits our ability to grow," he said. The larger the population of residents and businesses, the more the county's tax burden can be spread out, he said.

Studabaker, a retired environmental and civil engineer on the sewer board, said it's important to preserve the natural beauty that Brown County is known for. Heather Nicholson agreed. "Everybody who lives here lives here because of the nature, the atmosphere, the people we all love, but that doesn't mean we have to carve it up and take out the trees and make roads and

project. A Nashville police officer was called shortly into the start of the comment period when Mitchell refused to yield the floor after her two minutes at the mic were up.

"I'm sorry, I'm not going to allow that," she answered, when sewer board President Judy Swift Powdrill told her she was over her allotted time.

"I have every right to come in here and talk as long as I want. ... You guys got an hour, so I'm thinking I have an hour," Mitchell said.

Swift Powdrill then banged the gavel and said she was going to adjourn the meeting. The meeting continued, though, and for nearly an hour and a half, speakers kept coming to the mic.

## Who and why?

About 275 customers would be served with this project, along State Road 135 North and its offshoots in the Bean Blossom area, the Bean Blossom Trailer Court, Old Settlers Road, Bittersweet Road, Little Fox Lake, Woodland Lake, Covered Bridge Road and Freeman Ridge Road, as well as parts of State Road 45 and Gatesville Road.

Board members estimate that it will take about three years for a new wastewater plant to be built, possibly across from the Brown County Dragway on Gatesville Road.

The plan is for the sewer board to apply for a combination of low-

nave three or four gas stations, three restaurants and beautiful trees that arched over the highway like big umbrellas, she said. Now it has no gas stations, and its only grocery store closed and was later turned into a Dollar General.

"I don't want to see Bean Blossom die," said Larsh, who's lived there most of her life.

Regarding the sewer project, "We've been to the edge of this cliff several times, only to get pulled back, so I'm hoping we can finally put those parachutes and fly off that cliff and get it done," she said.

Mitchell challenged the notion that building sewers will bring back any of the businesses Bean Blossom used to have. Back then, they were running on septic systems, like most of the county is now, she said. Larsh said some of those businesses may have had outhouses.

Sewer board member Clint Studabaker, a retired environmental and civil engineer, said the danger in not having sewers is that E.coli and other types of bacteria can leach into groundwater and streams, such as Bean Blossom Creek. That's a common occurrence all over America, he said, specifically mentioning an enteric disease outbreak in Milwaukee, Wisconsin, in the early 1990s that killed 104 people.

Bean Blossom Creek has been on the state's "impaired waters" list for several years primarily

Steve Brock. State law allows that, Brock said. The sewer board did not say if they would actually charge non-users.

## Will the sewer plant stink?

Sandy Fields was concerned about this. She's the owner of the Brown County Dragway, across the street from where the sewer plant is envisioned to go. She is concerned she'll lose business, like she has after the surrounding fields were fertilized.

Ladd said they're not anticipating that the plant will produce an odor.

the stream reaches. And

that is what we are trying to help solve are those kinds of problems," he said.

Multiple speakers asked the board for specific data on failing septic systems in the Bean Blossom area. Bean Blossom

also has a high population of cows and other livestock; how could they be sure that the E.coli was coming from human waste through failed or illegal septic tanks and not animal waste, they asked.

The board did not have data to show where the failing septic systems are in the sewer project area.

In addition to his own properties' problems, Leggins talked about residents not being able to flush their toilets on rainy days. No one he'd talked to had said they were against the project; some asked how soon it could come, he said. Some lots are too small or too hilly to put a new septic system on, so without sewers, those systems are going to continue to fail.

"If you have a failing system, you need to be for it (the sewer project). What else are you going to do?" he asked.

pay to support essential services is going to go up, he said.

"So do you let the county implode in on itself? Do you shut down everything ... turn the roads back to gravel?" he asked.

Some folks, including resident and business owner Sandy Fields, said they like living their "country ways" in Brown County, and that includes gravel roads and few neighbors.

Resident and business owner Jan Stout wanted to know "where the subdivisions are going to go," and was so upset about that concept that she didn't allow Kemp to answer her. She left the meeting shortly after.

Studabaker said this project is aimed at people who are currently living here, to help them fix the wastewater problems they already have. Building a central wastewater treatment plant for the Bean Blossom area is better for the environment in general, and for individual homeowners as well, because it frees up the ground they're currently using to filter their

wastewater to be used for other things, he said.

After the meeting, Swift Powdrill said she wasn't aware that past sewer boards hadn't sent surveys to properties that would be affected by the sewer project, or that having house-by-house data was such a sticking point with the public. Both points were discussed in sewer board meetings last spring. Swift Powdrill was appointed to the board last summer. She previously worked for the health department.

She said "it would be a board decision" on whether they would consider surveying residents on their desire or need for sewer service, but it's something they could talk about.

Mitchell lingered on the sidewalk while board members huddled up inside. If the board goes through with this plan, there's been talk of a lawsuit, she said.

"How can they go against what all these people in the community want?" she asked, exhaling a stream of smoke. "It's not fair."

Dragway on Gatesville Road.

The plan is for the sewer board to apply for a combination of low-interest loans and grants from state and federal sources. Building it is estimated to cost \$7.355 million.

On June 18, the Brown County Council voted to set aside \$270,000 of its rainy day fund for initial expenses to get the project started.

Sewer customers would pay a monthly sewer bill. The board hopes that it can be kept within the \$65 to \$85 range, but they won't know for sure what is possible until they hear from the funding agencies.

Four of the five sewer board members, all of whom are volunteers, said that improving and protecting the environment is the root reason they want to see a sewer system finally get built. The Bean Blossom project has been talked about since the early 2000s.

One of the longest-serving members of the sewer board, Deborah

104 people.

Bean Blossom Creek has been on the state's "impaired waters" list for several years primarily because of the high levels of E. coli in it, Studabaker said.

Sewer board member Phil LeBlanc, a retired soil scientist, said that the average age of septic systems in the Bean Blossom area is 58 to 60 years old, which means many of them were built prior to state standards being developed in 1977. That leads sewer board and health department staff to believe that it's highly probable many of those systems are failing, just as they were in the Coffey Hill and Orchard Hill neighborhoods when the town of Nashville extended sewer to them in 2010. Failing systems cause contamination, LeBlanc said.

"Bean Blossom Creek is a lovely stream, but all indications are that we do have water quality problems from E. coli, and they do exceed the safe standards for safe recreational use along most of

for it (the sewer project). What else are you going to do?" he asked.

## Processes and trust

Other commenters had trouble with the way this sewer project came about. Board members acknowledged that they had not personally contacted all of the households in the project area recently to tell them that this project was being considered, and had not sent out surveys asking if residents wanted sewer. The last time a public hearing like this took place was in July 2016 under a mostly-different board, and about 200 letters were sent out, but the project didn't get off the ground then.

Resident Chris Ross asked if the board had made a final decision that this project was happening, and Larsh answered, "As it was presented today, yes." Ross asked if residents had any say in whether they want sewer or not. Engineer Gary Ladd said that that was the purpose of the

Brown County Regional Sewer Board public meetings occur nearly every month, but few members of the public show up.

Kemp said sewers have to be installed because Brown County's population is projected to decline over the next 20 to 30 years, and safe, affordable housing and jobs are needed to stabilize the population. With fewer people living in the county, the amount of taxes each person has to

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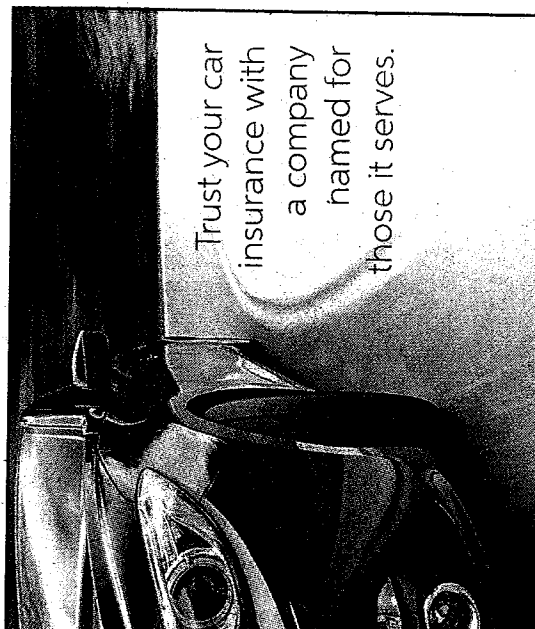
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well, because it frees up the ground they're currently using to filter their



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BRIAN HOWEY

COLLECT

I have reviewed the issue of expanding the justice needs by way of a new building in Brown County carefully. The Democrat has done an excel-

climatic scene in the movie "Apocalypse Now," we find Capt.



PAYHOUSE



# Town, sewer board cooperating

## Groups come to agreement on 'buffer zone' for future sewer service

By SARA CLIFFORD | THE DEMOCRAT  
sclifford@bcdemocrat.com

Anyone who doesn't currently have sewer service and owns property within a certain radius of Nashville will be able to petition the town to get sewer service if they want it.

That doesn't necessarily mean that the town will be able to serve them; however, the town will have that legal option — something it hasn't had for five years.

Up until last week, every property in Brown County that wasn't in the Nashville, Gnaw Bone or Helmsburg sewer districts was in the Brown County Regional Sewer District. In 2013, the county commissioners voted to expand the Bean Blossom district to include all those undefined and unserved areas and renamed it as a regional district.

However, the regional sewer district has no sewer plant yet, so it has no way to provide sewer service.

That meant that anyone who wanted sewer and didn't already have it couldn't hook onto the sewer district close to them, without the regional sewer district board's permission.

Over the past year, the regional board did give permission for some people in its service area to get service from the town, including the Hard Truth Hills development and three homeowners near Parkview Church of the Nazarene. But its rate consultant suggested earlier this spring that the board should give more thought to requests like those.

Over the past few weeks, the sewer board has met with representatives from town and county government to talk through a "memorandum of understanding" and a "buffer zone" map.

The MOU lays out which government entity can provide sewer service in which areas around Nashville, so that the town and the sewer board can "avoid wasteful conflicts over customers in the future."

It says that the town can serve homes with sewer in the buffer

### ON THE WEB

See the sewer service "buffer zone" map at [bcdemocrat.com](http://bcdemocrat.com), posted with this story.

Hawthorne Drive), we will expand it and as development occurs, but two to three years is just impossible, absolutely impossible," he said.

Reaching some areas with sewer in this "vacated" area might become a joint project between the town and the regional sewer board, Rudd said.

"Our objective here is to get everybody served the best, affordable way, economically and however they can be served," Leggins said.

The MOU also says that the town will take and treat the wastewater from the Bean Blossom area if the sewer board's plan to build a treatment plant on Gatesville Road is not approved by state regulatory agencies within the next five years. That would occur "on terms to be determined" by the town council and sewer board.

The "to be determined" part allows future members of the sewer board and town council to evaluate the situation at that time and make sure it works for both of them, Rudd said.

For instance, town council member Arthur Omberg asked at the June 21 council meeting about what would happen if the town's sewer plant was too full to take on Bean Blossom's flow in five years; or what if the Bean Blossom project had grown from the estimated 275 homes needing service to 500? He didn't want the town to be required pay to expand its plant just because of this agreement.

"If it doesn't work for the the town, the town council could decide to not enter into that agreement," Rudd said.

Both Rudd and several sewer board members said they were interested in forming a long-term, comprehensive sewer plan for the county.

Swift and Leggins said they plan to get a meeting set up with the Indiana Department of Environmental Management to see what

### WHAT ABOUT HAULED WASTE?

The same night they signed a cooperation agreement with the Brown County Regional Sewer District Board, the Nashville Town Council was asked to help a particular business in the sewer district's area.

Brown County Health Department supervisor John Kennard asked the council on June 21 if the town would consider accepting wastewater from the Bill Monroe Memorial Music Park until the regional sewer district can build its waste treatment plant in Bean Blossom.

The venue is on pump-and-haul, and its tanks often fill up on week-ends, Kennard says. The problem is that facilities in Monroe and Bartholomew counties no longer allow waste dumping on week-ends, so the hauler has to take it to Indianapolis. That's projected to cost Bill Monroe's \$100,000 a year, Kennard said.

The town council didn't give an immediate answer because no one knew enough about an additive that is sometimes added to RV toilets. There was concern that if that additive was in the waste, it could affect the biological processes at the town's wastewater treatment plant. But no one at the meeting knew off-hand how much of it it might take to cause a problem.

Kennard invited the town to think about how they could accept the waste, even if that means requiring some sort of pre-treatment. If the Bean Blossom plant doesn't get built or state-approved within five years, the town is first in line to accept Bean Blossom wastewater anyway, and that would include Bill Monroe's, he said.

Kennard's concern is that if Bill Monroe's can't find a way to deal with its waste soon for under \$100,000, the venue might install

\$

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### golf camp ed in July

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**3** **dish** **A**

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15. Go to NPR, e.g.
20. Renter's paper
22. Pharaoh's cobra
24. Judge's pronouncement
25. \*Kunta Kinte's descendant and author
26. Be theatrical
27. Bridge of \_\_\_\_\_ Venice
29. Chinatown gang
31. \*"Blackish" dad's dad
32. Brown, Dartmouth and Yale, e.g.
33. Naturally, in slang
34. \*"All the Money in the World" family
36. Gloom partner
38. \*Family with two former Presidents
42. Chopin's composition
45. Metal detector, e.g.
49. New, prefix
51. Armed robber, e.g.
54. "Pokémon," e.g.
56. Related on mother's side
57. Jelly holders
58. Every which way
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61. Same as Celt
62. Gaelic
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Nashville, so that the town and the sewer board can "avoid wasteful conflicts over customers in the future."

It says that the town can serve homes with sewer in the buffer zone, a certain area that basically surrounds the town from the tops of hills. That way, gravity can help feed wastewater to the town's plant.

"We gave them a tentative boundary ... which was based really on topography in the county. We went from Annandale Estates on the west to Nashville. On the north we went ... south of Freeman Ridge. On the east was roughly the park entrance, and to the south was ... Kelley Hill," sewer board member Phil LeBlanc explained in a June 5 meeting.

The board later voted to approve those boundaries.

"Logically, the city is closer to serving these people. We don't have a plant, we don't have a pipe in the ground," he said.

The sewer board is "vacating" that area. That is not the same as the sewer district "giving territory" to the town, said Town Manager/Economic Development Director Scott Rudd at last week's town council meeting. "It's simply vacating it so that whoever can serve the customers in that area can do so" with no delays, legal risks, etc., he said. It's essentially returning it to the way it was before the Bean Blossom district was expanded, when those residents were in no utility's territory, he added.

However, Rudd said it's not likely that the town will run sewer service to all of the areas within the buffer zone in the next two to three years. "It's a pretty clear answer, no. It's not possible," he said at the June 5 meeting.

Sewer board member Mike Leggins asked how long it would take. "It just depends on what the need is," Rudd said. "We don't have a history of expanding sewer to people who don't want it. So if people ask, like ... the Maple Leaf (Performing Arts Center project off

interested in forming a long-term, comprehensive sewer plan for the county.

Swift and Leggins said they plan to get a meeting set up with the Indiana Department of Environmental Management to see what the agency wants the county to do, such as building multiple, smaller plants or routing wastewater to a more central location.

State agencies have been encouraging "regionalization," or entities working together to deal with their wastewater, in part to reduce the amount of discharge points.

## What about annexation?

Questions about the buffer zone and whether or not people living in it would be annexed came up at the June 18 county council meeting and the June 19 public hearing on the Bean Blossom sewer project.

Resident Paul Navarro asked if the sewer board was back in the same position it was in a couple years ago, when the town offered it an agreement that included a clause about residents waiving annexation.

"We don't have a contract with the city," LeBlanc told him. LeBlanc later added that "the city's request was to have an area they could serve, and it was expanded to meet their needs."

Jim Kemp, who was at the June 5 meeting where the buffer zone map and agreement were discussed, told Navarro that the "contract" he mentioned is called an MOU, and that sewer service and annexation are two separate issues.

Navarro said he found it "dishonest and offensive" that a sewer service buffer zone could have been created without notifying people. The discussion happened in a meeting open to the public, but it was mostly attended by public officials.

Town council Vice President Jane Gore later stood up and clarified that the town is not looking to annex anyone, and that's not what the boxed buffer zone on the map means.

that would include Bill Monroe's, he said.

Kennard's concern is that if Bill Monroe's can't find a way to deal with its waste soon for under \$100,000, the venue might install its own sewer "package plant," and the sewer district could potentially lose one of its biggest customers — or more if the Bean Blossom Trailer Court would decide to go in on it with them, he said.

Town council members said that accepting Bill Monroe's waste was worth looking into, but they agreed with Town Manager Scott Rudd that the regional sewer board needed to be OK with it first. "It's a temporary situation to help them continue to operate," Rudd said.

"We're not coming to you. We would wait for you to come talk to us. We never talked about annexation," she said. "We're just looking to serve the public. ... There's no hidden agendas. ... We're just trying to make it (sewer service) available if you want it. ... We're not talking annexation."

## When was it signed?

Questions about whether or not the sewer board had signed anything agreeing to the buffer zone or to the MOU, and when that happened, also surfaced at the June 19 sewer project public hearing.

The sewer board did vote on the buffer zone map in their June 5 meeting, but they did not sign the MOU during the meeting, Rudd said. However, a reporter saw sewer board signatures on that document on June 18.

The town council signed off on the map and the MOU on June 21, alongside four of the five sewer board members' signatures.

Rudd said that the sewer board would need to ratify the document during their July meeting "to make sure all the appropriate steps are met."

## EDUCATION BRIEFS

### Small-business counseling available for free at center

The Brown County Career Resource Center, 246 E. Main St., offers individual small-business counseling sessions through the Service Corps of Retired Executives.

There is no charge for the sessions, which meet in the morning on the first Thursday of every month. An appointment is required. For more information or to reg-

### High school equivalency class set each week

Classes focused on the high school equivalency assessment exam — formerly called GED classes — are taught year-round from 1 to 4:30 p.m. Monday through Thursday at the Brown County Career Resource Center, 246 E. Main St.

Students who cannot attend then can arrange instruction by appointment or by distance learning.

may be eligible for free job training through WorkOne.

For more information, call 812-988-5880.

### Register to become a certified nursing assistant

Certified nursing assistant classes are offered periodically at the Brown County Career Resource Center, 246 E. Main St. The next CNA class will begin in the fall. For more information or to reg-

## **APPENDIX A**

### **SEWER DISTRICT FORMATION INFORMATION**



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

## Notice of Decision

SEP 26 2006  
BY AUDITOR

You are hereby notified that the Commissioner of the Indiana Department of Environmental Management signed on July 21, 2006, the final Order creating the Bean Blossom Regional Sewer District pursuant to IC 13-26-2-10, and based upon the Findings of Fact and Recommended Order of the hearing officer in this matter.

The Final Order, as well as the hearing officer's Findings of Fact and Recommended Order, are on file at the Brown County Public Library, 205 Locust Lane, Nashville, Indiana. Additionally, upon effectiveness of the Final Order, these documents will be on file at the principal office of the District: Jackson Township Trustee's office, 5076 North State Road 135, Morgantown, Indiana.

Pursuant to IC 13-26-2-11, IC 4-21.5-3-2, and IC 4-21.5-5-5, the Final Order becomes effective thirty-three (33) days after service through the United States mail, unless a petition for judicial review is filed before or on the thirty-third (33<sup>rd</sup>) day. If you wish to challenge this decision, standing and substantive requirements of the verified petition for review are specified in IC 4-21.5-5-3 and IC 4-21.5-5-7, respectively. Pursuant to IC 4-21.5-5-9, a person seeking judicial review of the final Order may, by filing a verified petition, request an order of the court staying the Order pending a decision by the court.

Contact person:

Mrs. Lynne Newlon

800 - 451 - 6027 (Within Indiana)

Direct # 317-233-0476



STATE OF INDIANA       )  
                                  )  
COUNTY OF MARION     )

BEFORE THE INDIANA DEPARTMENT  
SS: OF ENVIRONMENTAL MANAGEMENT

IN THE MATTER OF:                       )  
THE FORMATION OF THE                   )  
BEAN BLOSSOM REGIONAL                 )  
SEWER DISTRICT                         )

FINDINGS OF FACT AND RECOMMENDED ORDER  
OF THE HEARING OFFICER

FINDINGS OF FACT

1. On or about June 24, 2004, the Brown County Council petitioned the Indiana Department of Environmental Management (IDEM) for an Order to establish a regional sewer district (RSD) in Brown County.
2. The submitted petition complies with the provisions of IC 13-26-2.
3. The proposed name of the regional sewer district is the Bean Blossom Regional Sewer District (RSD).
4. A public hearing was held on October 19<sup>th</sup>, 2005 at the Fruitdale Fire Department, 5200 North State Road 135, Morgantown, Indiana.
5. Notice of the hearing was given during the weeks of October 3-7, October 10-14, and October 17-23, 2005, by publication in the following newspapers of general circulation: 1) The Brown County Democrat and 2) The Herald Times. Notice was given by mail to each eligible entity involved.
6. The principle office of the Bean Blossom RSD shall be located at Jackson Township Trustee's office, at 5076 North State Road 135, Morgantown, Indiana 46160. The mailing address is P.O. Box 297, Morgantown, Indiana 46160. The Bean Blossom RSD Board of Trustees (Bean Blossom RSD Board), upon formation, may relocate the office upon written notice to IDEM.
7. The sanitary sewage needs of those residents now residing within such Bean Blossom RSD are currently being met with septic systems, many of which are failing.

8. The residents of the Bean Blossom RSD currently obtain their water for drinking and other purposes from public water supplies, cisterns, or individual wells. Contamination from failing septic systems may detrimentally affect the water quality and public health in the Bean Blossom RSD.
9. The current method of collection and disposal of the sanitary sewage of some of the residents of the Bean Blossom RSD detrimentally affects the water quality and public health within the proposed district.
10. Upon formation, the Bean Blossom RSD may construct and operate a system that will collect and treat the sanitary sewage of the residents of the Bean Blossom RSD. The Bean Blossom RSD may contract with a district or municipality to meet the sewage treatment needs of the residents of the Bean Blossom RSD. The RSD may implement a septic maintenance/management program as needed.
11. The purposes to be accomplished by the formation of the Bean Blossom RSD are to provide for the collection, treatment, and disposal of sewage within the district pursuant to IC 13-26-1-1.
12. The Bean Blossom RSD did not incur debt when it organized.
13. The Bean Blossom RSD shall be governed by three (3) board members.
  - A. The Brown County Council shall appoint one (1) member that owns property or resides in Jackson Township, Brown County, Indiana. The term shall expire December 31<sup>st</sup>, 2009.
  - B. The Brown County Council shall appoint one (1) member that owns property or resides in Jackson Township, Brown County, Indiana. The term shall expire December 31<sup>st</sup>, 2008.
  - C. The Brown County Council shall appoint one (1) member that owns property or resides in Jackson Township, Brown County, Indiana. The term shall expire December 31<sup>st</sup>, 2007.
  - D. All appointment terms, subsequent to expiration of the initial terms described above shall be for a period of four (4) years.
  - E. In the event a vacancy occurs on the Bean Blossom RSD Board, the appointing authority for that trustee shall appoint a new board member within thirty (60) days to complete the term of the vacant board member position(s).
14. The estimated monthly sewage rate is projected to be approximately \$40.00 to \$65.00, provided the Bean Blossom RSD pursues and receives all public funding.

15. The Bean Blossom RSD shall apply for available public funding as needed.
16. The source of funds to provide for the operating and maintaining costs of the Bean Blossom RSD will be derived from monthly user fees.
17. The Bean Blossom RSD appears capable of accomplishing the purposes for which it was formed, in an economically feasible manner, provided it maximizes all practicable public funding options and receives anticipated grants.
18. The territory to be included in the District is;  
Includes land within the northeast quarter section of Section 36, Township 10 N., Range 2 E; the northwest quarter section of Section 31, Township 10 N., Range 3 E.; the southwest quarter section of Section 30, Township 10 N., Range 3 E., and; the southeast quarter section of Section 25 Township 10 N., Range 2 E. of Jackson Township, Brown County, Indiana.
19. The District must promote public health, safety, convenience, and welfare in its territory.
20. The Bean Blossom RSD Board shall provide sufficient bond for all officers, Trustees or employees who have any power to disburse funds of the Bean Blossom RSD.
21. On or before July 15<sup>th</sup>, 2007, the Bean Blossom RSD shall file with the Commissioner of IDEM, a detailed plan for the construction and operation of Bean Blossom RSD's facilities known as the District Plan.
22. Options for the treatment and collection of wastewater have been preliminary studied and further studies will be prepared after the formation of the district.
23. Establishment of the District will be conducive to the public health, safety, convenience and welfare of the residents of the District as the District plans to collect, dispose and treat sewage that is currently being provided by individual septic tanks or other on-site systems.
24. The plan for financing the cost of operations of the Bean Blossom RSD until it is in receipt of revenue from its operation or proceeds from the sale of bonds may include a 40 year loan from U.S.D.A. Rural Utility Services or the Indiana State Revolving Fund (SRF) and private contributions.
25. There are no eligible entities providing sewers in the current territory of the Bean Blossom RSD.
26. Upon formation, the District may construct or contract for treatment, pumping, transmission, and storage and distribution systems for the municipal and rural supply needs.

## RECOMMENDED ORDER

The Hearing Officer recommends the following:

1. That a Regional Sewer District, to be known as the Bean Blossom Regional Sewer District (Bean Blossom RSD) be organized as an independent political entity of the State of Indiana as a body corporate and politic.
2. The purposes to be accomplished by the formation of the Bean Blossom RSD are to provide for the collection, treatment, and disposal of sewage within the district pursuant to IC 13-26-1-1.
3. The territory to be included in the District is;  
Includes land within the northeast quarter section of Section 36, Township 10 N., Range 2 E; the northwest quarter section of Section 31, Township 10 N., Range 3 E.; the southwest quarter section of Section 30, Township 10 N., Range 3 E., and; the southeast quarter section of Section 25 Township 10 N., Range 2 E. of Jackson Township, Brown County, Indiana.
4. The Bean Blossom RSD shall be governed by three (3) board members.
  - A. The Brown County Council shall appoint one (1) member that owns property or resides in Jackson Township, Brown County, Indiana. The term shall expire December 31<sup>st</sup>, 2009.
  - B. The Brown County Council shall appoint one (1) member that owns property or resides in Jackson Township, Brown County, Indiana. The term shall expire December 31<sup>st</sup>, 2008.
  - C. The Brown County Council shall appoint one (1) member that owns property or resides in Jackson Township, Brown County, Indiana. The term shall expire December 31<sup>st</sup>, 2007.
  - D. All appointment terms, subsequent to expiration of the initial terms described above shall be for a period of four (4) years.
  - E. In the event a vacancy occurs on the Bean Blossom RSD Board, the appointing authority for that trustee shall appoint a new board member within thirty (60) days to complete the term of the vacant board member position(s).

5. The Bean Blossom RSD Board shall provide sufficient bond for all officers, trustees or employees who have any power to disburse funds of the Bean Blossom RSD.
6. On or before July 15<sup>th</sup>, 2007, the Bean Blossom RSD shall file with the Commissioner of IDEM, a detailed plan for the construction and operation of Bean Blossom RSD's facilities known as the District Plan.
7. The Bean Blossom RSD shall apply for all available public funding as needed.
8. Establishment of the District will be conducive to the public health, safety, convenience and welfare of the residents of the District as the District plans to collect, dispose and treat sewage that is currently being provided by individual septic tanks or other on-site systems.
9. The District must promote public health, safety, convenience, and welfare in its territory.
10. Upon formation, the District may construct or contract for treatment, pumping, transmission, and storage and distribution systems for the municipal and rural supply needs.

Dated: June 14, 2006 Hearing Officer Lynne L. Newlon

STATE OF INDIANA )  
 )  
COUNTY OF MARION )

BEFORE THE INDIANA DEPARTMENT  
SS: OF ENVIRONMENTAL MANAGEMENT

IN THE MATTER OF: )  
THE FORMATION OF THE )  
BEAN BLOSSOM REGIONAL )  
SEWER DISTRICT )

ORDER ADOPTING THE FINDINGS OF FACT  
AND RECOMMENDED ORDER OF THE HEARING OFFICER  
FOR THE ORGANIZATION OF THE  
BEAN BLOSSOM REGIONAL SEWER DISTRICT

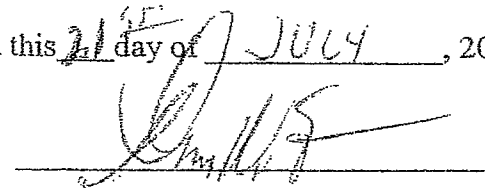
Notice is hereby given that the Hearing Officer has filed with the Commissioner of the Indiana Department of Environmental Management (Commissioner) the "FINDINGS OF FACT AND RECOMMENDED ORDER" relative to the petition requesting organization of the Bean Blossom Regional Sewer District (RSD). Said FINDINGS and RECOMMENDED ORDER is attached to this ORDER, and consists of five (5) pages.

And the Commissioner, having reviewed the attached "FINDINGS OF FACT AND RECOMMENDED ORDER" of the Hearing Officer, now determines that the organization of the proposed RSD complies with the conditions of Indiana Code 13-26 et seq., and that the proposed RSD appears capable of accomplishing its purpose in an economically feasible manner.

IT IS NOW ORDERED BY THE COMMISSIONER that the Bean Blossom Regional Sewer District be organized as an independent municipal corporation pursuant to the terms and conditions set forth in the attached "FINDINGS OF FACT AND RECOMMENDED ORDER" which are adopted and approved, and deemed incorporated in this ORDER, as though set out in full.

Pursuant to IC 13-26-2-11, IC 4-21.5-3-2 and IC 4-21.5-5-5, this ORDER becomes effective thirty-three (33) days after service through the United States mail, unless a petition for judicial review is filed before or on the thirty-third (33<sup>rd</sup>) day. Standing and substantive requirements of the verified petition for review are specified in IC 4-21.5-5-3 and IC 4-21.5-5-7, respectively. Pursuant to IC 4-21.5-5-9, a person seeking judicial review of this ORDER may, by filing a verified petition, request an order of the court staying this ORDER, pending a decision by the court.

All of which is ORDERED at Indianapolis, Indiana this 21<sup>st</sup> day of JULY, 2006.



Thomas W. Easterly, Commissioner  
Indiana Department of  
Environmental Management



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence  
Governor

Thomas W. Easterly  
Commissioner

August 1, 2013

Bean Blossom Regional Sewer District  
c/o Mr. Steve Staley  
5148 N. S.R. 135  
Morgantown, IN 46160

Dear Mr. Staley:

Re: Addition of Territory

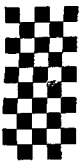
In April 2013, the Brown County Commissioners requested the Bean Blossom Regional Sewer District (BBRSD) to expand their area of service to include the entire unincorporated areas of Brown County that were not already served by existing municipal utilities or private utilities. The Indiana Department of Environmental Management (IDEM) has received the Brown County Commissioner's request for the BBRSD to expand their boundaries, along with a copy of the BBRSD board meeting minutes indicating that a motion to expand passed unanimously. The extension of territory was done in accordance with Indiana Code 13-26.

If you or any of the communities have any follow-up questions or need additional information, please feel free to contact me at 317-233-0476 or 1-800-451-6027 ext. 3-0476 or [lnewlon@idem.in.gov](mailto:lnewlon@idem.in.gov).

Sincerely,

Lynne Newlon  
Regional Water & Sewer District Coordinator  
Surface Water, Operations & Enforcement Branch  
Office of Water Quality  
Indiana Department of Environmental Management





Bean Blossom Regional Sewer District  
C/o Steve Staley  
5148 N. SR 135  
Morgantown, IN 46160

Lynne Newlon  
Regional Water & Sewer District Coordinator

Office of Water Quality

Indiana Department of Environmental Management  
100 North Senate Avenue Room IGCN 1255  
Indianapolis, IN 46204

May 13, 2013

Dear Mrs. Newlon,

This letter is to inform you that at a public meeting held on April 17, 2013, a quorum of the Board of Trustees of the Bean Blossom Regional Sewer District (BBRSD), unanimously voted in favor of expanding the boundaries of the District.

The new boundary will include all unincorporated areas of Brown County, and EXCLUDE the existing Helmsburg Regional Sewer District, Graw Bone Regional Sewer District, Cordry Sweetwater Conservancy District, as well as the City of Nashville.

Sincerely,

Steve Staley  
President, Bean Blossom Regional Sewer District



**Beanblossom Regional Sewer Board  
April 18, 2013**

Meeting called to order at 7:30: Steve Staley, President

Quorum: Steve Staley, Debbie Larsh

Guest: Vicki Perry, RCAP

New Business: Steve updated board on meeting with commissioners and Lynn Newlin(IDEM).

Our next step in this process is to agree to become a part of a county-wide sewer board.

Debbie made a motion to either combine with the other sewer districts in the county, or expand our boundaries to include the entire county.

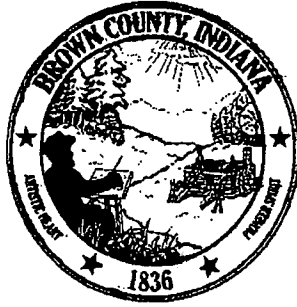
Discussion: One of the districts not eager to be included, but the other districts were agreeable.

Motion passed unanimously.

Meeting adjourned at 8:20

A handwritten signature in cursive script that reads "Debbie Larsh".

Submitted by Debbie Larsh, Secretary



**Brown County Government  
Board of Commissioners**

2nd Floor County Office Building  
201 Locust Lane  
Nashville, Indiana 47448  
P.O. Box 151

Phone: 812-988-4901  
Fax: 812-988-5488  
E-mail: [commissioners@browncounty-in.us](mailto:commissioners@browncounty-in.us)  
[www.browncounty-in.gov](http://www.browncounty-in.gov)

May 2, 2013

Mr. Steve Staley  
President of the Board  
Bean Blossom Regional Sewer District  
Bean Blossom, IN

Dear Mr. Staley;

The Board of Commissioners of Brown County, Indiana, voted in their regular open meeting of May 1, 2013, to ask the BBRSD to expand its boundaries within Brown County to include all unincorporated areas of Brown County but excluding the boundaries established by The Town of Nashville, the Helmsburg Regional Sewer District, and the Gnawbone Regional Sewer District.

The Commissioners are making this request of the BBRSD because of the environmental issues facing Brown County with failed and challenged septic systems which pose a health threat to the citizens residing within the County. These failed and challenged septic systems have been documented by the Brown County Health Department in a letter to the Commissioners.

The Commissioners will be awaiting your timely response.

Sincerely;

John Kennard  
Joe Wray  
David Anderson

Commissioners of Brown County

**Beanblossom Regional Sewer District**

**Po Box 1682**

**Nashville In 47448**

**May 2, 2013**

**To: Brown County Commissioners,**

In regards to the Commissioners request for BBRSD to expand it's boarder's to include all unincorporated areas of Brown County excluding the boundaries established by the Town of Nashville, the Helmsburg RSD and the Gnawbone RSD. Having conviened via public meeting the BBRSD has determined that expansion would be benificial to the District and the County and has agreed by vote to accept the Commissioners request for expansion. We look forward to working with the County to implement needed septic solutions.

Steve Staley,

A handwritten signature in black ink, appearing to read "Steve Staley", written in a cursive style.

President, BBRSD



NAME Chg, Comm. Request / IDEM  
Order

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Michael R. Pence  
Governor

Thomas W. Easterly  
Commissioner

August 1, 2013

Bean Blossom Regional Sewer District  
c/o Mr. Steve Staley  
5148 N. S.R. 135  
Morgantown, IN 46160

Dear Mr. Staley:

Re: Addition of Territory

In April 2013, the Brown County Commissioners requested the Bean Blossom Regional Sewer District (BBRSD) to expand their area of service to include the entire unincorporated areas of Brown County that were not already served by existing municipal utilities or private utilities. The Indiana Department of Environmental Management (IDEM) has received the Brown County Commissioner's request for the BBRSD to expand their boundaries, along with a copy of the BBRSD board meeting minutes indicating that a motion to expand passed unanimously. The extension of territory was done in accordance with Indiana Code 13-26.

If you or any of the communities have any follow-up questions or need additional information, please feel free to contact me at 317-233-0476 or 1-800-451-6027 ext. 3-0476 or [lnewlon@idem.in.gov](mailto:lnewlon@idem.in.gov).

Sincerely,

Lynne Newlon  
Regional Water & Sewer District Coordinator  
Surface Water, Operations & Enforcement Branch  
Office of Water Quality  
Indiana Department of Environmental Management





INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence  
*Governor*

Thomas W. Easterly  
*Commissioner*

To: Bean Blossom Regional Sewer District  
P.O. Box 1881  
Nashville, IN 46160

December 23, 2013

Dear District,

The District has met the statutory requirements for requesting the district to add an additional two (2) appointments to the District's Board and extend the time to submit its District Plan. Enclosed is the First Order modifying your original Order. If you have any questions, please feel free to contact me at 317-233-0476.

Sincerely,

Lynne Newlon  
Regional District Coordinator  
IDEM



STATE OF INDIANA )  
 )  
COUNTY OF MARION )

BEFORE THE INDIANA DEPARTMENT  
OF ENVIRONMENTAL MANAGEMENT

SS:

IN THE MATTER OF: )

EXTENSION OF TIME AND INCREASE )  
IN NUMBER OF BOARD MEMBERS )  
BEAN BLOSSOM REGIONAL )  
SEWER DISTRICT )

2014000074 MISC \$0.00  
01/14/2014 10:26:53A 3 PGS  
Sandy Cain  
Brown County Recorder IN  
Recorded as Presented



**FIRST ORDER MODIFYING THE ORDER FORMING  
THE BEAN BLOSSOM REGIONAL SEWER DISTRICT**

The Bean Blossom Regional Sewer District (District) was previously established by Order of the Indiana Department of Environmental Management (IDEM), dated July 21, 2006 (Order), for the purpose of collection, treatment and disposal of sewage. The original Order stated the District shall file with the Commissioner of IDEM, a detailed plan (Plan) for the construction and operation of the District's facilities by July 15, 2007.

On or about December 11, 2013, the District, by its Board of Trustees, petitioned to amend the original Order, pursuant to Indiana Code (IC) §13-26-1, by requesting an extension of time to file the District's Plan and to increase the district's board members from three (3) to a five (5) member board. Currently the three (3) member district board is appointed by the Brown County Council. The District recently expanded its boundaries to encompass all of the unincorporated areas of Brown County that are currently not covered by an existing entity.

The Commissioner of IDEM now orders that the Order of July 21, 2006, be amended. The District's request to extend the time to submit its district plan and to increase the District's board to five (5) trustees is approved.

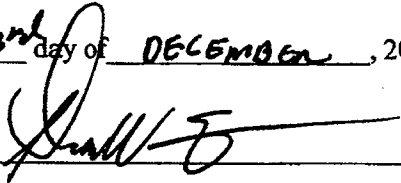
The three (3) current trustees appointed by the Brown County Council shall

remain in office for the remainder of their current terms. Thereafter the Brown County Council shall appoint three (3) trustees in accordance with IC 13-26-4-1, all with four (4) year terms. One (1) additional trustee shall be appointed by the Brown County Council with a two (2) year term. One additional trustee shall be appointed to the board by the Brown County Commissioners with a term of four (4) years.

The Commissioner hereby orders that the District submit its Plan by October 1, 2014. In all other respects, the District shall remain subject to the terms of the Order dated July 21, 2006.

Pursuant to IC § 4-21.5-3-5(f) and IC § 4-21.5-3-2(e), this Order modifying the original Order forming the Bean Blossom Regional Sewer District, becomes effective eighteen (18) days after its mailing. If you wish to challenge this decision, IC 4-21.5-3-7 requires that a petition for administrative review be filed. The petition describing your intent must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, IGC-N, Indianapolis, Indiana 46204, within eighteen (18) days from the mailing of this notice. This petition must be filed in accordance with IC 4-21.5-3-7, and must include facts demonstrating that the petitioner is the applicant, a person aggrieved by this decision, or a person entitled to review by law.

DATED in Indianapolis, Indiana, on this 23<sup>rd</sup> day of DECEMBER, 2013.



Thomas W. Easterly,

Commissioner

Indiana Department of Environmental Management



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

Michael R. Pence  
*Governor*

Carol S. Comer  
*Commissioner*

**March 31, 2016**

Brown County Regional Sewer District  
P.O. Box 1881  
Nashville, IN 47448

Dear Board:

Re: Approval of Order Modification

This letter is to advise you that the Order to change the name of the District from Beanblossom Regional Sewer District to Brown County Regional Sewer District and extend the deadline of the District Plan is complete. The signed Order is attached.

If you have any questions, please contact me (317) 233-1190.

Sincerely,

Edward Judson  
Regional District Coordinator  
Office of Water Quality

Enclosure

STATE OF INDIANA )  
 )  
COUNTY OF MARION )

SS:

BEFORE THE INDIANA DEPARTMENT  
OF ENVIRONMENTAL MANAGEMENT

IN THE MATTER OF: )

ORDER TO CHANGE NAME OF )  
BEANBLOSSOM REGIONAL )  
SEWER DISTRICT TO BROWN )  
COUNTY REGIONAL SEWER )  
DISTRICT )

**ORDER TO CHANGE THE NAME OF BEANBLOSSOM REGIONAL SEWER DISTRICT  
TO THE BROWN COUNTY REGIONAL SEWER DISTRICT**

The Beanblossom Regional Sewer District (District) Petitioner, was previously established by Order from the Indiana Department of Environmental Management, dated July 21, 2006. The Order is for the purpose of collection, treatment and disposal of sewage within the District.

Whereas, on December 23, 2013, IDEM signed the First Order Modifying the Order Forming the Beanblossom Regional Sewer District (First Modification) which approved the District's request to extend time to submit its District Plan to October 21, 2014 and the increase the District's Board membership from three to five.

Whereas, on January 5, 2016, a quorum of the District Trustees unanimously voted in favor of changing the name of the District to the Brown County Regional Sewer District. This vote was confirmed unanimously by a quorum of the newly seated Board at a public meeting held on February 2, 2016.

Whereas, on February 7, 2016, the District petitioned to amend its Order, pursuant to Indiana Code (IC) §13-26-1, by requesting to change the name of the District from Beanblossom Regional Sewer District to Brown County Regional Sewer District and requesting an extension of an additional year to submit its District Plan.

## ORDER

The Commissioner of IDEM now orders that the Order dated July 21, 2006, and the First Modification dated December 23, 2013, be amended. The name of the District shall now be the Brown County Regional Sewer District. The District plan will be due one year from the effective date of this Order.

In all other respects, the Order dated July 21, 2006 and the First Modification dated December 23, 2013, shall remain the same.

Pursuant to IC §4-21.5-3-5(f) and IC §4-21.5-3-2(e), this Order to amend the Order dated July 21, 2006 forming the Beanblossom Regional Sewer District, becomes effective eighteen (18) days after its mailing. If you wish to challenge this decision, IC §4-21.5-3-7 requires that a petition for administrative review be filed. The petition describing your intent must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, IGCN, Indianapolis, Indiana 46204, within eighteen (18) days from the mailing of this notice. This petition must be filed in accordance with IC §4-21.5-3-7, and must include facts demonstrating that the petitioner is the petitioner, a person aggrieved by this decision, or a person entitled to review by law.

DATED in Indianapolis, Indiana, on this 6<sup>th</sup> day of April, 2016.



Carol S. Comer,  
Commissioner  
Indiana Department of Environmental Management

**APPENDIX B**

**ENVIRONMENTAL AGENCY LETTERS FOR  
BEAN BLOSSOM**





# United States Department of the Interior

## Fish and Wildlife Service



Bloomington Field Office (ES)  
620 South Walker Street  
Bloomington, IN 47403-2121  
Phone: (812) 334-4261 Fax: (812) 334-4273

October 7, 2009

Ms. Gary Ladd, P.E.  
Ladd Engineering, Inc.  
1127 Brookside Drive  
Lebanon, Indiana 46052

Dear Mr. Ladd:

This responds to your letter of September 25, 2009, requesting U.S. Fish and Wildlife Service (FWS) review of proposed wastewater conveyance system for the Town of Beanblossom, Brown County, Indiana.

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.

### Potential Concerns

The proposed project area is primarily within the residential footprint of the Town of Beanblossom. The excavation of the pipeline follows existing road right-of-ways or previously disturbed residential areas. The pipeline will cross five stream crossings along State Road 45 including Beanblossom Creek and an unnamed tributary within the District zoning area. It was apparent that every effort was made to avoid tree cutting; however, should any large trees need to be removed please determine whether such trees might be roost trees for Indiana bat. Abundant wildlife habitat exists within the project area. We therefore recommend the following measures to minimize physical impacts on remaining wildlife habitat:

1. Minimize erosion and cover or contain soil piles to prevent runoff during construction;
2. Create a vegetated buffer along streams after pipeline construction. The buffer should be 25 feet wide, if possible. Zoning restrictions and pipeline rights-of-way should be created to maintain the vegetated buffer along the pipeline adjacent to the unnamed stream;

3. Stabilize disturbed stream banks as quickly as possible after construction is completed. Revegetate with native plant species in areas that are currently dominated by natural vegetation;
4. If bank stabilization is necessary, we recommend the use of bioengineered stabilization techniques wherever feasible, using natural materials such as log structures and/or soil covered structural materials along with plantings of native trees and shrubs.
5. For any instream work that might occur within the headwater stream tributary or Beanblossom Creek, avoid disturbance within the stream channel during the fish spawning season (April 1 - June 30).
6. Use best methods to prevent soil erosion and runoff during construction, including phased grading, silt fencing and temporary covering or revegetation of soil piles;

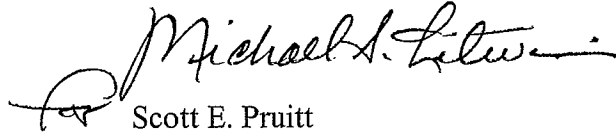
Per your conversation with my staff member, Thomas Simon, PhD, the crossing of streams will utilize directional drilling if the pipeline cannot be attached to the bridge. The pipeline routes within the town limits follow either existing road right-of-ways or cross existing disturbed areas. The following recommendations are made for the pipeline route once it extends west of the Town of Beanblossom along State Road 45. The conveyance line should follow the south side of State Road 45 from the district limits to the intersection with Railroad Road. The narrow shoulder along the north side of the road, often occurring less than 12 feet from the creek, could be compromised with additional excavation. Once passing the Railroad Road intersection, the route should switch to the north or west side of State Road 45 until conveyance with the Helmsburg treatment plant. This route would cause the least amount of potential tree clearing and minimize the riparian impact along the narrow road shoulder.

#### Endangered Species

The proposed project is within the range of the federally endangered Indiana bat (*Myotis sodalis*). While some foraging habitat may exist in the project area, we concur that the proposed project is not likely to adversely affect this listed species. However, to avoid incidental take and should large trees need to be removed, we recommend that tree-clearing be avoided during the period April 1 - October 1 so that potential roost trees are not disturbed during reproductive seasons.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. If, however, new information on endangered species at the site becomes available or if project plans are changed significantly, please contact our office for further consultation. For further discussion, please contact Thomas Simon, PhD at (812) 334-4261 ext. 1-213.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Michael A. Letwin", is written over the typed name "Scott E. Pruitt".

Scott E. Pruitt  
Field Supervisor

cc: IDEM, Water Quality Standards Section, Indianapolis, IN  
Christie Kiefer, Indiana Division of Fish and Wildlife, Indianapolis, IN  
Max Henschen, Indiana State Revolving Fund Loan Programs, Indianapolis, IN 46204



Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor  
Robert E. Carter, Jr., Director

Division of Historic Preservation & Archaeology • 402 W. Washington Street, W274 • Indianapolis, IN 46204-2739  
Phone 317-232-1646 • Fax 317-232-0693 • dhpa@dnr.IN.gov



October 26, 2009

Gary Ladd  
Ladd Engineering  
1127 Brookside Drive  
Lebanon, Indiana 46052

Federal Agency: USDA Rural Development and the Brown County Commissioners as the delegatee of the U.S. Department of Housing and Urban Development.

Re: Project information regarding wastewater improvements using funds through the Indiana Office of Community and Rural Affairs and Rural Development funds (DHPA #7294)

Dear Mr. Ladd:

Pursuant to Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) and 36 C.F.R. Part 800, the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO") has conducted an analysis of the materials dated September 25, 2009 and received on September 29, 2009 for the above indicated project in Brown County, Indiana.

Please note that our office has yet to receive a letter of authorization from the Brown County Commissioners for the HUD funded portion of this project.

Based upon the documentation available to the staff of the Indiana SHPO, we have not identified any historic buildings, structures, districts, or objects listed in or eligible for inclusion in the National Register of Historic Places within the probable area of potential effects.

In terms of archaeology, no currently known archaeological resources eligible for inclusion in the National Register of Historic Places have been recorded within the proposed project area. No archaeological investigations appear necessary provided that all project activities remain within areas disturbed by previous construction.

If any 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.

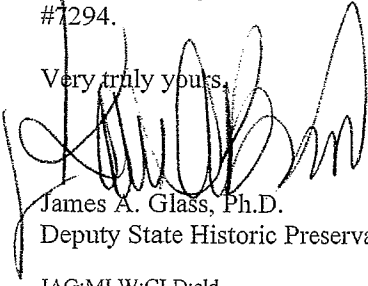
At this time, it would be appropriate for the Brown County Commissioners and USDA Rural Development to analyze the information that has been gathered from the Indiana SHPO, the general public, and any other consulting parties and make the necessary determinations and findings. Please refer to the following comments for guidance:

- 1) If the Brown County Commissioners and USDA Rural Development believes that a determination of "no historic properties affected" accurately reflects its assessment, then it shall provide documentation of its finding as set forth in 36 C.F.R. § 800.11 to the Indiana SHPO, notify all consulting parties, and make the documentation available for public inspection (36 C.F.R. §§ 800.4[d][1] and 800.2[d][2]).
- 2) If, on the other hand, the Brown County Commissioners and USDA Rural Development finds that an historic property may be affected, then it shall notify the Indiana SHPO, the public and all consulting parties of its finding and seek views on effects in accordance with 36 C.F.R. §§ 800.4(d)(2) and 800.2(d)(2).

Thereafter, the Brown County Commissioners and USDA Rural Development may proceed to apply the criteria of adverse effect and determine whether the project will result in a "no adverse effect" or an "adverse effect" in accordance with 36 C.F.R. § 800.5.

*A copy of the revised 36 C.F.R. Part 800 that went into effect on August 5, 2004, may be found on the Internet at [www.achp.gov](http://www.achp.gov) for your reference. If you have questions about archaeological issues please contact Cathy Draeger at (317) 234-3791 or [cdraeger@dnr.IN.gov](mailto:cdraeger@dnr.IN.gov). If you have questions about buildings or structures please contact Miriam Widenhofer at (317) 233-3883 or [mwidenhofer@dnr.IN.gov](mailto:mwidenhofer@dnr.IN.gov). Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA #7294.*

Very truly yours,



James A. Glass, Ph.D.

Deputy State Historic Preservation Officer

JAG:MLW:CLD:cld

cc: Dan Devault, Rural Development  
Darrell Kent, Brown County Commissioners  
emc: Dave Hacker, Indiana Office of Community and Rural Affairs



INDIANA GEOLOGICAL SURVEY

511 N. Walnut Grove Ave., Bloomington, IN 47405-2208 812/855-7636  
<http://igs.indiana.edu> IGSinfo@indiana.edu

November 17, 2009

Gary Ladd  
President  
Ladd Engineering, Inc  
1127 Brookside Drive  
Lebanon, IN 460052

Dear Gary,

This letter is in response to your letter, dated September 25, 2009, regarding the wastewater improvements for the Bean Blossom RSD, Brown County, IN. the activities you have describe should not affect, nor be affected by the geology of the area.

Additional geologic information may be found on our INDIANA MAP web site or you may contact me via email or phone (812-855-1366).

Sincerely,

Marni D. Karaffa  
Geologist  
Indiana Geological Survey



INDIANA UNIVERSITY



Mitchell E. Daniels, Jr.  
Governor

Dith A. Monroe, M.D.  
State Health Commissioner



Indiana State  
Department of Health  
*An Equal Opportunity Employer*

Date: September 29, 2009

To: Gary D. Ladd, P.E.  
Ladd Engineering, Inc.  
1127 Brookside Drive  
Lebanon, IN 46052

RE: Bean Blossom RSD Wastewater  
Improvements

In regards to the above referenced project, I am responding to the environmental review documents received by our office.

☒ We have no reservation about the proposed project and foresee no significant environmental disturbance.

☐ We believe this proposed project will have environmental detriment to the community and have attached supporting document or intend on requesting more information for our consideration.

If you have any questions, please contact Dennis H. Ehlers at AC 317/233-7588.

Sincerely

A handwritten signature in black ink that reads "Howard W. Cundiff".

HOWARD W. CUNDIFF, P.E., ACTING SUPERVISOR  
HEALTH CARE ENGINEERING

DHEhlers  
CC: Brown County Health Department

**State of Indiana  
DEPARTMENT OF NATURAL RESOURCES  
Division of Water**

**Early Coordination/Environmental Assessment**

---

**DNR #:** ER-14409 **Request Received:** September 29, 2009

**Requestor:** Ladd Engineering, Inc  
Gary Ladd  
1127 Brookside Drive  
Lebanon, IN 46052-1993

**Project:** Construction of wastewater improvements for Bean Blossom RSD

**County/Site info:** Brown

**Regulatory Assessment:** 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.  
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 312 IAC 10-5 that applies to utility line crossings (see enclosure). Please include a copy of this letter with the permit application if the project does not meet the general license criteria.

**Natural Heritage Database:** The Natural Heritage Program's data have been checked. Wilson's warbler (*Wilsonia pusilla*) was recorded to the northwest of the project site, but it was likely in migration at the time. Also, the state extirpated Deam dewberry (*Rubus deamii*) was recorded to the east, and the bobcat (*Lynx rufus*) was recorded due north of the proposed project site.

**Fish & Wildlife Comments:** The conveyance line connecting the Beanblossom system to the Helmsburg wastewater treatment plant will require crossing 3 perennial streams and two intermittent streams. The placement of the line on the north side of the road may impact forested riparian habitat as Beanblossom Creek is located adjacent to or close to the road for much of the distance between Beanblossom and Helmsburg. In Beanblossom, a segment of the line will cross Hopper's Branch which is also a tributary of Beanblossom Creek.

To minimize impacts to forested areas, the conveyance line and other wastewater lines should be placed within the previously cleared right-of-way of the road. Where impacts to forested areas are unavoidable, the impacts should be mitigated.

We recommend placing the line in such a way to minimize impacts to wooded areas along roadsides. Place the line adjacent to the roadside, in the cleared road right-of-way if such a cleared zone exists, or on the least forested side of the road. Where the line cannot be placed in the previously cleared right of way, it should be placed as close to the cleared zone as possible to minimize forest fragmentation.

Due to the number of perennial and intermittent creek crossings, all of which directly or indirectly affect Beanblossom Creek, we recommend that all creek crossings be done using the directional bore method.

Impacts to non-wetland forest under 1 acre need to be mitigated at a 1:1 ratio. Impacts to non-wetland forest over 1 acre need to be mitigated at a minimum 2:1 ratio. Impacts to wetland need to be mitigated at the appropriate ratio (see the state wetlands and habitat mitigation guidelines at <http://www.in.gov/legislative/register/20061213-IR-312060562NRA.xml.pdf>).

Fish, wildlife, and botanical resource losses as a result of this project can be minimized through implementation of the following measures.

Attachments: A - Utility Exemption Criteria

**State of Indiana  
DEPARTMENT OF NATURAL RESOURCES  
Division of Water**

**Early Coordination/Environmental Assessment**

---

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.

Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.

Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.

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.

Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.

Post "Do Not Mow or Spray" signs along the right-of-way.

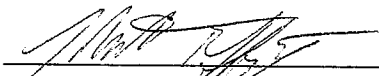
Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.

Seed and protect all disturbed streambanks and slopes that are 3:1 or steeper with photo- or bio-degradable heavy-duty erosion control blankets (follow manufacturer's recommendations for installation); seed and apply mulch on all other disturbed areas.

**Contact Staff:**

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife

Our agency appreciates this opportunity to be of service. Please do not hesitate to contact the above staff member at (317) 232-4160 or 1-877-928-3755 (toll free) if we can be of further assistance.



J. Matthew Buffington  
Environmental Supervisor  
Division of Fish and Wildlife

**Date:** December 17, 2009



United States Department of Agriculture  
Rural Development • Bloomfield Area Office

9/9/2009

Bean Blossom Regional Sewer District  
C/O: Ladd Engineering, Inc.  
1127 Brookside Drive  
Lebanon, In. 46052 phone: (765).482.9219

Ref: Section 106 Consultation Authorization

Dear Board Members / Mr. Gary Ladd,

USDA Rural Development, in accordance with the Section 106 process of the National Historic Preservation Act, hereby authorizes the sewer district named above and its consulting parties to participate in the consultation process with the State Historic Preservation Officer in connection with the proposed sewer project in Brown County, Indiana.

The signatory below is identified as the Rural Development contact person for the water and waste program administered by the agency.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Devault". The signature is written over the printed name "DAN DEVAULT".

DAN DEVAULT  
Area Specialist

Cc: Rochelle Owens, RD Environmental Coor., via e-mail

30 West Indiana Avenue • PO Box 191 • Bloomfield, IN 47424-0191  
Phone: (812) 384-4634 • Fax: (812) 384-8131 • TDD: (317) 290-3348 • Web: <http://www.rurdev.usda.gov/in>

Committed to the future of rural communities.

Rural Development is an Equal Opportunity Lender, Provider and Employer. Complaints of discrimination should be sent to  
USDA, Director, Office of Civil Rights, Washington, DC 20250-9410.

November 16, 2009

James A. Glass, Ph.D.  
Deputy State Historic Preservation Officer  
Indiana Department of Natural Resources  
Division of Historic preservation & Archaeology  
402 W. Washington Street, W274  
Indianapolis, IN 46204-2739

Re: DHPA #7294


Dear Mr. Glass:

In response to your 10/26/09 letter, please be advised that the Brown County Commissioners and USDA Rural Development reside in the most accurate determination for this project is that "No Adverse Impact" will result to historic properties or archaeological resources. We have followed 36 C.F.R. 800.11 in making this determination.

We have also taken the liberty to notify all consulting parties and this environmental report will be held on file at the Brown County Commissioners office for public review and comment.

We appreciate your assistance in approving this environmental packet for the Bean Blossom Regional Sewer District project.

Sincerely,

A handwritten signature in black ink, appearing to read "J.W. Austin", with a long horizontal flourish extending to the right.

J.W. Austin, President  
Brown County Commissioners

Xc: Ladd Engineering, Inc.  
Administrative Resources Association  
File



Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor  
Robert E. Carter, Jr., Director

Division of Historic Preservation & Archaeology • 402 W. Washington Street, W274 • Indianapolis, IN 46204-2739



December 4, 2009

J.W. Austin  
Brown County Commissioners  
Post Office Box 37  
Nashville, Indiana 47448

Federal Agency: USDA Rural Development and the Brown County Commissioners as the delegatee of the U.S. Department of Housing and Urban Development

Re: Notification of the Brown County Commissioners of "no adverse effect" regarding wastewater improvements using funds through the Indiana Office of Community and Rural Affairs and Rural Development funds (DHPA #7294)

Dear Mr. Austin:

Pursuant to Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) and 36 C.F.R. Part 800, the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO") has conducted an analysis of the materials dated November 16, 2009 and received on November 19, 2009 for the above indicated project in Bean Blossom, Brown County, Indiana.

We concur with the Brown County Commissioners' November 16, 2009 finding that there are no historic buildings, structures, districts, objects, or archaeological resources within the area of potential effects that will be adversely affected by the above indicated project.

This identification is subject to the following condition:

- The project activities remain within areas disturbed by previous construction.

If any 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.

At this time, it would be appropriate for USDA Rural Development to analyze the information that has been gathered from the Indiana SHPO, the general public, and any other consulting parties and make the necessary determinations and findings. Please refer to the following comments for guidance:

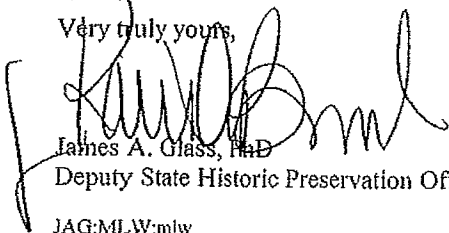
- 1) If USDA Rural Development believes that a determination of "no historic properties affected" accurately reflects its assessment, then it shall provide documentation of its finding as set forth in 36 C.F.R. § 800.11 to the Indiana SHPO, notify all consulting parties, and make the documentation available for public inspection (36 C.F.R. §§ 800.4[d][1] and 800.2[d][2]).
- 2) If, on the other hand, USDA Rural Development finds that an historic property may be affected, then it shall notify the Indiana SHPO, the public and all consulting parties of its finding and seek views on effects in accordance with 36 C.F.R. §§ 800.4(d)(2) and 800.2(d)(2). Thereafter, USDA Rural Development may proceed to apply the criteria of adverse effect and determine whether the project will result in a "no adverse effect" or an "adverse effect" in accordance with 36 C.F.R. § 800.5.



J.W. Austin  
December 4, 2009  
Page 2

If you have questions about archaeological issues please contact Cathy Draeger-Williams at (317) 234-3791 or [cdraeger@dnr.IN.gov](mailto:cdraeger@dnr.IN.gov). If you have questions about buildings or structures please contact Miriam Widenhofer at (317) 233-3883 or [mwidenhofer@dnr.IN.gov](mailto:mwidenhofer@dnr.IN.gov).

Very truly yours,

A handwritten signature in black ink, appearing to read "James A. Glass". The signature is stylized with a large initial "J" and a long, sweeping underline.

James A. Glass, PhD  
Deputy State Historic Preservation Officer

JAG:MLW:mlw

cc: Dan Devault, Rural Development  
enc: Dave Hacker, Indiana Office of Community and Rural Affairs



## Indiana Department of Environmental Management

*We make Indiana a cleaner, healthier place to live.*

Mitchell E. Daniels, Jr.  
Governor

100 North Senate Avenue  
Indianapolis, Indiana 46206

Thomas W. Easterly  
Commissioner

(317) 232-8603  
800) 451-6027  
[www.IN.gov/idem](http://www.IN.gov/idem)

Bean Blossom RSD  
Steve Staley  
P.O. Box 1881  
Nashville, IN 47448

Ladd Engineering, Inc.  
Gary D. Ladd  
1127 Brookside Drive  
Lebanon, IN 46052

Friday, September 25, 2009

Dear Grant Administrator or Other Finance Approval Authority:

RE: The Bean Blossom RSD is in the process of performing an environmental review pursuant to the National Environmental Policy Act for the Indiana Office of Community and Rural Affairs CDBG program and USDA Rural Development. The project consists of wastewater improvements including the construction of a low pressure sewer system with grinder pump stations collection system and conveyance to the Helmsburg RSD plant for treatment with effluent disposal in Beanblossom Creek. The total project cost is estimated at \$2,100,000. The project is located in Section's 25, 30, 31 and 36 of Jackson Township.

The Indiana Department of Environmental Management (IDEM) is aware that many local government or not-for-profit entities are seeking grant monies, a bond issuance, or another public funding mechanism to cover some portion of the cost of a public works, infrastructure, or community development project. IDEM also is aware that in order to be eligible for such funding assistance, applicants are required to first evaluate the potential impacts that their particular project may have on the environment. In order to assist applicants seeking such financial assistance and to ensure that such projects do not have an adverse impact on the environment, IDEM has prepared the following list of environmental issues that each applicant must consider in order to minimize environmental impacts in compliance with all relevant state laws.

IDEM recommends that each applicant consider the following issues when moving forward with their project. IDEM also requests that, in addition to submitting the information requested above, each applicant also sign the attached certification, attesting to the fact that they have read the letter in its entirety, agree to abide by the recommendations of the letter, and to apply for any permits required from IDEM for the completion of their project.

IDEM recommends that any person(s) intending to complete a public works, infrastructure, or community development project using any public funding consider each of the following applicable recommendations and requirements:

### **WATER AND BIOTIC QUALITY**

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/ort/default.asp>) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <http://www.in.gov/ldem-4396.htm>. IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality. To learn more about the water quality certification program, visit: <http://www.in.gov/ldem-4384.htm>.
3. If the USACE determines that a wetland or other body of water is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana. A state isolated wetland permit from IDEM's Office of Water Quality is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the Office of Water Quality at 317-233-8488.
4. If your project will impact more than 0.5 acres of wetland, stream relocation, or other large-scale alterations to bodies of water such as the creation of a dam or a water diversion, you should seek additional input from the Office of Water Quality, Wetlands staff at 317-233-8488.
5. Work within the one-hundred year floodway of a given body of water is regulated by the Department of Natural Resources, Division of Water. Contact this agency at 317-232-4160 for further information.
6. The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.
7. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality - Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page  
o <http://www.in.gov/ldem-4902.htm>

To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (<http://www.in.gov/ldem-4917.htm#constreg>), and as described in 327 IAC 15-5-6.5 ([http://www.in.gov/legislative/iac/103270\\_A001501PDF](http://www.in.gov/legislative/iac/103270_A001501PDF)), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) ([http://www.in.gov/isda/soil\\_contacts\\_map.html](http://www.in.gov/isda/soil_contacts_map.html)).

Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: <http://www.in.gov/ldem-4900.htm>.

If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

8. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317-232-4080) for additional project input.
9. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
10. For projects involving effluent discharges to waters of the State of Indiana, contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
11. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

## AIR QUALITY

The above-noted project (see page 1) should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed under specific conditions (<http://www.in.gov/idem/4148.htm>). You also can seek an open burning variance from IDEM.

IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on-site. You must register with IDEM if more than 2,000 pounds is to be composted; contact 317-232-0066. The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) on-site, although burying large quantities of such material can lead to subsidence problems.

2. Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

If construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for three to five years, precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for three to five years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at 317-233-7272.

3. The U.S. EPA and the U.S. Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. For a county-by-county map of predicted radon levels in Indiana, visit <http://www.in.gov/idem/4267.htm>.

The U.S. EPA further recommends that all homes and apartments (within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L or higher, then U.S. EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L or higher, then U.S. EPA recommends the installation of radon-reduction measures. For a list of qualified radon testers and radon mitigation (or reduction) specialists, visit [http://www.in.gov/isdh/regsvcs/radhealth.pdf#radon\\_testers\\_mitigators\\_list.pdf](http://www.in.gov/isdh/regsvcs/radhealth.pdf#radon_testers_mitigators_list.pdf). Also, it is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure, visit <http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>, <http://www.in.gov/idem/4145.htm>, or <http://www.epa.gov/radon/index.htm>.

4. With respect to asbestos removal, all facilities slated for renovation or demolition (except residential buildings that have four (4) or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of

RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead-Asbestos section at 1-888-574-8150.

In all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at [www.in.gov/icpr/webfile/formsdiv-44593.pdf](http://www.in.gov/icpr/webfile/formsdiv-44593.pdf).

Anyone submitting a renovation-demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. Billings will occur on a quarterly basis.

For more information about IDEM policy regarding asbestos removal and disposal, visit: <http://www.in.gov/Idem/4983.htm>.

5. With respect to lead-based paint removal, IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal, visit <http://www.in.gov/Idem/permits/guide/waste/leadabatement.html>.
6. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months of April through October. See 326 IAC 8-5-2, Asphalt Paving Rule ([http://www.aj.org/legislative/iac/103260\\_000080.PDF](http://www.aj.org/legislative/iac/103260_000080.PDF)).
7. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 ([www.aj.org/legislative/iac/103260\\_000020.pdf](http://www.aj.org/legislative/iac/103260_000020.pdf)). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
8. For more information on air permits, visit <http://www.in.gov/Idem/4223.htm>, or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or [oamprod@idem.in.gov](mailto:oamprod@idem.in.gov).

## LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/Idem/4998.htm>.
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If Polychlorinated Biphenyls (PCBs) are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes. (Asbestos removal is addressed above, under Air Quality.)
6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317-308-3039 (<http://www.in.gov/Idem/4999.htm>).

## FINAL REMARKS

Should the applicant need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that they notify all adjoining property owners and/or occupants within ten days of your submittal of each permit application. Applicants seeking multiple permits, may still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

Please note that this letter does not constitute a permit, license, endorsement, or any other form of approval on the part of either the Indiana Department of Environmental Management or any other Indiana state agency.

Should you have any questions relating to the content or recommendations of this letter, or if you have additional questions about whether a more complete environmental review of your project should be conducted, please feel free to contact Michael Sullivan at (317) 233-3835, msullivan@idem.in.gov.

Sincerely,



Thomas W. Easterly  
Commissioner

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## Signature(s) of the Applicant

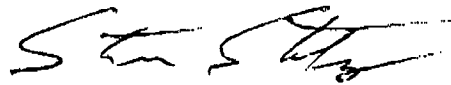
I acknowledge that I am seeking grant monies, a bond issuance, or other public funding mechanism to cover some portion of the cost of the public works, infrastructure, or community development project as described herein, which I am working (possibly with others) to complete.

## Project Description

The Bean Blossom RSD is in the process of performing an environmental review pursuant to the National Environmental Policy Act for the Indiana Office of Community and Rural Affairs CDBG program and USDA Rural Development. The project consists of wastewater improvements including the construction of a low pressure sewer system with grinder pump stations collection system and conveyance to the Helmsburg RSD plant for treatment with effluent disposal in Beanblossom Creek. The total project cost is estimated at \$2,100,000. The project is located in Section's 25, 30, 31 and 36 of Jackson Township.

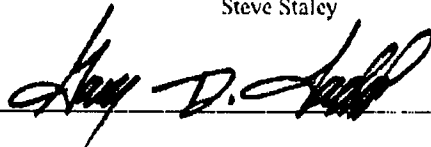
With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environmental Management that appears directly above. In addition, I understand that in order to complete the project in which I am interested, with a minimum impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Dated Signature of the Public Owner  
Contact/Responsible Elected Official



Steve Staley

Dated Signature of the Project  
Planner/Consultant Contact Person



Gary D. Ladd



United States Department of Agriculture



Natural Resources Conservation Service  
6013 Lakeside Blvd.  
Indianapolis, IN 46268

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October 1, 2009

Gary D. Ladd, P.E., President  
Ladd Engineer, Inc.  
1127 Brookside Drive  
Lebanon, IN 46052

Dear Mr. Ladd:

The proposed project to make wastewater improvements in the Town of Bean Blossom, Morgan County, Indiana, as referred to in your letter received September 29, 2009, will not cause a conversion of prime farmland. *BRW*

If you need additional information, please contact Lisa Bolton at 317-290-3200, extension 342.

Sincerely,

A handwritten signature in cursive script that reads "Jane E. Hardisty".

JANE E. HARDISTY  
State Conservationist

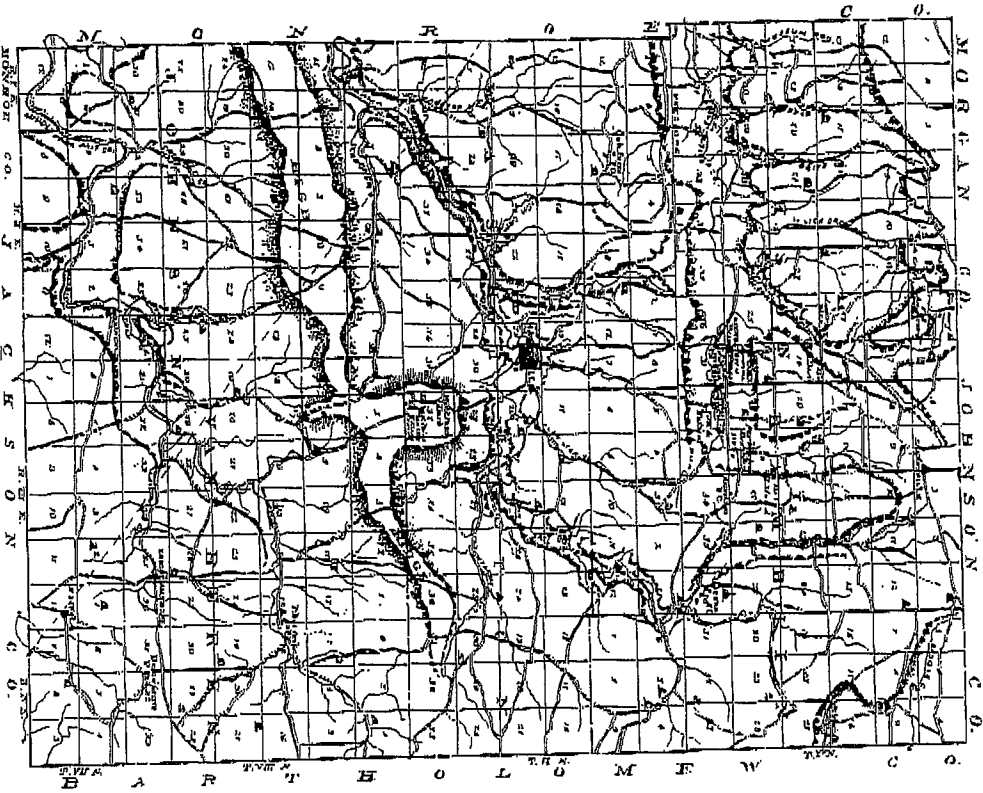
*Helping People Help the Land*

An Equal Opportunity Provider and Employer

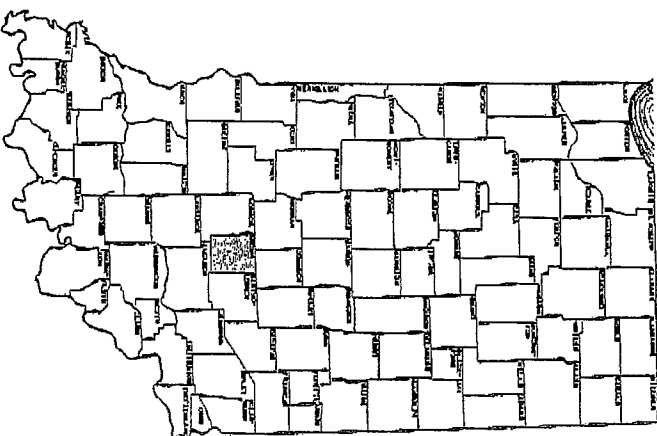
## **APPENDIX C**

### **BROWN COUNTY INTERIM REPORT**

c.1876



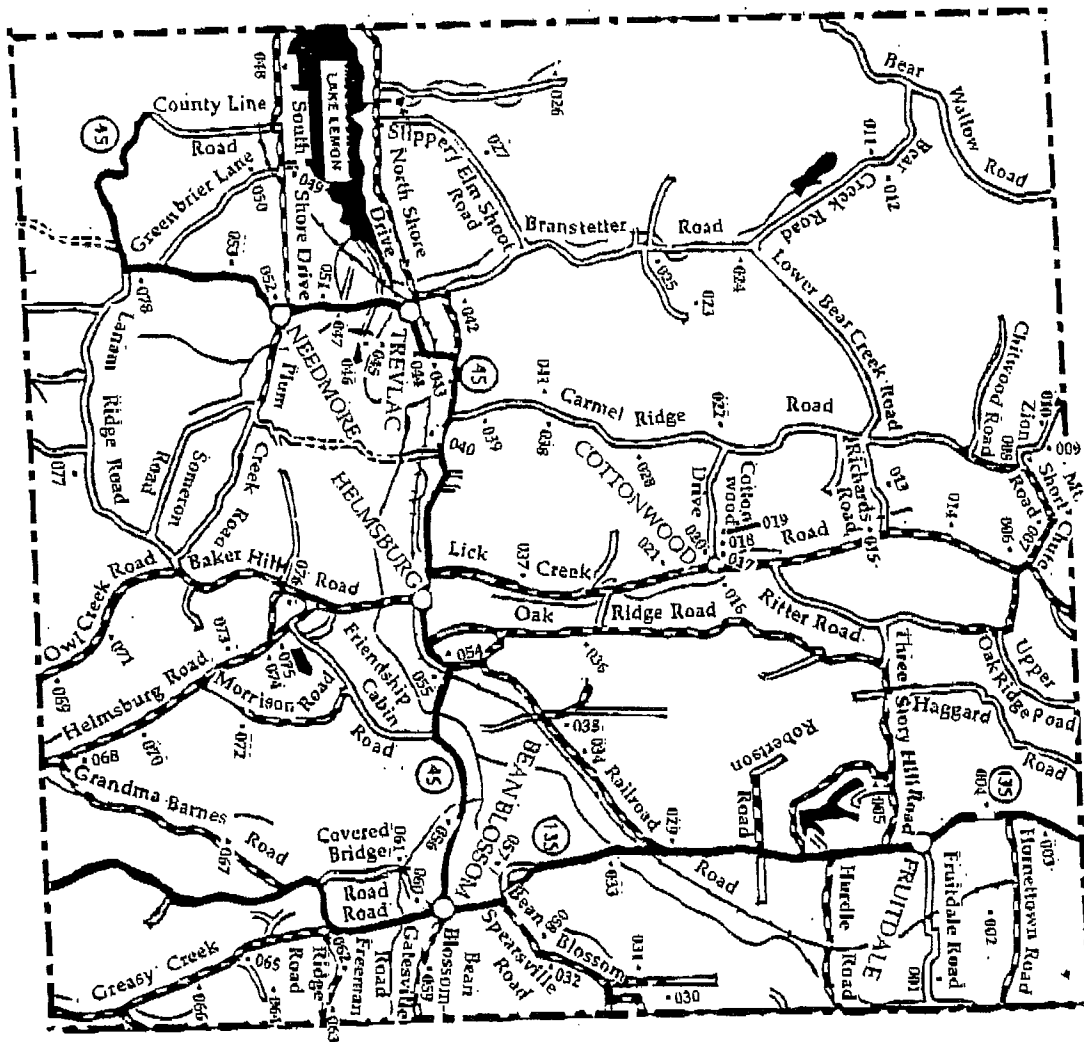
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To	Math Lab	From	Suzanne Struis		
Co/Dept		Co.			
Phone #		Phone #	639-4534		
Fax #	482-9224	Fax #			



This interim report is designed to be utilized as a working document by Government agencies, local organizations, and private citizens as the basis for a wide variety of projects.

Published August 1995.

# Jackson Township (05001-078)



Jackson Township is located in the northwest corner of Brown County. The township was organized in 1836 and until the formation of Washington Township that same year, Jackson Township also included the county seat of Jacksonburg, later known as Nashville.

Although the township was not formed until 1836, settlers arrived in the area as early as the 1820s. These settlers found a rugged, heavily timbered land which they cleared for farming, an industry which would dominate the township's economy into the twentieth century.

Bean Blossom, the township's earliest extant community, was platted in 1833 and was originally known as Georgetown. The Bean Blossom Covered Bridge (05061), the only covered bridge built in the county, is located southwest of the community.

During the early twentieth century, orchards and truck farming thrived as their produce was processed in local canneries and shipped out of the county for sale. The 1906 coming of the Illinois Central Railroad bolstered this industry. The rail line extended through Jackson Township with stops in Fruitdale, Helmsburg and Teylac. With the only railroad line in Brown County, Jackson Township gained importance over neighboring townships which were completely dependent upon standard roads. The line gave greater access to tourists and artists who could take the train as far as Helmsburg, then travel the short distance to Nashville by buggy.

The railroad was also responsible for the founding of three of the township's communities. Helmsburg, the largest of the three, was named for the Helms family who owned the surrounding land. Fruitdale, was the site of a cannery and was named for the many orchards in the area. Teylac was named for Colonel Clavert who moved to Brown County during the early twentieth century. He built a hotel, a number of cottages, a bath house and a clubhouse near the village of Richards, then petitioned to have the community renamed Calvert. Because there was already a Calvert, Indiana, the name was changed to Teylac, Calvert spelled backwards.

Canning factories remained an important industry in Jackson Township's economy until the mid-1930s. In 1930, the Hickory Hills Orchard and Cannery employed over 100 Jackson Township residents. However, the coming of new labor regulations, labelling and product requirements spelled the end of many small canneries, including Hickory Hills.

The 1930s, 1940s and the 1950s also brought change to Jackson Township's physical environment. The federal and state government began buying land in Brown County to retire submarginal land from farming and allow time for reforestation. Today, most of the township's western section is included within the Yellowwood State Forest. Lake Lemon, which straddles the township's border with Monroe County was constructed in 1953 as a water source for the city of Bloomington. This popular fishing and recreational area draws visitors from the surrounding area.

This period also saw the establishment of many private camps in the county. In Jackson Township, this included the Gallative Valley Girl Scout Camp and the Waycross Camp and Conference Center. The main structure in the Waycross Camp is the Steinhilber House (05024), while the conference retreat center is the former Hickory Hills orchard property.

The township's large collection of historic resources serve as reminders of the area's long history. The Brandstetter School (05042) and the Cottonwood School (05019), the township's only two remaining late nineteenth century rural schools, have been converted into residences. Just west of the Cottonwood School is the Cottonwood Christian Church (05020), built in 1892. Other rural churches including the Beech Grove Church (05006), the Bear Creek Church (05025), and the Oak Ridge Baptist Church (05036) illustrate the important place that these country churches played in remote and largely isolated sections of the county.

The township's residential architecture varies widely. Simple hewn log single-pen houses such as those on Owl Creek Road (05069, 05071) and Helmsburg Road (05070) represent the area's earliest and most basic

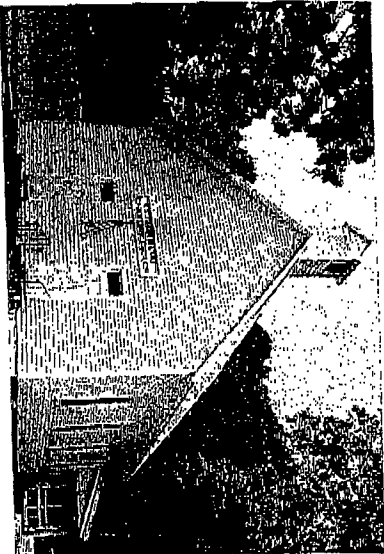
house type. The Allen Shorer Anderson-Cullen House (05029) provides a stark contrast to these crude log dwellings. As one of Brown County's only remaining brick houses and among the few two-story rural dwellings, the Anderson-Cullen House is unique to the area. Built between the years 1861-64 by Allen Anderson, a county surveyor, this outstanding house features a two-story integral porch, decorative cornice returns and pointed-arched attic windows. Anderson's brick kiln not only supplied the bricks for this handsome home but for others in the area which regrettably are now gone.

Jackson Township's remaining historic farmsteads reflect its strong agrarian past. The Leo and Velma Richards Farm (05015), the Blanche Hauser Cochran Farm (05034), and the Mart and Pearl Brown Farm (05053) are typical of the county's small agricultural operations.

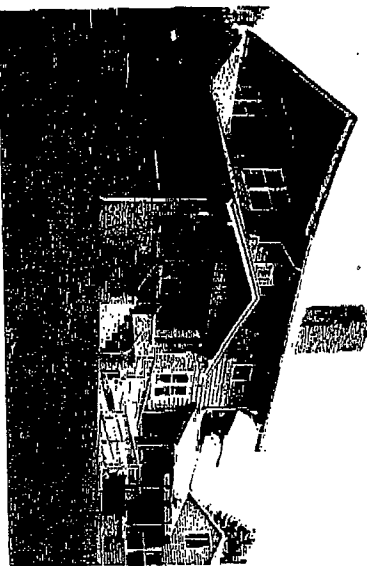
As Brown County developed into a tourist area during the early twentieth century, its rustic charm was translated into the design of small vacation houses or guest houses. Referred to here as Rustic Revival, these log homes, some of which were reconstructed using logs salvaged from older hewn log houses, were designed to be picturesque and blend into the area's natural environs. Houses on Morrison Road (05072) and Helmsburg Road (05073-076), date to the 1930s and are good illustrations of this style.

No.	Rtg.	Description
001	C	Clarence Waits House, Fruitdale Road; American four-square, c.1910; Vernacular/Construction (035)
002	C	James Stuart House, Hornetstown Road; Rustic Revival, 1932; Vernacular/Construction (035)
003	C	Knoxe House, SR 135; Log T-plan, c.1870; Vernacular/Construction (430)
004	C	Mosier House, SR 135; Vernacular, c.1860; Vernacular/Construction (430)

- 005 C Jacobs House, Three Story Hill Road; Double-pile, c.1860; Vernacular/Construction (430)
- 006 C Beech Grove Church, Lick Creek Road; Gable-front, 1924; Religion, Vernacular/Construction (430)
- 007 C House, Short Chute Road; Log half-and-parlor, c.1850; Vernacular/Construction (430)
- 008 C Reeder-Olsen House, Mt. Zion Road; Rustic Revival, 1938-1939/1989; Vernacular/Construction (430)
- 009 C Zupancic House, Mt. Zion Road; Rustic Revival, c.1935; Vernacular/Construction (430)
- 010 C Zupancic Farm, Mt. Zion Road; House: gable-front, c.1920; Outbuildings: livestock barn, chicken house, privy, garage, sheds; Agriculture, Vernacular/Construction (430)
- 011 C Tynner Megers House, Bear Creek Road; I-house, 1906/1980; Vernacular/Construction (430)
- 012 C William Voorheis House, Bear Creek Road; Rustic Revival, 1931/1980 (Henry & William Voorheis, builder); Vernacular/Construction (430)
- 013 C Sisson House, Richards Road; House: Rustic Revival, c.1930; Outbuildings: chicken house, cold cellar, privy; Vernacular/Construction (430)
- 014 C Tutterow House, Lick Creek Road; Bungalow, 1923; Architecture (430)
- 015 C Leo and Velma Richards Farm, Richards Road; House: T-plan, c.1895/1940; Outbuildings: transverse-frame barn, drive-in corncrib, smokehouse, privy, tool shed; Agriculture, Vernacular/Construction (430)
- 016 C Kelso Farm, Lick Creek Road; House: double-pen, c.1890; Outbuildings: English barn, summer kitchen, chicken house, privy, sheds; Agriculture, Vernacular/Construction (430)
- 017 C Hughes Grocery Store, Lick Creek Road; Commercial Vernacular, c.1900; Commerce, Vernacular/Construction (430)
- 018 C John Hughes House, Cottonwood Road; Gable-front, c.1900; Vernacular/Construction (430)
- 019 C Cottonwood School, Cottonwood Road; Vernacular, c.1900; Education, Vernacular/Construction (430)
- 020 C Cottonwood Christian Church, Lick Creek Road; Gable-front, 1892/1965/1983; Religion, Vernacular/Construction (430)
- 021 C Orville Miller Farm, Lick Creek Road; House: bungalow, c.1934; Outbuildings: livestock barn, drive-in corncrib; Agriculture, Architecture, Vernacular/Construction (430)
- 022 C Davis House, Carmel Ridge Road; Rustic Revival, c.1930; Vernacular/Construction (430)
- 023 C Benjamin Douglas House, Bear Creek Road; Rustic Revival, c.1920; Vernacular/Construction (430)
- 024 O Steinleiser House, Bear Creek Road; Craftsman, c.1910; Architecture (430)
- 025 C Bear Creek Church and Towney Cemetery, Bear Creek Road; Church: vernacular, 1917/1990; Cemetery: c.1838-present; Exploration/Settlement, Religion, Vernacular/Construction (430)
- 026 C Harisock House, Possum Trot Road; Double-pen, c.1870; Vernacular/Construction (430)
- 027 C Morgan House, Shippery Elm Shoot Road; Bungalow, c.1915; Architecture (430)



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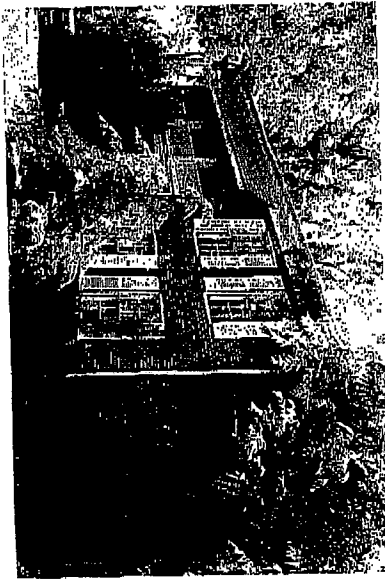


024



- 028 C Carmel Ridge Cemetery, Carmel Ridge Road; Religion (430)

- 029 O Allen Storer Anderson-Cullen House, SR 135; House: I-house/Greek Revival, 1861-1864/c.1980; Outbuildings: barn, privy; Agriculture, Architecture, Vernacular/Construction (430)



029

- 030 C Clarence and Oma Jane Zody Farm, Homestead Road; House: bungalow, c.1920; Outbuildings: dairy barns, silos; Agriculture, Architecture, Vernacular/Construction (035)

- 031 N Blind Farm, Homestead Road; House: I-house, c.1860; Outbuildings: English barn, chicken house, tractor barn; Agriculture, Vernacular/Construction (035)

- 032 C Hartman House, Bean Blossom-Spearsville Road; T-plan, c.1900; Vernacular/Construction (035)

- 033 C Loudon House, SR 135; House: hall-and-parlor/T-plan, c.1850/c.1900; Outbuildings: tool shed, wood shed, chicken house, privy; Vernacular/Construction (430)

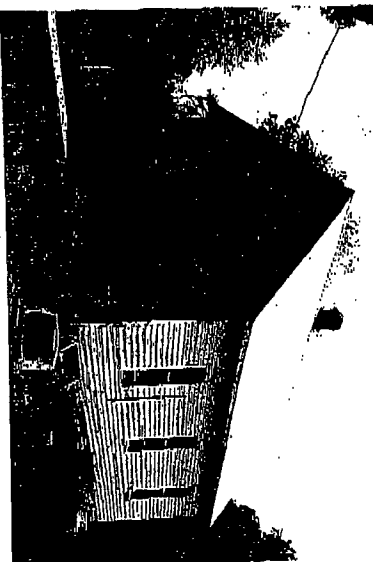


031

- 034 C Blancher Hauser Cochran Farm, Railroad Road; House: log single-pen/gabled-ell, c.1850/c.1880; Outbuildings: transverse-frame barn, smokehouse; Agriculture, Vernacular/Construction (430)

- 035 C House, Railroad Road; Log single-pen, c.1850; Exploration/Settlement, Vernacular/Construction (430)

- 036 N Oak Ridge Baptist Church and Cemetery, Oak Ridge Road; Church: gable-front, 1890; Cemetery: c.1900-present; Religion, Vernacular/Construction (430)



036

- 037 C House, Lick Creek Road; House: double-pen, c.1880; Outbuilding: privy; Vernacular/Construction (430)

- 038 C House, Carmel Ridge Road; Rustic Revival, c.1935; Vernacular/Construction (430)

- 039 C Sarah and Oscar Worford House, Carmel Ridge Road; House: vernacular, c.1880; Outbuildings: chicken houses, shed; Vernacular/Construction (430)

- 040 C Ed Worford Farm, SR 45; House: bungalow, c.1930; Outbuilding: transverse-frame barn; Agriculture, Architecture, Vernacular/Construction (430)

- 041 C Weddle House, Carmel Ridge Road; Rustic Vernacular, 1933; Vernacular/Construction (430)

- 042 C Brandstetter School, Brandstetter Road; Vernacular, c.1910/1968; Education, Vernacular/Construction (430)

- 043 C Ray and Anna Fleener Farm, SR 45; House: vernacular, c.1925; Outbuildings: barns, chicken house, granary; Agriculture, Vernacular/Construction (430)

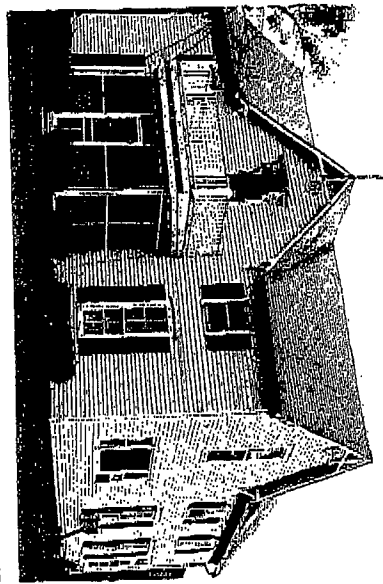
- 044 C Whitaker House, SR 45; Gable-front, c.1910; Vernacular/Construction (430)

- 045 C Orville Richards-Millie McCoy House, Long Street, Trevelac; Gable-front, c.1910; Vernacular/Construction (430)

- 046 C Rogers House, Long Street, Trevelac; Shotgun, c.1890; Vernacular/Construction (430)

- 047 C Turner House, Rogers Street, Trevelac; Gable-front, c.1910; Vernacular/Construction (430)

048 N Dr. Joseph Fleener-Poling House,  
County Line Road, I-House, c.1870;  
Vernacular/Construction (430)



048

049 C Walker House, South Shore Drive;  
T-plan, c.1900; Vernacular/Construction  
(430)

050 C Rogers Farm, Greenbriar Lane;  
House: bungalow, c.1920; Outbuildings:  
English barn, livestock barn,  
chicken house, windmill; Agriculture,  
Architecture, Vernacular/Construction  
(044)

051 C Needmore Cemetery, SR 45;  
c.1870-present; Religion (430)

052 C Clarence and Kate Robertson House,  
S. Shore Drive; Bungalow, c.1920;  
Architecture (430)

053 C Mart and Pearl Brown Farm, SR 45;  
House: gable-front, c.1880; Outbuildings:  
transverse-frame barn, chicken house,  
privy; Agriculture,  
Vernacular/Construction (044)

054 C Selzer House, SR 45; Central-passag,  
c.1870; Vernacular/Construction (430)

055 C Bond Farm, SR 45; House: double-pen,  
c.1880; Outbuilding: Midwest  
three-portal barn; Agriculture,  
Vernacular/Construction (430)

056 C House, SR 45; Rustic Revival, c.1930;  
Vernacular/Construction (430)

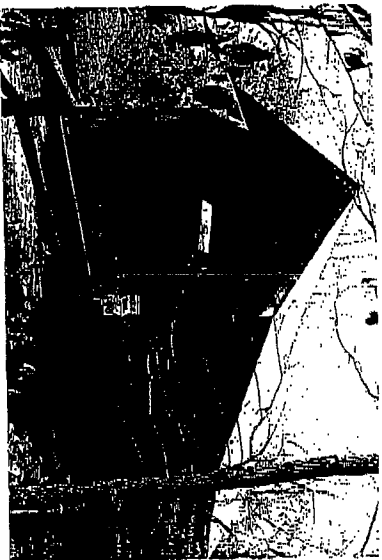
057 C Waltman's Grove-Clupper's Grove,  
Old Settler's Road; Entertainment/  
Recreation, Exploration/Settlement,  
Social History (430)

058 C House, Bean Blossom-Spearsville  
Road; Rustic Revival, c.1930;  
Vernacular/Construction (035)

059 C Brunnett House, Georgetown Pike;  
T-plan, c.1910; Vernacular/Construction  
(035)

060 C Lowell Waltman House, Covered Bridge  
Road; House: hall-and-parlor, c.1870;  
Outbuildings: smokehouse, chicken  
house; Vernacular/Construction (035)

061 O Bean Blossom Covered Bridge, Covered  
Bridge Road; King post truss, 1880;  
Engineering, Transportation (430)



061

062 C Center House, Freeman Ridge;  
Rustic Revival, c.1930/c.1950;  
Vernacular/Construction (035)

063 C Freeman Orchard, Freeman Ridge Road;  
I-house, c.1870; Vernacular/Construction  
(035)

064 C Hope House, Freeman Ridge Road;  
Rustic Revival, c.1936/c.1980;  
Vernacular/Construction (445)

065 C House, Greasy Creek Road; Gable-front,  
c.1940; Vernacular/Construction (445)

066 C Curry Bohn House, Greasy Creek Road;  
Double-pen, c.1880/1900/c.1930/1970;  
Vernacular/Construction (445)

067 C Farn, Grandma Barnes Road;  
House: double-pen, c.1870;  
Outbuilding: English barn; Agriculture,  
Vernacular/Construction (044)

068 C Nicholson Farm, Grandma Barnes Road;  
House: central-passag, c.1870;  
Outbuilding: transverse-frame barn;  
Agriculture, Vernacular/Construction  
(044)

069 C House, Owl Creek Road; Log single-pen,  
c.1850; Exploration/Settlement,  
Vernacular/Construction (044)

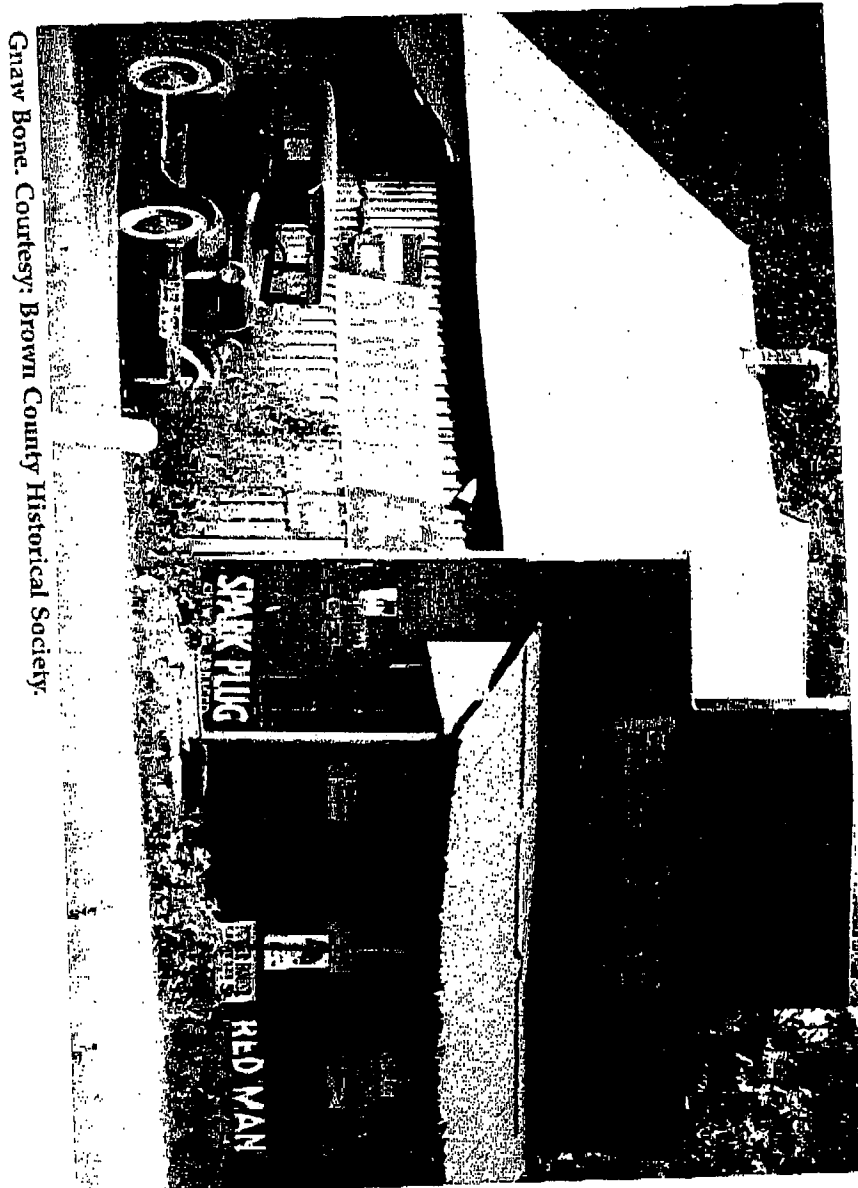
070 C House, Helmsburg Road;  
Log single-pen, c.1850;  
Exploration/Settlement,  
Vernacular/Construction (044)

071 C House, Owl Creek Road; Log single-pen,  
c.1850; Vernacular/Construction (044)

072 C House, Morrison Road; Rustic Revival,  
c.1930; Vernacular/Construction (044)

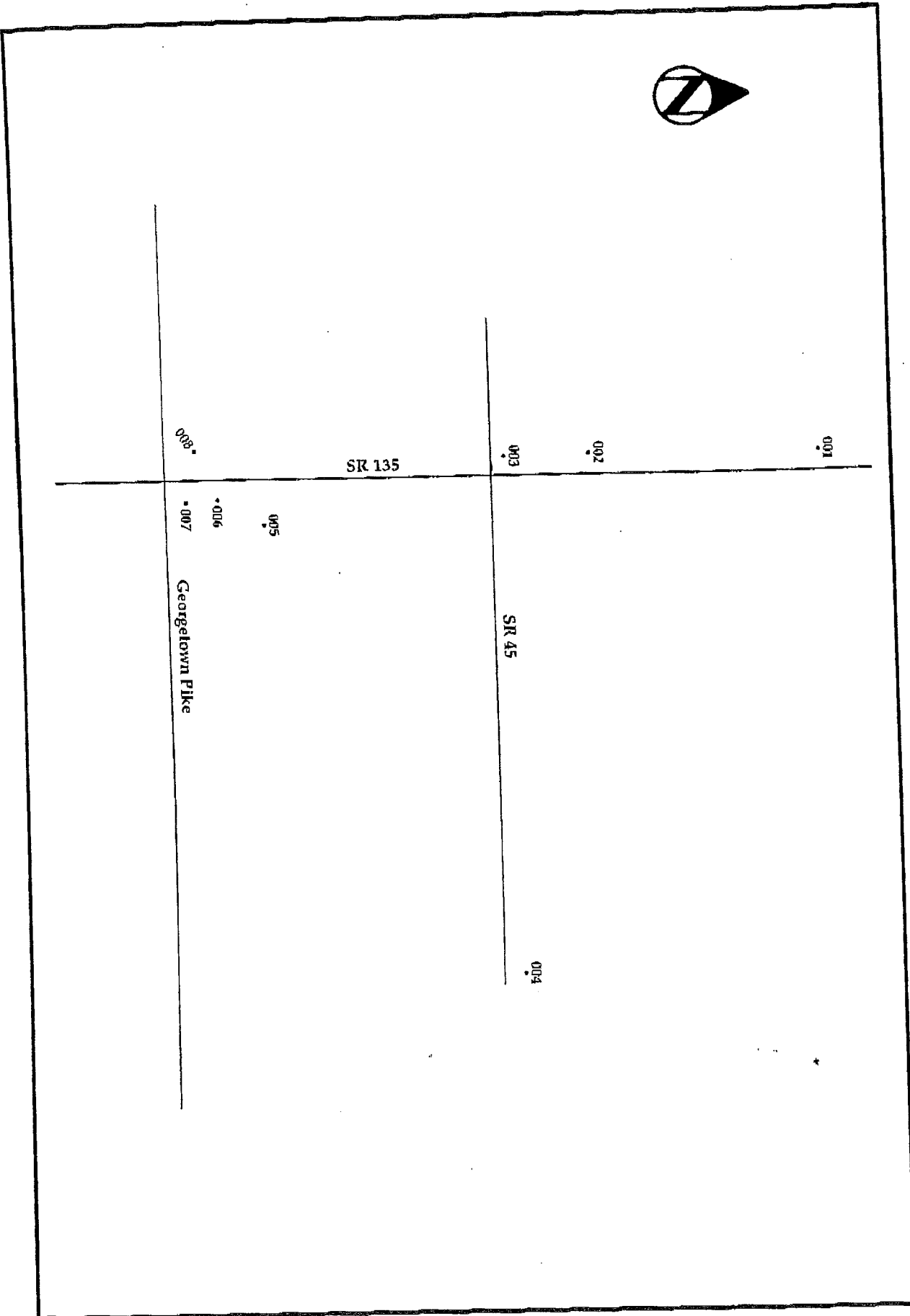
073 C House, Helmsburg Road; Rustic Revival,  
c.1930; Vernacular/Construction (044)

- 074 C House, Helmsburg Road; Rustic Revival,  
c.1930; Vernacular/Construction (044)
- 075 C House, Helmsburg Road; Rustic Revival,  
c.1930; Vernacular/Construction (044)
- 076 C House, Helmsburg Road; Vernacular,  
c.1930; Vernacular/Construction (430)
- 077 C Lanam Ridge Cemetery, Lanam Ridge  
Road; 1843-present;  
Exploration/Settlement, Religion (044)
- 078 C House, SR 45; Rustic Revival, c.1930;  
Vernacular/Construction (044)



Gnaw Bone. Courtesy: Brown County Historical Society.

# Bean Blossom Scattered Sites (06001-008)



Bean Blossom, one of Brown County's earliest remaining communities, was founded by George Groves during the 1830s. Originally known as Georgetown, the village developed as a commercial center for eastern Jackson Township. When town residents applied for a post office, they were required to change the town's name because another town of the same name was already in existence. The name of Bean Blossom was chosen, in reference to the nearby Bean Blossom Creek. However, the name Georgetown was not easily forgotten, and references can still be found in twentieth century histories.

During its formative years, Bean Blossom's economy was based on George Grove's mill and a tannery owned by Jacob McNeely. By the 1880s, the town had grown to over 100 residents and included another mill as well as a horse racing track. At the turn of the twentieth century, several grocery stores, a church, a school, an undertaker and several other businesses were thriving.

A number of these commercial buildings remain in Bean Blossom. The Hammond Rund Grocery (06003), the Aaron Zody Grocery (06097) and the C.H. McDonald Grocery (06008) are typical of the simple country stores which were once mainstays in the rural community. The McDonald family continues to operate a grocery store in Bean Blossom, albeit in a new building. The Georgetown Funeral Parlor (06006), once operated by James Derringer, also remains from this period.

The George Snyder House (06001) and the house on State Road 135 (06002) are two of the town's most prominent residences. Both date from the latter half of the nineteenth century.

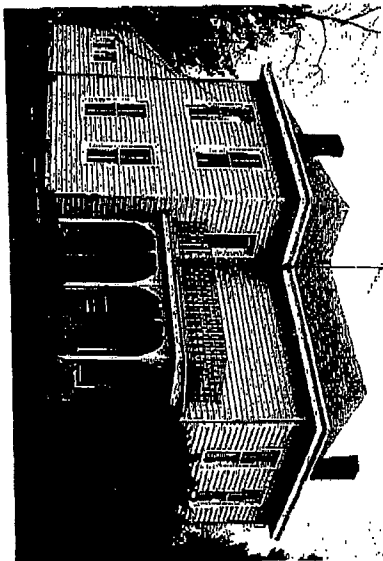
The 1930s brought the beginnings of the Brown County Jamboree to Bean Blossom. The weekly shows soon outgrew its location near the center of town and land was developed across from the Snyder House (06001) for the Jamboree Park. The grounds were later sold to bluegrass legend Bill Monroe, and today he and his son operate the Bill & James Monroe Festival Park. Crowds gather annually in Bean Blossom for bluegrass festivals and to visit

the museum and the reconstructed Monroe House, moved to Bean Blossom from Kentucky.

An earlier festival has been held in the Bean Blossom area almost yearly since its 1877 beginning. The Clapper Grove, north of Bean Blossom (05057), is the site of the Brown County Old Settlers Reunion. Old Settlers has become a Brown County institution, celebrated now over a full weekend. The grove is a living, historical site, characteristic of the importance Brown Countians have placed in their past.

#### No. Rtg. Description

001 C George Snyder House, SR 135; T-plan/Italianate, c.1880; Architecture, Vernacular/Construction (035)



001

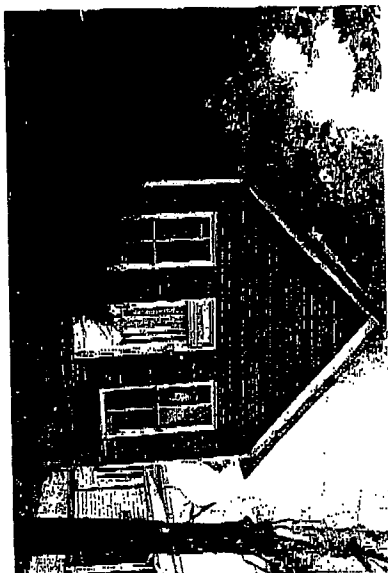
002 N House, SR 135; Central passage/Greek Revival, c.1860; Architecture, Vernacular/Construction (035)

003 C Hammond Rund Grocery, SR 135; Commercial Vernacular, c.1880; Commerce, Vernacular/Construction (035)

004 C Georgetown Cemetery, SR 135; 1835-present; Exploration/Settlement, Religion (035)

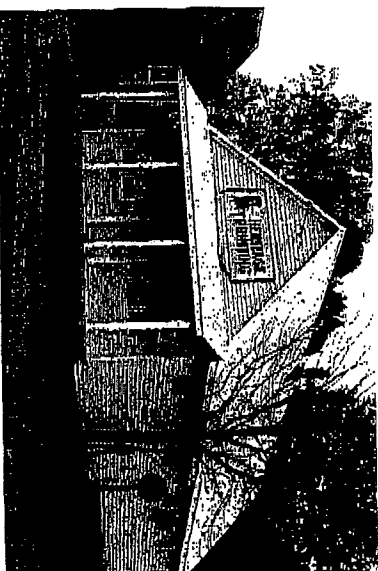
005 C McCrory-Gwin House, SR 135; Log single-pen/Rustic Revival, c.1850/1930; Vernacular/Construction (035)

006 C Georgetown Funeral Parlor, SR 135; Cable-front, c.1880; Commerce, Vernacular/Construction (035)



006

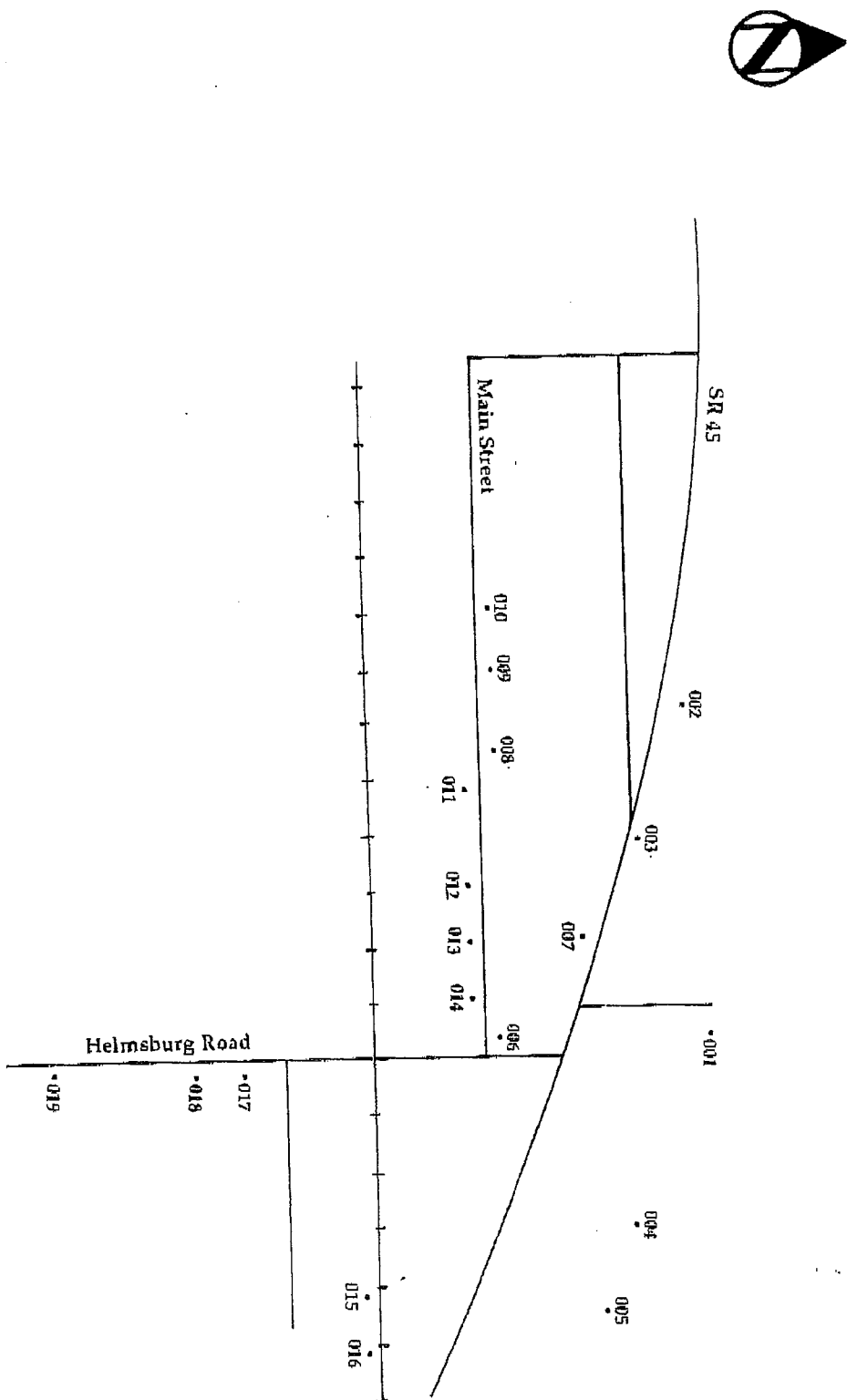
007 C Aaron Zody Grocery Store, SR 135; Commerce, Vernacular/Construction (035)



007

008 C C. H. McDonald Grocery, SR 135; Cable-front, c.1900/c.1930; Commerce, Vernacular/Construction (035)

# Helmsburg Scattered Sites (07001-019)





Although Helmsburg is not one of Brown County's oldest communities, it has played an important role in the county's development. The construction of the Illinois Central Railroad through Jackson Township during the early 1900s, linking Morgantown to the north with Bloomington to the south, was a much anticipated event. As the first and only railroad to pass through Brown County, the Illinois Central held the promise of improved communication, transportation and economic viability for the area.

Before construction of the railroad, Helmsburg was farmland. With the arrival of the first passenger train in 1906, the town grew rapidly. Named for a locally prominent family, the Helms, Helmsburg's seemingly overnight growth even challenged the county seat of Nashville as Brown County's pre-eminent community.

The railroad had a lasting impact on the county, providing artists with a more convenient means of reaching Brown County's scenic areas. The county's poor roads had hampered travel, making the trip from Indianapolis to Nashville time-consuming and arduous. Artists had been visiting Brown County since the turn of the century but only sporadically and in small numbers. The railroad provided greater access to the area. They were now able to make a relatively trouble-free journey to Helmsburg and hire a rig to carry them the remaining few miles to Nashville.

As a result of both the passenger rail service and freight service, a number of businesses were established in Helmsburg. A grocery and hardware store, a sawmill, a hotel and restaurant, a doctor's office, and a funeral home were all important enterprises during the town's formative years. The Rains Hotel & Long's Store (07012), the Doctor Selfridge Office (07013), and the Shelton Wade Hardware Store (07017) all remain from Helmsburg's formative years. One of the county's few lodges, as well as one of its few brick commercial buildings, is the Masonic Lodge No. 527 (07018), completed in 1922.

Local orchards and farms contributed to the success of the local cannery. By 1915 there were 37 orchards

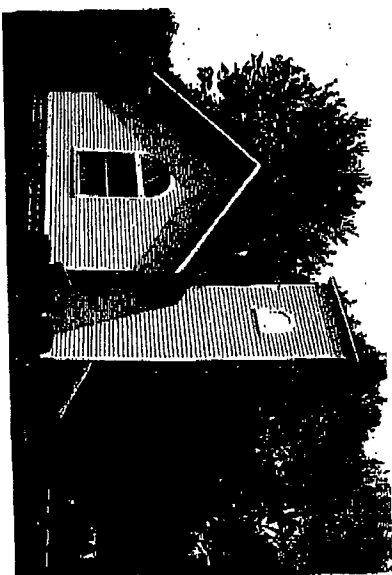
in Brown County, primarily in Jackson Township. The cannery, owned by Howard Prince, marketed canned goods under the name "Aloe Martin Brand."

In 1907, a high school was built on a hill on the east side of Helmsburg, later joined by an elementary school and a gymnasium. Classes were held in the high school until county-wide consolidation in 1961. The gymnasium is no longer standing but the elementary and high schools remain. The high school (07004) now serves as a factory and warehouse, while the elementary school (07005) was converted into a private residence.

The majority of the town's residential architecture is modest in scale. The Harold Campbell House (07009), the Walker-Willis Bock House (07011), and the Henderson House (07014) are typical of Helmsburg's residences.

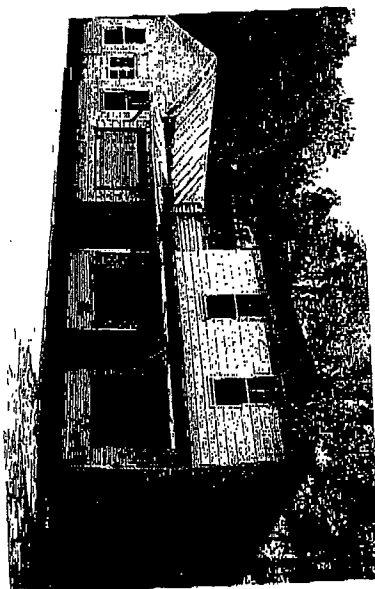
The closing of the rail line and the loss of the town's schools had a negative impact on Helmsburg. Like many rural communities, the loss of the railroad and the ensuing decline of economic vitality, has greatly affected the town. Today, Helmsburg remains as a quiet, farming community.

No.	Rtg.	Description
001	C	Yoder Farm, SR 45; House: T-plan, c.1900; Outbuilding: transverse-frame barn; Agriculture, Vernacular/Construction (430)
002	C	Yoder-Frank and Laur Swisher House, SR 45; Rustic Revival, c.1905; Vernacular/Construction (430)
003	C	Yoder-Merriman-Fox House, SR 45; 1-house, c.1870; Vernacular/Construction (430)
004	C	Helmsburg High School, SR 45; Vernacular, c.1907/1962; Education, Vernacular/Construction (430)
005	C	Helmsburg Elementary School, SR 45; Vernacular, 1939/1962 (McGuire & Shook, architect; Charles Cooper, contractor); Education, Vernacular/Construction (430)
006	C	Grocery Store, Helmsburg Road; Commercial Vernacular, c.1927; Commerce, Vernacular/Construction (430)
007	C	Chitwood's Garage & Hardware Store, SR 45; Commercial Vernacular, 1927/c.1980; Commerce, Vernacular/Construction (430)
008	C	Helmsburg Methodist Church, Main Street; Vernacular, 1916; Religion, Vernacular/Construction (430)
009	C	Harold Campbell House, Main Street; Bungalow, c.1920; Architecture (430)
010	C	Helmsburg Post Office, Main Street; Vernacular, c.1910; Politics/Government, Vernacular/Construction (430)
011	C	Walker-Willis Bock House, Helmsburg Road; Bungalow, c.1915; Architecture (430)



008

- 012 C Rains Hotel-Long's Store, Main Street;  
Commercial Vernacular, 1906;  
Commerce, Vernacular/Construction  
(430)

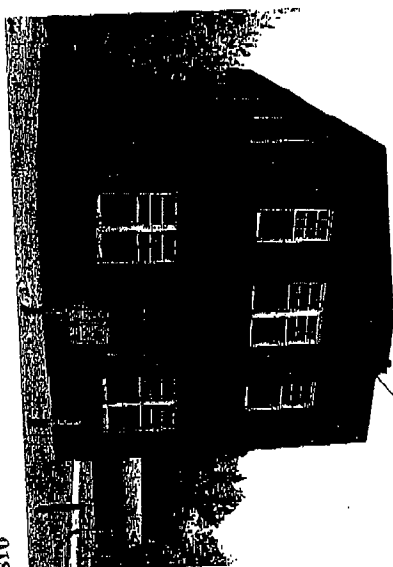


012

- 016 C Fred Bay Feed Store, Helmsburg Road;  
Commercial Vernacular, c.1910;  
Commerce, Vernacular/Construction  
(430)

- 017 C Shelton Wade Hardware Store,  
Helmsburg Road; Gable-front,  
c.1908/1949; Commerce,  
Vernacular/Construction (430)

- 018 N Masonic Lodge No. 527, Helmsburg  
Road; Commercial Vernacular, 1922;  
Commerce, Social History  
Vernacular/Construction (430)



018

- 013 C Dr. Selfridge Office-Goldie Yoder's  
Restaurant, Main Street; Gable-front,  
c.1910; Commerce, Health/Medicine,  
Vernacular/Construction (430)

- 014 C Henderson House, Main Street;  
Gable-front, c.1910;  
Vernacular/Construction (430)

- 015 C Railroad Depot, Helmsburg Road;  
Vernacular, c.1910; Transportation,  
Vernacular/Construction (430)



015

- 019 C Rairdon House, Helmsburg Road;  
Gable-front, c.1880;  
Vernacular/Construction (430)

**APPENDIX D**

**SUPPORT LETTERS**

Mike Ahern  
5140 N. Meridian St.  
Indianapolis, In 46208

Re: Bean Blossom Sewer Expansion Project

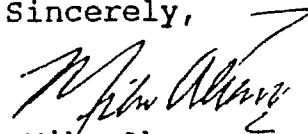
Dear Members of the Helmsburg Sewer Board,

I am one of your new neighbors at Woodland Lake. My wife Sherry and I purchased a lakeside home at 5681 N. West Shore Drive for a weekend getaway and for Sherry to use as an art studio. For some time we've been searching Brown County for just the right property, and we're convinced that we've found it. We've stayed many weekends at rental cabins and hotel rooms, and we probably know the back roads and villages of Brown County as well as anyone. And, of course, I've done countless news stories for my television station about the scenery and history of Brown County. Now, at last, we are residents, and anxious to take an active part in the community.

However, we are first-time property owners, and as such we're not as familiar as we should be with Woodland Lake and efforts to extend the service area of the Helmsburg Regional Sewer District. What I do know is that we are 100 percent behind a feasibility study for this project. Since buying our home, we've heard of several septic problems experienced by Woodland Lake residents, and I understand that the previous owners of our house had some serious problems at one time. We purchased our home with the intention of staying for some time, and I know that having a dependable sewer system will help make our time there more enjoyable, and more profitable in the long run.

I hope this letter will be of some use to you in deciding what steps to take toward extending this sewer district to residents of Woodland Lake. Count us as two enthusiastic supporters.

Sincerely,



Mike Ahern  
5681 N. West Shore Dr  
Woodland Lake

3-16-98

Beverly: Thomas Mattingly

5710 East Shore Dr.

Morgantown TN 46160

Bean Blossom Sewer Expansion Project  
To Whom it May Concern:

We very much favor the sewer project! Being able to have the sewer system would eliminate the septic problem, and would increase property values.

We moved to Woodland Lake in 1988, and put in a new septic system in 1991, at quite an expense, and great trouble! We've "babied" this system, hoping never to have to go through all the mess of bulldozers, damaged trees, etc!, not to mention expense! I use enzymes (RID-X) on a regular basis, and I take all of our laundry to Nashville, to wash at one laundry - but there, usually once a week. This is a cost of \$1300<sup>00</sup> a year, just to wash clothes! This is oney what I actually spend at one laundry mod, in addition there is the cost of driving (20 miles, rd. trip) my time, etc!

We pump the tank every few years, usually at \$100, to \$125<sup>00</sup> per visit.

March 13, 1998

Richard Dyers

5878 N. West Shore Dr.

Morgantown, Indiana 46160

Re: Bean Blossom Sewer Expansion Project

Dear Sirs,

I support the expansion of the Helmsburg Regional Sewer District to the Bean Blossom Area.

I am currently having problems with my septic system, including seepage onto my neighbors property, and a lack of suitable soil to add a conventional system on my property.

After having a soil analysis done, in June of 1996, the Brown County Health Dept. determined that I need an "at grade" system with a second tank, a pump, float chamber, and alarm system. I then obtained an estimate of \$8,897.00.

Later, while pumping the existing tanks, we found that it was a small 500 gallon, home made tank, that would also have to be replaced.

This additional cost would be approximately \$600.00.

These prices were at September 1996 prices, so as you can see I am probably looking at about a \$10,000.00 repair. I have still not made this repair at this time, as I have heard that



this type of system is not very efficient, and is no longer recommended. I am told that now an even more expensive "mound" system is being used.

at any rate I will have to do something in the very near future. This problem is causing a health concern + unwanted friction with my neighbor. I believe the sewer expansion to the Woodland Lake Area is the answer to my problem.

Thank you for your consideration in this matter

Sincerely,  
Richard Byers  
ph. 812-988-0743

P.S. I have included a copy of my estimate + soil surveys with this letter.

February 5, 1998

Bob and Wanda Sedgwick  
3303 Busy Bee Lane  
Indianapolis, IN

RE: Sewer Line to Bean Blossom

To Whom it may Concern:

I own two properties in Bean Blossom at State Road 135 and McDonald Drive. I am in favor of extending the sewer line to Bean Blossom and will support and cooperate with all efforts.

I cannot attend the February 10, 1998 meeting.  
Please count on my support.

Sincerely,

Bob and Wanda Sedgwick

# Cottonwood Group, Inc.

P.O. Box 726  
Nashville, Indiana 47448

Phone (812)988-8480; (800)942-2808

Fax (812)988-6420

February 5, 1998

Nina Jo McDonald  
Century 21 Village Realty  
S. Jefferson Street  
Nashville, IN. 47448

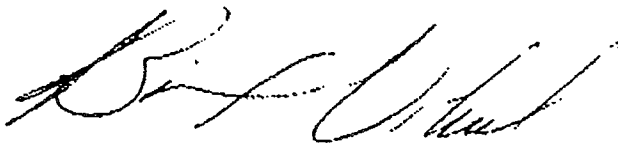
RE: Sewer service to Bean Blossom

Nina Jo:

As property owners in the Bean Blossom area we would like to express our support for the extension of sewer service to the Bean Blossom area. As you are aware we are proposing a 30+ site development near the intersection of S.R. #135 and the north end of Old Settlers Road.

You can count on the Cottonwood Group's (Dick Houston, Ed Freese, Mike Flanders, Bill Volland) support and cooperation in the project.

Respectfully,



Bill Volland  
Sec.-Treasurer  
Cottonwood Group, Inc.

*Pastor and Mrs. John Hrynk*  
*1514 N. Faith Road*  
*Kokomo, IN 46901*

April 18, 1998

2117 South Shore Drive  
Morgantown, IN 46160

Bean Blossom Sewer Expansion Project  
To Whom It May Concern:

We hope we are not too late to add our opinion into the vast storehouse of knowledge you have already compiled. We apologize for taking so long to write, but life does get busy at times and the last month or so has been just that.

Nevertheless, please accept this letter as our support for the Helmsburg Regional Sewer District to expand and include the Bean Blossom Area. We currently own two lots on the Woodland Lake subdivision and presently have a cottage on one. We have only had it for a year, and use it on a weekly basis so we can't honestly say we are having problems with our septic field or toilets. We are planning to rebuild the cottage over the next several years however, and eventually retire at Woodland Lake, so any sewer improvements would be welcomed.

I do however know that several of my neighbors have had problems with their septic systems especially in wet weather, and with us still being on well water this concerns me.

Thank you for your consideration in this matter and please be assured that we shall be lifting this project up in prayer, as well as those who have the responsibility of dealing with it. God bless.

Love in Christ  
John & Patty Hrynk

The block contains the handwritten signatures of John and Patty Hrynk. Below the signatures is a circular stamp, which appears to be a seal or a logo, though its details are not clearly legible. The stamp has a circular border and some internal markings.

March 18, 1998

Raymond Grimes  
5306 State Rd 135 No  
Morgantown, In. 46160

Dear Sirs:

I support the Helmsburg Regional  
Sewer District to the Bear Blossom  
Area.

I am currently having no problems  
however I do support the sewer  
project. I feel we need it.

Sincerely  
Raymond Grimes

*Christian A. Gerber & Tracy L. Hector-Gerber*  
*12250 South Widmer St., Olathe, KS 66062*

March 13, 1998

Bean Blossom Sewer Expansion Project  
To Whom It May Concern

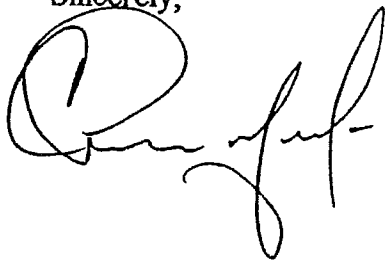
Dear Sirs:

As a current land owner in the Woodland Lake area of Morgantown, Indiana it is our intent to build our home within the next few years. When my wife and I purchased this property we were concerned with the problems associated with septic tanks. Our concerns are not just the financial burden typically encountered with septic tank maintenance, but also with the environmental implications to the community.

We believe that a long term community planning effort should incorporate a policy to limit the use of septic tanks wherever possible. With the incremental improvement to the property values each homeowner will experience with a sewer system the community receives a higher tax base and ultimately better services that drive positive planned growth. It simply makes good business sense.

Our intent is to build a home we feel comfortable to raise our child in for years to come. It is very encouraging to hear this dialog taking place. I want to thank you in advance for your consideration in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Christian Gerber", written in a cursive style.



I support the expansion of the  
Helmsburg Sewer Project. Thank you  
for your consideration in this matter.

Sincerely,

Mary Catham Hall  
3-15-98

3-15-98

Daniel R. & Mary C. Hall  
2150 N. Shore Drive  
Morgantown, In 46160-8691

Bean Blossom Sewer Expansion Project  
To Whom It May Concern,

Dear Sirs:

I support the expansion of the  
Helmsburg Regional Sewer District to the  
Bean Blossom Area.

I am currently having problems  
with my septic system, including  
not being able to have a washing  
machine because my current system  
cannot handle the extra water. Currently  
we have our system pumped out about  
2 years. Although it seems to be  
fine now I would prefer to be on  
a sewer line because then I could  
do washing (clothes) at home instead of  
going to the laundromat every week.  
I wouldn't have to worry about my  
system every time we get heavy rains.  
We always worry about the rain because  
it could saturate the ground and seep  
into the system and cause problems.

3-17-98

Louis & Bonnie Tucker  
5941 Eastshore Drive  
Morgantown, In 46160

Bean Blossom Sewer Expansion Project  
To Whom it may concern:

Dear Sirs:

We support the expansion of  
the Helmsburg Regional Sewer  
District to the Bean Blossom  
Area.

I am currently having problems  
with my septic system, including:

Unable to have a washer  
due to the inability of our system  
to handle the water.

Unable to flush toilet when  
we have a lot of rain.

We need to pump our system  
every spring.

Thank you for your consid-  
eration in this matter.

Sincerely,

Louis & Bonnie Tucker

03-11-98

Tim T. and Linda C. Richardson  
5796 East Shore Drive, Woodland Lake  
Morgantown IN 46160

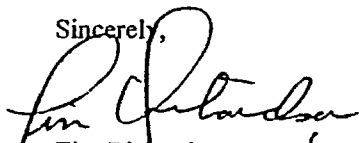
Bean Blossom Sewer Expansion Project  
To Whom It May Concern:

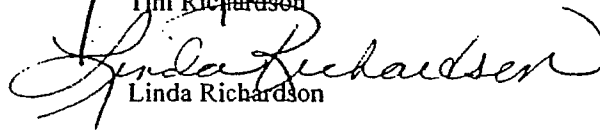
Dear Sirs:

We support the expansion of the Helmsburg Regional Sewer District to the Bean Blossom area. Though we are newly built and are not experiencing problems we are concerned for the future both from an environmental standpoint and from the fact that we cannot use this 50x100 foot area for purposes other than a septic field.

We look forward to being on sewers in the future.

Sincerely,

  
Tim Richardson

  
Linda Richardson

17 MARCH 98

CHRISTINA DALLAS  
5682 E. SHORE DR  
MORGANTOWN IN 46160

BEAN BLOSSOM SEWER EXPANSION PROJECT  
TO WHOM IT MAY CONCERN :

DEAR SIRS :

I SUPPORT THE EXPANSION OF THE HELMSBURG REGION  
SEWER DISTRICT TO THE BEAN BLOSSOM AREA.

I AM CURRENTLY HAVING PROBLEMS WITH MY SEPTIC  
SYSTEM, INCLUDING THE TIMES WHEN IT RAINS I HAVE SEEN  
IN MY YARD IF I DO LAUNDRY OR TOO MANY SHOWERS. EVERY  
IN A WHILE WHEN I DO LAUNDRY IT SMELLS IN MY KITCHEN.

MY MAIN CONCERN THOUGH IS THE LAKE. WITH  
SO MANY PEOPLE NOW LIVING ON THE LAKE AND HEARING OF  
SEPTIC PROBLEMS I'M AFRAID WE ARE POLLUTING THE  
LAKE. I WOULD MISS THE FRESH WATER CLAMS.

THANK YOU FOR YOUR CONSIDERATION IN THIS MATTER

SINCERELY  
CHRISTINA DALLAS

March 17, 1998

John F. McCann, Jr.  
Mary Louise McCann  
5702 E. Shore Drive (Woodland Lake)  
Morgantown IN 46160

RE: Bean Blossom Sewer Expansion Project

To Whom It May Concern:

We strongly support the expansion of the Helmsburg Sewer District.


Currently, with just the two of us in our home, our septic system operates on in almost normal manner as long as it does not rain, which of course does happen in Indiana. We are very careful in using our system, trying to be judicious about flushing the toilet, doing laundry and taking showers (all of which have become normal everyday habits). (Forgot about doing dishes.)

We would like to have the opportunity to hook on to a central sewer system as we own only a lot and do not have acres of ground upon which to expand our system at this time. Also, our system is 18 years old and I'm sure at some point there could be some serious problems.

Any consideration given to the possibility of a sewer in this area would be most appreciated.

Thank you for your attention in this matter.

Sincerely,

  
Mary Lou McCann

March 16, 1998

TO: Helmsburg Regional Sewer Board of Directors  
Helmsburg, IN  
All Others Concerned

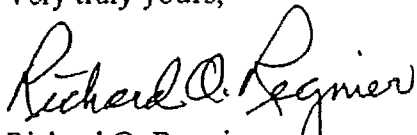
SUBJECT: Bean Blossom Sewer Expansion Project

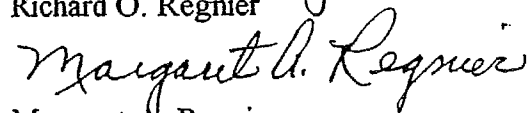
Ladies and Gentlemen:

I support the expansion of the Helmsburg Regional Sewer District to include the Bean Blossom Area and the Woodland Lake Estates Area. We have owned Lot 97 on Woodland Lake since 1980, and have experienced septic (waste water) problems, especially during periods of substantial rainfall. During those times we are unable to flush our toilet; the toilet gurgles; and we smell sewer gas in our home. To help the problem we have to have our septic tank pumped at least once or twice a year.

In addition, there are times when I observe what I believe to be seepage from my neighbor's septic tank, with some odor, as it is higher than our property. I believe a waste water sewer system would correct these problems and also prevent sickness to humans and wildlife by diminishing possible pollution of Woodland Lake where many people swim, boat and fish. Your favorable consideration will be appreciated.

Very truly yours,

  
Richard O. Regnier

  
Margaret A. Regnier  
Lot 97, Woodland Lake Estates

Mailing address:  
322 Columbia Avenue  
Tipton, IN 46072  
Phone: 765-675-4928



Saturday, March 14, 1998

Beon Blossom Sewer Expansion Project  
To Whom It May Concern:

We wholeheartedly support the expansion of the Helmshew Regional Sewer District to the Beon Blossom Area, including the residents on Woodlond Lake.

We have had situations with wet areas in the septic field, especially in the Spring, and times of heavy rains.

Thank you for your consideration in this matter

Sincerely,

Georgia A Rowland  
John L Rowland



Mr. John L. Rowland  
5741 N. West Shore Dr.  
Morgantown, IN 46160

Margie Hanrohan  
2181 South Shore Dr.  
Woodland Lake.

March 14, 1995

## 1 Bean Blossom Sewer Expansion Project

Dear Sirs:

I am unable to attend the meeting on March. However, I am very interested in the possibility of Sewers at Woodland Lake.

I am currently experiencing few problems with my Septic System. At the time of purchase it had (supposedly) been inspected, but I had definite leakage which was noticeable as soon as I moved into my home. Over the next 4 years I spent much time, grief and money to make the system minimally adequate.

Now I use a minimum of water to keep from having further trouble. I never use my dishwasher or garbage disposal. Much of the time my toilet needs repeated flushings. The clay absorbs so poorly I was told that even with my extended system I shouldn't hope for any better situation.

Now, however, I have hope we will be added to the Helmsburg Sewer System.

Sincerely,  
Margie Hanrohan

March 17, 1998

Walter and Jane Land  
395 State Rd. 45 W  
Morgantown, Indiana 46160

Bean Blossom Sewer Expansion Project  
To Whom It May Concern

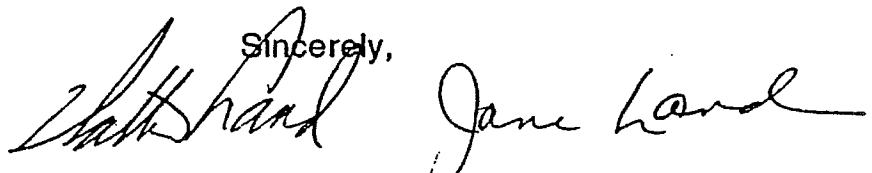
Dear Sirs:

We support the expansion of the Helmsburg Regional Sewer District to the Bean Blossom Area.

We currently have problems with our septic system, including Seepage in our yard. We have our septic tank drained at least once a year or as we see the seepage occurring.

We consider the lack of a sewer system one of our biggest problems in living in the Bean Blossom area. We support the ongoing sewer project study in a great way.

Sincerely,

The block contains two handwritten signatures in black ink. The signature on the left is 'Walter Land' and the signature on the right is 'Jane Land'. Both are written in a cursive, flowing style.

Walter and Jane Land

phone: (812) 988-1411

Bean Blossom Sewer Project  
5023 North S. R. 135  
Nashville, In 47448

5828 East Shore Drive  
Morgantown, In 46160  
Ph: 988-7741

March 17, 1998

To Whom It May Concern:

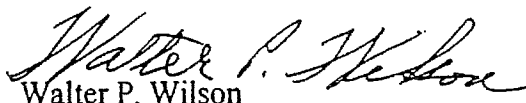
This is to advise that I support the expansion of the Helmsburg Regional Sewer District, providing the costs connecting to the sewer and the monthly fee is not prohibitive.

I presently have a septic system which I am primarily satisfied with. However, during prolonged rainy periods the system does become a little sluggish but still functions as intended.

I have had the system cleaned once in the past 20 years.

Obviously, a sewer system would be better. In addition, many of us on Woodland Lake, have lake front properties and there is always the risk of the present system polluting the lake.

Sincerely,

  
Walter P. Wilson

3-15-98

James W Fox

5034 ST. Rd. 135 N.

MOSQATOWN INd-46160

Bean Blossom Sewer Expansion Project  
To Whom It May Concern

I do support the Expansion of the  
Helmberg Regional Sewer District to  
the Bean Blossom area

at this time I am not having  
problems with my Septic System  
but I do know that we need  
a sewer system because in  
wet warm weather the hole  
town smells like septic

Sincerely,  
James W. Fox

MAR 12, 1998

PATRICIA L PEAKER

1466 N LINWOOD AV INDRS 46201

LOT 117 E. SHORE DR

MORGANTOWN IN 46160

BEAN BLOSSOM SEWER EXPANSION PROJECT  
TO WHOM IT MAY CONCERN

DEAR SIRs:

I SUPPORT THE EXPANSION OF THE HELMSBURG  
REGIONAL SEWER DISTRICT TO THE BEAN BLOSSOM  
AREA.

I'VE BEEN TRYING TO GET BROWN COUNTY WATER  
FOR ALMOST A YEAR. I'M SURE MY SEPTIC SYSTEM  
ISN'T UP TO PAR BECAUSE MY WATER TANK WON'T  
WORK UNLESS IT RAINS FOR 6 WKS.

ANY UPGRADE IN THIS AREA WOULD BE GREATLY  
APPRECIATED.

THANK YOU FOR YOUR CONSIDERATION IN THIS MATTER

SINCERELY,  
Patricia J. Peaker

March 17, 1998

From: Charlotte and Gary McClurg  
5821 Bittersweet Road  
Morgantown, IN 46160

To: Bean Blossom Sewer Expansion Project

To Whom it May Concern:

We wanted to let you know we support the Helmsburg Regional Sewer District to the Bean Blossom area. Even though we have a Morgantown address, we live just a mile and a half from Bean Blossom and State Road 135.

Living on a small lake that has 18 households around it, we see a definite need for sewers. Personally we have a aeration system which we feel keeps the soil, water and air clean but on a day like today after having considerable rain, the system does not work until the water table goes down.

However we have had neighbors with septic problems and have seen evidence of raw sewage standing in yards and must invariably run off into the lake because the slope around the lake. This is our water supply and is definitely harmful to our bodies.

To protect our people and our environment we feel it is imperative that a sewer system be developed for our area. We will do whatever we can to support you in this.

Thank you for your consideration in this matter.

Sincerely yours,

*Charlotte and Gary McClurg*

Charlotte and Gary McClurg



# Cottonwood Group, Inc.

P.O. Box 726  
Nashville, Indiana 47448

Phone (812)988-8480; (800)942-2808  
Fax (812)988-6420

February 5, 1998

Nina Jo McDonald  
Century 21 Village Realty  
S. Jefferson Street  
Nashville, IN. 47448

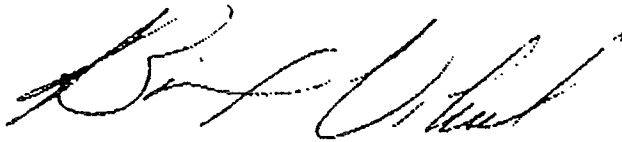
RE: Sewer service to Bean Blossom

Nina Jo:

As property owners in the Bean Blossom area we would like to express our support for the extension of sewer service to the Bean Blossom area. As you are aware we are proposing a 30+ site development near the intersection of S.R. #135 and the north end of Old Settlers Road.

You can count on the Cottonwood Group's (Dick Houston, Ed Freese, Mike Flanders, Bill Voland) support and cooperation in the project.

Respectfully,



Bill Voland  
Sec.-Treasurer  
Cottonwood Group, Inc.

3-17-98

Edith Phillips

5724 East Shore Dr.  
Morgantown, TN 46160

winter

3040 Ans wynn Ave.  
Spring Hill, Florida  
34609

Bean Blossom Sewer Expansion Project  
To Whom It May Concern,

My neighbor, Edith, asked that I write this letter for her, expressing her support for the sewer project. She maintains a home in Florida through the winter, and returns to Spence one summer month at Woodland Lake.

She lives alone, and feels her septic system is adequate for her needs, but is concerned that if she wished to sell her property, it would not be adequate for more people. Even living alone, she limits her laundry to once a week, and will wait longer if the weather has been extremely wet, soaking her system. She also avoids flushing the toilet too often during wet weather.

She pumps her system every 5 years or so.

March 13, 1992

Ralph + Marijane Litz  
5842 East Shore Dr  
Morgantown, In 46160

Bean Blossom Sewer Expansion Proj

To Whom it May Concern

Dear Sirs:

I support the expansion of the  
Helmshing Regional Sewer District  
to the Bean Blossom Area.

We are not currently having a problem  
with our septic system but it  
is coming up on 25 years since  
it was put in. We realize the  
problem with septic systems  
in the heavy clay soil that we  
have in this area.

3-17-98

Michael's Motel

4931 State Rd. 135 North

Nashville, TN 37248

Dean Blossom Sewer Expansion Project  
For whom it May Concern

Dear Sirs:

I am definitely supportive  
of the Helmsburg Regional Sewer District  
expansion to the Dean Blossom Area.

As a new owner, I cannot  
honestly list any current problems,  
or anticipation either. But I  
definitely support the expansion,  
relying on past experiences with  
septic systems etc.

over please

Thank You  
Pittman & Angela Gibbs

3-17-98

Linda Gibson  
4931 State Rd 135 North  
Tusculum, TN 37448

Bean Blossom Sewer Expansion Proj  
To Whom it May Concern

Dear Sirs:

I am a new resident  
of Bean Blossom & cannot  
furnish much information, but  
am in full support of the  
Helmberg Regional Sewer District  
expansion into to Bean Blossom  
area. It is progress & anyone  
who has experienced both septic  
systems & sewer systems would realize  
the need for this project.

Thank You  
Linda Gibson

2.  
We live lake-side and are  
concerned with the pollution  
of the lake should our  
system fail

In our community (Woodlawn  
Lake) we have a concentration  
of homes in relatively close  
proximity to each other. Many  
of these homes were originally  
built to be summer homes.  
Over the years they have become  
year round homes with families.  
It stands to reason that lake  
pollution is more of a hazard  
every year.

We therefore appeal to the  
powers that be that we  
be considered for hook-up  
to the Helmsburg System

Thank you for your consideration  
in this matter.

Sincerely,

Marijane Fitz  
Ralph E. Fitz



3-17-98

To Whom It May Concern:

I Am writing to you about the possible Septic Plan that you are meeting about. Tonight we are in favor of this Septic Plan it is drastically needed on Woodland Lake. We are wanting to build on to our home and we are affraid that are Septic Tank will not be big enough if we do this. Most people who are on this Lake can not do there laundry at home, so they have to go to the laundromat. Please help us with this problem.

Sincerely  
5759 Westshore Dr Jim & Susan  
Morgantown, W.V. Christine  
46160

PAT SIDDIQ - OIL PAINTINGS

5763 N. East Shore Dr., Morgantown, IN 46160

March 16, 1998

Bean Blossom Sewer  
Expansion project

To Whom it may concern;

I support the expansion  
of the Helmsburg Regional Sewer  
District to the Bean Blossom-  
Woodland Lake area.

I am currently concerned  
that the septic systems on  
the lake could pollute the lake.

Thank you for your  
consideration. Sincerely, Pat Siddiq

## **APPENDIX E**

### **HELMSBURG RSD DESIGN SUMMARY**

## II. DESIGN DATA

1. Current Population: 176
2. Design Year and Population: 2,015 and 200
3. Design P.E.: 208
4. Design Flow:
  - A. Domestic: 24,500 gpd
  - B. Industrial/Commercial: 500 gpd
  - C. Infiltration/Inflow: 0 Pressure System
5. Average Design Peak Flow: 110,880 gpd
6. Maximum Plant Flow Capacity: 86,400 gpd
7. Design Waste Strength:
  - A. CBOD: 200 mg/l
  - B. TSS: 200 mg/l
  - C. NH -N 25 mg/l
8. NPDES Permit Limitation on Effluent Quality:

	<u>Summer</u>	<u>Winter</u>
A. CBOD:	15 mg/l	25 mg/l
B. SS:	18 mg/l	30 mg/l
C. NH-N:	1.3 mg/l	1.9 mg/l
D. Chlorine Residual:	< .05 mg/l	
E. pH:	6.0 to 9.0	
F. D.O.:	6.0 mg/l	5.0 mg/l

9. Receiving Stream:
  - A. Name: Bean Blossom Creek
  - B. Tributary to: Lake Lemon
  - C. Stream Uses: Recreational, Partial Body Contact
  - D. 7-day, 1-in-10 year low flow: 0.0 cfs

### III. TREATMENT UNITS

#### FLOW EQUALIZATION

1. Number and size of units: 1 Unit 11'-11" x 9'-3" x 9'.6" SWD  
7,500 Gallons
2. Method of flow diversion to unit: In-line
3. Air and mixing provided: Yes 1 - 1 HP Blower Rated at 20 cfm at 5 PSI
4. Method and control of flow return: 2 - Submersible Pumps Rated at 30 GPM at  
15 feet TDH Each
5. Method of sludge removal: Drain Piping

#### FLOW METERS:

1. Type: 1-inch Parshall Flume with Ultra Sonic Meter
2. Location: Effluent Metering Manhole
3. Indicating, Recording and Totalizing: Yes

#### SCREENS:

1. Type: Course Bar
2. Number and Capacity: 1 and 100,000 gpd
3. Bar spacing and slope: 1-inch and 45°
4. Method of cleaning: Manual
5. Disposal of screenings: Dumpster

#### ACTIVATED SLUDGE

1. Type of activated sludge process: Extended Aeration with Single Stage Nitrification.
2. Number and size of units: 1 Unit 37'-9" x 11'-11" x 9'-6" SWD  
31,250 Gallons or 4,178 C.F.
3. Detention time (hours): 30 Hours

4. Organic Loading (lb BOD/1,000 cf): 9.78 lb BOD/1,000 cf
5. Type of aeration equipment: Coarse Bubble
6. Type and size of blowers: 2 Blowers 5 HP each and rated at 150 cfm at 5 PSI each
7. Air required (itemize, cfm):
 

BOD	34.0 cfm
NH-N	13.2 cfm
Airlifts	10.0 cfm
Post Air	10.0 cfm
Sludge Holding	<u>10.2 cfm</u>
<b>Total</b>	<b>77.4 cfm</b>
8. Provision for Speed adjustment: Belt and Sheave
9. Air provided: 150 cfm with largest blower out of service
10. Number and capacity of return sludge pump: 2 - 2½ inch airlifts; 0 to 26 gpm capacity each
11. Method of return sludge rate control: Air valves
12. Return sludge rate as % of design flow: 0% to 150%
13. Provisions for return rate metering: Sludge metering box
14. Location of return sludge discharge: Aeration Tank

#### SECONDARY CLARIFIERS:

1. Type of clarifiers: Dual Hopper Clarifier
2. Number and size of units:
 

1 Unit
5,320 Gallon Clear Water Zone
1,545 Gallon Sludge Blanket Capacity
3. Surface settling rate (gpd/sf):
 

A. at the design flow:	262 gpd/sf
B. at the equalized flow:	452 gpd/sf
C. at the peak influent Pumping rate	904 gpd/sf
4. Detention time (hours): 5.1 hours
5. Type of sludge removal mechanism: 2 - 2½ inch airlifts

6. Weir overflow rate: 3,125 gpd/lf

7. Disposal of scum: Aeration tank

### **RAPID SAND FILTRATION:**

1. Number and size of filters: 2 filter cells 5' x 3.5' x 6' depth each  
8.68 sf filter area each

2. Filtration rate:

A. at peak flow rate: 3.4 gpm/sf

B. at average flow rate: 1.0 gpm/sf

3. Type, depth, and grain size of filter media: Sand, 8", 0.80 to 1.20 MM  
Anthracite, 12", 1.08 MM

4. Backwash rate: 10.25 gpm/sf

5. Air scour: Provided 20 cfm at 4 PSI

6. Capability to chlorinate ahead of the filter: No

7. Backwash pumps (number and capacity): 2 pump, 1 HP each  
89 gpm at 17' TDH each

8. Source and capacity of backwash water: Source: Sand Filter Filtrate  
Size of Clearwell: 8.92' x 3' x 6.5  
depth; 1,303 Gallons

9. Holding capacity of dirty water tank: 1,368 Gallons

10. Facilities for unit isolation: Yes

### **POST-AERATION:**

1. Type of Aeration: Course Bubble Diffuser

2. Number of Units: 1 unit

3. Size of Units: 3' x 1' x 5'-4" SWD, 120 Gallons

4. Aeration Provided: 10 cfm

5. Expected Effluent DO: 6 mg/l



### DISINFECTION:

1. Type of disinfection used: Chlorine Tablets
2. Size of contact tank: 521 gallons  
3' x 3.8' x 6' Depth
3. Contact time: 30 Min. at Average Flow Rate  
18 Min. at Equalized Flow Rate
4. Type of disinfection feeders: Tablet feeder
5. Capacity of the feeders: 50,000 gpd
6. Disinfectant dosage: 8 mg/l
7. Drain for tank: Yes

### DECHLORINATION:

1. Chemical used: Sodium bisulfite
2. Type of feeders: Tablet
3. Capacity of feeders: 50,000 gpd
4. Dosage: 1.46 mg/l per 1 mg/l chlorine residual
5. Diffuser location: Effluent end of chlorine contact tank
6. Equipment location: In-line mounted

### SLUDGE HOLDING TANK:

1. Number and size of units: 1 Unit - 11'-11" x 3' x 9.5' swd  
340 cf or 2,500 Gallons
2. Detention time: 19 day SRT
3. Organic Loading: 61.18 lbs VSS/1,000 cf
4. Air supply: 10.2 cfm
5. Decanting method: Overflow Pipe

**SLUDGE DISPOSAL:**

1. **Ultimate disposal method of sludge:** Nashville, Indiana WWTP
2. **Expected solids content of sludge (by the principal method of disposal):** 3%
3. **Availability of sludge transport Equipment:** Local Septic Hauler

## IV. SEWER COLLECTION SYSTEM

### SEWER:

1. **Type of sewer material:** PVC SDR 21 Low Pressure Force Main
2. **Diameter and length of sewer (indicate length for each size):**

Size	Length
1.25"	1,428 L.F.
1.50"	1,189 L.F.
2.00"	2,189 L.F.
2.50"	1,119 L.F.
3.00"	1,792 L.F.
4.00"	1,110 L.F.
8.00" (Outfall)	1,792 L.F.

3. **Stream, highway, and railroad crossing:**  
1 - Highway Crossing  
1 - Railroad Crossing
4. **Separation of combined sewer or new sewer:** New Sewers
5. **Number of manholes:** 5 Manholes, 1 Metering Manhole
6. **Water main protection:** 10 Feet Horizontal Separation , 18-Inch Vertical Separation

### INDIVIDUAL GRINDER PUMPS:

1. **Location:** As shown on the Plans
2. **Number of pumps:** 59
3. **Capacity of pumps:** 15 gpm at 0 TDH, 9 gpm at 138 TDH
4. **RPM and TDH:** 1,725 RPM, 138 TDH
5. **Volume of the wet well:** 23.5 Gallons
6. **A gate valve and a check valve in the discharge line:** Yes
7. **Ventilation:** Yes
8. **Alarm:** Visual

## V. MISCELLANEOUS

- A. Laboratory Equipment: (Contracted)
- B. Safety Equipment: Yes
- C. Plant Site Fence: Yes
- D. Handrail for the tanks: Yes
- E. Units, unit operation, and plant bypasses: Unit Bypass only
- F. Flood elevation (10, 25, or 100 year flood): 657 MSL (100 year)
- G. Consistency with EPA Reliability Technical Bulletin: Yes
- H. Standby power equipment: Yes
- I. ~~Site inspection:~~ Sanco Engineering & Associates, Inc.
- J. ~~Statement in the specifications as to the protection against any adverse environmental effect (e.g., dust, noise, soil erosion) during construction:~~ Yes
- K. ~~Hoists for removing heavy equipment:~~ No
- L. Adequate sampling facilities: Yes
- M. Hydraulic Gradient: Provided

## **APPENDIX F**

### **HELMSBURG RSD WWTP PHOTOS AND INSPECTION REPORTS**





07/23/2009





07/23/2009





07/23/2009





07/23/2009





07/23/2009





07/23/2009





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07/23/2009





GENERAC

07/23/2009





07/23/2009





# NPDES Wastewater Facility Inspection Report

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

NPDES Permit Number: <b>IN0058416</b>	Facility Type: <b>Municipality</b>	Facility Classification: <b>Minor</b>	TEMPO AI ID <b>1847</b>				
Date(s) of Inspection: <b>October 18, 2013</b>							
Type of Inspection: <b>Compliance Evaluation Inspection</b>							
Name and Location of Facility Inspected: <b>Helmsburg Regional Sewer District WWTP</b> <b>4856 HELMSBURG RD</b> <b>Nashville IN 47448</b>		Receiving Waters: <b>Bean Blossom Creek</b>	Permit Expiration Date: <b>10/31/2015</b> Design Flow: <b>.025MGD</b>				
County: <b>Brown</b>							
On Site Representative(s): First Name: <b>Robin</b> Last Name: <b>Willey</b> Title: <b>Operator</b> Email: Phone: <b>812-322-2954</b>							
Certified Operator: <b>Robin Willey</b>	Number: <b>16158</b>	Class: <b>II</b>	Effective Date: <b>7-1-12</b> Expiration Date: <b>6-30-14</b> Hours/Week: <b>0-5</b>				
Responsible Official: <b>Mr. Jeff Keener, President</b> <b>P.O. Box 159</b> <b>Helmsburg, Indiana 47435</b>		Permittee: <b>Helmsburg Regional Sewer District</b> Email: <b>jpskeener@hotmail.com</b> Phone: <b>317-407-6064</b> Fax: <b>Contacted? No</b>					
<b>INSPECTION FINDINGS</b> <input type="radio"/> No violations were discovered with respect to the particular items observed during the inspection. (5) <input type="radio"/> Violations were discovered but corrected during the inspection. (4) <input checked="" type="radio"/> Potential problems were discovered or observed. (3) <input type="radio"/> Violations were discovered and require a submittal from you and/or a follow-up inspection by IDEM. (2) <input type="radio"/> Violations were discovered and may subject you to an appropriate enforcement response. (1)							
<b>AREAS EVALUATED DURING INSPECTION</b> (S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)							
N	Receiving Waters	M	Facility/Site	S	Self-Monitoring	N	Compliance Schedules
S	Effluent Appearance	S	Operations	S	Flow Measurement	N	Pretreatment
S	Permit	M	Maintenance	S	Laboratory	M	Effluent Limits Compliance
S	CSO/SSO (Sewer Overflow)	S	Sludge	S	Records/Reports	N	Other:
<b>DETAILED AREA EVALUATIONS</b>							
<b>Receiving Waters:</b> <u>N</u> 1. The receiving stream is visibly free of excessive deposits of settled solids, floating debris, oil, scum, or billowy foam. Comments: The receiving stream was not checked due to high weeds and undergrowth on the adjacent property.							
<b>Effluent Appearance:</b> <u>S</u> 1. Treated effluent is free of excessive solids, floating debris, oil, scum, or billowy foam. Comments: The effluent was clear and free of color at the time of the inspection.							
<b>Permit:</b> <u>N</u> 1. A permit renewal application was submitted to IDEM at least 180 days prior to the expiration date. <u>S</u> 2. The facility description, including the receiving waters, is complete and accurate. <u>N</u> 3. The permit has been properly transferred. Comments: The facility has a valid permit and the facility description, including units of treatment and receiving stream, is accurate.							

**CSO/SSO:**

- N 1. CSO structures are adequately monitored and maintained.
- S 2. The facility has had no unauthorized sewer overflow events in the past 12 months.
- N 3. SSO and dry weather CSO discharges have been properly reported.
- N 4. Any adverse impacts from SSO and CSO discharges have been properly mitigated.

**Comments:**

The facility has not reported any unauthorized sewer overflow events in the past 12 months.

**Facility/Site:**

- S 1. The facility has standby power or equivalent provision.
- S 2. An adequate alarm or notification system for power or equipment failure is available for the treatment facility.
- M 3. Safe and adequate access is provided for inspection of all treatment units and outfalls.
- 4. List any safety concerns noted during the inspection in the box below:

Grating is very deteriorated in the mid section of the plant.

**Comments:**

Consideration should be made for replacing sections of the steel grating that are rusted and soft.

**Operations:**

- S 1. All facilities and systems necessary for achieving compliance with the terms and conditions of the permit are operated efficiently, including:
  - a. An anticipated bypass report was submitted to IDEM for steps of treatment taken out of service.
- S 2. An adequate, qualified operating staff is provided to carry out the operation of the facility, including:
  - a. Certified Operator's on-site attendance and/or qualified operations personnel attendance is adequate.
  - b. Adequate documentation of operational activities, including system monitoring and cleaning.
  - c. Adequate funding to ensure proper operation.
- S 3. Solids handling procedures include:
  - a. Sufficient solids are wasted from the treatment system, in a timely manner, to maintain process efficiency.
  - b. Wasting of solids is based on appropriate operational targets and valid process control testing.
  - c. Adequate documentation of solids removal, handling, or control is available for review.
- S 4. The facility is operated efficiently during wet weather events.

**Comments:**

All units of treatment appear to be operating efficiently.

**Maintenance:**

- S 1. A maintenance record system has been established and includes maintenance/repair history and preventative maintenance plan.
- M 2. Facility maintenance activities appear adequate.
- S 3. Lift station procedures include:
  - a. Adequate alarm or notification system for equipment failure.
  - b. Adequate inspections, cleaning, and maintenance activities.
  - c. Adequate documentation of all procedures
- N 4. Collection system maintenance activities appear adequate.

**Comments:**

There are sections of the plant that are extremely rusted and scaling. There is no cathodic protection at the plant. It is speculated that the sacrificial anodes have totally deteriorated.

**Sludge:**

- S 1. Sludges, screenings, and slurries are handled and disposed of properly.

**Comments:**

A records review during the inspection showed adequate wasting, handling, and disposal of sludge.

**Self-Monitoring:**

- S 1. Samples are taken at pre-designated locations and are representative.
- S 2. Flow-proportioned samples are obtained where needed.
- S 3. The facility conducts sampling of all waste streams, including type and frequency, as required in the permit.
- S 4. Sample collection procedures, including automatic sampling, include:
  - a. Samples are refrigerated during compositing.
  - b. Proper preservation techniques are used.
  - c. Containers and holding times conform to 40 CFR 136.3.



- S 5. Sample documentation is adequate and includes:
- Date, time, and location of sampling.
  - Name of individual performing sampling.
  - Instantaneous flow for flow-weighted aliquots.
- N 6. NPDES Permit Whole Effluent Toxicity (WET) testing requirements are being met.

Comments:

The Self Monitoring Program was rated as satisfactory. All sampling practices, including raw and intermediate unit process testing, are conducted accurately and at the frequency required by the permit.

**Flow Measurement:**

- S 1. Flow is properly measured as required by the permit.
- S 2. Flow charts and calibration records are available for review.
- S 3. Effluent flow is used in calculating effluent loadings.

Comments:

The facility's flow measurement program, including all documentation, is adequate and representative.

**Laboratory:**

1. The following laboratory records were reviewed:
- Contract Lab Reports      Chain-of-Custody
- S 2. The laboratory practices and protocol reviewed were adequate, including:
- Written laboratory QA/QC manual.
  - Chain-of-Custody procedures followed.
  - Samples are properly stored.
  - Approved analytical methods are used.
  - Calibration and maintenance of instruments is adequate.
  - QA/QC procedures are adequate.
  - Dates of analyses.
  - Name of person performing analyses.

**Contract Lab Information**

Sherry Labs

629 Washington Street, Columbus

Paul Gerth

812-375-0531

**Records/Reports:**

The following records/reports were reviewed:

DMRs for the period of January 2012 to December 2012 were reviewed as part of the inspection.

- S 1. All facility records for the period including the previous three years were available for review.
- S 2. DMRs, MROs/MMRs, and CSODMRs are completed properly and accurately including:
- "No Ex" column is accurate.
  - Signatory requirements are met.
  - Reports are prepared by or under the direction of a certified operator.

Comments:

The requested records were available and appear complete and accurate.

**Compliance Schedules:**

- N 1. The NPDES Permit Schedule of Compliance monitoring and reporting milestones have been met.
- N 2. Agreed Order compliance milestones have been met.

Comments:

**Pretreatment:**

- N 1. The facility operates without significant interference from industrial or other sources of toxic substances.
- N 2. For both Delegated and Non-Delegated pretreatment programs:
- Industrial or commercial dischargers are regulated as required.
  - The permittee enforces the Sewer Use Ordinance and follows the Enforcement Guide.
  - The permittee submitted its annual pretreatment report to IDEM by April 1.
- N 3. Non-Delegated pretreatment programs have:
- Developed or reevaluated the Sewer Use Ordinance and submitted it to IDEM.
  - Developed or reevaluated the Enforcement Response Guide and submitted it to IDEM.
- N 4. Pretreatment records were adequate and include:
- Inventory of Industrial Waste Contributors.
  - Monitoring data.
  - Inspection Reports.
  - Compliance status records.
  - Enforcement actions.

Comments:

**Effluent Limits Compliance:**

Yes 1. Were DMRs reviewed as part of the inspection?

DMRs for the period of January 2012 to December 2012 were reviewed as part of the inspection.

Yes 2. Were violations noted during the review of DMRs?

N 3. Bypass and Noncompliance reporting.

The Effluent Limits Violations area was rated marginal due to self-reported violations of the limits detailed in Part I. A. of the NPDES Permit. Review of DMRs revealed two ammonia nitrogen violations.

Comments:

**IDEM REPRESENTATIVE**

Inspector Name:

Kevin Hotz

Email:

khotz@idem.IN.gov

Phone Number:

812-358-2027 ext. 235

**IDEM MANAGER REVIEW**

IDEM Manager:



Date:

11-21-13



## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204  
(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

Michael R. Pence  
Governor

Thomas W. Easterly  
Commissioner

December 03, 2013

Mr. Jeff Keener, President  
Helmsburg Regional Sewer District  
P.O. Box 159  
Helmsburg, Indiana 47435

Dear Mr. Keener:

Re: Inspection Summary Letter  
Helmsburg Regional Sewer District WWTP  
NPDES Permit No. IN0058416  
Nashville, Brown County

An inspection of the above-referenced facility or location was conducted by a representative of the Indiana Department of Environmental Management, Southeast Regional Office, pursuant to IC 13-18-3-9. A summary of the inspection is provided below:

Date(s) of Inspection: October 18, 2013  
Type of Inspection: Compliance Evaluation Inspection  
Inspection Results: Potential problems were discovered or observed.

Consideration should be made for replacing sections of the steel grating that are rusted and soft.

There are sections of the plant that are extremely rusted and scaling. There is no cathodic protection at the plant. It is speculated that the sacrificial anodes have totally deteriorated.

The Effluent Limits Compliance area was rated marginal due to self-reported violations of the limits detailed in Part I. A. of the NPDES Permit. Review of DMRs revealed two ammonia nitrogen violations.

A copy of the NPDES Wastewater Facility Inspection Report is enclosed for your records. Please direct any response to this letter and any questions to Kevin Hotz at 812-358-2027 ext. 235 or by email to [khotz@idem.IN.gov](mailto:khotz@idem.IN.gov).

Sincerely,

Mark A. Amick, Deputy Director  
Southeast Regional Office

Enclosure

## **APPENDIX G**

### **PROJECT NEED INFORMATION**



Nearly all of the residences and small businesses in Bean Blossom are experiencing at least minor problems with their septic systems and several of them are experiencing major problems. This appendix contains background information that documents Bean Blossom's situation and identifies the problems that must be addressed.

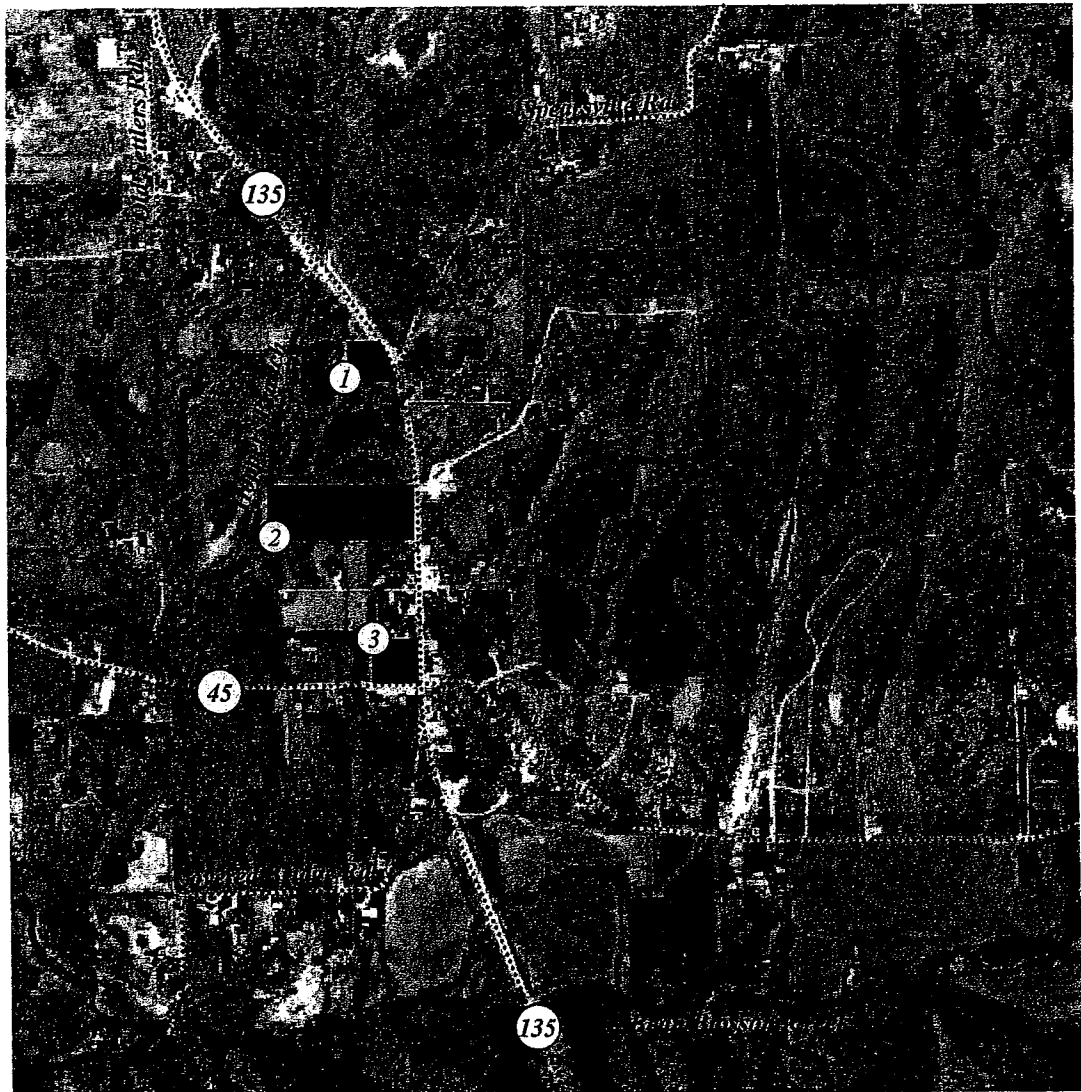
### **Problem Assessment**

The community of Bean Blossom currently uses individual on-site septic systems for wastewater treatment. Many of the existing systems are more than 50 years old and are experiencing frequent failures. In addition, several of the businesses in the Bean Blossom area have been in decline because they do not have the land needed to repair or upgrade their septic systems. The Brown County Health Department (BCHD) has cited several homeowners in the area for septic system failures and has denied issuing septic permits to several potential businesses and residences.

The failing septic systems have had an adverse environmental impact on the area, mainly through the pollution of surface and ground water, which has caused health concerns for community residents. Water quality testing performed by the BCHD during the summer of 2000 showed *Escherichia coli* (*E. coli*) counts of greater than 2,400 parts per 100 milliliter (mL) sample in Hopper's Branch Creek and 690 parts per 100 mL in a roadside ditch along Covered Bridge Road. (See Figure A1.) Indiana's Water Quality Standards set an average of less than 126 *E. coli* colonies per 100 mL of water as the standard safe level (IDEM, 2000).

### **Major Problem Areas**

Information provided by the client identified three areas experiencing major problems with their septic systems. These major problem areas consist of a small commercial business, the community's trailer court, and the commercial businesses at the intersection of State Road 45 and State Road 135. (See Figure



NO SCALE

#### LEGEND

- Stream
- ..... Roadway
- ② ■ Problem Area



**FIGURE NO. A1**  
**Bean Blossom Wastewater Treatment Alternatives**

**MAJOR PROBLEM AREAS**



Figure A3: A view of what is believed to be the business's septic tank. The building is located uphill, to the right of the photo.

### **Problem Area Two**

Problem area two is the 31-lot mobile home park located on the north end of the community. The park has an undersized and poorly maintained septic system that is discharging wastewater onto the ground and into nearby Hoppers Branch Creek. It is probably to blame for the extremely high *E. Coli* counts found in the creek during the summer of 2000. The situation presents a major health concern to the entire community.



Figure A5: A view directly east of the septic tank illustrated in Figure A4. Note the dark wastewater resting on the ground and the abnormal plant growth, evidence of a failing septic system. This wastewater has been seeping into Hoppers Branch Creek, located in the middle of the picture. Note the pipe running through the right side of the picture. The pipe leads uphill to the mobile home court.



Figure A6: A view of the trailer court's leach field, located west of the septic tank shown in Figure A4. Again, dark wastewater and abnormal plant growth are present.



Figure A8: A view of another small business at the intersection, located just south of the supermarket. The building doesn't have working restrooms because of the failing septic systems at the location.





# Brown County Department of Health

[browncountyhealth@localhealth.in.gov](mailto:browncountyhealth@localhealth.in.gov)

Mailing Address:  
P.O. Box 281  
Nashville IN 47448  
812/988-2255  
812/988-5601 FAX  
Physical Address:  
201 Locust Lane  
Nashville, IN 47448

Norman Oestrike, MD  
Health Officer

5/4/18

## Brown County Regional Sewer District

In an area within a radius of 3 ½ miles from the intersection of SR 45 and 135 North we have 2904 properties.

Of the 2904 properties, 2002 have buildings or residences that require a septic system.

According to a report from the Assessor's Office, the average build date was 1960. This means the average age of the septic systems is 58 years old.

The first State Septic Code, HSE 25, was in effect from Nov. 18, 1977 to Dec 21, 1990. Based on this information it would be logical to conclude that the average septic system in this defined area does not meet today's standards.

In addition, based on the fact that the average system is over 50 years old, it would only be fair to assume many may not be functioning as originally planned and in fact may be failing, as defined by State Code 410 IAC 6-8.3.

410 IAC 6-8.3-33 defines failure as:

Sec.33 "Residential onsite sewage system failure" means a residential onsite system that exhibits one (1) or more of the following:

- (1) The onsite sewage system refuses to accept sewage at the rate of design application thereby interfering with the normal use of the residential plumbing fixtures.

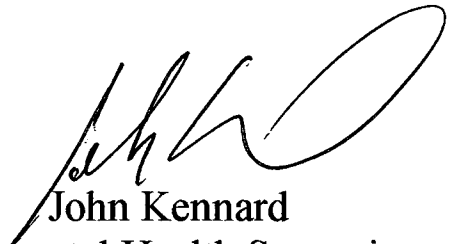
- (2) Effluent discharge exceeds the absorption capacity of the soil, resulting in ponding, seepage, or other discharge of the effluent to the ground surface or to surface waters.
- (3) Effluent is discharged from the onsite sewage system causing contamination of a potable water supply, ground water, or surface waters.

In addition, I have attached a documented history of water tests taken at various points and times throughout this area and found detectable levels of E. Coli in most bodies of water we tested. Although dated, I consider the results valid as we have made no adjustments in sewage collection that would lower these levels.

This situation is an environmental health disaster waiting to happen. The most viable solution is a sanitary sewer system.

A handwritten signature in black ink, appearing to read "Norman Oestrike MD". The signature is fluid and cursive, with the "MD" at the end being more distinct.

Norman Oestrike MD  
Brown County Health Officer

A handwritten signature in black ink, appearing to read "John Kennard". The signature is fluid and cursive, with a large loop at the end.

John Kennard  
Environmental Health Supervisor

Parcel Number	Parcel Number1	Improvement Type	Yr Constructed
001-00300-00	001-00300-00	Residential Dwelling	1966
001-00600-00	001-00600-00	Residential Dwelling	1950
001-00700-00	001-00700-00	Residential Dwelling	1960
001-01000-00	001-01000-00	Residential Dwelling	1968
001-01200-01	001-01200-01	Residential Dwelling	1953
001-01300-00	001-01300-00	Residential Dwelling	1923
001-01300-00	001-01300-00	Residential Dwelling	1995
001-01400-00	001-01400-00	Residential Dwelling	1940
001-01500-00	001-01500-00	Residential Dwelling	1942
001-01700-00	001-01700-00	Residential Dwelling	1965
001-02000-00	001-02000-00	Residential Dwelling	1955
001-02300-00	001-02300-00	Residential Dwelling	1930
001-02500-01	001-02500-01	Residential Dwelling	1953
001-02700-00	001-02700-00	Residential Dwelling	1966
001-02700-10	001-02700-10	Residential Dwelling	1990
001-02800-00	001-02800-00	Residential Dwelling	1960
001-02900-01	001-02900-01	Residential Dwelling	1938
001-03500-00	001-03500-00	Residential Dwelling	1960
001-03600-03	001-03600-03	Residential Dwelling	1938
001-03600-04	001-03600-04	Residential Dwelling	1988
001-03700-00	001-03700-00	Residential Dwelling	1948
001-03800-00	001-03800-00	Residential Dwelling	1970

AVE AGE 1960

22 / 1951



001-03900-00	001-03900-00	Residential Dwelling	1955
001-04000-00	001-04000-00	Residential Dwelling	1974
001-04000-01	001-04000-01	Residential Dwelling	1996
001-04100-00	001-04100-00	Residential Dwelling	2006
001-04100-01	001-04100-01	Residential Dwelling	1967
001-04200-00	001-04200-00	Residential Dwelling	1930
001-04300-00	001-04300-00	Residential Dwelling	1977
001-04400-01	001-04400-01	Residential Dwelling	1923
001-04400-01	001-04400-01	Residential Dwelling	1975
001-04400-02	001-04400-02	Residential Dwelling	1932
001-04500-00	001-04500-00	Residential Dwelling	1960
001-04700-00	001-04700-00	Residential Dwelling	1942
001-04900-00	001-04900-00	Residential Dwelling	1983
001-05200-01	001-05200-01	Residential Dwelling	1972
001-05500-00	001-05500-00	Residential Dwelling	1955
001-06000-00	001-06000-00	Residential Dwelling	1981
001-06200-00	001-06200-00	Residential Dwelling	1943
001-06300-00	001-06300-00	Residential Dwelling	1977
001-06500-00	001-06500-00	Residential Dwelling	1969
001-06700-00	001-06700-00	Residential Dwelling	1944
001-07100-00	001-07100-00	Residential Dwelling	1830
001-07100-00	001-07100-00	Residential Dwelling	1981
001-07100-02	001-07100-02	Residential Dwelling	1996
001-07200-01	001-07200-01	Residential Dwelling	1942

24

1958

001-07400-00	001-07400-00	Residential	1930
		Dwelling	
001-07500-00	001-07500-00	Residential	1948
		Dwelling	
001-07600-00	001-07600-00	Residential	1948
		Dwelling	
001-07700-00	001-07700-00	Residential	1945
		Dwelling	
001-07800-00	001-07800-00	Residential	1974
		Dwelling	
001-08100-01	001-08100-01	Residential	1933
		Dwelling	
001-08400-00	001-08400-00	Residential	1967
		Dwelling	
001-08500-01	001-08500-01	Residential	1908
		Dwelling	
001-08500-10	001-08500-10	Residential	1990
		Dwelling	
001-09000-00	001-09000-00	Residential	1970
		Dwelling	
001-09000-01	001-09000-01	Residential	1970
		Dwelling	
001-09300-00	001-09300-00	Residential	1960
		Dwelling	
001-09400-00	001-09400-00	Residential	1935
		Dwelling	
001-09500-00	001-09500-00	Residential	1938
		Dwelling	
001-09700-00	001-09700-00	Residential	1984
		Dwelling	
001-09700-01	001-09700-01	Residential	1972
		Dwelling	
001-09700-02	001-09700-02	Residential	1988
		Dwelling	
001-09900-00	001-09900-00	Residential	1927
		Dwelling	
001-09900-00	001-09900-00	Residential	1991
		Dwelling	
001-09900-04	001-09900-04	Residential	1927
		Dwelling	
001-10200-01	001-10200-01	Residential	1958
		Dwelling	
001-10400-00	001-10400-00	Residential	0
		Dwelling	
001-10500-00	001-10500-00	Residential	1965
		Dwelling	
001-10600-00	001-10600-00	Residential	1942
		Dwelling	

23

1955

001-10700-00	001-10700-00	Residential Dwelling	1945
001-10900-00	001-10900-00	Residential Dwelling	1963
001-11100-00	001-11100-00	Residential Dwelling	1940
001-11200-00	001-11200-00	Residential Dwelling	1950
001-11200-02	001-11200-02	Residential Dwelling	1989
001-11400-00	001-11400-00	Residential Dwelling	1949
001-12650-01	001-12650-01	Residential Dwelling	1994
001-12650-04	001-12650-04	Residential Dwelling	1995
001-12650-06	001-12650-06	Residential Dwelling	1995
001-12650-07	001-12650-07	Residential Dwelling	1994
001-12650-08	001-12650-08	Residential Dwelling	1995
001-12650-10	001-12650-10	Residential Dwelling	1995
001-12650-13	001-12650-13	Residential Dwelling	1999
001-12650-14	001-12650-14	Residential Dwelling	2002
001-12650-15	001-12650-15	Residential Dwelling	1997
001-12650-17	001-12650-17	Residential Dwelling	2006
001-12650-18	001-12650-18	Residential Dwelling	1999
001-12650-20	001-12650-20	Residential Dwelling	1999
001-12650-23	001-12650-23	Residential Dwelling	1998
001-12700-00	001-12700-00	Residential Dwelling	1948
001-13400-00	001-13400-00	Residential Dwelling	1890
001-13400-00	001-13400-00	Residential Dwelling	1966
001-13500-01	001-13500-01	Residential Dwelling	1918
001-13600-00	001-13600-00	Residential Dwelling	1948

24

1974  
1974

001-13900-00	001-13900-00	Residential Dwelling	1967
001-14000-00	001-14000-00	Residential Dwelling	1955
001-14100-00	001-14100-00	Residential Dwelling	1940
001-14200-00	001-14200-00	Residential Dwelling	1959
001-14300-01	001-14300-01	Residential Dwelling	1940
001-14400-00	001-14400-00	Residential Dwelling	1948
001-14700-00	001-14700-00	Residential Dwelling	1953
001-14900-00	001-14900-00	Residential Dwelling	1951
001-15000-01	001-15000-01	Residential Dwelling	1938
001-15100-01	001-15100-01	Residential Dwelling	2000
001-15300-00	001-15300-00	Residential Dwelling	1940
001-15500-02	001-15500-02	Residential Dwelling	1958
001-15800-00	001-15800-00	Residential Dwelling	1927
001-16300-00	001-16300-00	Residential Dwelling	1966
001-16400-02	001-16400-02	Residential Dwelling	1936
001-16700-00	001-16700-00	Residential Dwelling	1920
001-16800-00	001-16800-00	Residential Dwelling	1948
001-17200-00	001-17200-00	Residential Dwelling	1948
001-17400-00	001-17400-00	Residential Dwelling	1920
001-17500-00	001-17500-00	Residential Dwelling	1959
001-17700-00	001-17700-00	Residential Dwelling	1948
001-17780-01	001-17780-01	Residential Dwelling	1997
001-17780-04	001-17780-04	Residential Dwelling	1998
001-17780-06	001-17780-06	Residential Dwelling	2004

24 / 1955

001-17780-08	001-17780-08	Residential	1998
		Dwelling	
001-17780-09	001-17780-09	Residential	1998
		Dwelling	
001-17780-12	001-17780-12	Residential	1999
		Dwelling	
001-17780-13	001-17780-13	Residential	2002
		Dwelling	
001-17780-15	001-17780-15	Residential	2001
		Dwelling	
001-17780-35	001-17780-35	Residential	2000
		Dwelling	
001-17800-00	001-17800-00	Residential	1966
		Dwelling	
001-18100-00	001-18100-00	Residential	1948
		Dwelling	
001-18400-00	001-18400-00	Residential	1951
		Dwelling	
001-18400-01	001-18400-01	Residential	1966
		Dwelling	
001-18500-00	001-18500-00	Residential	1930
		Dwelling	
001-18500-00	001-18500-00	Residential	1940
		Dwelling	
001-18600-00	001-18600-00	Residential	1943
		Dwelling	
001-18700-00	001-18700-00	Residential	1930
		Dwelling	
001-18800-00	001-18800-00	Residential	1935
		Dwelling	
001-18900-00	001-18900-00	Residential	1930
		Dwelling	
001-19000-00	001-19000-00	Residential	1968
		Dwelling	
001-19200-00	001-19200-00	Residential	1956
		Dwelling	
001-19400-00	001-19400-00	Residential	1937
		Dwelling	
001-19600-01	001-19600-01	Residential	1957
		Dwelling	
001-19700-00	001-19700-00	Residential	1930
		Dwelling	
001-20000-00	001-20000-00	Residential	1955
		Dwelling	
001-20100-00	001-20100-00	Residential	1953
		Dwelling	
001-20200-00	001-20200-00	Residential	1926
		Dwelling	

24  
1959



001-20300-00	001-20300-00	Residential	1924
		Dwelling	
001-20300-02	001-20300-02	Residential	1999
		Dwelling	
001-20300-04	001-20300-04	Residential	2000
		Dwelling	
001-20500-00	001-20500-00	Residential	1981
		Dwelling	
001-20500-01	001-20500-01	Residential	1930
		Dwelling	
001-20600-00	001-20600-00	Residential	1981
		Dwelling	
001-20600-01	001-20600-01	Residential	1948
		Dwelling	
001-20700-00	001-20700-00	Residential	1970
		Dwelling	
001-20800-00	001-20800-00	Residential	1952
		Dwelling	
001-20800-01	001-20800-01	Residential	1923
		Dwelling	
001-20900-00	001-20900-00	Residential	1940
		Dwelling	
001-21000-10	001-21000-10	Residential	1989
		Dwelling	
001-21000-15	001-21000-15	Residential	1995
		Dwelling	
001-21000-16	001-21000-16	Residential	1990
		Dwelling	
001-21000-17	001-21000-17	Residential	2001
		Dwelling	
001-21000-18	001-21000-18	Residential	2002
		Dwelling	
001-21000-19	001-21000-19	Residential	1997
		Dwelling	
001-21000-21	001-21000-21	Residential	1994
		Dwelling	
001-21000-22	001-21000-22	Residential	2005
		Dwelling	
001-21000-23	001-21000-23	Residential	1992
		Dwelling	
001-21300-00	001-21300-00	Residential	1960
		Dwelling	
001-21400-00	001-21400-00	Residential	1953
		Dwelling	
001-21500-00	001-21500-00	Residential	1959
		Dwelling	
001-21600-00	001-21600-00	Residential	1934
		Dwelling	

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001-21700-00	001-21700-00	Residential	1965
		Dwelling	
001-21900-00	001-21900-00	Residential	0
		Dwelling	
001-22100-00	001-22100-00	Residential	1950
		Dwelling	
001-22200-03	001-22200-03	Residential	1992
		Dwelling	
001-22200-04	001-22200-04	Residential	1999
		Dwelling	
001-22400-00	001-22400-00	Residential	1953
		Dwelling	
001-22400-02	001-22400-02	Residential	1958
		Dwelling	
001-22400-03	001-22400-03	Residential	1918
		Dwelling	
001-22500-00	001-22500-00	Residential	1949
		Dwelling	
001-22700-00	001-22700-00	Residential	1953
		Dwelling	
001-22800-00	001-22800-00	Residential	1961
		Dwelling	
001-22900-00	001-22900-00	Residential	1962
		Dwelling	
001-23100-00	001-23100-00	Residential	1938
		Dwelling	
001-23200-00	001-23200-00	Residential	1958
		Dwelling	
001-23300-00	001-23300-00	Residential	1940
		Dwelling	
001-23400-01	001-23400-01	Residential	1862
		Dwelling	
001-23500-00	001-23500-00	Residential	1924
		Dwelling	
001-23800-00	001-23800-00	Residential	1948
		Dwelling	
001-23900-00	001-23900-00	Residential	1988
		Dwelling	
001-24000-00	001-24000-00	Residential	1976
		Dwelling	
001-24100-00	001-24100-00	Residential	1956
		Dwelling	
001-24300-01	001-24300-01	Residential	1952
		Dwelling	
001-24400-00	001-24400-00	Residential	1938
		Dwelling	
001-24600-00	001-24600-00	Residential	1967
		Dwelling	

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1952

001-24700-00	001-24700-00	Residential Dwelling	1963
001-24800-00	001-24800-00	Residential Dwelling	1950
001-24900-09	001-24900-09	Residential Dwelling	1987
001-25000-00	001-25000-00	Residential Dwelling	1972
001-25400-00	001-25400-00	Residential Dwelling	1963
001-26000-00	001-26000-00	Residential Dwelling	1992
001-26000-01	001-26000-01	Residential Dwelling	1930
001-26300-00	001-26300-00	Residential Dwelling	1950
001-26600-01	001-26600-01	Residential Dwelling	1958
001-26700-00	001-26700-00	Residential Dwelling	1950
001-26900-00	001-26900-00	Residential Dwelling	1890
001-27100-00	001-27100-00	Residential Dwelling	1952
001-27200-00	001-27200-00	Residential Dwelling	1885
001-27400-00	001-27400-00	Residential Dwelling	1946
001-27500-00	001-27500-00	Residential Dwelling	1952
001-27600-00	001-27600-00	Residential Dwelling	1930
001-27700-00	001-27700-00	Residential Dwelling	1936
001-27800-00	001-27800-00	Residential Dwelling	1957
001-27900-00	001-27900-00	Residential Dwelling	1957
001-27900-01	001-27900-01	Residential Dwelling	1997
001-27900-02	001-27900-02	Residential Dwelling	1988
001-28200-00	001-28200-00	Residential Dwelling	1948
001-28700-00	001-28700-00	Residential Dwelling	1952
001-28800-00	001-28800-00	Residential Dwelling	1968

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001-28900-01	001-28900-01	Residential Dwelling	1995
001-28900-02	001-28900-02	Residential Dwelling	1993
001-28900-03	001-28900-03	Residential Dwelling	1987
001-28900-04	001-28900-04	Residential Dwelling	2000
001-28900-07	001-28900-07	Residential Dwelling	2001
001-28900-08	001-28900-08	Residential Dwelling	2003
001-28900-09	001-28900-09	Residential Dwelling	1985
001-28900-12	001-28900-12	Residential Dwelling	1979
001-29100-00	001-29100-00	Residential Dwelling	1966
001-29200-01	001-29200-01	Residential Dwelling	1950
001-29600-00	001-29600-00	Residential Dwelling	1890
001-29900-02	001-29900-02	Residential Dwelling	1934
001-30000-00	001-30000-00	Residential Dwelling	1975
001-30200-00	001-30200-00	Residential Dwelling	1940
001-30300-00	001-30300-00	Residential Dwelling	1966
001-32910-00	001-32910-00	Residential Dwelling	1993
001-32910-01	001-32910-01	Residential Dwelling	2001
001-32940-00	001-32940-00	Residential Dwelling	1956
001-32940-01	001-32940-01	Residential Dwelling	1995
001-32950-00	001-32950-00	Residential Dwelling	2006
001-32960-00	001-32960-00	Residential Dwelling	1962
001-32970-00	001-32970-00	Residential Dwelling	1978
001-32980-00	001-32980-00	Residential Dwelling	1961
001-32990-00	001-32990-00	Residential Dwelling	1969

001-33000-00	001-33000-00	Residential	1983
		Dwelling	
001-33000-02	001-33000-02	Residential	1975
		Dwelling	
001-33010-00	001-33010-00	Residential	1990
		Dwelling	
001-33030-00	001-33030-00	Residential	1973
		Dwelling	
001-33040-00	001-33040-00	Residential	1991
		Dwelling	
001-33050-00	001-33050-00	Residential	1977
		Dwelling	
001-33070-00	001-33070-00	Residential	1961
		Dwelling	
001-33080-02	001-33080-02	Residential	2003
		Dwelling	
001-33090-00	001-33090-00	Residential	1976
		Dwelling	
001-33100-00	001-33100-00	Residential	1997
		Dwelling	
001-33110-00	001-33110-00	Residential	1987
		Dwelling	
001-33110-01	001-33110-01	Residential	1974
		Dwelling	
001-33120-01	001-33120-01	Residential	1981
		Dwelling	
001-33120-03	001-33120-03	Residential	1981
		Dwelling	
001-33130-00	001-33130-00	Residential	1960
		Dwelling	
001-33150-00	001-33150-00	Residential	1964
		Dwelling	
001-33160-00	001-33160-00	Residential	1972
		Dwelling	
001-33170-00	001-33170-00	Residential	1974
		Dwelling	
001-33180-00	001-33180-00	Residential	1974
		Dwelling	
001-33190-00	001-33190-00	Residential	1977
		Dwelling	
001-33200-00	001-33200-00	Residential	1962
		Dwelling	
001-33210-00	001-33210-00	Residential	1973
		Dwelling	
001-33220-00	001-33220-00	Residential	1992
		Dwelling	
001-33220-01	001-33220-01	Residential	1983
		Dwelling	



001-33220-02	001-33220-02	Residential	1997
		Dwelling	
001-33240-00	001-33240-00	Residential	1975
		Dwelling	
001-33250-01	001-33250-01	Residential	1991
		Dwelling	
001-33260-00	001-33260-00	Residential	1997
		Dwelling	
001-33260-01	001-33260-01	Residential	2001
		Dwelling	
001-33285-02	001-33285-02	Residential	1965
		Dwelling	
001-33290-00	001-33290-00	Residential	1955
		Dwelling	
001-33300-00	001-33300-00	Residential	1956
		Dwelling	
001-33310-00	001-33310-00	Residential	1965
		Dwelling	
001-33320-00	001-33320-00	Residential	1955
		Dwelling	
001-33330-00	001-33330-00	Residential	1995
		Dwelling	
001-33340-00	001-33340-00	Residential	1955
		Dwelling	
001-33350-00	001-33350-00	Residential	1980
		Dwelling	
001-33360-00	001-33360-00	Residential	1980
		Dwelling	
002-00100-00	002-00100-00	Residential	1971
		Dwelling	
002-00200-00	002-00200-00	Residential	1965
		Dwelling	
002-00300-00	002-00300-00	Residential	1975
		Dwelling	
002-00500-00	002-00500-00	Residential	1978
		Dwelling	
002-00700-00	002-00700-00	Residential	1930
		Dwelling	
002-00800-01	002-00800-01	Residential	1988
		Dwelling	
002-00800-02	002-00800-02	Residential	1985
		Dwelling	
002-00800-03	002-00800-03	Residential	1846
		Dwelling	
002-00900-00	002-00900-00	Residential	1990
		Dwelling	
002-01100-00	002-01100-00	Residential	1958
		Dwelling	

002-01700-00	002-01700-00	Residential	1996
		Dwelling	
002-01700-02	002-01700-02	Residential	1996
		Dwelling	
002-01900-00	002-01900-00	Residential	1977
		Dwelling	
002-02000-01	002-02000-01	Residential	1996
		Dwelling	
002-02200-00	002-02200-00	Residential	1968
		Dwelling	
002-02300-00	002-02300-00	Residential	1977
		Dwelling	
002-02400-00	002-02400-00	Residential	1947
		Dwelling	
002-02500-01	002-02500-01	Residential	1989
		Dwelling	
002-02700-00	002-02700-00	Residential	1968
		Dwelling	
002-02800-00	002-02800-00	Residential	1981
		Dwelling	
002-02800-01	002-02800-01	Residential	1880
		Dwelling	
002-02800-04	002-02800-04	Residential	1989
		Dwelling	
002-02800-10	002-02800-10	Residential	1996
		Dwelling	
002-02900-00	002-02900-00	Residential	1953
		Dwelling	
002-03000-00	002-03000-00	Residential	1974
		Dwelling	
002-03190-01	002-03190-01	Residential	1995
		Dwelling	
002-03190-13	002-03190-13	Residential	2005
		Dwelling	
002-03190-20	002-03190-20	Residential	2003
		Dwelling	
002-03200-01	002-03200-01	Residential	1966
		Dwelling	
002-03400-01	002-03400-01	Residential	1999
		Dwelling	
002-03400-04	002-03400-04	Residential	1990
		Dwelling	
002-03500-00	002-03500-00	Residential	1983
		Dwelling	
002-03580-00	002-03580-00	Residential	1995
		Dwelling	
002-03800-00	002-03800-00	Residential	1972
		Dwelling	

002-03900-00	002-03900-00	Residential	1998
		Dwelling	
002-03900-04	002-03900-04	Residential	1999
		Dwelling	
002-04000-00	002-04000-00	Residential	1900
		Dwelling	
002-04100-01	002-04100-01	Residential	0
		Dwelling	
002-04100-01	002-04100-01	Residential	1978
		Dwelling	
002-04100-03	002-04100-03	Residential	1992
		Dwelling	
002-04100-10	002-04100-10	Residential	1983
		Dwelling	
002-04100-11	002-04100-11	Residential	1985
		Dwelling	
002-04200-00	002-04200-00	Residential	1950
		Dwelling	
002-04300-00	002-04300-00	Residential	1930
		Dwelling	
002-04400-00	002-04400-00	Residential	1978
		Dwelling	
002-04700-02	002-04700-02	Residential	1945
		Dwelling	
002-04900-00	002-04900-00	Residential	1982
		Dwelling	
002-05100-01	002-05100-01	Residential	1978
		Dwelling	
002-05100-03	002-05100-03	Residential	1978
		Dwelling	
002-05100-04	002-05100-04	Residential	1910
		Dwelling	
002-05100-05	002-05100-05	Residential	1986
		Dwelling	
002-05100-08	002-05100-08	Residential	2000
		Dwelling	
002-05100-09	002-05100-09	Residential	1997
		Dwelling	
002-05100-10	002-05100-10	Residential	1995
		Dwelling	
002-05100-20	002-05100-20	Residential	2003
		Dwelling	
002-05500-01	002-05500-01	Residential	1910
		Dwelling	
002-05600-01	002-05600-01	Residential	1999
		Dwelling	
002-05600-12	002-05600-12	Residential	2002
		Dwelling	

002-05600-15	002-05600-15	Residential Dwelling	2003
002-05700-01	002-05700-01	Residential Dwelling	2002
002-05700-06	002-05700-06	Residential Dwelling	2006
002-05700-08	002-05700-08	Residential Dwelling	1998
002-05700-11	002-05700-11	Residential Dwelling	2000
002-05700-12	002-05700-12	Residential Dwelling	1998
002-05700-13	002-05700-13	Residential Dwelling	1998
002-05700-14	002-05700-14	Residential Dwelling	2006
002-05700-17	002-05700-17	Residential Dwelling	1997
002-05900-00	002-05900-00	Residential Dwelling	1966
002-06000-00	002-06000-00	Residential Dwelling	1985
002-06400-00	002-06400-00	Residential Dwelling	1998
002-06500-00	002-06500-00	Residential Dwelling	1995
002-06600-09	002-06600-09	Residential Dwelling	1985
002-06800-01	002-06800-01	Residential Dwelling	1930
002-06900-00	002-06900-00	Residential Dwelling	1900
002-07000-03	002-07000-03	Residential Dwelling	1991
002-07100-00	002-07100-00	Residential Dwelling	1988
002-07200-01	002-07200-01	Residential Dwelling	1995
002-07200-03	002-07200-03	Residential Dwelling	1998
002-07200-07	002-07200-07	Residential Dwelling	1860
002-07300-02	002-07300-02	Residential Dwelling	1985
002-07400-00	002-07400-00	Residential Dwelling	1974
002-07500-01	002-07500-01	Residential Dwelling	1958

002-07600-02	002-07600-02	Residential Dwelling	1949
002-07894-00	002-07894-00	Residential Dwelling	1999
002-07894-02	002-07894-02	Residential Dwelling	2000
002-07894-04	002-07894-04	Residential Dwelling	1999
002-07894-06	002-07894-06	Residential Dwelling	1997
002-07894-08	002-07894-08	Residential Dwelling	1996
002-07894-09	002-07894-09	Residential Dwelling	1995
002-07894-10	002-07894-10	Residential Dwelling	1996
002-07894-11	002-07894-11	Residential Dwelling	1998
002-07900-00	002-07900-00	Residential Dwelling	1989
002-08000-03	002-08000-03	Residential Dwelling	1952
002-08000-03	002-08000-03	Residential Dwelling	1995
002-08000-05	002-08000-05	Residential Dwelling	2004
002-08000-10	002-08000-10	Residential Dwelling	2002
002-08000-11	002-08000-11	Residential Dwelling	2002
002-08300-00	002-08300-00	Residential Dwelling	1981
002-08300-01	002-08300-01	Residential Dwelling	1999
002-08300-03	002-08300-03	Residential Dwelling	1995
002-08300-04	002-08300-04	Residential Dwelling	1983
002-08300-05	002-08300-05	Residential Dwelling	1985
002-08300-06	002-08300-06	Residential Dwelling	1997
002-08300-10	002-08300-10	Residential Dwelling	2000
002-08300-11	002-08300-11	Residential Dwelling	1989
002-08400-00	002-08400-00	Residential Dwelling	1885



002-08600-00	002-08600-00	Residential	1900
		Dwelling	
002-08700-00	002-08700-00	Residential	1969
		Dwelling	
002-09000-00	002-09000-00	Residential	1985
		Dwelling	
002-09000-02	002-09000-02	Residential	1973
		Dwelling	
002-09100-00	002-09100-00	Residential	1832
		Dwelling	
002-09200-00	002-09200-00	Residential	1979
		Dwelling	
002-09300-00	002-09300-00	Residential	1959
		Dwelling	
002-09600-00	002-09600-00	Residential	1970
		Dwelling	
002-09600-01	002-09600-01	Residential	2001
		Dwelling	
002-09700-00	002-09700-00	Residential	1978
		Dwelling	
002-09800-00	002-09800-00	Residential	1945
		Dwelling	
002-09900-00	002-09900-00	Residential	1980
		Dwelling	
002-10000-03	002-10000-03	Residential	1989
		Dwelling	
002-10000-04	002-10000-04	Residential	1992
		Dwelling	
002-10000-05	002-10000-05	Residential	1995
		Dwelling	
002-10000-07	002-10000-07	Residential	1992
		Dwelling	
002-10000-08	002-10000-08	Residential	1995
		Dwelling	
002-10000-09	002-10000-09	Residential	1995
		Dwelling	
002-10000-15	002-10000-15	Residential	1998
		Dwelling	
002-10100-01	002-10100-01	Residential	1978
		Dwelling	
002-10200-70	002-10200-70	Residential	1982
		Dwelling	
002-10300-01	002-10300-01	Residential	1942
		Dwelling	
002-10600-01	002-10600-01	Residential	2005
		Dwelling	
002-11100-00	002-11100-00	Residential	1973
		Dwelling	

002-11300-00	002-11300-00	Residential Dwelling	1958
002-11400-00	002-11400-00	Residential Dwelling	1975
002-11500-01	002-11500-01	Residential Dwelling	1989
002-11700-04	002-11700-04	Residential Dwelling	2006
002-11700-12	002-11700-12	Residential Dwelling	1935
002-11800-00	002-11800-00	Residential Dwelling	1935
002-12000-01	002-12000-01	Residential Dwelling	2005
002-12100-00	002-12100-00	Residential Dwelling	1995
002-12400-02	002-12400-02	Residential Dwelling	1991
002-12400-04	002-12400-04	Residential Dwelling	1995
002-12400-05	002-12400-05	Residential Dwelling	1991
002-12400-06	002-12400-06	Residential Dwelling	1994
002-12400-07	002-12400-07	Residential Dwelling	1993
002-12400-08	002-12400-08	Residential Dwelling	1996
002-12500-00	002-12500-00	Residential Dwelling	1980
002-12600-00	002-12600-00	Residential Dwelling	1930
002-12900-01	002-12900-01	Residential Dwelling	1978
002-13000-00	002-13000-00	Residential Dwelling	1982
002-13100-00	002-13100-00	Residential Dwelling	1984
002-13200-00	002-13200-00	Residential Dwelling	1997
002-13400-01	002-13400-01	Residential Dwelling	1980
002-13400-05	002-13400-05	Residential Dwelling	1977
002-13600-00	002-13600-00	Residential Dwelling	1963
002-13800-05	002-13800-05	Residential Dwelling	1990

002-13900-00	002-13900-00	Residential Dwelling	1975
002-14000-00	002-14000-00	Residential Dwelling	1983
002-14000-06	002-14000-06	Residential Dwelling	1983
002-14000-12	002-14000-12	Residential Dwelling	1983
002-14000-14	002-14000-14	Residential Dwelling	1983
002-14100-00	002-14100-00	Residential Dwelling	1991
002-14200-00	002-14200-00	Residential Dwelling	1976
002-14500-00	002-14500-00	Residential Dwelling	1977
002-14500-05	002-14500-05	Residential Dwelling	1989
002-14700-00	002-14700-00	Residential Dwelling	1950
002-14800-01	002-14800-01	Residential Dwelling	1975
002-14800-02	002-14800-02	Residential Dwelling	1988
002-14900-00	002-14900-00	Residential Dwelling	1998
002-14900-02	002-14900-02	Residential Dwelling	1988
002-14900-05	002-14900-05	Residential Dwelling	1982
002-14900-11	002-14900-11	Residential Dwelling	1993
002-14900-15	002-14900-15	Residential Dwelling	1991
002-14900-16	002-14900-16	Residential Dwelling	1992
002-15000-01	002-15000-01	Residential Dwelling	2003
002-15000-03	002-15000-03	Residential Dwelling	1987
002-15100-00	002-15100-00	Residential Dwelling	1992
002-15100-01	002-15100-01	Residential Dwelling	1973
002-15500-01	002-15500-01	Residential Dwelling	1968
002-15500-04	002-15500-04	Residential Dwelling	2002

002-15500-05	002-15500-05	Residential Dwelling	1964
002-15600-01	002-15600-01	Residential Dwelling	1975
002-15700-00	002-15700-00	Residential Dwelling	1978
002-16300-03	002-16300-03	Residential Dwelling	1948
002-16400-15	002-16400-15	Residential Dwelling	1992
002-16400-19	002-16400-19	Residential Dwelling	2003
002-16400-21	002-16400-21	Residential Dwelling	2005
002-16400-60	002-16400-60	Residential Dwelling	2003
002-16800-00	002-16800-00	Residential Dwelling	1989
002-16800-01	002-16800-01	Residential Dwelling	1989
002-16900-01	002-16900-01	Residential Dwelling	2000
002-16900-05	002-16900-05	Residential Dwelling	2003
002-17000-00	002-17000-00	Residential Dwelling	1920
002-17000-01	002-17000-01	Residential Dwelling	1984
002-17100-00	002-17100-00	Residential Dwelling	1957
002-17300-00	002-17300-00	Residential Dwelling	1980
002-17400-02	002-17400-02	Residential Dwelling	1978
002-17700-00	002-17700-00	Residential Dwelling	1976
002-17800-00	002-17800-00	Residential Dwelling	1975
002-17900-00	002-17900-00	Residential Dwelling	1965
002-18000-00	002-18000-00	Residential Dwelling	1950
002-18000-20	002-18000-20	Residential Dwelling	1989
002-18300-15	002-18300-15	Residential Dwelling	1990
002-18500-01	002-18500-01	Residential Dwelling	1978

002-18600-04	002-18600-04	Residential Dwelling	1946
002-18700-01	002-18700-01	Residential Dwelling	1916
002-18900-00	002-18900-00	Residential Dwelling	1946
002-19200-01	002-19200-01	Residential Dwelling	1977
002-19400-00	002-19400-00	Residential Dwelling	1950
002-19500-00	002-19500-00	Residential Dwelling	1965
002-19900-02	002-19900-02	Residential Dwelling	2002
002-19900-03	002-19900-03	Residential Dwelling	2003
002-19900-04	002-19900-04	Residential Dwelling	2003
002-20000-00	002-20000-00	Residential Dwelling	1981
002-20100-00	002-20100-00	Residential Dwelling	1987
002-20100-07	002-20100-07	Residential Dwelling	2003
002-20100-11	002-20100-11	Residential Dwelling	2000
002-20100-16	002-20100-16	Residential Dwelling	2001
002-20100-17	002-20100-17	Residential Dwelling	2003
002-20200-01	002-20200-01	Residential Dwelling	1965
002-20300-00	002-20300-00	Residential Dwelling	1958
002-20400-00	002-20400-00	Residential Dwelling	1974
002-20500-00	002-20500-00	Residential Dwelling	1945
002-20600-02	002-20600-02	Residential Dwelling	1986
002-20700-01	002-20700-01	Residential Dwelling	1987
002-20700-02	002-20700-02	Residential Dwelling	1985
002-21100-00	002-21100-00	Residential Dwelling	1969
002-21200-00	002-21200-00	Residential Dwelling	1955



002-21300-05	002-21300-05	Residential	1900
		Dwelling	
002-21300-06	002-21300-06	Residential	1983
		Dwelling	
002-21300-30	002-21300-30	Residential	1983
		Dwelling	
002-21400-14	002-21400-14	Residential	1999
		Dwelling	
002-21500-01	002-21500-01	Residential	2001
		Dwelling	
002-21600-02	002-21600-02	Residential	1999
		Dwelling	
002-21600-04	002-21600-04	Residential	2000
		Dwelling	
002-21700-00	002-21700-00	Residential	1977
		Dwelling	
002-21800-00	002-21800-00	Residential	1986
		Dwelling	
002-22100-01	002-22100-01	Residential	1971
		Dwelling	
002-22300-01	002-22300-01	Residential	1978
		Dwelling	
002-22300-03	002-22300-03	Residential	1995
		Dwelling	
002-22600-00	002-22600-00	Residential	2006
		Dwelling	
002-22900-01	002-22900-01	Residential	1920
		Dwelling	
002-22900-01	002-22900-01	Residential	1995
		Dwelling	
002-23000-00	002-23000-00	Residential	1973
		Dwelling	
002-23300-01	002-23300-01	Residential	1998
		Dwelling	
002-23300-02	002-23300-02	Residential	1908
		Dwelling	
002-23400-01	002-23400-01	Residential	1999
		Dwelling	
002-23400-04	002-23400-04	Residential	2000
		Dwelling	
002-23800-00	002-23800-00	Residential	1968
		Dwelling	
002-23800-01	002-23800-01	Residential	1996
		Dwelling	
002-24300-00	002-24300-00	Residential	1964
		Dwelling	
002-24700-00	002-24700-00	Residential	1968
		Dwelling	

002-24800-00	002-24800-00	Residential	1950
		Dwelling	
002-25100-00	002-25100-00	Residential	2002
		Dwelling	
002-25100-01	002-25100-01	Residential	1993
		Dwelling	
002-25200-00	002-25200-00	Residential	1990
		Dwelling	
002-25500-00	002-25500-00	Residential	1978
		Dwelling	
002-25900-00	002-25900-00	Residential	1981
		Dwelling	
002-26100-00	002-26100-00	Residential	1964
		Dwelling	
002-26200-00	002-26200-00	Residential	2001
		Dwelling	
002-26200-01	002-26200-01	Residential	1955
		Dwelling	
002-26200-02	002-26200-02	Residential	2003
		Dwelling	
002-26300-00	002-26300-00	Residential	1930
		Dwelling	
002-26400-00	002-26400-00	Residential	1979
		Dwelling	
002-26500-00	002-26500-00	Residential	1968
		Dwelling	
002-26600-02	002-26600-02	Residential	1966
		Dwelling	
002-26900-01	002-26900-01	Residential	1995
		Dwelling	
002-26900-02	002-26900-02	Residential	1950
		Dwelling	
002-27000-00	002-27000-00	Residential	1948
		Dwelling	
002-27100-02	002-27100-02	Residential	1989
		Dwelling	
002-27100-06	002-27100-06	Residential	1999
		Dwelling	
002-27300-00	002-27300-00	Residential	1977
		Dwelling	
002-27800-30	002-27800-30	Residential	1980
		Dwelling	
002-28100-01	002-28100-01	Residential	1972
		Dwelling	
002-28200-00	002-28200-00	Residential	1966
		Dwelling	
002-28300-00	002-28300-00	Residential	1962
		Dwelling	

002-28400-06	002-28400-06	Residential	1993
		Dwelling	
002-28400-08	002-28400-08	Residential	1993
		Dwelling	
002-28500-00	002-28500-00	Residential	1970
		Dwelling	
002-28800-00	002-28800-00	Residential	2001
		Dwelling	
002-29000-03	002-29000-03	Residential	1983
		Dwelling	
002-29000-04	002-29000-04	Residential	1985
		Dwelling	
002-29100-10	002-29100-10	Residential	1974
		Dwelling	
002-29100-11	002-29100-11	Residential	1997
		Dwelling	
002-29100-12	002-29100-12	Residential	2003
		Dwelling	
002-29200-00	002-29200-00	Residential	1976
		Dwelling	
002-29300-04	002-29300-04	Residential	1976
		Dwelling	
002-29300-05	002-29300-05	Residential	1960
		Dwelling	
002-29300-07	002-29300-07	Residential	1990
		Dwelling	
002-29300-08	002-29300-08	Residential	1985
		Dwelling	
002-29400-00	002-29400-00	Residential	1964
		Dwelling	
002-29600-02	002-29600-02	Residential	1860
		Dwelling	
002-29700-00	002-29700-00	Residential	1977
		Dwelling	
002-29800-00	002-29800-00	Residential	1977
		Dwelling	
002-29900-04	002-29900-04	Residential	1998
		Dwelling	
002-29900-05	002-29900-05	Residential	1976
		Dwelling	
002-29900-08	002-29900-08	Residential	1993
		Dwelling	
002-29900-09	002-29900-09	Residential	1995
		Dwelling	
002-29900-12	002-29900-12	Residential	1995
		Dwelling	
002-30100-03	002-30100-03	Residential	2000
		Dwelling	

002-30200-00	002-30200-00	Residential Dwelling	1971
002-30300-03	002-30300-03	Residential Dwelling	1985
002-30300-05	002-30300-05	Residential Dwelling	1991
002-30500-00	002-30500-00	Residential Dwelling	1968
002-30700-01	002-30700-01	Residential Dwelling	1868
002-31000-00	002-31000-00	Residential Dwelling	1890
002-31100-00	002-31100-00	Residential Dwelling	1959
002-31200-02	002-31200-02	Residential Dwelling	1930
002-31300-00	002-31300-00	Residential Dwelling	1945
002-31500-00	002-31500-00	Residential Dwelling	1982
002-32000-00	002-32000-00	Residential Dwelling	1975
002-32100-01	002-32100-01	Residential Dwelling	1974
002-32300-02	002-32300-02	Residential Dwelling	1995
002-32300-21	002-32300-21	Residential Dwelling	1895
002-32500-02	002-32500-02	Residential Dwelling	1995
002-32700-24	002-32700-24	Residential Dwelling	1900
002-33000-11	002-33000-11	Residential Dwelling	1989
002-33200-00	002-33200-00	Residential Dwelling	1958
002-33300-00	002-33300-00	Residential Dwelling	1875
002-33400-00	002-33400-00	Residential Dwelling	1972
002-33800-01	002-33800-01	Residential Dwelling	1986
002-33800-05	002-33800-05	Residential Dwelling	1870
002-34000-01	002-34000-01	Residential Dwelling	1979
002-34100-03	002-34100-03	Residential Dwelling	1973

002-34400-00	002-34400-00	Residential	1993
		Dwelling	
002-34500-00	002-34500-00	Residential	1950
		Dwelling	
002-34600-03	002-34600-03	Residential	1974
		Dwelling	
002-34700-00	002-34700-00	Residential	1942
		Dwelling	
002-34800-00	002-34800-00	Residential	1957
		Dwelling	
002-35000-01	002-35000-01	Residential	1964
		Dwelling	
002-35100-00	002-35100-00	Residential	1971
		Dwelling	
002-35400-10	002-35400-10	Residential	2003
		Dwelling	
002-35700-00	002-35700-00	Residential	1979
		Dwelling	
002-35800-02	002-35800-02	Residential	1982
		Dwelling	
002-35800-04	002-35800-04	Residential	1983
		Dwelling	
002-35800-05	002-35800-05	Residential	1988
		Dwelling	
002-35800-10	002-35800-10	Residential	1980
		Dwelling	
002-35900-00	002-35900-00	Residential	0
		Dwelling	
002-36000-00	002-36000-00	Residential	1931
		Dwelling	
002-36100-05	002-36100-05	Residential	1987
		Dwelling	
002-36200-00	002-36200-00	Residential	1978
		Dwelling	
002-36300-00	002-36300-00	Residential	1978
		Dwelling	
002-36500-00	002-36500-00	Residential	1959
		Dwelling	
002-36600-00	002-36600-00	Residential	1973
		Dwelling	
002-36600-02	002-36600-02	Residential	1990
		Dwelling	
002-36700-01	002-36700-01	Residential	1979
		Dwelling	
002-36800-02	002-36800-02	Residential	2003
		Dwelling	
002-36800-03	002-36800-03	Residential	2005
		Dwelling	



002-36800-07	002-36800-07	Residential Dwelling	2006
002-36900-00	002-36900-00	Residential Dwelling	1977
002-37000-00	002-37000-00	Residential Dwelling	1990
002-37600-00	002-37600-00	Residential Dwelling	1979
002-37700-01	002-37700-01	Residential Dwelling	1891
002-37800-00	002-37800-00	Residential Dwelling	1998
002-37900-00	002-37900-00	Residential Dwelling	1980
002-38000-00	002-38000-00	Residential Dwelling	1985
002-38100-00	002-38100-00	Residential Dwelling	1963
002-38300-00	002-38300-00	Residential Dwelling	1957
002-38400-03	002-38400-03	Residential Dwelling	1920
002-38400-10	002-38400-10	Residential Dwelling	1982
002-38400-11	002-38400-11	Residential Dwelling	1960
002-38400-31	002-38400-31	Residential Dwelling	1990
002-38500-00	002-38500-00	Residential Dwelling	1982
002-38500-02	002-38500-02	Residential Dwelling	1999
002-38500-40	002-38500-40	Residential Dwelling	1982
002-38600-00	002-38600-00	Residential Dwelling	1993
002-38800-00	002-38800-00	Residential Dwelling	1970
002-39000-01	002-39000-01	Residential Dwelling	1930
002-39300-00	002-39300-00	Residential Dwelling	1942
002-39300-05	002-39300-05	Residential Dwelling	1989
002-39500-00	002-39500-00	Residential Dwelling	1978
002-39600-00	002-39600-00	Residential Dwelling	1940

002-39700-05	002-39700-05	Residential	1928
		Dwelling	
002-40000-00	002-40000-00	Residential	1963
		Dwelling	
002-40000-01	002-40000-01	Residential	1995
		Dwelling	
002-40000-05	002-40000-05	Residential	1998
		Dwelling	
002-40100-02	002-40100-02	Residential	1945
		Dwelling	
002-40200-00	002-40200-00	Residential	1941
		Dwelling	
002-40500-04	002-40500-04	Residential	2003
		Dwelling	
002-40600-00	002-40600-00	Residential	1970
		Dwelling	
002-40700-00	002-40700-00	Residential	1996
		Dwelling	
002-40800-21	002-40800-21	Residential	1993
		Dwelling	
002-41000-00	002-41000-00	Residential	1963
		Dwelling	
002-41100-00	002-41100-00	Residential	1976
		Dwelling	
002-41200-10	002-41200-10	Residential	1925
		Dwelling	
002-41200-10	002-41200-10	Residential	1983
		Dwelling	
002-41200-11	002-41200-11	Residential	1988
		Dwelling	
002-41400-00	002-41400-00	Residential	1978
		Dwelling	
002-41500-06	002-41500-06	Residential	1877
		Dwelling	
002-41600-01	002-41600-01	Residential	1945
		Dwelling	
002-41900-00	002-41900-00	Residential	1977
		Dwelling	
002-42300-00	002-42300-00	Residential	1900
		Dwelling	
002-42300-01	002-42300-01	Residential	1986
		Dwelling	
002-42400-00	002-42400-00	Residential	2000
		Dwelling	
002-42600-00	002-42600-00	Residential	1975
		Dwelling	
002-42700-04	002-42700-04	Residential	1900
		Dwelling	

002-42800-00	002-42800-00	Residential Dwelling	1973
002-42900-03	002-42900-03	Residential Dwelling	1992
002-43100-00	002-43100-00	Residential Dwelling	1982
002-43300-00	002-43300-00	Residential Dwelling	1978
002-43400-11	002-43400-11	Residential Dwelling	1912
002-43400-12	002-43400-12	Residential Dwelling	1964
002-43700-00	002-43700-00	Residential Dwelling	1975
002-44000-00	002-44000-00	Residential Dwelling	1973
002-44100-00	002-44100-00	Residential Dwelling	1976
002-44400-00	002-44400-00	Residential Dwelling	1989
002-44500-01	002-44500-01	Residential Dwelling	1960
002-44500-02	002-44500-02	Residential Dwelling	1972
002-44600-00	002-44600-00	Residential Dwelling	1969
002-44700-00	002-44700-00	Residential Dwelling	2005
002-44800-02	002-44800-02	Residential Dwelling	1996
002-44900-00	002-44900-00	Residential Dwelling	1973
002-45000-07	002-45000-07	Residential Dwelling	1999
002-45000-09	002-45000-09	Residential Dwelling	2002
002-45000-15	002-45000-15	Residential Dwelling	1973
002-45300-00	002-45300-00	Residential Dwelling	1965
002-45400-00	002-45400-00	Residential Dwelling	2003
002-45400-06	002-45400-06	Residential Dwelling	1977
002-45400-07	002-45400-07	Residential Dwelling	1996
002-45400-08	002-45400-08	Residential Dwelling	1995

002-45400-09	002-45400-09	Residential Dwelling	1997
002-45500-01	002-45500-01	Residential Dwelling	1955
002-45600-00	002-45600-00	Residential Dwelling	1969
002-45700-00	002-45700-00	Residential Dwelling	1970
002-45800-00	002-45800-00	Residential Dwelling	1943
002-45900-00	002-45900-00	Residential Dwelling	1967
002-45900-03	002-45900-03	Residential Dwelling	2002
002-45900-04	002-45900-04	Residential Dwelling	1997
002-45900-18	002-45900-18	Residential Dwelling	1980
002-46000-00	002-46000-00	Residential Dwelling	1977
002-46100-01	002-46100-01	Residential Dwelling	1979
002-46300-00	002-46300-00	Residential Dwelling	1977
002-46500-00	002-46500-00	Residential Dwelling	1981
002-46600-00	002-46600-00	Residential Dwelling	1970
002-46600-01	002-46600-01	Residential Dwelling	2000
002-46700-00	002-46700-00	Residential Dwelling	1988
002-47000-00	002-47000-00	Residential Dwelling	1983
002-47000-01	002-47000-01	Residential Dwelling	1950
002-47100-00	002-47100-00	Residential Dwelling	1974
002-47300-00	002-47300-00	Residential Dwelling	1982
002-47400-00	002-47400-00	Residential Dwelling	1999
002-47600-00	002-47600-00	Residential Dwelling	1999
002-47600-03	002-47600-03	Residential Dwelling	1974
002-47700-01	002-47700-01	Residential Dwelling	1995

002-47700-04	002-47700-04	Residential	1997
		Dwelling	
002-47700-05	002-47700-05	Residential	1995
		Dwelling	
002-47800-00	002-47800-00	Residential	1971
		Dwelling	
002-47900-00	002-47900-00	Residential	1911
		Dwelling	
002-48100-24	002-48100-24	Residential	1988
		Dwelling	
002-48100-25	002-48100-25	Residential	1930
		Dwelling	
002-48100-27	002-48100-27	Residential	2003
		Dwelling	
002-48200-00	002-48200-00	Residential	1952
		Dwelling	
002-48400-01	002-48400-01	Residential	1976
		Dwelling	
002-48500-00	002-48500-00	Residential	1974
		Dwelling	
002-48600-00	002-48600-00	Residential	1977
		Dwelling	
002-48800-00	002-48800-00	Residential	1954
		Dwelling	
002-49000-02	002-49000-02	Residential	1993
		Dwelling	
002-49500-12	002-49500-12	Residential	1993
		Dwelling	
002-49800-03	002-49800-03	Residential	1995
		Dwelling	
002-50000-08	002-50000-08	Residential	1992
		Dwelling	
002-50000-18	002-50000-18	Residential	1992
		Dwelling	
002-50000-34	002-50000-34	Residential	2001
		Dwelling	
002-50000-40	002-50000-40	Residential	1998
		Dwelling	
002-50000-41	002-50000-41	Residential	1992
		Dwelling	
002-50000-49	002-50000-49	Residential	2003
		Dwelling	
002-50000-50	002-50000-50	Residential	1989
		Dwelling	
002-50000-54	002-50000-54	Residential	2005
		Dwelling	
002-50000-70	002-50000-70	Residential	1983
		Dwelling	



002-50300-01	002-50300-01	Residential Dwelling	0
002-50400-00	002-50400-00	Residential Dwelling	1958
002-50400-03	002-50400-03	Residential Dwelling	1930
002-50500-00	002-50500-00	Residential Dwelling	1861
002-50700-00	002-50700-00	Residential Dwelling	1969
002-50800-00	002-50800-00	Residential Dwelling	1960
002-50900-00	002-50900-00	Residential Dwelling	1990
002-50900-01	002-50900-01	Residential Dwelling	1965
002-51000-00	002-51000-00	Residential Dwelling	1974
002-51100-02	002-51100-02	Residential Dwelling	1965
002-51200-00	002-51200-00	Residential Dwelling	1964
002-51300-00	002-51300-00	Residential Dwelling	1974
002-51400-00	002-51400-00	Residential Dwelling	1875
002-51400-02	002-51400-02	Residential Dwelling	2005
002-51600-00	002-51600-00	Residential Dwelling	1949
002-51600-02	002-51600-02	Residential Dwelling	1986
002-51800-01	002-51800-01	Residential Dwelling	1995
002-51800-02	002-51800-02	Residential Dwelling	2005
002-51800-06	002-51800-06	Residential Dwelling	1992
002-51800-10	002-51800-10	Residential Dwelling	1978
002-51800-54	002-51800-54	Residential Dwelling	1996
002-52200-00	002-52200-00	Residential Dwelling	1953
002-52400-00	002-52400-00	Residential Dwelling	1975
002-52800-01	002-52800-01	Residential Dwelling	1996

002-52900-02	002-52900-02	Residential Dwelling	1954
002-52900-03	002-52900-03	Residential Dwelling	1993
002-53100-05	002-53100-05	Residential Dwelling	1998
002-53100-06	002-53100-06	Residential Dwelling	1998
002-53100-08	002-53100-08	Residential Dwelling	2005
002-53100-10	002-53100-10	Residential Dwelling	2003
002-53100-11	002-53100-11	Residential Dwelling	2003
002-53100-12	002-53100-12	Residential Dwelling	2003
002-53100-13	002-53100-13	Residential Dwelling	2000
002-53100-20	002-53100-20	Residential Dwelling	2005
002-53100-21	002-53100-21	Residential Dwelling	2005
002-53200-00	002-53200-00	Residential Dwelling	1977
002-53500-00	002-53500-00	Residential Dwelling	1990
002-53700-00	002-53700-00	Residential Dwelling	1900
002-53800-00	002-53800-00	Residential Dwelling	1993
002-53900-00	002-53900-00	Residential Dwelling	1978
002-54000-00	002-54000-00	Residential Dwelling	1850
002-54000-01	002-54000-01	Residential Dwelling	1977
002-54100-00	002-54100-00	Residential Dwelling	1875
002-54200-00	002-54200-00	Residential Dwelling	2005
002-54300-00	002-54300-00	Residential Dwelling	1997
002-54900-00	002-54900-00	Residential Dwelling	1951
002-55000-00	002-55000-00	Residential Dwelling	1995
002-55000-04	002-55000-04	Residential Dwelling	1995

002-55000-05	002-55000-05	Residential Dwelling	1997
002-55000-07	002-55000-07	Residential Dwelling	1996
002-55000-08	002-55000-08	Residential Dwelling	1998
002-55100-00	002-55100-00	Residential Dwelling	1986
002-55200-00	002-55200-00	Residential Dwelling	1979
002-55400-74	002-55400-74	Residential Dwelling	1997
002-55800-00	002-55800-00	Residential Dwelling	1977
002-56000-04	002-56000-04	Residential Dwelling	1998
002-56000-07	002-56000-07	Residential Dwelling	2003
002-56100-01	002-56100-01	Residential Dwelling	1930
002-56100-02	002-56100-02	Residential Dwelling	1998
002-56200-01	002-56200-01	Residential Dwelling	1840
002-56400-00	002-56400-00	Residential Dwelling	1936
002-56500-00	002-56500-00	Residential Dwelling	1978
002-56700-00	002-56700-00	Residential Dwelling	1975
002-56800-00	002-56800-00	Residential Dwelling	2002
002-56900-05	002-56900-05	Residential Dwelling	1972
002-56900-11	002-56900-11	Residential Dwelling	2002
002-56900-15	002-56900-15	Residential Dwelling	1997
002-57100-01	002-57100-01	Residential Dwelling	1975
002-57200-03	002-57200-03	Residential Dwelling	1993
002-57500-00	002-57500-00	Residential Dwelling	2000
002-57600-00	002-57600-00	Residential Dwelling	1998
002-57700-00	002-57700-00	Residential Dwelling	0

002-57900-01	002-57900-01	Residential	1985
		Dwelling	
002-57900-02	002-57900-02	Residential	1953
		Dwelling	
002-57900-03	002-57900-03	Residential	1992
		Dwelling	
002-58300-00	002-58300-00	Residential	1978
		Dwelling	
002-58400-00	002-58400-00	Residential	1976
		Dwelling	
002-58400-03	002-58400-03	Residential	1990
		Dwelling	
002-58500-01	002-58500-01	Residential	1995
		Dwelling	
002-58600-00	002-58600-00	Residential	1965
		Dwelling	
002-58700-02	002-58700-02	Residential	1912
		Dwelling	
002-58800-01	002-58800-01	Residential	1975
		Dwelling	
002-58900-00	002-58900-00	Residential	1961
		Dwelling	
002-59000-00	002-59000-00	Residential	1975
		Dwelling	
002-59400-01	002-59400-01	Residential	2003
		Dwelling	
002-59500-00	002-59500-00	Residential	1963
		Dwelling	
002-60200-11	002-60200-11	Residential	1998
		Dwelling	
002-60200-14	002-60200-14	Residential	2004
		Dwelling	
002-60300-00	002-60300-00	Residential	2001
		Dwelling	
002-60500-01	002-60500-01	Residential	1976
		Dwelling	
002-60500-01	002-60500-01	Residential	1992
		Dwelling	
002-60600-00	002-60600-00	Residential	2003
		Dwelling	
002-60700-00	002-60700-00	Residential	1976
		Dwelling	
002-60900-02	002-60900-02	Residential	1981
		Dwelling	
002-60900-05	002-60900-05	Residential	1997
		Dwelling	
002-61000-00	002-61000-00	Residential	1954
		Dwelling	

002-61200-00	002-61200-00	Residential Dwelling	1968
002-61300-02	002-61300-02	Residential Dwelling	1968
002-61300-10	002-61300-10	Residential Dwelling	2003
002-61300-12	002-61300-12	Residential Dwelling	1975
002-61400-70	002-61400-70	Residential Dwelling	1969
002-61406-90	002-61406-90	Residential Dwelling	1985
002-61600-00	002-61600-00	Residential Dwelling	1961
002-61900-41	002-61900-41	Residential Dwelling	1982
002-62200-00	002-62200-00	Residential Dwelling	1967
002-62400-00	002-62400-00	Residential Dwelling	1850
002-62500-00	002-62500-00	Residential Dwelling	1981
002-62600-01	002-62600-01	Residential Dwelling	1987
002-62600-03	002-62600-03	Residential Dwelling	1973
002-62800-01	002-62800-01	Residential Dwelling	1925
002-62900-00	002-62900-00	Residential Dwelling	1978
002-63000-00	002-63000-00	Residential Dwelling	1966
002-63000-00	002-63000-00	Residential Dwelling	1982
002-63800-00	002-63800-00	Residential Dwelling	1940
002-63900-00	002-63900-00	Residential Dwelling	1973
002-64100-00	002-64100-00	Residential Dwelling	1981
002-64200-00	002-64200-00	Residential Dwelling	2000
002-64300-00	002-64300-00	Residential Dwelling	1890
002-64700-04	002-64700-04	Residential Dwelling	1920
002-64800-00	002-64800-00	Residential Dwelling	1982



002-65100-00	002-65100-00	Residential	1890
		Dwelling	
002-65200-01	002-65200-01	Residential	1965
		Dwelling	
002-65500-00	002-65500-00	Residential	1977
		Dwelling	
002-65600-00	002-65600-00	Residential	1972
		Dwelling	
002-65800-00	002-65800-00	Residential	1944
		Dwelling	
002-65800-01	002-65800-01	Residential	1996
		Dwelling	
002-66100-00	002-66100-00	Residential	1976
		Dwelling	
002-66200-00	002-66200-00	Residential	2004
		Dwelling	
002-66200-01	002-66200-01	Residential	2005
		Dwelling	
002-66200-05	002-66200-05	Residential	2002
		Dwelling	
002-66400-00	002-66400-00	Residential	1982
		Dwelling	
002-66600-01	002-66600-01	Residential	2002
		Dwelling	
002-66700-00	002-66700-00	Residential	1990
		Dwelling	
002-67000-00	002-67000-00	Residential	1987
		Dwelling	
002-67100-00	002-67100-00	Residential	1983
		Dwelling	
002-67200-00	002-67200-00	Residential	1974
		Dwelling	
003-00020-00	003-00020-00	Residential	1982
		Dwelling	
003-00020-01	003-00020-01	Residential	1982
		Dwelling	
003-00020-15	003-00020-15	Residential	1989
		Dwelling	
003-00050-01	003-00050-01	Residential	1973
		Dwelling	
003-00060-00	003-00060-00	Residential	1968
		Dwelling	
003-00070-00	003-00070-00	Residential	1938
		Dwelling	
003-00070-01	003-00070-01	Residential	1995
		Dwelling	
003-00120-01	003-00120-01	Residential	1999
		Dwelling	

003-00120-03	003-00120-03	Residential Dwelling	2005
003-00120-04	003-00120-04	Residential Dwelling	1998
003-00140-03	003-00140-03	Residential Dwelling	1991
003-00160-01	003-00160-01	Residential Dwelling	1980
003-00180-00	003-00180-00	Residential Dwelling	1958
003-00200-01	003-00200-01	Residential Dwelling	1973
003-00220-00	003-00220-00	Residential Dwelling	1945
003-00230-00	003-00230-00	Residential Dwelling	1974
003-00250-00	003-00250-00	Residential Dwelling	1979
003-00250-01	003-00250-01	Residential Dwelling	1979
003-00260-01	003-00260-01	Residential Dwelling	1989
003-00290-02	003-00290-02	Residential Dwelling	1930
003-00300-00	003-00300-00	Residential Dwelling	2006
003-00330-15	003-00330-15	Residential Dwelling	1930
003-00340-01	003-00340-01	Residential Dwelling	1970
003-00350-02	003-00350-02	Residential Dwelling	1925
003-00350-04	003-00350-04	Residential Dwelling	1988
003-00350-05	003-00350-05	Residential Dwelling	1992
003-00350-20	003-00350-20	Residential Dwelling	1988
003-00460-00	003-00460-00	Residential Dwelling	1958
003-00470-01	003-00470-01	Residential Dwelling	1930
003-00480-00	003-00480-00	Residential Dwelling	0
003-00490-00	003-00490-00	Residential Dwelling	1976
003-00500-00	003-00500-00	Residential Dwelling	1957

003-00510-01	003-00510-01	Residential Dwelling	1974
003-00530-01	003-00530-01	Residential Dwelling	1998
003-00550-00	003-00550-00	Residential Dwelling	1971
003-00590-03	003-00590-03	Residential Dwelling	1993
003-00590-04	003-00590-04	Residential Dwelling	1993
003-00590-05	003-00590-05	Residential Dwelling	1995
003-00590-06	003-00590-06	Residential Dwelling	1960
003-00600-00	003-00600-00	Residential Dwelling	1958
003-00600-08	003-00600-08	Residential Dwelling	1997
003-00600-09	003-00600-09	Residential Dwelling	1996
003-00610-00	003-00610-00	Residential Dwelling	1966
003-00630-00	003-00630-00	Residential Dwelling	1953
003-00640-00	003-00640-00	Residential Dwelling	1870
003-00640-00	003-00640-00	Residential Dwelling	1975
003-00640-00	003-00640-00	Residential Dwelling	1980
003-00640-02	003-00640-02	Residential Dwelling	1994
003-00650-01	003-00650-01	Residential Dwelling	1960
003-00670-00	003-00670-00	Residential Dwelling	1998
003-00690-00	003-00690-00	Residential Dwelling	1967
003-00700-00	003-00700-00	Residential Dwelling	1890
003-00720-00	003-00720-00	Residential Dwelling	1979
003-00730-01	003-00730-01	Residential Dwelling	1936
003-00730-02	003-00730-02	Residential Dwelling	1994
003-00740-00	003-00740-00	Residential Dwelling	1977

003-00760-01	003-00760-01	Residential	1995
		Dwelling	
003-00780-00	003-00780-00	Residential	1963
		Dwelling	
003-00790-00	003-00790-00	Residential	1977
		Dwelling	
003-00800-00	003-00800-00	Residential	1950
		Dwelling	
003-00810-00	003-00810-00	Residential	1920
		Dwelling	
003-00810-01	003-00810-01	Residential	0
		Dwelling	
003-00810-01	003-00810-01	Residential	1949
		Dwelling	
003-00820-00	003-00820-00	Residential	1965
		Dwelling	
003-00830-00	003-00830-00	Residential	1961
		Dwelling	
003-00860-00	003-00860-00	Residential	1951
		Dwelling	
003-00870-01	003-00870-01	Residential	1975
		Dwelling	
003-00890-00	003-00890-00	Residential	1974
		Dwelling	
003-00900-02	003-00900-02	Residential	1920
		Dwelling	
003-00910-00	003-00910-00	Residential	1965
		Dwelling	
003-00910-02	003-00910-02	Residential	1971
		Dwelling	
003-00920-00	003-00920-00	Residential	1948
		Dwelling	
003-00940-00	003-00940-00	Residential	1945
		Dwelling	
003-00970-00	003-00970-00	Residential	1960
		Dwelling	
003-00990-00	003-00990-00	Residential	1960
		Dwelling	
003-01000-00	003-01000-00	Residential	1940
		Dwelling	
003-01010-00	003-01010-00	Residential	1979
		Dwelling	
003-01030-01	003-01030-01	Residential	1950
		Dwelling	
003-01050-00	003-01050-00	Residential	1945
		Dwelling	
003-01070-00	003-01070-00	Residential	1955
		Dwelling	

003-01080-00	003-01080-00	Residential Dwelling	1940
003-01090-02	003-01090-02	Residential Dwelling	2006
003-01090-05	003-01090-05	Residential Dwelling	2006
003-01110-00	003-01110-00	Residential Dwelling	1920
003-01130-00	003-01130-00	Residential Dwelling	1968
003-01130-01	003-01130-01	Residential Dwelling	1948
003-01170-00	003-01170-00	Residential Dwelling	1970
003-01200-00	003-01200-00	Residential Dwelling	1968
003-01200-02	003-01200-02	Residential Dwelling	2007
003-01230-00	003-01230-00	Residential Dwelling	1954
003-01240-01	003-01240-01	Residential Dwelling	1980
003-01260-00	003-01260-00	Residential Dwelling	1973
003-01270-00	003-01270-00	Residential Dwelling	1974
003-01280-00	003-01280-00	Residential Dwelling	1978
003-01290-01	003-01290-01	Residential Dwelling	1945
003-01300-00	003-01300-00	Residential Dwelling	1969
003-01320-00	003-01320-00	Residential Dwelling	1973
003-01330-00	003-01330-00	Residential Dwelling	2004
003-01340-00	003-01340-00	Residential Dwelling	1964
003-01340-04	003-01340-04	Residential Dwelling	1979
003-01340-20	003-01340-20	Residential Dwelling	1999
003-01340-21	003-01340-21	Residential Dwelling	1980
003-01350-02	003-01350-02	Residential Dwelling	1931
003-01380-00	003-01380-00	Residential Dwelling	1970



003-01390-01	003-01390-01	Residential	1920
		Dwelling	
003-01400-02	003-01400-02	Residential	1999
		Dwelling	
003-01400-06	003-01400-06	Residential	1999
		Dwelling	
003-01400-08	003-01400-08	Residential	2001
		Dwelling	
003-01400-10	003-01400-10	Residential	2003
		Dwelling	
003-01400-11	003-01400-11	Residential	1998
		Dwelling	
003-01400-20	003-01400-20	Residential	1918
		Dwelling	
003-01420-02	003-01420-02	Residential	1940
		Dwelling	
003-01430-00	003-01430-00	Residential	1945
		Dwelling	
003-01440-00	003-01440-00	Residential	1989
		Dwelling	
003-01450-00	003-01450-00	Residential	1947
		Dwelling	
003-01460-02	003-01460-02	Residential	1964
		Dwelling	
003-01460-05	003-01460-05	Residential	1994
		Dwelling	
003-01470-00	003-01470-00	Residential	1956
		Dwelling	
003-01480-00	003-01480-00	Residential	1966
		Dwelling	
003-01490-00	003-01490-00	Residential	1965
		Dwelling	
003-01500-00	003-01500-00	Residential	1953
		Dwelling	
003-01510-01	003-01510-01	Residential	1946
		Dwelling	
003-01510-02	003-01510-02	Residential	1958
		Dwelling	
003-01530-01	003-01530-01	Residential	1959
		Dwelling	
003-01570-00	003-01570-00	Residential	1945
		Dwelling	
003-01580-00	003-01580-00	Residential	1982
		Dwelling	
003-01600-00	003-01600-00	Residential	1994
		Dwelling	
003-01630-00	003-01630-00	Residential	1971
		Dwelling	

003-01640-00	003-01640-00	Residential Dwelling	1991
003-01640-03	003-01640-03	Residential Dwelling	1995
003-01640-04	003-01640-04	Residential Dwelling	1987
003-01640-07	003-01640-07	Residential Dwelling	1984
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003-01640-60	003-01640-60	Residential Dwelling	1987
003-01700-00	003-01700-00	Residential Dwelling	1979
003-01720-00	003-01720-00	Residential Dwelling	1911
003-01730-00	003-01730-00	Residential Dwelling	1951
003-01750-00	003-01750-00	Residential Dwelling	1995
003-01760-00	003-01760-00	Residential Dwelling	1979
003-01780-00	003-01780-00	Residential Dwelling	1960
003-01790-05	003-01790-05	Residential Dwelling	1875
003-01800-00	003-01800-00	Residential Dwelling	1933
003-01810-00	003-01810-00	Residential Dwelling	1933
003-01820-00	003-01820-00	Residential Dwelling	1990
003-01830-00	003-01830-00	Residential Dwelling	1960
003-01840-00	003-01840-00	Residential Dwelling	1939
003-01840-00	003-01840-00	Residential Dwelling	1950
003-01860-00	003-01860-00	Residential Dwelling	1940

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003-01870-00	003-01870-00	Residential Dwelling	1956
003-01880-00	003-01880-00	Residential Dwelling	1930
003-01890-00	003-01890-00	Residential Dwelling	1950
003-01900-00	003-01900-00	Residential Dwelling	1968
003-01910-00	003-01910-00	Residential Dwelling	1972
003-01920-00	003-01920-00	Residential Dwelling	1975
003-01940-00	003-01940-00	Residential Dwelling	1953
003-01970-00	003-01970-00	Residential Dwelling	1977
003-01980-00	003-01980-00	Residential Dwelling	1968
003-01990-00	003-01990-00	Residential Dwelling	1970
003-02000-00	003-02000-00	Residential Dwelling	1967
003-02020-00	003-02020-00	Residential Dwelling	1964
003-02050-00	003-02050-00	Residential Dwelling	1967
003-02060-00	003-02060-00	Residential Dwelling	1975
003-02070-02	003-02070-02	Residential Dwelling	1973
003-02070-05	003-02070-05	Residential Dwelling	1970
003-02080-00	003-02080-00	Residential Dwelling	1982
003-02090-03	003-02090-03	Residential Dwelling	1988
003-02100-00	003-02100-00	Residential Dwelling	2007
003-02150-00	003-02150-00	Residential Dwelling	1978
003-02170-01	003-02170-01	Residential Dwelling	1995
003-02180-00	003-02180-00	Residential Dwelling	1982
003-02190-03	003-02190-03	Residential Dwelling	1993
003-02190-04	003-02190-04	Residential Dwelling	1940

003-02190-06	003-02190-06	Residential	1986
		Dwelling	
003-02220-00	003-02220-00	Residential	1984
		Dwelling	
003-02230-00	003-02230-00	Residential	1964
		Dwelling	
003-02240-00	003-02240-00	Residential	1960
		Dwelling	
003-02240-16	003-02240-16	Residential	2002
		Dwelling	
003-02250-00	003-02250-00	Residential	1984
		Dwelling	
003-02260-00	003-02260-00	Residential	1914
		Dwelling	
003-02270-01	003-02270-01	Residential	2005
		Dwelling	
003-02280-00	003-02280-00	Residential	1940
		Dwelling	
003-02300-00	003-02300-00	Residential	1980
		Dwelling	
003-02310-00	003-02310-00	Residential	1935
		Dwelling	
003-02330-00	003-02330-00	Residential	1998
		Dwelling	
003-02340-00	003-02340-00	Residential	1930
		Dwelling	
003-02350-00	003-02350-00	Residential	1904
		Dwelling	
003-02350-04	003-02350-04	Residential	1989
		Dwelling	
003-02350-06	003-02350-06	Residential	1993
		Dwelling	
003-02350-10	003-02350-10	Residential	1988
		Dwelling	
003-02350-15	003-02350-15	Residential	1973
		Dwelling	
003-02350-77	003-02350-77	Residential	1991
		Dwelling	
003-02350-78	003-02350-78	Residential	2004
		Dwelling	
003-02350-79	003-02350-79	Residential	1995
		Dwelling	
003-02390-00	003-02390-00	Residential	1920
		Dwelling	
003-02400-01	003-02400-01	Residential	1964
		Dwelling	
003-02410-00	003-02410-00	Residential	1945
		Dwelling	

003-02410-00	003-02410-00	Residential Dwelling	1990
003-02410-03	003-02410-03	Residential Dwelling	1948
003-02430-00	003-02430-00	Residential Dwelling	1996
003-02440-04	003-02440-04	Residential Dwelling	2003
003-02440-07	003-02440-07	Residential Dwelling	1925
003-02440-10	003-02440-10	Residential Dwelling	1999
003-02440-17	003-02440-17	Residential Dwelling	2005
003-02440-20	003-02440-20	Residential Dwelling	2000
003-02480-03	003-02480-03	Residential Dwelling	1944
003-02490-00	003-02490-00	Residential Dwelling	1950
003-02490-01	003-02490-01	Residential Dwelling	1983
003-02540-00	003-02540-00	Residential Dwelling	1955
003-02540-00	003-02540-00	Residential Dwelling	1960
003-02550-00	003-02550-00	Residential Dwelling	1950
003-02570-01	003-02570-01	Residential Dwelling	1983
003-02570-02	003-02570-02	Residential Dwelling	1983
003-02580-00	003-02580-00	Residential Dwelling	1962
003-02590-00	003-02590-00	Residential Dwelling	1967
003-02600-01	003-02600-01	Residential Dwelling	1966
003-02630-01	003-02630-01	Residential Dwelling	1978
003-02640-00	003-02640-00	Residential Dwelling	1968
003-02640-05	003-02640-05	Residential Dwelling	1992
003-02670-01	003-02670-01	Residential Dwelling	1995
003-02680-00	003-02680-00	Residential Dwelling	2007



## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

07-02-10 12:57 OUT

Date Rep. \_\_\_\_\_

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology  
635 North Barnhill Drive, Room 13G  
P.O. Box 7202  
Indianapolis, Indiana 46207-7202Sample Number 0 448

01-30-10902916-ARNV

Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:Name: BROWN COUNTY HEALTH DEPT.  
P.O. BOX 281  
Street: NASHVILLE, INDIANA 47448-0281  
City: \_\_\_\_\_ IN (Zip) \_\_\_\_\_SAMPLE SUBMITTED BY: April ReevesHEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

0 7 4 0 0 0 1

BOTTLE NUMBER

□ □

## SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub☐ Bathing Beach ☐ Surface Water-  
Ditch, etc. ☐ Ice☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy☒ OTHER creekNAME/ORGANIZATION Fairgrounds

ADDRESS \_\_\_\_\_

LOCATION creek @ walking bridge

PHONE \_\_\_\_\_

DATE COLLECTED 6/30/10 TIME COLLECTED 9:20 AM

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) TIME OF ANALYSIS 14 : 05  
(Street) \_\_\_\_\_  
(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (Zip) \_\_\_\_\_

State Form 36740 (R6/5-99)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT☐ ABSENTANALYST: UP\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:☐ Too long in transit (more than 48 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH - LABS



\*787381\*

## QUANTITRAY ANALYSIS

Please fax results to: Brown  
County Health Department  
Fax: 812-988-5601

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

07-02-10 12:58 OUT  
Date Rep. \_\_\_\_\_INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203Sample Number 0 45706-30-10 13:27 RCVD  
Date Received \_\_\_\_\_SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

SAMPLE SUBMITTED BY: April Reeves☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

07H00001

BOTTLE NUMBER

00EMAIL JKENNARD3@yahoo.comTEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT☐ ABSENTANALYST: CAF\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub☐ Bathing Beach ☐ Surface Water-  
Ditch, etc. ☐ Ice☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy☒ OTHER LAKENAME/ORGANIZATION DON & NANCY KIRKSADDRESS 5587 SPANVILLELOCATION N.E. corner of LAKEPHONE 812 988-4701DATE COLLECTED 6/30/10 TIME COLLECTED 9:15am

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name)

(Street)

(City or Town)

IN

(ZIP)

State Form 36740 (R7 / 9-07)

## QUANTITRAY ANALYSIS

Please fax results to: Brown  
County Health Department  
Fax: 812-988-5601

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH — LABS



\*891002\*

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REI

BL902

Shipping Number \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

Date Rep. \_\_\_\_\_

Date Received \_\_\_\_\_

2017 OCT 18 15:23

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: Brown County Health  
Street: 201 Locust  
City: Nashville IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER 07H00001 BOTTLE NUMBER   

EMAIL JKENNARD30@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER Drainage Ditch

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION S. end of channel / Fred Pro. H.

PHONE \_\_\_\_\_

DATE COLLECTED 10/18/17 TIME COLLECTED 12:15

## ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN \_\_\_\_\_

(ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

## RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

## RESULT:

☒ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_TIME OF ANALYSIS 15:30

ISDH — LABS



\*995178\*

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES R

**B0-1200**

Shipping Number \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

2017 OCT 18 15:22

Date Rep. 10/18/17

Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARDStreet: 201 LOCUST STCity: NASHVILLE IN (ZIP) 47448SAMPLE SUBMITTED BY: JOHN KENNARD
☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

 0  7  H  0  0  0  1 

BOTTLE NUMBER

 
EMAIL JKENNARD3@yahoo.com

SAMPLE SOURCE (CHECK ONE):

☒ Drinking Water

☐ Swimming Pool

☐ Spa/Hot Tub

☐ Bathing Beach

☐ Surface Water-  
Ditch, etc.

☐ Ice

☐ Meat/Poultry Plant

☐ Bottled Water

☐ Dairy

☐ OTHER LAKE WELL
NAME/ORGANIZATION JAYLINKADDRESS 6686 Stinson RdLOCATION LAKE SIDEPHONE 317-345-3793DATE COLLECTED 10/17/17 TIME COLLECTED 10:47

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) EG JAYLINK @ gmail.com  
(Street)

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

METHOD:\*

☐ MF

☐ MPN

☐ LST P/A

☐ MM P/A

☒ MM QT

RESULT:

☒ PRESENT

☐ ABSENT
ANALYST: mnTEST: ☐ FECAL COLIFORM ☒ E COLI

METHOD:\*

☐ MF

☐ MPN

☐ EC P/A

☐ MM P/A

☒ MM QT

RESULT:

☒ PRESENT

☐ ABSENT
ANALYST: mn

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.

☒ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).

☐ Invalid/no collection date.

☐ Incomplete information.

☐ Other \_\_\_\_\_
**ISDH — LABS**

\*995170\*

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

07-15-11 09:58 OUT

Date Rep. \_\_\_\_\_

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology

550 W. 16<sup>th</sup> Street, Suite B

Indianapolis, Indiana 46202-2203

Sample Number 0 336Date Received 07-13-11 14:55 R

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD

Street: \_\_\_\_\_

City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: JOHN KENNARD☒ HEALTH OFFICIAL BROWN  
(COUNTY)

IDENTIFICATION NUMBER

BOTTLE NUMBER

☐☐☐☐☐☐☐☐☐☐EMAIL JKENNARD30@yahoo.com

SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub☐ Bathing Beach ☐ Surface Water-  
Ditch, etc. ☐ Ice☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy☒ OTHER DRAINAGE DITCHNAME/ORGANIZATION LARZ LA SALLE

ADDRESS \_\_\_\_\_

LOCATION NEED 35th Hill / CHARTER LA SALLE

PHONE \_\_\_\_\_

DATE COLLECTED 7/13/11 TIME COLLECTED 10:50 AM

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN \_\_\_\_\_

(ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT☐ ABSENTANALYST: hjn

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

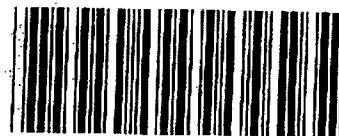
HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:☐ Too long in transit (more than 30 hours).☒ Invalid/no collection date.☐ Incomplete information☐ Other \_\_\_\_\_

ISDH - LABS



\*859820\*





004484

100-15-12 100-12 0007

**INDIANA STATE DEPARTMENT OF HEALTH**  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

Date Received \_\_\_\_\_

**Indiana State Department of Health is to mail report to:**

City: Nashville IN (ZIP) 47440

☐ HEALTH OFFICIAL Brown  
(COUNTY)

			H	0	0	0	7		
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DATE COLLECTED 4/16 TIME COLLECTED 9:44 am

(ZIP)

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## ISDH - LABS



※859825※

# Quantitative Analysis

¥85982起



BO-400

Sample Number \_\_\_\_\_

016 APR 14 16:04

Date Received \_\_\_\_\_

**Indiana State Department of Health is to mail report to:**

[illegible]

Grand. Inay FLENE



BL719

Shipping Number \_\_\_\_\_

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology

550 W. 16<sup>th</sup> Street, Suite B

Indianapolis, Indiana 46202-2203

Sat AUG 02 14:30

Date Rep. \_\_\_\_\_

16 AUG -4 AM 8:35

Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD

Street: \_\_\_\_\_

City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: J. KENNARD
☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

07H0001

BOTTLE NUMBER

☐ ☐
EMAIL JKENNARD3@YAHOO.COM

SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water

☐ Swimming Pool

☐ Spa/Hot Tub

☐ Bathing Beach

☐ Surface Water-  
Ditch, etc.

☐ Ice

☐ Meat/Poultry Plant

☐ Bottled Water

☐ Dairy

☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS 6498 Quail driveLOCATION boat dock

PHONE \_\_\_\_\_

DATE COLLECTED 8/2/16 TIME COLLECTED 10:00

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN \_\_\_\_\_

(ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF

☐ MPN

☐ LST P/A

☐ MM P/A

☐ MM QT

RESULT:

☐ PRESENT

☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF

☒ MPN

☐ EC P/A

☐ MM P/A

☐ MM QT

RESULT:

☒ PRESENT

☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).

☐ Invalid/no collection date.

☐ Incomplete information.

☐ Other \_\_\_\_\_

ISDH - LABS



\*866918\*

TIME OF ANALYSIS

14:45

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPC

BL718

6 AUG 02 14:30

Shipping Number \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

Date Rep. \_\_\_\_\_

16 AUG -4 AM 8:35

Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: \_\_\_\_\_  
City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: J. KENNARD

☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

07H0001

BOTTLE NUMBER

□□

EMAIL JKENNARD3@yahoo.com

SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☐ Surface Water-  
Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS 6221 Upper saltcreek rdLOCATION behind mail boxes near driveway

PHONE \_\_\_\_\_

DATE COLLECTED 8/2/16 TIME COLLECTED 9:49

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH - LABS

TIME OF ANALYSIS

14:45



\*866918\*

**BL714**

Shipping Number \_\_\_\_\_

**INDIANA STATE DEPARTMENT OF HEALTH**  
**Environmental Microbiology**  
**550 W. 16<sup>th</sup> Street, Suite B**  
**Indianapolis, Indiana 46202-2203**

S  
AUG 02 14:23

Date Rep. \_\_\_\_\_

16 AUG -4 AM 8:35

Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
 NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
 Street: 201 Locust  
 City: Nashville IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD

☒ HEALTH OFFICIAL Donna  
 (COUNTY)

IDENTIFICATION NUMBER

07H0001

BOTTLE NUMBER

EMAIL JKENNARD30@yahoo.com

SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☐ Surface Water-  
 Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS 3594 Salt Creek Rd

LOCATION \_\_\_\_\_

PHONE \_\_\_\_\_

DATE COLLECTED 8/2/16 TIME COLLECTED 10:42

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☒ MM QT

## RESULT:

☐ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

## RESULT:

☒ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ 53  
☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
 number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was  
 bacteriologically safe based on  
 USEPA standards.
- ☐ UNSATISFACTORY: At examination time, this water was  
 bacteriologically unsafe.
- ☐ PLEASE SUBMIT ANOTHER SAMPLE.  
 TEST NOT VALID BECAUSE:
- ☐ Too long in transit (more than 30 hours).
- ☐ Invalid/no collection date.
- ☐ Incomplete information.
- ☐ Other \_\_\_\_\_

**ISDH - LABS**

\*866914\*

*Quadrant Flare*

TIME OF ANALYSIS 14 45

BL711

Shipping Number \_\_\_\_\_

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology

550 W. 16<sup>th</sup> Street, Suite B

Indianapolis, Indiana 46202-2203

5 AUG 02 14:29

Date Rep. \_\_\_\_\_

16 AUG -4 AM 8:35

Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: 201 Locust  
City: Nashville IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL Drown  
(COUNTY)

IDENTIFICATION NUMBER 07H0001 BOTTLE NUMBER   

EMAIL JKENNARD30@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☐ Surface Water-Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS 8699 gold point rd

LOCATION next to mail box

PHONE \_\_\_\_\_

DATE COLLECTED 8/2/16 TIME COLLECTED 9:32

## ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

## RESULT:

☐ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

## RESULT:

☒ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ 47  
☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).

☐ Invalid/no collection date.

☐ Incomplete information.

☐ Other \_\_\_\_\_

ISDH - LABS



\*866914\*

Quantity 1 FL

TIME OF ANALYSIS 14 45

**INDIANA STATE DEPARTMENT OF HEALTH**  
**Environmental Microbiology**  
**550 W. 16<sup>th</sup> Street, Suite B**  
**Indianapolis, Indiana 46202-2203**

Date Rep 16 AUG -4 AM 8:35

Date Received \_\_\_\_\_

Name: JOHN KENNARD  
Street: 201 Locust  
City: Nashville IN (ZIP) 47448

# ISDH - LABS



\*866914\*

Grand. Inay ~~Flame~~

TIME OF ANALYSIS 14.45



## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REF

BL709

Shipping Number \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

St \_\_\_\_\_

Date Rep. \_\_\_\_\_

16 AUG -4 AM 8:35

AUG 02 14:29

Da. \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: 201 Locust  
City: Washburn IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☐ HEALTH OFFICIAL Drewn  
(COUNTY)

IDENTIFICATION NUMBER

BOTTLE NUMBER

0740001

EMAIL JKENNARD30@yahoo.com

SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☐ Surface Water-  
Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS 4525 Salt Creek RdLOCATION Old Hamblen FD

PHONE \_\_\_\_\_

DATE COLLECTED 8/2/16 TIME COLLECTED 10:35

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☒ MM P/A ☐ MM QT

RESULT:

☐ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ 190  
☐ ABSENT

ANALYST: km

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH - LABS



\*866914\*

Quantity FlameTIME OF ANALYSIS 14:45

**BL708**

Shipping Number \_\_\_\_\_

**INDIANA STATE DEPARTMENT OF HEALTH**  
**Environmental Microbiology**  
**550 W. 16<sup>th</sup> Street, Suite B**  
**Indianapolis, Indiana 46202-2203**

AUG 02 14:29

Date Received \_\_\_\_\_

16 Date Rep. AM 8:35

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
 NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
 Street: \_\_\_\_\_  
 City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: J. KENNARD

☒ HEALTH OFFICIAL Brown  
 (COUNTY)

IDENTIFICATION NUMBER

BOTTLE NUMBER

0740001

□ □

EMAIL JKENNARD3@yahoo.com

SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☐ Surface Water-  
 Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS Corner of Webber hill Rd and Upper saltLOCATION below NF Upper salt creek bridge

PHONE \_\_\_\_\_

DATE COLLECTED 8/2/16 TIME COLLECTED 9:43

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT

□ □ □ □ □ □ □ □

☒ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT

□ □ □ □ □ □ □ 1 3 0

☐ ABSENTANALYST: 47

\*If MPN or MMQT is checked the result is the most probable  
 number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
 bacteriologically safe based on  
 USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was  
 bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
 TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_**ISDH - LABS**

\*866918\*

TIME OF ANALYSIS 14 - 45

BL707

**INDIANA STATE DEPARTMENT OF HEALTH**  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

16 AUG 02 14:23

Date Rep ~~16 AUG -4 AM 8:35~~

Date Received \_\_\_\_\_

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: \_\_\_\_\_  
City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

☒ HEALTH OFFICIAL Brown  
(COUNTY)

0	7	H	C	O	O	1	
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EMAIL 1KENNARD3@YAHOO.COM

☐ OTHER \_\_\_\_\_

DATE COLLECTED 8/2/16 TIME COLLECTED 10:28

\_\_\_\_\_  
(City or Town) IN \_\_\_\_\_  
(ZIP)

State Form 36740 (R7 / 9-07)

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF    ☐ MPN    ☐ LST P/A    ☐ ~~MM P/A~~    ☐ MM QT

**RESULT:**

[illegible]

ANALYST:

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF    ☐ MPN    ☐ EC P/A    ☐ MM P/A    ☒ MM QT

RESULT:

☒ PRESENT      0 0 0 0 0 1 3 0

☐ ABSENT

ANALYST:

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

**HETEROTROPHIC**

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

<input type="checkbox"/> SATISFACTORY:	At examination time, this water was bacteriologically safe based on USEPA standards.
--	--

☐ **UNSATISFACTORY:** At examination time, this water was bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.

☐ Incomplete information.

☐ Other

## ISDH - LABS



\*86.6918\*

TIME OF ANALYSIS 14 45



**INDIANA STATE DEPARTMENT OF HEALTH**  
**Environmental Microbiology**  
**550 W. 16<sup>th</sup> Street, Suite B**  
**Indianapolis, Indiana 46202-2203**

Date Rep. 16 AUG -4 AM 8:35

Sarr  
AUG 02 14:29

Date received \_\_\_\_\_

Name: JOHN KENNARD  
Street: 201 Locust  
City: Wash, Mo IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL Donna  
 (COUNTY)

IDENTIFICATION NUMBER      BOTTLE NUMBER

07H0001       

EMAIL KENNED30@yahoo.com

☐ Drinking Water      ☐ Swimming Pool      ☐ Spa/Hot Tub

☐ Bathing Beach      ☐ Surface Water-  
Ditch, etc.      ☐ Ice

☐ Meat/Poultry Plant      ☐ Bottled Water      ☐ Dairy

☐ OTHER \_\_\_\_\_

LOCATION across street under bridge by track field  
PHONE highway dept.

DATE COLLECTED 8/10/16 TIME COLLECTED 11:19

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

ANALYST:

ANALYST:

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

☐ Other

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\*866914\*

Donald Tracy FLEMING

NAME OF AREA: 1250

14 : 45



## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPO

BL720

Shipping Number \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

Sam  
5 AUG 02 14:30

Date Rep. \_\_\_\_\_

16 AUG -4 AM 8:35

Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: 201 Locust  
City: Nashville IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL Donna  
(COUNTY)

IDENTIFICATION NUMBER 07H0001 BOTTLE NUMBER     
EMAIL JKENNARD3@yahoo.com

SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☐ Surface Water-  
Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy

☒ OTHER \_\_\_\_\_NAME/ORGANIZATION BC Fairgrounds

ADDRESS \_\_\_\_\_

LOCATION under bridge to animal barns

PHONE \_\_\_\_\_

DATE COLLECTED 8/2/16 TIME COLLECTED 11:12

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_  
(Street) \_\_\_\_\_  
(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☐ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH - LABS



\*866914\*

Quar. Tray FLEP

TIME OF ANALYSIS 14:45



14 15

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number 17 MAY 18 PM 3:09

Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

BL0232

2017 MAY 17 13:45

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:Name: Brown Co. Health Dept  
Street: 201 Locust Ln PO Box 281  
City: Nashville IN (ZIP) 47448SAMPLE SUBMITTED BY: Ernest Reed  
☒ HEALTH OFFICIAL Brown  
(COUNTY)IDENTIFICATION NUMBER BOTTLE NUMBER  
07H00001   EMAIL ernest.bchd@gmail.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy

☒ OTHER CreekNAME/ORGANIZATION Deer Run ParkADDRESS NashvilleLOCATION Creek on east side of Park

PHONE \_\_\_\_\_

DATE COLLECTED 10-17-17 TIME COLLECTED 10:45 AM

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_  
(Street) \_\_\_\_\_  
(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☐ MM QT

RESULT:

☒ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.
- ☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

- ☐ Too long in transit (more than 30 hours).
- ☐ Invalid/no collection date.
- ☐ Incomplete information.
- ☐ Other \_\_\_\_\_

ISDH - LABS



1147917

TIME OF ANALYSIS 14:15

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

**BL897**

2017 OCT 18 15:22

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. **USE BLACK INK.**

Indiana State Department of Health is to mail report to:

Name: Brown County HealthStreet: 201 LOCUS & LANECity: MARIETTA IN (ZIP) 47547SAMPLE SUBMITTED BY: JOHN KENNARDHEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

0740001

BOTTLE NUMBER

EMAIL JKENNARD@yahoo.com

SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy☐ OTHER Creek Channel

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION Across from Fred Pruett underPHONE trusselDATE COLLECTED 10/18/17 TIME COLLECTED 12:27

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN \_\_\_\_\_

(ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_TIME OF ANALYSIS 15:30**ISDH - LABS**

\*995173\*



## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

Date Rep. **17 MAY 18 PM 3:08**

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

**BL0224****2017 MAY 17 13:44**

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. **USE BLACK INK.**

Indiana State Department of Health is to mail report to:

Name: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: JOHN KENNARD☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

BOTTLE NUMBER

07H0001  EMAIL JKENNARD304@aol.com

SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION W. End of Greenbriar LanePHONE 812-988-2255DATE COLLECTED 5/17/17 TIME COLLECTED 10:39

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH - LABS



1159752

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

Date Rep. 17 MAY 18 PM 3:08

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203**BL0225**

2017 MAY 17 13:44

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: JOHN KENNARD☐ HEALTH OFFICIAL DROWN  
(COUNTY)

IDENTIFICATION NUMBER

0740001

BOTTLE NUMBER

  EMAIL JKENNARD3@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION END OF GREENBRIAR LCKPHONE 812-988-2256DATE COLLECTED 5/17/17 TIME COLLECTED 10:43

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT☐ ABSENTANALYST: h\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

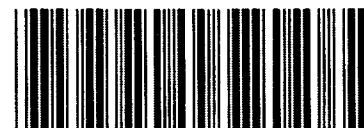
HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH - LABS



1159753

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REF

Shipping Number \_\_\_\_\_

Date Rep. 17 MAY 18 PM 3:08

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

S

**BL0226**

2017 MAY 17 13:44

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: JOHN KENNARD
☒ HEALTH OFFICIAL INDIAN  
(COUNTY)

IDENTIFICATION NUMBER

BOTTLE NUMBER

0740001  EMAIL JKENNARD3@yahoo.com

SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub☐ Bathing Beach ☒ Surface Water-Ditch, etc. ☐ Ice☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION CREEK EAST OF H.S. Athletic FieldPHONE 812-989-2255DATE COLLECTED 5/17/17 TIME COLLECTED 10:05

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH - LABS



1159749

Quandtary  
J. Hays

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_  
 17 MAY 18 PM 3:08  
 Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
 Environmental Microbiology  
 550 W. 16<sup>th</sup> Street, Suite B  
 Indianapolis, Indiana 46202-2203

BL0230

017 MAY 17 13:45

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
 NOT BE ANALYZED. USE BLACK INK.  
 Indiana State Department of Health is to mail report to:

Name: Brown Co. Health Dept  
 Street: 201 Locust Ln Po Box 281  
 City: Nashville IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: Ernest Reed  
☒ HEALTH OFFICIAL Brown  
 (COUNTY)

IDENTIFICATION NUMBER 07H0001 BOTTLE NUMBER   

EMAIL ErnestReed@gmail.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☒ OTHER Creek

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS Nashville

LOCATION Creek East of Library

PHONE \_\_\_\_\_

DATE COLLECTED 5-17-17 TIME COLLECTED 11:23am

## ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN \_\_\_\_\_

(ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☒ MM-QT

## RESULT:

☐ PRESENT

☒ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

## RESULT:

☒ PRESENT

☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable number per 100ml.  
 If MF is checked the result is organisms per 100 ml.  
 If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.
- ☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.
- ☐ PLEASE SUBMIT ANOTHER SAMPLE.  
 TEST NOT VALID BECAUSE:
- ☐ Too long in transit (more than 30 hours).
- ☐ Invalid/no collection date.
- ☐ Incomplete information.
- ☐ Other \_\_\_\_\_

ISDH - LABS



1147918

TIME OF ANALYSIS 14 15

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

17 MAY 18 PM 3:08

Date Rep. \_\_\_\_\_

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology

550 W. 16<sup>th</sup> Street, Suite B

Indianapolis, Indiana 46202-2203

BL0231

2017 MAY 17 13:45

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: JOHN KENNARD
☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

BOTTLE NUMBER

07H00001

☐ ☐
EMAIL JKENNARD3@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water
 ☐ Swimming Pool
 ☐ Spa/Hot Tub

☐ Bathing Beach
 ☒ Surface Water-  
Ditch, etc.
 ☐ Ice

☐ Meat/Poultry Plant
 ☐ Bottled Water
 ☐ Dairy

☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION

Cornet/Cremer Rd + Esda of

PHONE

812-988-2251 CREEKVIEW

DATE COLLECTED

5/17/18

TIME COLLECTED

10:23

## ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN

(ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY \_\_\_\_\_

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF
 ☐ MPN
 ☐ LST P/A
 ☐ MM P/A
 ☐ MM QT

## RESULT:

☐ PRESENT

☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF
 ☐ MPN
 ☐ EC P/A
 ☐ MM P/A
 ☒ MM QT

## RESULT:

☒ PRESENT

☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

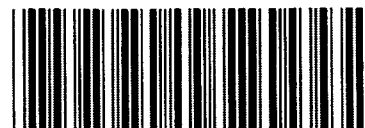
☐ Too long in transit (more than 30 hours).

☐ Invalid/no collection date.

☐ Incomplete information.

☐ Other \_\_\_\_\_

ISDH - LABS



1159751



## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

17 MAY 18 PM 3:09

Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

BL0233

2017 MAY 17 13:45

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: Brown Co. Health Dept  
Street: 201 Locust Lane P.O. Box 281  
City: Nashville IN (ZIP) 47448

SAMPLE SUBMITTED BY: Ernie Reed

☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER 07H00001 BOTTLE NUMBER   

EMAIL ernestabhd@gmail.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS 5724 Old Settlers RdLOCATION Ditch @ Road west of Home

PHONE \_\_\_\_\_

DATE COLLECTED 5-17-17 TIME COLLECTED 10:02

## ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

## RESULT:

☐ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☐ MM QT

## RESULT:

☒ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
☐ ABSENT

ANALYST: My

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.
- ☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.
- ☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:
- ☐ Too long in transit (more than 30 hours).
- ☐ Invalid/no collection date.
- ☐ Incomplete information.
- ☐ Other \_\_\_\_\_

ISDH - LABS



1147915

TIME OF ANALYSIS: 6:14 15

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

17 MAY 18 PM 3:08

Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

**BL0228**

2017 MAY 17 13:45

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: JOHN KENNARD☒ HEALTH OFFICIAL Brown

(COUNTY)

IDENTIFICATION NUMBER

0740001

BOTTLE NUMBER

□□

EMAIL JKENNARD3@yahoo.com

SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION Behind SALT CREEK MedicalPHONE 812-988 5601 SALT CREEK TRAILDATE COLLECTED 5/17/17 TIME COLLECTED 0934

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) TIME OF ANALYSIS 14 15

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT☐ ABSENTANALYST: WJ

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

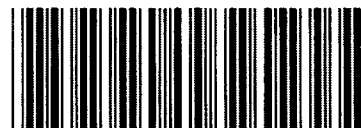
HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH - LABS



1159748

Quant. by JHAKS

# HEALTH OFFICIAL/POOLS & SPAS/BEACHES & LAKES REPORT

Shipping Number \_\_\_\_\_  
 11-18-14 15:45 OUT  
 Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
 Environmental Microbiology  
 550 W. 16<sup>th</sup> Street, Suite B  
 Indianapolis, Indiana 46202-2203

Sample Number 0 570  
 11-17-14 14:41 RCVD  
 Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
 NOT BE ANALYZED. USE BLACK INK.  
 Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
 Street: 201 Locust  
 City: Nashville IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☐ HEALTH OFFICIAL BROWN  
 (COUNTY)

IDENTIFICATION NUMBER 07H0001 BOTTLE NUMBER   

EMAIL JKENNARD3@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION Kathy Roth  
 ADDRESS 1546 Jackson Branch Ridge  
 LOCATION Back yard - rt. of shed  
 PHONE \_\_\_\_\_  
 DATE COLLECTED 11/17/14 TIME COLLECTED 10:25am

## ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_  
 (Street) \_\_\_\_\_  
 (City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

### TEST: TOTAL COLIFORM

#### METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☒ MM P/A ☐ MM QT

#### RESULT:

☐ PRESENT  
☒ ABSENT

ANALYST: \_\_\_\_\_

### TEST: ☐ FECAL COLIFORM ☒ E. COLI

#### METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

#### RESULT:

☒ PRESENT  
☐ ABSENT

                        420

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
 number per 100 ~~ml~~ grams of soil  
 If MF is checked the result is organisms per 100 ml.  
 If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

### HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.  
☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.  
☐ PLEASE SUBMIT ANOTHER SAMPLE.  
 TEST NOT VALID BECAUSE:  
☐ Too long in transit (more than 30 hours).  
☐ Invalid/no collection date.  
☐ Incomplete information.  
☐ Other \_\_\_\_\_

TIME OF ANALYSTS 15:51  
Quail, May

ISDH - LABS



\*866914\*

6 AUG 02 14:29

Date Received \_\_\_\_\_

\*866914\*

TIME OF ANALYSIS 14 48







# HEALTH OFFICIAL/POOLS & SPAS/BEACHES & LAKES REPORT

Shipping Number \_\_\_\_\_

11-13-14 13:00 OUT

Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

Sample Number 0 578

11-17-14 14:41 RCVD  
Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: 201 Locust  
City: Nashville IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL Donna  
(COUNTY)

IDENTIFICATION NUMBER BOTTLE NUMBER

07H0001   

EMAIL JKENNARD3@yahoo.com

SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION Ben Tamara Voils

ADDRESS Homestead Rd.

LOCATION Driveway

PHONE \_\_\_\_\_

DATE COLLECTED 11/17/14 TIME COLLECTED 11:20am

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ 920  
☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

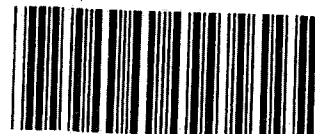
## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.  
☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

- ☐ Too long in transit (more than 30 hours).  
☐ Invalid/no collection date.  
☐ Incomplete information.  
☐ Other \_\_\_\_\_

ISDH — LABS



\*866914\*

Quadrant Flame

20141230140737191.pdf | Download

1 of 2

PRIVATE WATER SUPPLY REPORT

Shipping No. \_\_\_\_\_ Sample Number \_\_\_\_\_  
 Date Recd. \_\_\_\_\_ Date Received \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
 Environmental Microbiology  
 550 W. 16<sup>th</sup> Street, Suite B  
 Indianapolis, Indiana 46202-2203

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL NOT BE ANALYZED. USE BLACK INK.  
 Indiana State Department of Health is to mail report to:  
 Name: JOHN KENNARD  
 Street: 501 LOCUST LANE  
 City: NASHVILLE IN (ZIP) 47448

SAMPLE DESCRIPTION  
 Sample Source: ☐ Drilled Well ☐ Dog Well ☐ Driven Well  
☐ Spring ☐ Cistern ☒ Creek  
 County: Brown  
 Owner: \_\_\_\_\_  
 Date Collected: 11/29/14 Time Collected: 10:58  
 Collected by: JKENNARD3@yahoo.com Depth: \_\_\_\_\_  
 Phone: 812-988-2255

Water use by \_\_\_\_\_  
 Location of water supply: LOVE WELL FLOWER LN  
 Reason for examination: \_\_\_\_\_  
 Age of well: \_\_\_\_\_ Date of last repair: \_\_\_\_\_  
 Location with respect to: ☐ privy ☐ septic tank ☐ A  
 Septic tank: \_\_\_\_\_ ft. Sewer or drain: \_\_\_\_\_ ft.  
 Pump (open-open or closed) \_\_\_\_\_ Regular pumping? \_\_\_\_\_  
 Well diameter: \_\_\_\_\_ in cover water/tight?  
 For dug wells: Are wells watertight to depth of 10 ft? \_\_\_\_\_  
 Is wastewater carried away? \_\_\_\_\_  
 For drilled or driven wells: Single or double tubular \_\_\_\_\_  
 Is annular space between the two pipes sealed? \_\_\_\_\_  
 Well pit? \_\_\_\_\_ Drained to: \_\_\_\_\_ Depth cased: \_\_\_\_\_ ft.  
 For springs: Is it walled up and covered? \_\_\_\_\_  
 Can it be flooded? \_\_\_\_\_  
 For cisterns: Material of glazing to obtain \_\_\_\_\_

TIME OF ANALYSIS 11:20  
 Fax No. \_\_\_\_\_  
 Email: JKENNARD3@yahoo.com  
 State Form 39741 (Rev. 4/07)  
Community Phase

ANALYSIS DATA

TEST: TOTAL COLIFORM  
 METHOD: ☐ MF ☐ MPN ☐ LST PIA ☒ MM PIA ☐ MM QT  
 RESULT: ☐ PRESENT ☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI  
 METHOD: ☐ MF ☐ MPN ☐ EC PIA ☐ MM PIA ☐ MM QT  
 RESULT: ☒ PRESENT ☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MF is checked the result is organisms per 100 ml.  
 If PIA is checked the result is presence (P) or absence (A).  
 If MPN or MM QT is checked the result is the most probable number per 100 ml.

REPORT OF SAMPLES

☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.  
☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.  
☐ PLEASE SUBMIT ANOTHER SAMPLE.  
 TEST NOT VALID BECAUSE:  
☐ Too long in transit (more than 30 hours).  
☐ Invalid collection date.  
☐ Sample type not designated.  
☐ Other \_\_\_\_\_

Please see recommendations (on accompanying sheet) numbered: \_\_\_\_\_  
 Remarks: \_\_\_\_\_

ISDH - LABS

Barcode: 49783334

HEALTH OFFICIAL/POOLS & SPAS/BEACHES & LAKES REPORT

Shipping Number \_\_\_\_\_ Sample Number \_\_\_\_\_  
 Date Recd. \_\_\_\_\_ Date Received \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
 Environmental Microbiology  
 550 W. 16<sup>th</sup> Street, Suite B  
 Indianapolis, Indiana 46202-2203

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL NOT BE ANALYZED. USE BLACK INK.  
 Indiana State Department of Health is to mail report to:  
 Name: JOHN KENNARD  
 Street: 501 LOCUST LANE  
 City: NASHVILLE IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL Brown (COUNTY)

IDENTIFICATION NUMBER 07110001 BOTTLE NUMBER 01  
 EMAIL: JKENNARD3@yahoo.com

SAMPLE SOURCE (CHECK ONE):  
☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Baking Beach ☒ Surface Water ☐ Ice  
☐ Ditch, etc.  
☐ Meat/Poultry Plans ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_  
 ADDRESS: 3130 Sm. 4th Rd  
 LOCATION: Ditch  
 PHONE: 812-988-4889  
 DATE COLLECTED: 11/29/14 TIME COLLECTED: 10:55

ADDITIONAL REPORTS ARE TO BE MAILED TO:  
 (Name) \_\_\_\_\_  
 (Address) \_\_\_\_\_  
 (City or Town) \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

TIME OF ANALYSIS 11:20  
 State Form 56740 (Rev. 7/07)

ANALYSIS DATA-TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM  
 METHOD: ☐ MF ☐ MPN ☐ LST PIA ☒ MM PIA ☐ MM QT  
 RESULT: ☐ PRESENT ☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI  
 METHOD: ☐ MF ☐ MPN ☐ EC PIA ☐ MM PIA ☒ MM QT  
 RESULT: ☒ PRESENT ☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable number per 100ml.  
 If MF is checked the result is organisms per 100 ml.  
 If PIA is checked the result is presence (P) or absence (A).  
 Incidental Pseudomonas Detected ☐

HETEROTROPHIC PLATE COUNT \_\_\_\_\_ 1.0 ML \_\_\_\_\_ 0.1 ML

Report of Samples

☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.  
☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.  
☐ PLEASE SUBMIT ANOTHER SAMPLE.  
 TEST NOT VALID BECAUSE:  
☐ Too long in transit (more than 30 hours).  
☐ Invalid collection date.  
☐ Incomplete information.  
☐ Other \_\_\_\_\_

ISDH - LABS

Barcode: 48669154

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

04-02-15 14:58 OUT

Date Rep. \_\_\_\_\_

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology

550 W. 16<sup>th</sup> Street, Suite B

Indianapolis, Indiana 46202-2203

**BL68**

04-01-15 13:46 RCVD

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARDStreet: 201 LocustCity: Nashville IN (ZIP) 47448SAMPLE SUBMITTED BY: JOHN KENNARD☒ HEALTH OFFICIAL DROWN  
(COUNTY)

IDENTIFICATION NUMBER

07H0001

BOTTLE NUMBER

  EMAIL JKENNARD3@yahoo.com

SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub☐ Bathing Beach ☐ Surface Water-  
Ditch, etc. ☐ Ice☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy☒ OTHER Small Creek

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION 100 yds E of Bear Flomson onPHONE Sm. Sh. PoolDATE COLLECTED 4/15 TIME COLLECTED 0957

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN \_\_\_\_\_

(ZIP) \_\_\_\_\_

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_**ISDH - LABS**

\*866914\*

Quand. Inay Flere

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

04-02-15 14:57 OU:  
Date Rep. \_\_\_\_\_

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203**BL67**

04-01-15 13:46 RCVD

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:Name: JOHN KENNARD  
Street: 201 Locust  
City: Nashville IN (ZIP) 47448SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL D. NEWIN  
(COUNTY)

IDENTIFICATION NUMBER BOTTLE NUMBER

07H0001  EMAIL JKENNARD3@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS W of 1943 GATESVILLELOCATION Colvert

PHONE \_\_\_\_\_

DATE COLLECTED 4/15 TIME COLLECTED 0940

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☐ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.
- ☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.
- ☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:
- ☐ Too long in transit (more than 30 hours).
- ☐ Invalid/no collection date.
- ☐ Incomplete information.
- ☐ Other \_\_\_\_\_

**ISDH — LABS**

\*866914\*

Quand. tray FLEP



## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

04-02-15 14:57 OUT

Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

**BL66**

04-01-15 13:46 RCVD

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: 201 Locust  
City: Nashville IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☐ HEALTH OFFICIAL Drown  
(COUNTY)

IDENTIFICATION NUMBER 07H0001 BOTTLE NUMBER   

EMAIL JKENNARD30@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION BCHD  
ADDRESS S.S. side of intersection  
LOCATION of Bittersweet to Batesville  
PHONE \_\_\_\_\_

DATE COLLECTED 4/1/15 TIME COLLECTED 0934

## ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN \_\_\_\_\_

(ZIP) \_\_\_\_\_

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.  
☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

- ☐ Too long in transit (more than 30 hours).  
☐ Invalid/no collection date.  
☐ Incomplete information.  
☐ Other \_\_\_\_\_

**ISDH — LABS**

\*866914\*

Quand. Inay FLEME

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

04-02-15 14:58 OUT  
Date Rep. \_\_\_\_\_

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203**BL70**

04-02-15 13:46 RCVD

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: 201 Locust  
City: Nashville IN (ZIP) 47448SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL DROWN  
(COUNTY)IDENTIFICATION NUMBER 07H0001 BOTTLE NUMBER   EMAIL JKENNARD30@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

- ☐
- Drinking Water
- ☐
- Swimming Pool
- ☐
- Spa/Hot Tub
- 
- ☐
- Bathing Beach
- ☐
- Surface Water-
- 
- Ditch, etc.
- ☐
- Ice
- 
- ☐
- Meat/Poultry Plant
- ☐
- Bottled Water
- ☐
- Dairy
- 
- ☐
- OTHER
- CREEK

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION CULVER ON ANNIE SMITHPHONE EAST OF SALT CREEKDATE COLLECTED 4/1/15 TIME COLLECTED 10:42

## ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN

(ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

## RESULT:

☐ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

## RESULT:

☒ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ 46  
☐ ABSENT

ANALYST: \_\_\_\_\_

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐
- SATISFACTORY: At examination time, this water was
- 
- bacteriologically safe based on
- 
- USEPA standards.
- 
- ☐
- UNSATISFACTORY: At examination time, this water was
- 
- bacteriologically unsafe.
- 
- ☐
- PLEASE SUBMIT ANOTHER SAMPLE.
- 
- TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_**ISDH — LABS**

\*866914\*

Quand. Tony FLEME

Amended copy CR

04-28-12 10:40 OUT HEALTH OFFICIAL/POOLS & SPAS/BEACHES & LAKES REPORT

000428

Shipping Number \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

Sample Number ~~0~~ 668

~~03-29-12 13:51 OUT~~

Date Rep. \_\_\_\_\_

03-28-12 10:57 RCVD  
Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD BCHD  
Street: 201 LOCUST ST.  
City: NASHVILLE IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD

☐ HEALTH OFFICIAL BROWN  
(COUNTY)

IDENTIFICATION NUMBER 40007 BOTTLE NUMBER 00

EMAIL JKENNARD30@yahoo.com

SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub

☐ Bathing Beach ☐ Surface Water-  
Ditch, etc. ☐ Ice

☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy

☐ OTHER Pond Well

NAME/ORGANIZATION Dominick Schwartz

ADDRESS 357 Brown Hill Rd

LOCATION Shower

PHONE 812-272-7538

DATE COLLECTED 3/28/12 TIME COLLECTED 0830

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) TIME OF ANALYSIS

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

#### ANALYSIS I

TEST: TOTAL COLIFORM

METHOD\*:

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT

2000

☐ ABSENT

ANALYST: h

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD\*:

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT

2

☐ ABSENT

ANALYST: h

\*If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A)

If MPN or MM QT is checked the result is the most probable  
number per 100 ml.

#### REPORT OF SAMPLES

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.

☒ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe for  
drinking

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 48 hours).

☐ Invalid/no collection date:

☐ Sample type not designated.

☐ Other \_\_\_\_\_

Please see recommendations (on accompanying sheet)  
numbered: \_\_\_\_\_

Remarks: \_\_\_\_\_



\*859825\*

Quantitative Analysis

Please

OK



# HEALTH OFFICIAL/POOLS & SPAS/BEACHES & LAKES REPORT

Shipping Number  
12 MAY 18 AM 9:59

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

Sample Number 0 164

Date Rep. \_\_\_\_\_

Date Received 05-15-12 11:19 RCYL

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: \_\_\_\_\_  
City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: John Kennard  
☒ HEALTH OFFICIAL Drown  
(COUNTY)

IDENTIFICATION NUMBER 000H00007 BOTTLE NUMBER 00

EMAIL J KENNARD 30 YAHOO.COM

## SAMPLE SOURCE (CHECK ONE):

- ☒ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER WELL

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS 5328 Lick Creek

LOCATION Drainage ditch

PHONE \_\_\_\_\_

DATE COLLECTED 5/14/12 TIME COLLECTED 6:52

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT

☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT

☐ ABSENT

ANALYST: lyk

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.  
☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

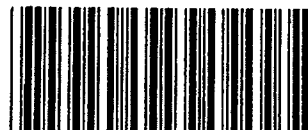
☐ Too long in transit (more than 30 hours).

☐ Invalid/no collection date.

☐ Incomplete information

☐ Other \_\_\_\_\_

ISDH - LABS



\*859829\*

Quand. Tony Analysis Please



## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

07-02-10 12:58 OUT  
Date Rep. \_\_\_\_\_INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203Sample Number 0 456  
05-21-10 15:27 RCVD  
Date Received \_\_\_\_\_SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:Name: BROWN COUNTY HEALTH DEPT.  
P.O. BOX 281  
Street: NASHVILLE, INDIANA 47448-0281  
City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_SAMPLE SUBMITTED BY: April Reeves☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

0740001

BOTTLE NUMBER

EMAIL \_\_\_\_\_

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION Bruce BarnesADDRESS Covered Bridge Rd.LOCATION Ditch north of covered bridge

PHONE \_\_\_\_\_

DATE COLLECTED 6/30/10 TIME COLLECTED 10:50 AM

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## QUANTITRAY ANALYSIS

Please fax results to: Brown  
County Health Department  
Fax: 812-988-5601

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

## RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

## RESULT:

☐ PRESENT☐ ABSENTANALYST: LP

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.  
If MF is checked the result is organisms per 100 ml.  
If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.  
☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE:  
TEST NOT VALID BECAUSE:

- ☐ Too long in transit (more than 30 hours).  
☐ Invalid/no collection date.  
☐ Incomplete information.  
☐ Other \_\_\_\_\_

ISDH — LABS



\*881009\*

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

07-02-10 12:58 OUT

Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

Sample Number 0 45506-30-10 15:27 RCVD  
Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: April Reeves☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

07H00001

BOTTLE NUMBER

□ □

EMAIL JKENNARD3@GAILOO.COM

SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION \_\_\_\_\_

ADDRESS SR 135 NLOCATION BEHIND BROWNIE'S

PHONE \_\_\_\_\_

DATE COLLECTED 6/3/10 TIME COLLECTED 9:30 AM

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name)

TIME OF ANALYSIS 14:05

(Street)

(City or Town)

IN

(ZIP)

State Form 36740 (R7 / 9-07)

## QUANTITRAY ANALYSIS

Please fax results to: Brown  
County Health Department  
Fax: 812-988-5601

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT☐ ABSENTANALYST: CH\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.
- ☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

- ☐ Too long in transit (more than 30 hours).
- ☐ Invalid/no collection date.
- ☐ Incomplete information.
- ☐ Other \_\_\_\_\_

ISDH — LABS



\*681002\*

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number 07-02-07901946-E0U

Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203Sample Number 0 446Date Received 10/17/10SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: BROWN COUNTY HEALTH DEPT.  
P.O. BOX 281  
Street: NASHVILLE, INDIANA 47448-0281  
City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_SAMPLE SUBMITTED BY: April Reeves☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

07H00001

BOTTLE NUMBER

EMAIL \_\_\_\_\_

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION Pleasant Valley Apts.ADDRESS Old State Rd. 46LOCATION ditch east of apartment entrance

PHONE \_\_\_\_\_

DATE COLLECTED 6/30/10 TIME COLLECTED 10:28 AM

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) TIME OF ANALYSIS 14:05  
(Street) \_\_\_\_\_  
(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## QUANTITRAY ANALYSIS

Please fax results to: Brown  
County Health Department  
Fax: 812-988-5601

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

## RESULT:

☐ PRESENT  
☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

## RESULT:

☐ PRESENT  
☐ ABSENTANALYST: CRP\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.
- ☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

- ☐ Too long in transit (more than 30 hours).
- ☐ Invalid/no collection date.
- ☐ Incomplete information.
- ☐ Other \_\_\_\_\_

ISDH - LABS



\*881001\*

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

07-02-10 12:58 OUT

Date Rep. \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

Sample Number 0 449

06-30-10 13:27 RCVD

Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: BROWN COUNTY HEALTH DEPT.  
P.O. BOX 281  
Street: NASHVILLE, INDIANA 47448-0281  
City: \_\_\_\_\_ IN (ZIP) \_\_\_\_\_

SAMPLE SUBMITTED BY: April Reeves

☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

07H00001

BOTTLE NUMBER

□ □

EMAIL \_\_\_\_\_

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☐ Surface Water-  
Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy

☒ OTHER Clay Lick Creek

NAME/ORGANIZATION Clay Lick CreekADDRESS 2589 Clay Lick Rd.LOCATION East of bridge

PHONE \_\_\_\_\_

DATE COLLECTED 6/30/10 TIME COLLECTED 9:44 am

## ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN

(ZIP) \_\_\_\_\_

State Form 38740 (R7 / 9-07)

## QUANTITRAY ANALYSIS

Please fax results to: Brown  
County Health Department  
Fax: 812-988-5601

## ANALYSIS DATA—TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

## RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

## RESULT:

☐ PRESENT☐ ABSENTANALYST: eff

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH — LABS



\*881006\*

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

07-02-10 12:58 OUT

Date Rep. \_\_\_\_\_

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology  
635 North Barnhill Drive, Room 13G  
P.O. Box 7202  
Indianapolis, Indiana 46207-7202

0 450

Sample Number \_\_\_\_\_

07-02-10 13:27 RCVD

Date Received \_\_\_\_\_

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: BROWN COUNTY HEALTH DEPT.

P.O. BOX 281

Street: NASHVILLE, INDIANA 47448-0281

City: \_\_\_\_\_ IN (Zip) \_\_\_\_\_

SAMPLE SUBMITTED BY: April Reeves
☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

07H00001

BOTTLE NUMBER

☐ ☐

## SAMPLE SOURCE (CHECK ONE):

☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub

☐ Bathing Beach ☐ Surface Water-  
Ditch, etc. ☐ Ice

☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy

☒ OTHER Clay Lick Creek
NAME/ORGANIZATION CYO CampADDRESS Clay Lick Rd.LOCATION creek @ CYO Bridge

PHONE \_\_\_\_\_

DATE COLLECTED 6/30/10 TIME COLLECTED 9:37 AM

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name)

(Street)

(City or Town)

IN

(Zip)

State Form 38740 (R6/5-99)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT

☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT

☐ ABSENT
ANALYST: ch

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 48 hours).

☐ Invalid/no collection date.

☐ Incomplete information.

☐ Other \_\_\_\_\_
TIME OF ANALYSIS 14:05

## QUANTITRAY ANALYSIS

Please fax results to: Brown  
County Health Department  
Fax: 812-988-5601

ISDH - LABS



\*787379\*



07HO001 BROWN COUNTY HEALTH DEPARTMENT  
COURTHOUSE  
NASHVILLE IN 47448-0281

Lab Number BO01257 Collected: 08/19/09 Unsatisfactory. Count Total Coliforms - 1600 Count E Coli  
LAKE WELL [REDACTED] 1383 IDORWETOWN KIT.SINK

07HO001 BROWN COUNTY HEALTH DEPARTMENT  
COURTHOUSE  
NASHVILLE IN 47448-0281

Lab Number BO01258 Collected: 08/19/09 Unsatisfactory. Count Total Coliforms - 150 Count E Coli -  
[REDACTED] 5510 SR 46 FAUCET 1

07HO001 BROWN COUNTY HEALTH DEPARTMENT  
COURTHOUSE  
NASHVILLE IN 47448-0281

Lab Number BO01261 Collected: 08/18/09 Unsatisfactory. Total Coliforms Present. E Coli Present. ✓  
LEE WALTMAN 1650 OAK GROVE RD OUTSIDE 988-2881

- Notes:
1. Copies of original reports will be mailed to submitters.
  2. Copies of swimming pool reports will be mailed to Health Dept.
  3. Call (317) 233-8078 for questions/comments on this summary report.
  4. This summary report contains all completed bacteriological analyses since the date of the previous report. It contains results on samples submitted by public water supply sites, swimming pools, spas, and health officials. It does not contain samples submitted by private individuals.

**End of report for 08/21/09**

# Indiana State Department of Health

Laboratory Resource Center

Environmental Laboratory

## Summary Report: Brown County Water Bacteriology Samples

Completed Samples 06/22/09

07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	Health Official
	Lab Number BL00372 Collected: 06/19/09 Count E Coli - 2200 8355 BEAN BLOSSAM RD. BELOW P DRAIN EXIT	
07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	
	Lab Number BL00373 Collected: 06/19/09 Count E Coli - 2000 PRESBY PUDDLE	
07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	
	Lab Number BL00374 Collected: 06/19/09 Count E Coli - 610 9465 SR 135 PRESBY UPSLOPE P DRAIN	
07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	
	Lab Number BL00375 Collected: 06/19/09 Count E Coli - 690 JERRY VUILS PRESBY UP SLOPE P DRAIN.	
07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	
	Lab Number BL00376 Collected: 06/19/09 Count E Coli - 2000 BROWNIES RESTAURENT ,ADJACENT TO GAS TANK	
07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	
	Lab Number BO00926 Collected: 06/19/09 Satisfactory. MARY MILLHOFF 1546 JACKSON BRANCH RIDGE RD KIT.TAP	

- **Does not meet minimum separation between trenches.** *Current separation between trenches is 2 – 2 ½' within the "loop". Rule 410 IAC 6-8.1 – 52 (h) (page 27): There shall be a minimum separation of seven and one-half (7 ½) feet, on center, between absorption field trenches.*
- **"Looped" trench ends are not allowed.** Annex 15. of the Brown County Ordinance: *All gravity flow and area dosing system fingers must be capped at the distal ends.*

From a septic system standpoint, in order for the dwellings to be inhabited, each dwelling must be on a separate septic system, with a septic system that meets current codes for the newly-placed double-wide mobile home.

Based on information on the septic system for the single-wide mobile home, the depth of the absorption field was too great for Mr. Reed to probe, as well as other non-code issues. Therefore, a new septic system meeting current codes will be required for this home prior to habitation as well.

To remedy the septic system issues to make the dwellings habitable, each dwelling must have its own septic system. The first step is to hire a soil scientist to analyze the soil. Once we get the report from the soil scientist, your septic contractor must flag out and draw up the septic systems based on the specification sheets from the health department. I will then do a site evaluation to ensure that the septic systems will meet state criteria. Once that has been approved and all the required documents are retrieved, you may get your septic permits to start installation work. I have included the application and a list of the state registered soil scientists as well as a list of county registered septic installers.

If you meet the criteria for a cluster system (a septic system in which a group of residences are hooked to one absorption field), you must contact the Indiana State Department of Health for approval. Please contact us if this is the route you will take.

Any current residents in the dwellings must be on pump-and-haul until May 30, 2008 or as weather permits to install septic systems, whichever comes first. We will remind you when septic season begins to proceed with the installation process. If the septic systems are not installed at that time, the water meter will be pulled at each dwelling involved and you could be subject to a fine of \$500 per day, with the first day beginning at the date of this letter.

If you have any questions or concerns, please feel free to contact me.

Sincerely,



April Reeves,  
Environmental Health Specialist

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number

FILED APR 02 2007

Date Rep.

## INDIANA STATE DEPARTMENT OF HEALTH

Environmental Microbiology  
635 North Barnhill Drive, Room 13G  
P.O. Box 7202  
Indianapolis, Indiana 46207-7202

Sample Number

51

Date Received

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.  
Indiana State Department of Health is to mail report to:

Name: Brown County Health Dept.  
Street: P.O. Box 281  
City: Nashville IN (Zip) 47448

SAMPLE SUBMITTED BY: April Reeves

☒ HEALTH OFFICIAL Brown  
(COUNTY)

IDENTIFICATION NUMBER

07H00001

BOTTLE NUMBER

SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-  
Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION Kimberly & Rick HolmesADDRESS 7030 Justins RidgeLOCATION Ditch approx 100' from house  
along side of shared drive

PHONE \_\_\_\_\_

DATE COLLECTED 3-28-07 TIME COLLECTED 11:25 AM

ADDITIONAL REPORTS ARE TO BE MADE TO:

Brown Co. Health Dept. **FAKED**  
(Name)

812-988-6501  
(Street)

**TIME OF ANALYSIS** 16:40  
(City or Town) (Zip)

State Form 357-1 (R6-5-99)

## ANALYSIS DATA-TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST:

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST:

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

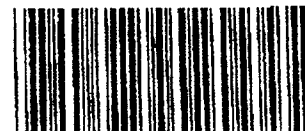
☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 48 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_

ISDH - LABS



\*671451\*

QUANTITRAY ANALYSIS

**Indiana State Department of Health**Laboratory Resource Center  
Environmental Laboratory**Summary Report: Brown County Water Bacteriology Samples**

Completed Samples 08/03/09

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07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	Health Official
	Lab Number BL00557 Collected: 07/29/09 Count E Coli - 2400 JERRY VOILS APTS SR 135 N SOUTH EAST PART OF YARD	

---

07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	
	Lab Number BL00558 Collected: 07/29/09 Count E Coli - 27 TERRIE EDWARDS, 7764 MT. MORIACH, POND	

---

07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	
	Lab Number BL00559 Collected: 07/29/09 Count E Coli - 3800 HIRST PROPERTY. 4145 WATSON RD. YARD	

---

07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	
	Lab Number BO01149 Collected: 07/29/09 Satisfactory. TERRIE EDWARDS. BATH TUB FAUCET	

---

07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	
	Lab Number BO01152 Collected: 07/29/09 Unsatisfactory. Total Coliforms Present. TIM WHITE, BATHROOM SINK	

---

07HO001	BROWN COUNTY HEALTH DEPARTMENT COURTHOUSE NASHVILLE IN 47448-0281	
	Lab Number BO01153 Collected: 07/29/09 Satisfactory. FOSTER LANDING	





## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

**BL50**

Shipping Number \_\_\_\_\_

Date Rep. \_\_\_\_\_

16 APR 10 PM 2:50

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: 201 Locust  
City: Nashville IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL Drew  
(COUNTY)

IDENTIFICATION NUMBER 07H0001 BOTTLE NUMBER   

EMAIL JKENNARD3@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION Brent & Cindy Stinson  
ADDRESS 453 Hts Lmsbury Rd  
LOCATION W. side of Ditch  
PHONE \_\_\_\_\_

DATE COLLECTED 3/10/16 TIME COLLECTED 08:55

3/9/16

## ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_  
(Street) TIME OF ANALYSIS \_\_\_\_\_  
(City or Town) \_\_\_\_\_ IN \_\_\_\_\_ (ZIP) \_\_\_\_\_

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

## RESULT:

☐ PRESENT ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

## RESULT:

☒ PRESENT ☐ ☐ 2 4 0 0 0 0  
☐ ABSENT

ANALYST: h

\*If MPN or MMQT is checked the result is the most probable number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

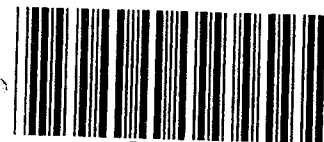
Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.  
☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.  
☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:  
☐ Too long in transit (more than 30 hours).  
☐ Invalid/no collection date.  
☐ Incomplete information.  
☐ Other \_\_\_\_\_

**ISDH - LABS**

\*866914\*

Quand. Inay FLENE

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

**BL51**Date Recd. 8-10-16

DATE MOVED 11-06

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: 201 Locust  
City: Washburn IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL DOWN  
(COUNTY)

IDENTIFICATION NUMBER 07H0001 BOTTLE NUMBER     
EMAIL JKENNARD3@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION Berry Cing Stinson  
ADDRESS 453 Helmsburg Rd  
LOCATION End of Ditch - E. side of property  
PHONE \_\_\_\_\_

DATE COLLECTED 8/10/16 TIME COLLECTED 0857  
3/9/16 0857

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name)

(Street)

(City or Town)

IN

(ZIP)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

TEST: TOTAL COLIFORM

METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

RESULT:

☐ PRESENT☐ ABSENT

ANALYST:

TEST: ☐ FECAL COLIFORM ☒ E. COLI

METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

RESULT:

☒ PRESENT☐ ABSENT

ANALYST:

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

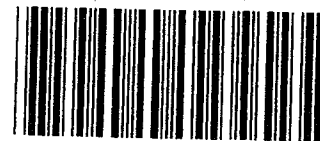
Incidental Pseudomonas Detected ☐

HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

- ☐ SATISFACTORY: At examination time, this water was bacteriologically safe based on USEPA standards.
- ☐ UNSATISFACTORY: At examination time, this water was bacteriologically unsafe.
- ☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:
- ☐ Too long in transit (more than 30 hours).
- ☐ Invalid/no collection date.
- ☐ Incomplete information.
- ☐ Other \_\_\_\_\_

**ISDH - LABS**

\*866914\*

Quantity Flare

## HEALTH OFFICIAL/POOLS &amp; SPAS/BEACHES &amp; LAKES REPORT

Shipping Number \_\_\_\_\_

INDIANA STATE DEPARTMENT OF HEALTH  
Environmental Microbiology  
550 W. 16<sup>th</sup> Street, Suite B  
Indianapolis, Indiana 46202-2203

**BL52**Date Rep. 3/10/16 2:59

2016 MAR 09 11:30

SAMPLES SUBMITTED WITHOUT COMPLETED FORM WILL  
NOT BE ANALYZED. USE BLACK INK.

Indiana State Department of Health is to mail report to:

Name: JOHN KENNARD  
Street: 201 Locust  
City: Nashville IN (ZIP) 47448

SAMPLE SUBMITTED BY: JOHN KENNARD  
☒ HEALTH OFFICIAL Drewn  
(COUNTY)

IDENTIFICATION NUMBER 07H0001 BOTTLE NUMBER   

EMAIL JKENNARD3@yahoo.com

## SAMPLE SOURCE (CHECK ONE):

- ☐ Drinking Water ☐ Swimming Pool ☐ Spa/Hot Tub  
☐ Bathing Beach ☒ Surface Water-Ditch, etc. ☐ Ice  
☐ Meat/Poultry Plant ☐ Bottled Water ☐ Dairy  
☐ OTHER \_\_\_\_\_

NAME/ORGANIZATION Brent & Cindy GrinsonADDRESS 453 Helmsburg RdLOCATION Ditch E. Side of Property N. End

PHONE \_\_\_\_\_

DATE COLLECTED 3/10/16 TIME COLLECTED 08553/9/16

ADDITIONAL REPORTS ARE TO BE MAILED TO:

(Name) \_\_\_\_\_

(Street) \_\_\_\_\_

(City or Town) \_\_\_\_\_

IN \_\_\_\_\_

(ZIP) \_\_\_\_\_

**TIME OF ANALYSIS** 11

State Form 36740 (R7 / 9-07)

## ANALYSIS DATA--TO BE COMPLETED BY LAB

## TEST: TOTAL COLIFORM

## METHOD:\*

☐ MF ☐ MPN ☐ LST P/A ☐ MM P/A ☐ MM QT

## RESULT:

☐ PRESENT☐ ABSENT

ANALYST: \_\_\_\_\_

TEST: ☐ FECAL COLIFORM ☒ E. COLI

## METHOD:\*

☐ MF ☐ MPN ☐ EC P/A ☐ MM P/A ☒ MM QT

## RESULT:

☐ PRESENT☐ ABSENTANALYST: lyp

\*If MPN or MMQT is checked the result is the most probable  
number per 100ml.

If MF is checked the result is organisms per 100 ml.

If P/A is checked the result is presence (P) or absence (A).

Incidental Pseudomonas Detected ☐

## HETEROTROPHIC

PLATE COUNT \_\_\_\_\_ /1.0 ML \_\_\_\_\_ /0.1 ML

## Report of Samples

☐ SATISFACTORY: At examination time, this water was  
bacteriologically safe based on  
USEPA standards.

☐ UNSATISFACTORY: At examination time, this water was  
bacteriologically unsafe.

☐ PLEASE SUBMIT ANOTHER SAMPLE.  
TEST NOT VALID BECAUSE:

☐ Too long in transit (more than 30 hours).☐ Invalid/no collection date.☐ Incomplete information.☐ Other \_\_\_\_\_**ISDH - LABS**

\*866914\*

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## **APPENDIX H**

# **HELMSBURG RSD WWTP EVALUATION REPORT**

# LADD ENGINEERING, INC.

August 19, 2009

Helmsburg Regional Sewer District (HRSD)  
c/o Sharon Rivenbark  
P.O. Box 147  
Helmsburg, IN 47435

Re: Bean Blossom Wastewater PER  
Helmsburg RSD WWTP

Dear Board Members:

Please accept this correspondence as an engineering report for upgrading the existing wastewater treatment plant at Helmsburg to serve customers from the Bean Blossom Regional Sewer District (BBRSD).

## **Current Situation:**

The Helmsburg WWTP is a extended aeration activated sludge steel packaged type consisting of flow equalization; aeration chamber; final clarifier (settling) chamber; rapid sand filter for tertiary treatment; chlorine contact chamber with tablet feed chlorine for disinfection and tablet feed sodium bisulfate for dechlorination; post aeration; and sludge holding chamber. The WWTP has a rated capacity of 25,000 gallons per day (gpd), or is capable of treating domestic sewage having an organic strength of 210 mg/L BOD. The plant has a 15 KW standby generator that is currently inoperable due to a flood event. There are several improvements needed that were observed during my inspection on 7/23/09, mostly related to replacement of corroded components, which are not addressed in this report. Refer to attached photographs of the existing WWTP.

The average daily and average maximum daily WWTP flow for the period of March 2008 through May 2009 was 5,000 and 11,000 gpd, respectively. The influent BOD for the period of March 2008 through May 2009 was 368 mg/L, which is considerably higher than the 210 mg/L the plant was designed for. The higher BOD concentration is most likely due to long detention times within the collection system and low levels of inflow or infiltration. Considering the volume of the aeration chamber and the maximum BOD organic loading rate allowed by the IDEM of 15 lbs BOD/1,000 cft, the actual average hydraulic capacity of the plant is approximately 20,500 gpd. Refer to attached spreadsheet showing a summary of the Monthly Reports of Operation (MRO).

### **Future Situation:**

The average daily future wastewater flow anticipated from the BBRSD users, considering a increase of 2,000 gpd above existing is 18,000 gpd. Considering that the proposed collection system at Bean Blossom is a low pressure system similar to Helmsburg's system, and there would be a long conveyance force main connecting to the Helmsburg WWTP, an organic BOD loading of 370 mg/L should be used for considering additional required plant capacity.

### **Recommendations and Opinion of Probable Costs:**

The current HRSD average daily wastewater flow of 5,000 combined with the future anticipated BBRSD average daily wastewater flow of 18,000 gpd yields a total flow of 23,000 gpd. Considering that the existing HRSD WWTP capacity is 20,500 gpd due to a high organic (BOD) loading, that it would be recommended that the plant capacity be 20% higher than the estimated total daily flow, that the plant capacity allow for some potential growth within the HRSD service area, that the average maximum day flow is 11,000 gpd, the minimum additional recommended capacity is 15,000 gpd. This additional capacity would provide for a total plant capacity of 35,500 gpd. The available options for obtaining an additional 15,000 gpd capacity would be to construct a new extended aeration activated sludge steel packaged type plant similar to the existing only without sand filters, or construct a new extended aeration plant with concrete tankage, with aluminum and stainless steel components having a capacity of 35,500 gpd and utilize the existing steel plant for flow equalization, sludge storage and chlorination/dechlorination/post aeration. The 15,000 gpd additional packaged type plant option is the lowest capital cost option, which is the one recommended to keep costs as low as possible for the BBRSD. A schematic drawing showing the existing and proposed plant components is attached for reference.

The following table provides an opinion of the probable project costs associated with the 15,000 gpd packaged type treatment plant.

<b>Opinion of Probable Project Costs 15,000 GPD Packaged Plant</b>	
<b>Item</b>	<b>Cost</b>
Packaged Plant Tank & Equipment	\$75,000
Influent Flow Splitter Box	\$8,000
Concrete Slab, Excavation & Installation - Plant	\$30,000
Piping & Valves	\$6,000
Site Grading & Restoration	\$2,000
Standby Generator	\$30,000
Electrical	\$10,000
Miscellaneous	\$15,000
Bond, Mobilization & Insurance	\$8,500
Subtotal Construction	\$184,500
Contingencies	\$18,500
Engineering Design & Construction	\$20,000
Miscellaneous	\$2,000
<b>Total Project</b>	<b>\$225,000</b>



In addition to the initial capital costs there is annual operation, maintenance and replacement (O, M&R) costs to consider. The following table lists that opinion of probable O, M&R costs:

<b>Opinion of Probable O, M&amp;R Costs</b>	
<b>Item</b>	<b>Annual Cost</b>
Labor (*1)	\$1,500
Energy/Power	\$5,000
Materials and Supplies	\$1,000
Repairs	\$500
Replacement	\$2,500
Insurance	\$800
Sludge Hauling & Disposal (*2)	\$2,500
<b>Total</b>	<b>\$13,800</b>

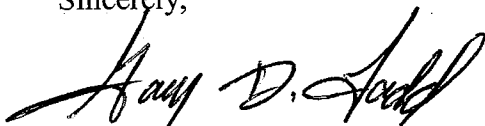
Table Notes:

1. Additional contract labor – Your current operator should be consulted
2. Your current operator should be consulted

I would hope that this report provides adequate information to the HRSD so that an upfront buy-in fee and monthly wholesale rate can be established for the BBRSD.

Should you have any questions regarding this report, or the project in general, feel free to contact me.

Sincerely,



Gary D. Ladd, P.E., President  
Ladd Engineering, Inc.

Xc: BBRSD  
File

# HELMSBURG RSD

2008 - 2009 MRO DATA

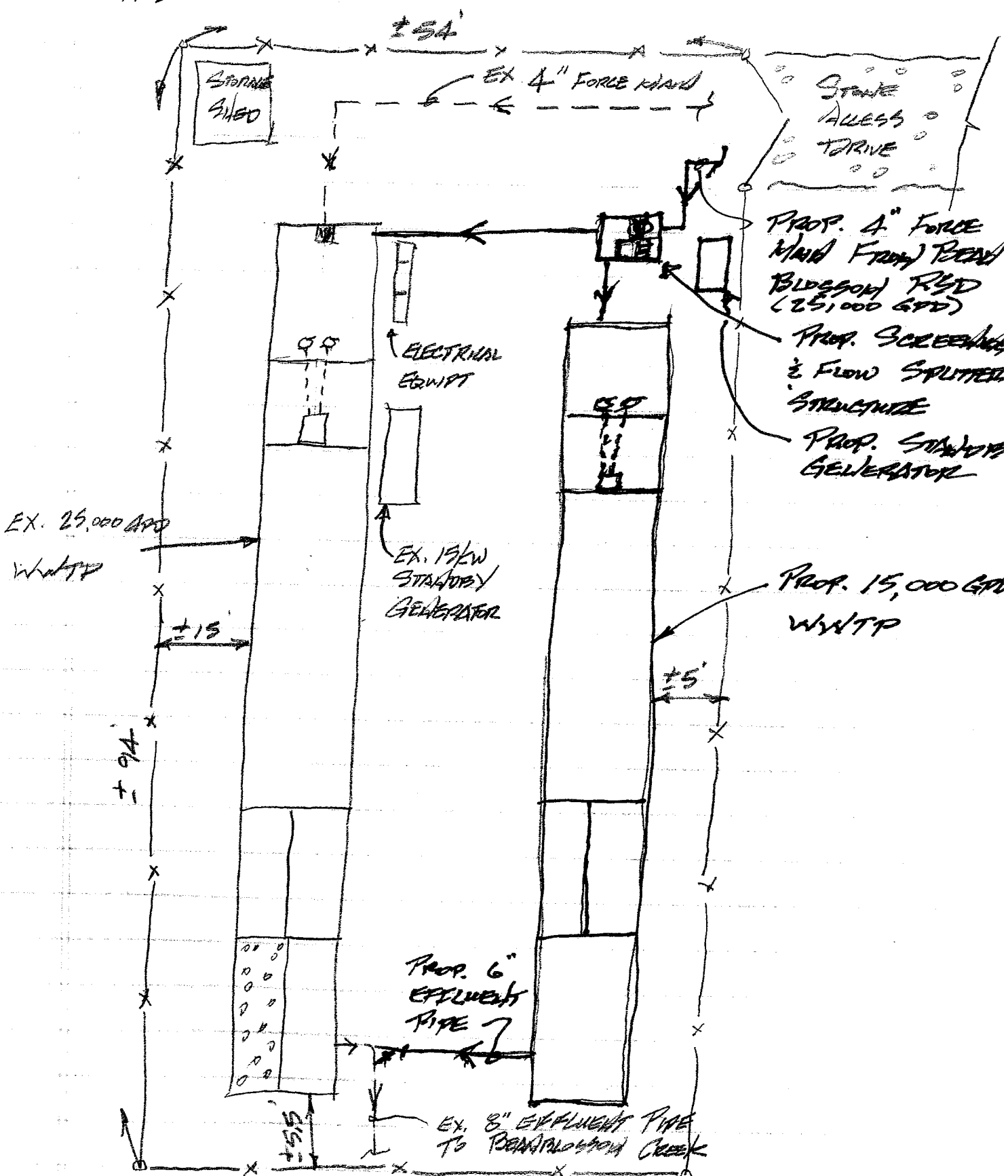
NPDES Permit Monthly Average Limits

Month/Year	Average Flow (mgd)	Max Flow (mg/L)	CBOD		TSS		NH3	
			Influent BOD (mg/L)	Effluent BOD (mg/L)	Influent TSS (mg/L)	Effluent TSS (mg/L)	Influent NH3 (mg/L)	Effluent NH3 (mg/L)
March-08	0.008	0.019	293	3.8	204	9.8	36	0.100
May-08	0.007	0.016	331	3.3	177	7.5	40	0.100
June-08	0.001	0.009	380	2.3	221	6.8	54	0.130
July-08	0.004	0.009	439	2.2	264	2.4	60	0.160
August-08	0.005	0.006	383	2.0	288	3.3	69	0.100
September-08	0.006	0.011	412	2.8	278	12.0	65	0.180
October-08	0.006	0.012	322	2.3	162	10.5	62	
November-08	0.006	0.012	394	2.0	156	7.3	59	0.100
December-08	0.005	0.007	331	2.6	145	8.6	54	0.100
January-09	0.005	0.008	239	19.8	145	23.5	57	0.125
February-09	0.005	0.011	410	11.0	247	11.5	53	0.100
March-09	0.005	0.009	420	3.0	331	7.8	65	0.104
April-09	0.006	0.010	392	3.3	289	11.0	64	0.150
May-09	0.005	0.008	403	9.5	306	9.5	56	0.125
<b>Average</b>	<b>0.005</b>	<b>0.011</b>	<b>368</b>	<b>5.0</b>	<b>230</b>	<b>9.4</b>	<b>57</b>	<b>0.121</b>

# HELIXBURG WWTTP PRELIMINARY CAPACITY UPGRADE

8/6/00

4 W  
N/S



## **APPENDIX I**

# **NASHVILLE WHOLESALE WASTEWATER TREATMENT AGREEMENT AND CORRESPONDENCE**

## **WHOLESALE WASTEWATER TREATMENT AGREEMENT**

This Wholesale Wastewater Treatment Agreement ("Agreement"), made and entered into this 15<sup>th</sup> day of December, 2016, is between the TOWN OF NASHVILLE, INDIANA ("Town") and the BROWN COUNTY REGIONAL SEWER DISTRICT ("District"), and is regarding the Town's provision of wholesale wastewater treatment service to the District.

### **RECITALS**

A. The Town owns and operates a municipal sewer utility, including wastewater collection and treatment facilities, in and around its municipal boundaries pursuant to Ind. Code § 36-9-23.

B. The District is a regional sewer district governed by Ind. Code § 13-26 with a service territory located in Brown County, Indiana.

C. The District desires to extend collection facilities from time-to-time and provide sanitary sewer service to certain areas within the District.

D. In order to provide sanitary sewer service, the District needs wholesale treatment service from the Town.

E. The Town's wastewater collection and treatment facilities have sufficient capacity at this time to treat and dispose of the sewage now requested by the District, and the Town is willing to provide treatment service subject to the terms and conditions in this Agreement.

F. The parties desire to enter into an agreement that establishes the terms and conditions for: (i) the interconnection of the District's wastewater collection system with the Town's sewage treatment facilities; (ii) the assignment of treatment capacity to the District; and (iii) the extension of sewer service within the District.

NOW, THEREFORE, in consideration of the mutual agreements and covenants set forth in this Agreement, and other good and valuable consideration, the adequacy, sufficiency, and receipt of which are hereby mutually acknowledged, the parties agree as follows:

### **TERMS**

**Section 1. Extension of District's Facilities.** The District will be responsible for extending sewage collection and transmission facilities related to the District's provision of sewer service, including installing a meter pit on the Town's property and interconnecting an eight (8) inch sewage transmission line to the Town's existing treatment plant. The District will pay all costs associated with the installation and construction of the facilities necessary or required by the Town for the interconnection, including the installation of any meters, valves, pits, corresponding electric facilities, etc. ("Interconnection Facilities"). Attached as Exhibit A is a preliminary drawing generally

depicting the proposed Interconnection Facilities and location of the point of delivery or interconnection point ("Interconnection Point"). Consistent with the attached Exhibit A, the Interconnection Point shall be at the meter pit located at or near the Town's property line.

Section 2. Review of Interconnection Facilities. Prior to beginning construction, the District shall provide the Town with copies of the final plans and specifications for the construction of the Interconnection Facilities. The Town shall notify the District in writing of its approval or disapproval of such plans and specifications within thirty (30) days after submission to the Town. If the Town disapproves the whole or any part of the plans and specifications, the District agrees to modify the plans and specifications to address any concerns or objections raised by the Town, and agrees not to commence the installation of such Interconnection Facilities until the plans and specifications have been approved by the Town. The Town shall further be given reasonable access to the work site as is necessary for the Town to observe, inspect, and test the installation of the Interconnection Facilities. To the extent the Town determines that the Interconnection Facilities do not meet the Town's standards, the Town shall immediately provide the District with notice of such deficiency. The District shall correct any deficiencies prior to completing construction of the Interconnection Facilities.

Section 3. Sewage Flow Meter. As a part of the Interconnection Facilities, the District will, at its expense, furnish and install the necessary equipment for properly measuring and recording the quantity of wastewater delivered to the Town at the Interconnection Point. Following installation, the metering equipment (and the meter pit and facilities from the meter pit to the treatment plant) (collectively, the "Dedicated Facilities") shall become the property of the Town, and the District will execute such documents as may be reasonably requested by the Town to confirm the Town's ownership of the Dedicated Facilities. The Town will accept ownership of the Dedicated Facilities without remuneration. Once the Town accepts the Dedicated Facilities, the Town will maintain such facilities; provided, however, that the District shall reimburse the Town for all costs incurred by the Town in maintaining (including calibrating the meter) and/or replacing the Dedicated Facilities. The calibration of the metering equipment shall be performed annually or at the request of either party. A meter registering not more than five percent (5%) above or below the test result shall be deemed to be accurate. The previous two (2) months' readings of any meter disclosed by a test to be inaccurate shall be corrected in accordance with the percentage of inaccuracy found by the result of any meter test.

Section 4. Ownership of Interconnection Facilities (Excluding Dedicated Facilities). The District shall retain ownership of the Interconnection Facilities and shall be responsible for operating, maintaining, and replacing the Interconnection Facilities up to and including the Interconnection Point, as generally depicted on Exhibit A attached hereto. The Town shall be provided access to the Interconnection Facilities (not dedicated to Town) at all times, for purposes of inspection, testing, and/or otherwise ensuring compliance with this Agreement.

Section 5. Town's Provision of Treatment Service. The Town agrees to accept up to a daily maximum of 52,650 gallons of treatable wastewater at the Interconnection



Point, subject to the timely and full payment by the District of all applicable rates and charges and compliance by the District with all provisions of this Agreement. The Town will serve the District following connection and payment of all applicable fees. The District's use of the Town's service must be in conformance with all applicable laws, ordinances, rules and regulations, and this Agreement. The Town shall have the right to terminate this Agreement and use the purchased capacity allocated herein for other customers if the District fails to satisfy any of the following conditions: (i) the District does not execute this Agreement by March 1, 2017; (ii) the United States Department of Agriculture – Rural Development ("RD") does not issue a letter of conditions to the District by March 1, 2018, that commits funds for the proposed project; (iii) the District does not close on the loan with RD and pay the Town the capacity and tap fees identified in Section 6 below by December 31, 2018; or (iv) the District does not complete construction of the Interconnection Facilities and begin providing sewer service to District customers by December 1, 2021. The Town may further terminate this Agreement and seek other available legal and/or equitable damages for any material breach of this Agreement not cured within sixty (60) days of receipt of notice thereof to the District.

Section 6. Rates and Charges. The District will be responsible for timely payment of the Town's applicable rates and charges, including the following:

- a. **Capacity Fees:** Upon closing with RD (on or before December 31, 2018), execution of this Agreement, the District shall pay capacity fees to the Town, for a maximum of 52,650 gallons per day of treatment capacity, in the amount of Two Hundred Ninety-One Thousand Dollars (\$291,000). The District will pay additional capacity fees at the then-prevailing rate if the Town determines that District regularly discharges (i.e. at least six (6) times in a given twelve (12) month period) more than 52,650 gallons in a single day; provided, however, that nothing herein shall require the Town to accept or treat additional flows greater than 52,650 gallons in a single day from the District.
- b. **Monthly Flow Rate:** The District shall pay a wholesale rate of Four Dollars (\$4.00) per one thousand (1,000) gallons of effluent per month, as measured by the flow meter at the Point of Delivery. Twenty-four (24) months after the District first begins discharging flows to the Town, the District shall take or pay for an average of 25,000 gallons per day of wastewater. The District's flow rate may be adjusted from time to time, at the same time that the Town reviews and/or adjusts the rates and charges for its other customers, and the parties agree that any adjustments to the wholesale rate that is a pro-rata rate adjustment of the same percentage change to the Town's retail rates ("across the board rate adjustment") is reasonable and just and not subject to objection or legal challenge by the District. Any adjustment to the Town's wholesale rate applicable to the District other than an across the board rate adjustment shall be supported by a rate study justifying a reallocation of costs attributable to wholesale customers. The Town shall provide written notice of any proposed rate change to the District, at the same time as providing notice to the Town's other customers under applicable law.

- c. **Excessive Strength Surcharges:** The District shall pay any excessive strength surcharges applicable to the flows received from the District consistent with the Town's promulgated resolutions and ordinances currently in effect or which may be amended from time to time.

Any rates or charges not paid within thirty (30) days of billing by the Town shall incur the Town's applicable penalties and late charges.

**Section 7. Use of the Town's Treatment Capacity.** In using the Town's system and delivering wastewater to the Town at the Interconnection Point, the District agrees to abide by the Town's current sewer use policy and/or other applicable ordinances and regulations relating to the strength and character of the wastewater, or as the same may be revised. The District will refrain from discharging or using the Town's sewer system in any way which inhibits the Town from providing service or causes damage to the Town's facilities. The District shall further take any other measures as may be directed by the Town in the future to ensure accurate testing or to prevent excessive strength effluent from entering into the Town's treatment system. The District agrees that all capacity allocated to the District hereunder shall be solely for use by the District's own retail customers (and not wholesale customers) in only those services areas ("District Service Areas") outlined in Exhibit B attached hereto, and such capacity may not be transferred or sold to other sewer utilities. The District is prohibited from working on or altering the Town's facilities and the District will not knowingly permit or allow the unauthorized connection or extension of the Town or District's systems.

**Section 8. Provision of Service to Users within the District.** The District shall be responsible for all costs of extending sewage collection and transmission facilities, and operating and maintaining its sewer utility and facilities, as may be necessary and appropriate for the District's provision of service to its end users (collectively, "District Facilities"). The District shall construct, operate, and maintain the District Facilities in conformance with all applicable federal, state, and local laws. Prior to submitting an application to the Indiana Department of Environmental Management ("IDEM") for any sewer main extension of the District or to be connected to the District Facilities, the District shall provide the Town with a copy of the plans for the Town's review and consideration of such extension. Consistent with Indiana Code § 36-9-23-36, the Town may extend its own facilities and provide sewer service outside its corporate boundaries, including in the District; provided that any such new customers to be connected to the Town's sewer system are outside the District Service Areas.

**Section 9. Annexation Waivers.** The District shall require that any property owner within three (3) miles of the Town's then existing municipal boundaries that connects to the District Facilities, as a condition of receiving sewer treatment service of the Town through the District, waive the right to remonstrate against any annexation(s) by the Town, for itself and its successors and assigns. The waivers shall be executed in a form required by the Town and recorded in the chain of title of the property. The Town shall have the right to require and the District shall disconnect any property owner from sewer service that does not execute and record an annexation waiver, or otherwise remonstrates against or opposes, either directly or indirectly, annexation of the property

by the Town. The annexation waiver requirements set forth in this section are a material part of the Agreement.

Section 10. Town Liability & Force Majeure. Absent gross negligence, the Town will not be liable for any damage resulting from the use of the Town's sewer service, including, without limitation, damage caused by events of force majeure. For purposes of this Agreement, an event of force majeure means a strike, vandalism, power failure, pipe failure or breakage, lockout, labor dispute, embargo, flood, earthquake, storm, dust storm, lightning, fire, epidemic, act of God or nature, war, national emergency, civil disturbance, riot, act of sabotage or terrorism, restraint by court order or order of another governmental authority, or any other uncontrollable events. The Town shall further not be responsible for any indirect, special, incidental, or consequential damages.

Section 11. Term of Agreement. The term of this Agreement shall be for a period of forty (40) years from the date of execution by both parties, and shall be automatically renewed for additional periods of five (5) years unless either party provides written notice that the Agreement will terminate to the other party not less than one (1) year prior to the end of such initial term or any subsequent renewal term. In the event the Agreement expires or terminates without a mutual renewal or new terms entered under the mutual agreement of both parties, the District will pay the Town's monthly flow rate applicable to the Town's retail customers (i.e., the rate applicable to the Town's residential customers) until the District is disconnected from the Town's system. Upon any disconnection by the District from the Town's system, the capacity allocated to the District shall expire.

Section 12. Board Seat. Consistent with Indiana Code § 13-26-5-7(b), the Town shall be granted a seat on the District's Board. The President of the Town Council shall appoint a representative to serve on the District's Board effective upon execution of this Agreement.

Section 13. Approval by Ordinance or Resolution. The parties hereto agree that the governing body of each entity shall adopt an ordinance or resolution approving the terms and conditions set forth herein.

Section 14. Binding on Successors and Assigns. The parties agree that this Agreement shall be binding upon and inure to the benefit of the parties hereto, as well as their grantees, successors, and assigns.

Section 15. Entire Agreement. This Agreement sets forth the entire agreement between the parties hereto, and fully supersedes any prior agreements or understandings between the parties pertaining to the subject matter hereof.

Section 16. Assignment. This Agreement may not be assigned in whole or in part without the written permission of the other party.

Section 17. Amendment and Waiver. Neither this Agreement, nor any term hereof may be changed, modified, altered, waived, discharged, or terminated, except by written instrument. Failure to insist upon strict adherence to any term of this Agreement

shall not be considered a waiver or deprive that party of the right thereafter to insist upon strict adherence to that term or any other term of this Agreement.

Section 18. Indemnification. The parties hereto agree to indemnify and hold harmless each other from liabilities, obligations, claims, damages, injuries, penalties, fines, causes of action, and any other costs or expenses (including but not limited to reasonable attorney's fees, court costs, and litigation expenses), imposed or incurred by or asserted against one or the other's actions or inactions.

Section 19. Counterparts. This Agreement may be executed in counterparts, including facsimile or photocopy counterparts, each of which shall be deemed an original, but all of which taken together shall constitute a single document.

Section 20. Authority of Parties. Each party and signatory hereto has the authority to enter into this Agreement and at all times has full authority to perform this Agreement. No further approval or consent by any other person or authority is required.

Section 21. Captions and Recitals. The captions to this Agreement are for convenience only and shall not be given any effect in the interpretation of this Agreement; however, the recitals shall be considered an integral part of this Agreement and are incorporated herein.

Section 22. Notices. All notices, consents and other communications (collectively, "Notices") shall be given to the District or the Town in writing to the addresses set forth below:

The District: Brown County Regional Sewer District

\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_

The Town: Town of Nashville, Indiana  
Nashville Town Hall  
200 Commercial Street  
P.O. Box 446  
Nashville, IN 47448  
Attn: Scott Rudd, Town Manager/Economic  
Development Director

Either party may change its address for Notices by giving written notice to the other party in accordance with this provision.

Section 23. Severability. If any provision of this Agreement is found by a court of competent jurisdiction to be illegal, invalid, or unenforceable, the remaining terms hereof will not be affected, and in lieu of each provision that is found to be illegal, invalid, or unenforceable, a provision will be added as part of this Agreement that is as similar to the illegal, invalid, or unenforceable provision as may be possible and be legal, valid, and enforceable.

Section 24. Governing Law & Dispute Forum. This Agreement shall be governed by and construed under the laws of the State of Indiana. The parties agree that disputes regarding this Agreement may only be filed in a court of jurisdiction located in Brown County, Indiana. Notwithstanding any law permitting otherwise, the parties specifically agree that this Agreement, and the service provided herein, shall not subject either party to the jurisdiction of the Indiana Utility Regulatory Commission, and the parties expressly waive any argument to the contrary.

TOWN OF NASHVILLE, INDIANA

Signed: *Charles King*

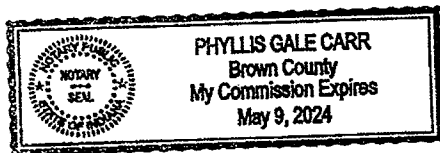
Printed: CHARLES KING

Its: \_\_\_\_\_

STATE OF INDIANA       )  
  ) SS:  
COUNTY OF Brown       )

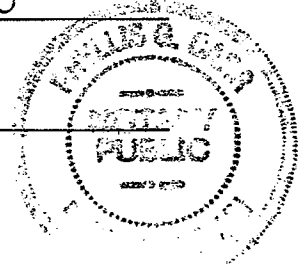
Before me, a Notary Public in and for said County and State, personally appeared Charles King, by me known to be the Town Council President of the Town of Nashville, Indiana, who acknowledged the execution of the foregoing "Wholesale Wastewater Treatment Agreement" on behalf of said entity.

WITNESS my hand and Notarial Seal this 1<sup>st</sup> day of December, 2016.



*Phyllis G. Carr*  
Notary Public

Phyllis G. Carr  
(Printed Signature)



My Commission Expires: May 9, 2024

My County of Residence: Brown

BROWN COUNTY REGIONAL  
SEWER DISTRICT

Signed: \_\_\_\_\_

Printed: \_\_\_\_\_

Its: \_\_\_\_\_

STATE OF INDIANA        )  
                                      ) SS:  
COUNTY OF \_\_\_\_\_ )

Before me, a Notary Public in and for said County and State, personally appeared \_\_\_\_\_, by me known to be the \_\_\_\_\_ of the Brown County Regional Sewer District, who acknowledged the execution of the foregoing "Wholesale Wastewater Treatment Agreement" on behalf of said entity.

WITNESS my hand and Notarial Seal this \_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
(Printed Signature)

My Commission Expires: \_\_\_\_\_

My County of Residence: \_\_\_\_\_

I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security number in this document, unless required by law. J. Christopher Janak

Form of this instrument prepared by J. Christopher Janak, Attorney at Law, Bose McKinney & Evans LLP, 111 Monument Circle, Suite 2700, Indianapolis, Indiana 46204.  
3100853\_5



# LADD ENGINEERING, INC.

October 11, 2017

Deborah Larsh, President  
Bean Blossom RSD  
P.O. Box 1881  
Nashville, IN 47448

Re: Brown County RSD  
Wholesale Wastewater Treatment Agreement

Dear Ms. Larsh:

In reference to the proposed Wholesale Wastewater Agreement with the Town of Nashville, the following comments are provided:

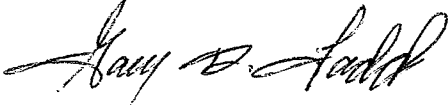
- There is reference to Exhibit A under Section 1 and Section 4 of the Agreement in reference to the interconnection point. Please provide Exhibit A, as I do not recall ever receiving it.
- Section 5 – Can the daily maximum flow be increased from 52,650 gallons to 60,000 gallons?
- Section 5 – The dates allowing the Town to terminate the Agreement will need to be revised.
- Section 6 – Revise maximum daily flow to 60,000 gallons.
- There is reference to Exhibit B under Section 7 of the Agreement in reference to the District's Service Areas. Please provide Exhibit B, as I do not recall ever receiving it.
- Section 9 – The Town is requiring potential customers with 3 miles of the Town boundaries sign an annexation waiver. I would suggest this be removed from the Agreement; as if the potential customer refuses to sign the annexation waiver then the District may be stuck with paying for legal fees associated with connecting that customer to the sewer system.
- Has the Town investigated what upgrades would be required to their collection and conveyance system in order for the District's sewer connection to be at the north Town boundary on Greasy Creek Road? This could be less expensive than extending the District's sewer main through the Town and extending it a considerable distance to the Town's WWTP. In addition, this scenario is believed to be cleaner, as then the District would not have to perform maintenance on their facilities within the Town's boundaries.
- I would suggest that the District's Attorney and Rate Consultant review the Agreement.

1127 Brookside Dr., Lebanon, IN 46052, (765) 482-9219, Fax (765) 482-9224

- This Agreement should not be executed by the District until USDA Rural Development reviews it.

Should you have any questions, feel free to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary D. Ladd".

Gary D. Ladd, P.E., President  
Ladd Engineering, Inc.

Xc: File

# Letter on need for economic planning

## VERNMENT BRIEFS

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and see where it goes."

Commissioner Diana Biddle asked Clark and Kleinpeter to start working on another, totally separate grant opportunity, to be next in line after this application. She'd like to see the Helmsburg stormwater system fixed and extended. It's been about 10 years since phase one of that project was done.

The next opportunity to apply for another grant will be in August, Kleinpeter said.

### School board OKs donation, trips

The Brown County Schools Board of Trustees approved the following Nov. 2:

■ A \$4,555.71 donation from Toyota to make Sprunica Elementary School accessible to people in wheelchairs. School board member Steve Miller Jr., who uses a wheelchair and works at Toyota, made the grant happen on behalf of a Sprunica student. That student can now open the door to the school by herself, said Superintendent Laura Hammack.

■ The reappointment of Brian Galm as one of two school district representatives to the Brown County Public Library Board.

■ The separation of Jessie Spurgeon as Sprunica intense intervention paraprofessional, effective Dec. 21.

■ The appointment of Kristi Billings as Brown County High School dance team coach, \$993 stipend, effective immediately. She is a replacement for Sindy Woolems.

■ The appointment of

Dustin Robinson as BCHS assistant cheer coach, \$620.50 stipend, effective immediately.

■ The appointment of Kelly McPheeters as Brown County Junior High School paraprofessional, full-time with benefits, \$10.50 per hour, effective Nov. 3. She is a replacement for Sue Thompson.

■ The appointment of Brad Lee Williamson as Brown County Intermediate School sixth-grade boys basketball coach, \$1,023 stipend, effective Nov. 27. He is a replacement for Ryan Oliver.

■ Out-of-state field trips for the BCIS sixth-graders to go to Kentucky Kingdom's Education in Motion Day on May 18 in Louisville; and the BCJHS History of Sports class to go to the Louisville Slugger Museum & Factory in Louisville on March 6.

■ An overnight field trip for the BCHS student council to attend the Indiana Association of Student Councils State Convention and volunteer at Riley Nov. 3 to 5 in Indianapolis.

### Sewer district still considering treatment

The town of Nashville has not come to any decisions yet about whether it's going to accept and treat sewage from the Bean Blossom area.

Brown County Regional Sewage District Board President Debbie Larsh went before the council in October, asking for an update on whether the town's wastewater treatment plant has space for Bean Blossom's flow.

She also wanted to know whether the rate quote the town gave to district leaders last year is still accurate.

Nashville Utilities Coordinator Sean Cassiday said all those numbers have to be looked at again, because the situation has changed in the past year. Two other large-flow customers could be coming onto the Nashville treatment system — the Maple Leaf Performing Arts Center and the Hard Truth Hills project.

It's also not known for sure what route the Bean Blossom sewer project might take, so the amount of wastewater that would need to be treated isn't final, Larsh said. But maybe the flow could be adjusted based on the town's available treatment space, she said.

Cassiday promised to have firmer numbers on the treatment cost and available capacity in time for the Nov. 16 council meeting. But that report was taken off the agenda immediately before the Nov. 16 meeting, and people who had come to hear the report left before the meeting started.

Larsh estimated that the soonest the Bean Blossom sewer project would be sending sewage to a plant would be in about three years. But the planning is expected to be done "within the next few months," she said.

If Nashville isn't an option for treatment, a new plant would need to be built in the Bean Blossom area, she said.

"We want you to succeed because it's

necessary for the health of Brown County, and we want to help you all we can, so take that to the bank," council President "Buzz" King said.

### More riverfront liquor licenses approved

The Nashville Town Council has approved adding five more riverfront district liquor licenses to the local inventory, since the five they approved back in 2013 are all being used by restaurants.

Riverfront district liquor licenses allow a restaurant within the "riverfront district" of Nashville — a certain distance from Salt Creek, spanning nearly all of downtown — to serve beer, wine and liquor with food. Restaurant owners have told the Nashville Redevelopment Commission that being able to serve alcohol makes a huge difference in their bottom lines. Local rules for license holders include a stipulation that a majority of their sales come from food and not alcohol.

Brozinni's Pizzeria applied for the final available license last month. Nashville Town Manager/Economic Development Director Scott Rudd told the town council that another new restaurant, Brown Bike, also plans to apply for a riverfront district license next month, which is why the Nashville Redevelopment Commission was asking for more licenses.

Licenses are good for only one year, and for the approved owner at the approved location. Business owners interested in obtaining a riverfront district liquor license can inquire at Town Hall.

11/22/17 BROWN CO. DEMOCRAT

# Brown County Regional Sewer Board

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P O Box 1881 Nashville, IN 47448

January 8, 2018

Buzz King  
Town Council President  
Town of Nashville  
P.O. Box 446  
Nashville, IN 47448

Re: Brown County RSD  
Wholesale Wastewater Treatment Agreement

Dear Mr. King:

In reference to the proposed wastewater project being planned by the Brown County Regional Sewer District (BCRSD), our Board is desirous of moving forward with a selected alternative for treatment of wastewater from Bean Blossom, Woodland Lake, Little Fox Lake and Freemans Ridge. The potential alternatives for treatment include constructing a treatment plant near Bean Blossom and conveyance to Nashville. If the wastewater is conveyed to Nashville, additional customers can be connected to the conveyance line proposed along Greasy Creek Road. Enclosed is a map showing the proposed conveyance to Nashville alternative.

We understand that there have been some changes in Nashville since the Town proposed a Wholesale Wastewater Treatment Agreement dated December 1, 2016. In addition, our engineer has some concerns/comments with the proposed Wholesale Wastewater Agreement. The following comments have been provided by Ladd Engineering, Inc.:

- There is reference to Exhibit A under Section 1 and Section 4 of the Agreement in reference to the interconnection point. Please provide Exhibit A, as I do not recall ever receiving it.
- Section 5 – The daily maximum flow should be increased from 52,650 gallons to 60,000 gallons.
- Section 5 – The dates allowing the Town to terminate the Agreement will need to be revised.
- Section 6 – Revise maximum daily flow to 60,000 gallons.
- Exhibit B under Section 7 of the Agreement in reference to the District's Service Areas will need to be revised.
- Section 9 – The Town is requiring potential customers with 3 miles of the Town boundaries sign an annexation waiver. We would suggest this be removed from the Agreement; as if the potential customer refuses to sign the annexation waiver then the District may be stuck with paying for legal fees associated with connecting that customer to the sewer system.
- Has the Town investigated what upgrades would be required to their collection and conveyance system in order for the District's sewer connection to be at the north Town boundary on Greasy Creek Road? This could be less expensive than extending the District's sewer main through the Town, a considerable distance, to the Town's WWTP. This may require a higher connection charge

for the Town to upgrade their collection system if necessary. In addition, this scenario is believed to be cleaner, as then the District would not have to perform maintenance on their facilities within the Town's boundaries, nor would an additional connection be needed at the Town's treatment plant headworks structure.

- We would suggest that the District's Attorney and Rate Consultant review the Agreement.
- This Agreement should not be executed by the Town or the BCRSD until USDA Rural Development reviews it.

In summary, in order to keep this project moving along, as the cost for construction will undoubtedly keep increasing, we would request a written commitment from the Town of Nashville by February 6, 2018. Should we not receive a written commitment by February 6, 2018, we will consider your non-response as a denial for providing treatment.

Should you have any questions, feel free to contact me at 812-720-1151.

Sincerely,

Deborah Larsh  
President, BCRSD

# Brown County Regional Sewer Board

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P O Box 1881    Nashville, IN 47448

January 19, 2018

Buzz King  
Town Council President  
Town of Nashville  
P.O. Box 446  
Nashville, IN 47448

Re:     Brown County RSD  
        Wholesale Wastewater Treatment Agreement

Dear Mr. King:

We want to thank you, other Town Council members, the Utility Manager, and Town Manager for the opportunity to present our comments and concerns regarding to the proposed Wholesale Wastewater Treatment Agreement at your January 18, 2018 Council Meeting.

To recap the discussion at the Council Meeting, it is our understanding that the Town will arrange a meeting, initially with a couple of Town Council members, the Town Manager, Town Utility Manager, a couple of RDS Board members, RCAP, and Ladd Engineering to discuss the Wholesale Agreement and other aspects of the proposed project. It is our understanding this initial meeting will occur within approximately 1 week. Following the initial meeting, it is our understanding that information will be provided to the Town's engineer, rate consultant, etc. to determine the potential impacts and costs for making improvements to the wastewater system to accommodate the potential RSD flows as well as other potential development flows. Taking into consideration you had requested additional time beyond the February 6, 2018 date stated for a commitment in the 1/8/18 letter, and that an additional 30-days should be ample time to respond to the RSD, we would anticipate the Town's answer as to whether sewer service can be provided by March 8, 2018.

Again, thank you for continuing this dialogue and we look forward to hearing from the Town soon.

Should you have any questions, feel free to contact me at 812-720-1151.

Sincerely,



Deborah Larsh  
President, BCRSD



## **Highlights from Meeting on February 13, 2018**

**Attending:** Buzz King, Scott Rudd, Jane Gore, Gary Ladd, Mike Leggins, Vicki Perry and Phil LeBlanc.

- There was discussion about how the attitude of the previous Brown County Regional Sewer Board (BCRSB) toward the Nashville Town Council (NTC) and that there is now a new BSRBSB with new people, new attitudes with an eager desire for cooperation and advancement toward a successful completion of a regional sewer project for Brown County. It was further stated and agreed that both groups share the common goal of providing sewage service to county and town residents in the most timely and cost efficient means possible.
- Nashville indicated that there are 3 new projects vying for existing Nashville Waste Water Treatment Plant (NWWTP) capacity: Big Woods (waste water production: 125,000 gal/mo. or 4,000 gal/day est.), Maple Leaf (no waste water est. given) and potentially a hotel in 3 - 5 years.
- Current NWWTP utilization is between 60 and 81% with peak demands occurring in October and peak rainfall periods. It was further stated that NWWTP capacity could reach 89% in 18 months which would include the originally requested 53,000 GPD by BCRSB which would equal 8% of the total flow. This would put the utilization of the NWWTP near a mandated expansion level.
- Nashville does not have a Master Plan.
- Nashville does not have an engineer on staff to provide needed technical information for input on NWWTP evaluations and decisions.
- Nashville indicated that they have I/I problems but don't know the extent of the problem nor was a plan in place mentioned for isolating sources and correcting I/I in their sewer collection system.
- It was suggested that BSRBSB could provide technical assistance to Nashville through services of Gary Ladd Engineering and paid for through capacity fees in a BSRBSB contract.
- It was suggested by Nashville that an alternative route for the force main from Bean Blossom to NWWTP via 135 south to Grandma Barnes Rd to Helmsburg Rd to the NWWTP. Gary Ladd is going to evaluate this route and report back to both groups. Gary's report will also give Nashville a better idea of the areas that Nashville could provide future sewer service.
- To promote better communication between both parties, it was suggested that a point person be designated in each group to forward written communication between both parties. Judy Swift was designated for BCRSB and Scott Rudd for NTC.
- It was also suggested that future meetings would be conducted in "group work sessions" that would promote better sharing of information, solutions, suggestions, proposals and etc.

**Highlights from meeting on February 13, 2018 between:** Buzz King, Scott Rudd, Jane Gore, Gary Ladd, Mike Leggins, Vicki Perry and Phil LeBlanc.

Submitted by: Phil LeBlanc, 2/15/18; Revised: 2/22/18

# Brown County Regional Sewer Board

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P O Box 1881 Nashville, IN 47448

March 8, 2018

Buzz King  
Town Council President  
Town of Nashville  
P.O. Box 446  
Nashville, IN 47448

Re: Brown County RSD

Dear Mr. King:

As a follow up to our February 13, 2018 meeting with representatives of Nashville, the following information is provided:

- Ladd Engineering, Inc. evaluated an alternate route to the Nashville WWTP via SR 135 to Grandma Barnes Road to Helmsburg Road to the WWTP. There were no advantages to this alternate route, as the terrain is rugged, the roads are narrow and the distance is greater.
- Considering the reluctance and indecisiveness on the part of the Town, the BCRSD Board has agreed to move forward with the submittal of a preliminary engineering report to the review and potential funding agencies that includes the construction of a WWTP near Bean Blossom.

Should you have any questions, feel free to contact me at 812-988-5462.

Sincerely,

  
Judy Swift-Powdrill  
President, BCRSD

## **APPENDIX J**

### **PRELIMINARY DESIGN SUMMARY FOR PROPOSED PROJECT**



**PRELIMINARY ENGINEERING REPORT  
Wastewater Treatment Plant Design Summary**

**I. GENERAL**

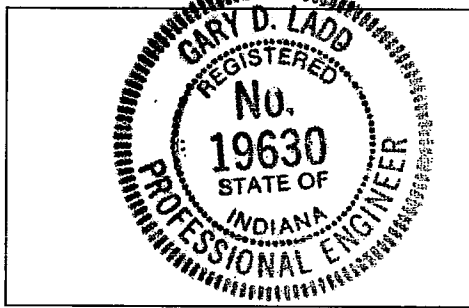
1. Applicant's Name: \* Brown County RSD
2. Project Name: \* Bean Blossom, Woodland Lake, Little Fox Lake & Freeman Ridge Areas Wastewater Facilities
3. Location: \* Brown County, IN
4. Engineer (Consultant): \* Ladd Engineering, Inc.
5. NPDES Permit Number: \*
  - A. Date of final Permit Issuance: \*
  - B. Expiration Date: \*
6. Remarks: \*
  - A. Description of Present Situation: \* The present situation is that most residents being served by this project have failing septic systems and are polluting nearby streams and ditches.
  - B. Description of Proposed Facilities: \* The project includes the installation of a septic tank at each building to be served. The septic tank will have an effluent pump in it that will pump the effluent into small diameter pressure sewers and be discharged into a treatment plant. The treatment plant will consist of an AeroMod waste activated sludge type and have a capacity of 0.075 MGD.
  - C. Inspection During Construction to be provided by: \* Ladd Engineering, Inc.

7. Estimated Project Cost: \* \$10,312,000

A. Source of Funding (Revenue Bond, State Grant, SRF, Etc.): \* SRF

B. Total Cost: \* \$10,312,000

8. Certification Seal and Signature of Engineer: \*



*Gary D. Ladd*  
2/7/2020

## II. DESIGN DATA: \*

1. Current Population: \* 633 (253 Homes x 2.5/Home)

2. Design Year and Population: \* 2038 - 633

3. Design Population Equivalent P.E.: \*552

4. Design Flow: \*0.075 MGD

A. Domestic: \*0.066 MGD

B. Industrial/Commercial: \*0.008 MGD

C. Infiltration/Inflow: \*0.001 MGD

5. Average Design Peak Flow: \*0.075 MGD

6. Maximum Plant Flow Capacity: \*0.15 MGD

7. Design Waste Strength: \*

A. CBOD: \*150 mg/L = 93.8 lbs/day



- B. TSS: \*50 mg/L = 31.3 lbs/day
  - C. NH<sub>3</sub>-N: \* 45 mg/L = 28.1 lbs/day
  - D. P: \*10 mg/L = 6.3 lbs/day
8. NPDES Permit Limitation on Effluent Quality: \*
- A. CBOD: \*10 mg/L
  - B. TSS: \*12 mg/L
  - C. NH<sub>3</sub>-N: \*1.1 mg/L summer; 1.6 mg/L winter
  - D. P: \*1.0 mg/L
  - E. E-coli: \*125 cfu/100 ml
  - F. Chlorine Residual:
  - G. pH: \* 6.0-9.0 s.u.
  - H. D.O.: \*6.0 mg/L summer & 5.0 mg/L winter
9. Receiving Stream: \*
- A. Name: \*Beanblossom Creek
  - B. Tributary to: \*White River
  - C. Stream Uses: \*Agriculture
  - D. 7-day, 1-in-10 year low flow: \*0 cfs

### **III. TREATMENT UNITS**

#### **Plant Site Lift Station (Plant Drain)**

- 1. Location: \*On Plant Site
- 2. Type of pump: \*Submersible
- 3. Number of pumps: \*1

4. Constant or variable speed: \*Constant
5. Capacity of pumps: \*200 GPM
6. RPM and TDH: \*1750 RPM; 30' TDH
7. Volume of the wet well: \*600 gallons
8. Detention time in the wet well: \*N/A
9. A gate valve and a check valve in the discharge line: \*Yes
10. A gate valve on suction line: \*N/A
11. Ventilation: \*3" vent
12. Standby power: \*Standby Generator
13. Alarm: \*Yes – audible & visual
14. Breakwater tank: \*N/A
15. Bypass or overflow: \*No

#### Flow Equalization –

1. Number and size of units: \*1 - 200,000 gallons
2. Method of flow diversion to unit: \*Influent direct to tank
3. Air and mixing provided: \*Yes
4. Method and control of flow return: \*control Valve
5. Description of unit operation: \*
6. Lagoon sealing: \*N/A
7. Method of sludge removal: \*Periodic cleaning to plant drain lift station

#### Flow Meters

1. Type: \*Ultrasonic

2. Location: \* Outfall
3. Indicating, recording and totalizing: \*Yes

Grit Chamber - N/A

1. Type of grit chamber: \*
2. Number of units: \*
3. Size of unit: \*
4. Method of velocity (aeration) control: \*
5. Velocity (aeration) in the chamber: \*
6. Drain provided: \*
7. Flow restrictions: \*
8. Facilities to isolate: \*

Comminutors – N/A

1. Type: \*
2. Location: \*
3. Maximum capacity: \*
4. By-pass (over flow) bar screen: \*

Screens – N/A

1. Type: \*
2. Number and capacity: \*
3. Bar spacing and slope: \*
4. Method of cleaning:
5. Disposal of screenings:

## Primary Settling – N/A

1. Type of clarifier: \*
2. Number and size of units: \*
3. Surface settling rate (gpd/sf)
  - a. at the design flow: \*
  - b. at the influent pumping rate: \*
  - c. at the equalized flow rate: \*
4. Detention time: (hrs): \*
5. Type of sludge removal mechanism: \*
6. Weir overflow rate: \*
7. Disposition of scum: \*
8. Location of overflow weir: \*
9. Facilities to isolate: \*

## Activated Sludge –

1. Type of activated sludge process: \*Extended aeration
2. Number and size of units: \*1 tank; 2 trains – Total Volume = 63,000 gallons
3. Detention time (hrs): \*20.2 Hours
4. Organic loading (lb BOD/1000 cf): \*11.2
5. Type of aeration equipment: \*Blowers & Fine Bubble Diffusers
6. Type and size of blowers: \*Positive Displacement – 15 HP
7. Air required (itemize, cfm): \*BOD – 5.9 lbs O<sub>2</sub>/hour  
TKN – 5.4 lbs O<sub>2</sub>/hour  
Air Required = 200 scfm (Aeration Basin)  
= 130 scfm (Aerobic Digester)

= 8 scfm (Selector Tank)  
= 15 scfm (Clarifier RAS Airlift Pump &  
Skimmers)  
353 scfm Total

8. Provisions of speed adjustment: \*VFD's
9. Air provided: \*400 icfm
10. Ventilation in the blower room: \*Yes – Exhaust Fan & Vent
11. Number and capacity of return sludge pump: \*One - 80 GPM
12. Method of return sludge rate control: \*Timer
13. Return sludge rate as % of design flow: \*150%
14. Provisions for return rate metering: \*None
15. Location of return sludge discharge: \*Selector Tank
16. Facilities to isolate units: \*N/A
17. Facilities for flow split control: \*N/A

Oxidation Ditch – N/A

1. Number and size of units: \*
2. Detention time (hrs): \*
3. Organic loading (lb BOD /1000 cf): \*
4. Type and efficiency of aeration equipment (lb O /HP-hr): \*
5. Oxygen required: \*
6. Oxygen provided: \*
7. Flow velocity in ditch: \*
8. Number and capacity of return sludge pump: \*
9. Method of return sludge rate control: \*

10. Return sludge rate as % of design flow: \*
11. Provisions for return sludge metering:
12. Location of return sludge discharge: \*
13. Facilities to isolate units: \*
14. Facilities for flow split control: \*

Trickling Filters – N/A

1. Number and size of units: \*
2. Type of media: \*
3. Hydraulic loading (gpm/cf): \*
4. Organic loading (lb BOD /1000 cf): \*
5. Recirculation: \*
6. Ventilation: \*

Rotating Biological Contactor – N/A

1. Size and number of units: \*
2. Type of media: \*
3. Detention time (min.): \*
4. Organic loading (lb BOD /1000 sf): \*
5. Hydraulic loading (gpd/sf): \*
6. Method of shaft drive: \*
7. Supplemental air: \*
8. Facilities to isolate: \*
9. Facilities for flow split control: \*



## Sequential Batch Reactors – N/A

1. Type of Activated Sludge Process:
2. Number and Size of Units
3. Detention Time (Hours):
  - a. Low water level:
  - b. High water level:
  - c. Total cycle:
4. Organic Loading (lb BOD/1000cf)
  - a. At low water level
  - b. At high water level
5. Type of aeration equipment: \*
6. Type and size of blowers: \*
7. Air required (itemize, cfm): \*
8. Provisions of speed adjustment: \*
9. Air provided: \*
10. Ventilation in the blower room: \*
11. Number and capacity of waste sludge pump: \*
12. Decanter rated at average flow (GPM):  
at peak flow (GPM):
13. Facilities to isolate units: \*
14. Facilities for flow split control: \*

## Lagoons - NA

1. Type of lagoons \*
2. Number and size of lagoons \*
3. Organic loading \*
4. Type of aeration equipment (if applicable): \*
5. Type and size of blowers (if applicable): \*
6. Air required (if applicable): \*
7. Air provided (if applicable): \*
8. Controlled discharge facilities: \*
9. Maximum water level: \*
10. Freeboard: \*
11. Soil boring data and permeability data: \*
12. Slope of embankment and top width: \*
13. Fence: \*
14. Detention time: \*
15. Stream gage: \*
16. Lagoon seal: \*
17. Facilities for multi-level lagoon discharge: \*
18. Scum control: \*

Secondary Clarifier –

1. Type of clarifiers: \*Rectangular
2. Number and size of units: \*One

3. Surface settling rate (gpd/sf): \*375
  - a. at the design flow: \*375
  - b. at the influent pumping rate: \*N/A
  - c. at the equalized flow rate: \*375
4. Detention time (hrs): \*5.7 Hours
5. Type of sludge removal mechanism: \*Air Lift
6. Weir overflow rate: \*2,586 gpd/in. ft./5,200 gpd/in. ft. (peak flow)
7. Disposal of scum: \*Surge overflow weir to surge tank
8. Facilities for unit isolation: \*N/A
9. Facilities for flow split control: \*N/A

#### Rapid Sand Filtration – N/A

1. Number and size of filters: \*
2. Filtration rate: \*
  - a. at peak flow rate: \*
  - b. at average flow rate: \*
3. Type, depth, and grain size of filter media: \*
4. Backwash rate: \*
5. Air scour
6. Capability to chlorinate ahead of the filter: \*
7. Backwash pumps (number and capacity): \*
8. Method of rate control: \*
9. Source of capacity of backwash water:

10. Holding capacity or dirty water tank: \*

11. Facilities for unit isolation: \*

Micro-strainers – N/A

1. Number and size of strainers: \*

2. Screen material: \*

3. Filtration rate: \*

4. Backwash rate: \*

5. Number and capacity of backwash pumps: \*

6. Facilities for unit isolation: \*

7. Slime control provisions: \*

Two-day Lagoon – N/A

1. Number and size of lagoon cells: \*

2. Detention time (days): \*

3. Type of chemical: \*

4. Location of chemical injection: \*

5. Number and size of chemical feed pumps: \*

6. Rate adjustment capabilities: \*

7. Capacity of chemical storage tank: \*

8. Capacity of spill storage space: \*

9. Expected daily use of chemical (dosage and solution): \*

10. Lagoon seal: \*

11. Parallel or series operation: \*

12. Sludge removal facilities: \*

13. Method of draining: \*

14. Multi-level discharge: \*

15. Scum control: \*

#### Post-aeration

1. Type of aeration: \*Diffused Air

2. Number of units: \*One

3. Size of units: \*2' Wide Channel

4. Aeration provided: \*As required to achieve HPDES requirement

5. Expected effluent DO: \* $> 6.0$  mg/L

#### Nitrification System –

1. Type of nitrification system: \* AeroMod Plant

2. Ammonia loading: \*28.1 lbs/day

3. Additional oxygen demand: \*4.6 lbs  $O_2$ /hr

4. Air supply system: \*Positive Displacement Blowers

5. Hydraulic detention time: \*20.2 hours

6. Mean cell residence time (days): \*20

#### Phosphorus Removal Facilities – In Activated Sludge

1. Type of chemical to be used: \*Aluminum Sulfate

2. Location of chemical injection: \*Aeration Tank

3. Number and size of chemical feed pumps: \*One – 0.4 gal. /hour

4. Size of chemical; storage tank: \*500 gallon tote
5. Capacity of spill storage space: \*500 gallons
6. Chemical dosage: \*0.11 gal. /hour
7. Daily chemical consumption expected: \*10 gallons
8. Rapid mix tank: \*Difused air in aeration tank
9. Slow mixing equipment: \*No
10. Other facilities - describe: \*

Disinfection – N/A

1. Type of disinfectant used: \*
2. Size of contact tank: \*
3. Contact time: \*
4. Type of disinfectant feeders: \*
5. Capacity of the feeders: \*
6. Disinfectant dosage: \*
7. Scum control baffle: \*
8. Source of the disinfectant feed water: \*
9. Breakwater tank for the feed water: \*
10. Bypass: \*
11. Drain for tank: \*
12. Ventilation in chlorine room: \*
13. Safety equipment: \*

De-Chlorination – N/A



1. Chemical used: \*
2. Type of feeders: \*
3. Capacity of feeders: \*
4. Dosage: \*
5. Type of diffuser: \*
6. Diffuser location: \*
7. Equipment location: \*
8. Ventilation provided: \*
9. Safety equipment: \*

#### UV Disinfection –

1. Type: \*Open channel horizontal system
2. Location: \*After AeroMod Plant
3. Size of channel: \*1' wide x 1.5 ' high
4. Contact time: \*20 seconds
5. Dosage: \*At least 90% of the UV emission at 253.7 NM wavelength
6. Bypass: \*No
7. Safety Equipment: \*Face Shield & Warning Signs
8. Cleaning Equipment: \*Manual
9. Intensity Monitoring: \*Yes - Sensors

#### Sludge Thickening –

1. Number and size of thickeners: \*One Geotextile Bag Systems
2. Type of sludge thickeners: \*

3. Hydraulic loading: \*
4. Solids loading: \*
5. Provisions to chlorinate: \*No

#### Anaerobic Digesters –

1. Number and size of units: \*
2. Total volume: \*
3. Organic loading: \*
4. Hydraulic detention time: \*
5. Volume per capita: \*
6. Type of mixing: \*
7. Heating: internal or external

#### Aerobic Digesters –

1. Number and size of units: \*One – 9' x 20' x 12.5' SWD
2. Detention time: \*68 days
3. Organic loading: \*31 lbs/Day
4. Air supply: \*Blowers
5. Decanting method: \*Supernatant Return Weir w/Baffle

#### Wet-Oxidation – N/A

1. Number of units: \*
2. Type of heat treatment: \*
3. Temperature and pressure to be used: \*
4. Capacity of the unit: \*

5. Daily sludge production for heat treatment: \*

#### Sludge Drying Beds – N/A

1. Number and size of drying beds: \*
2. Filter area per capita: \*
3. Under-drain system: \*
4. Discharge location of filtrate: \*
5. Accessibility of dry sludge removal equipment: \*

#### Mechanical Dewatering – N/A

1. Type of dewatering units: \*
2. Number and size of dewatering units: \*
3. Capacity of dewatering units: \*
4. Daily solids production for dewatering: \*
5. Type of chemicals to be used: \*

#### Sludge Disposal -

1. Ultimate disposal method of sludge: \*Landfill solids or contract liquid hauling & disposal
2. Expected solids content of sludge (by the principal method of disposal): \*18% Dried, 2% Liquid
3. Location of disposal site: \* Unknown
4. Ownership of the disposal site: \*
5. Availability of sludge transport equipment: \*Contract out

## **IV. SEWER COLLECTION SYSTEM**

## Lift Stations – N/A

1. Location: \*
2. Type of pump: \*
3. Number of pumps: \*
4. Constant or variable speed:
5. Capacity of pumps: \*
6. RPM and TDH: \*
7. Volume of the wet well: \*
8. Detention time in the wet well: \*
9. A gate valve and a check valve in the discharge line: \*
10. A gate valve on suction line: \*
11. Ventilation: \*
12. Standby power: \*
13. Alarm: \*
14. Breakwater tanks: \*
15. Bypass or overflow: \*
16. Type of force main: \*
17. Diameter and length of force main: \*

## Sewer -

1. Type of sewer material: \* SDR 21 PVC
2. Diameter and length of sewer (indicate length for each size): \*15,900' – 6"; 24,300' – 4"; 11,400' – 3"; 9,100' – 2"; 4,950' – 1.5"; 51,900' – 1.25"
3. Stream, highway, and railroad crossing: \* Streams & Highway

4. Separation of combined sewer or new sewer: \* New Sewer
5. Number of manholes: \* N/A
6. Water main protection: \* 18" vertical for crossings & 10' horizontal for parallel

#### Individual Septic Tank Effluent Pumping

1. Location: \*Each building being served
2. Number of pumps: \*One
3. Capacity of pumps: \*8-15 GPM (Residential)
4. RPM and TDH: \*1750 RPM – TDH varies
5. Volume of the wet well: \*Septic Tank – 1,000 GAL
6. A gate valve and a check valve in the discharge line: \*Yes
7. Ventilation: \*N/A
8. Alarm: \*Yes – Visual & Audio

### **V. MISCELLANEOUS**

- A. Laboratory equipment: \*
- B. Safety equipment: \*Yes
- C. Plant site fence: \*Yes
- D. Handrail for the tanks: \*Yes, per OSHA
- E. Units, unit operation, and plant bypasses: \*Yes
- F. Flood elevation (10, 25, or 100 year flood): \*Est. 690.00 – 100 Year
- G. Provisions to maintain the same degree of treatment during construction: \*Yes
- H. Standby power: \*Generator
- I. Site inspection: \*Yes

- J. Statement in the specifications as to the protection against any adverse environmental effect (e.g., dust, noise, soil erosion) during construction: \*Yes
- K. Hoists for removing heavy equipment: \*N/A
- L. Adequate sampling facilities: \*Yes
- M. Hydraulic Gradient: \*Yes
- N. Septage receiving facilities – N/A
1. Screening: \*
  2. Location of discharge: