



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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**Eric J. Holcomb**  
*Governor*

**Brian C. Rockensuess**  
*Commissioner*

April 14, 2022

## VIA ELECTRONIC MAIL

Mr. Jon Tyler, District Board President  
Tippecanoe and Chapman Regional Sewer District  
P.O. Box 572  
North Webster, Indiana 46555

Dear Mr. Tyler:

Re: 327 IAC 3 Construction  
Permit Application  
Tippecanoe & Chapman Regional Sewer District  
Septic Elimination Project  
SRF Project Permit Approval No. L-0658  
Warsaw, Indiana  
Kosciusko County

The application, plans and specifications, and supporting documents for the above-referenced project have been reviewed and processed in accordance with rules adopted under 327 IAC 3. Enclosed is the Construction Permit (Approval No. L-0658), which applies to the construction of the above-referenced sanitary sewer system to serve the areas immediately surrounding Tippecanoe Lake, James Lake, Big Chapman Lake and Little Chapman Lake in Kosciusko County.

Please review the enclosed permit carefully and become familiar with its terms and conditions. In addition, it is imperative that the applicant, consulting architect/engineer (A/E), inspector, and contractor are aware of these terms, conditions, and reporting and testing requirements.

It should be noted that any person affected or aggrieved by the agency's decision in authorizing the construction of the above-referenced facility may, within fifteen (15) days from date of mailing, appeal by filing a request with the Office of Environmental Adjudication for an adjudicatory hearing in accordance with IC 4-21.5-3-7 and IC 13-15-6. The procedure for appeal is outlined in more detail in Part III of the attached construction permit.

The approval applies to the technical and operational acceptability of the submitted plans and does not imply that the entire project is eligible for SRF financing or that funds are available.

Plans and specifications were prepared by Jones Petrie Rafinski Corp., certified by Daniel Byam, P.E., and submitted for review on January 28, 2022, with additional information submitted on March 21, 2022.

Pre-construction and construction-related questions can be directed to Daniel E. Byam, P.E., at Jones Petrie Rafinski Corp., 222 Pearl Street, Fort Wayne, IN 46802. Mr. Byam's telephone number is 260/422-2522, and email is dbyam@jpr1source.com. Any technical/engineering questions concerning this permit may be addressed to Robert Synko, P.E., of our staff at 317/232-8658, or rssynko@idem.in.gov.

Sincerely,

Handwritten signature of Kevin D. Czerniakowski in black ink.

Kevin D. Czerniakowski, P.E.  
Section Chief  
Facility Construction and  
Engineering Support Section  
Office of Water Quality

Project No. SRF-0698

Enclosures

cc: Kosciusko County Health Department  
Brian Davison, Utility Mgr., City of Warsaw  
Daniel Byam, P.E., Jones Petrie Rafinski Corp.  
Ethel Morgan, P.E., SRF  
Camille Meiners, P.E., SRF

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
AUTHORIZATION FOR CONSTRUCTION OF  
SANITARY SEWER SYSTEM  
UNDER 327 IAC 3

DECISION OF APPROVAL

The Tippecanoe & Chapman Regional Sewer District, in accordance with the provisions of IC 13-15 and 327 IAC 3 is hereby issued a permit to construct a sanitary sewer system to serve the areas immediately surrounding Tippecanoe Lake, James Lake, Big Chapman Lake and Little Chapman Lake in Kosciusko County. The permittee is required to comply with requirements set forth in Parts I, II and III hereof. The permit is effective pursuant to IC 4-21.5-3-4(d). If a petition for review and a petition for stay of effectiveness are filed pursuant to IC 13-15-6, an Environmental Law Judge may be appointed for an adjudicatory hearing. The force and effect of any contested permit provision may be stayed at that time.

NOTICE OF EXPIRATION DATE

Authorization to initiate construction of this sanitary sewer system shall expire at midnight one year from the date of issuance of this construction permit. In order to receive authorization to initiate construction beyond this date, the permittee shall submit such information and forms as required by the Indiana Department of Environmental Management. It is requested that this information be submitted sixty (60) days prior to the expiration date to initiate construction. This permit shall be valid for a period of five (5) years from the date below for full construction completion.

Issued on April 14, 2022, for the Indiana Department of Environmental Management.



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Kevin D. Czerniakowski, P.E.  
Section Chief  
Facility Construction and  
Engineering Support Section  
Office of Water Quality

### SANITARY SEWER SYSTEM DESCRIPTION

The proposed project will consist of the construction of infrastructure for the new Tippecanoe and Chapman Regional Sewer District. The new collection system will eliminate septic systems in the areas immediately surrounding Tippecanoe Lake, James Lake, Big Chapman Lake and Little Chapman Lake in Kosciusko County.

The system is designed to provide sanitary sewer service to at least 1,790 single-family homes (268,500 GPD), 352 mobile home lots located in several mobile home parks (52,800 GPD), YMCA Camp Crosley (11,040 GPD), Tippecanoe Baptist Camp (8,800 GPD), a country club (8,750 GPD), and a variety of other smaller businesses for a total average design flow of 364,600 GPD. The 12-inch diameter force main from proposed pump station #3 will be connected to a proposed manhole on an existing 18-inch diameter sanitary sewer located at the intersection of North County Road 100 East and East Pound Drive North in the City of Warsaw.

Note that a Technical Standard alternative to use 150 GPD per EDU as a design basis was requested by the project engineer. This is hereby granted as provided by 327 IAC 3-6-32. Reasons submitted include:

- The small diameter collection system will be made of fused HDPE or gasketed PVC, and is devoid of manholes, resulting in little infiltration potential.
- Local ordinances will prevent illicit connections via sump pumps, roof drains, yard drains, etc.
- According to STATS Indiana, the average household size in the affected areas is approximately 2.5 persons. Applying an average 60 GPD/capita EPA usage estimate results in 150 GPD/EDU.
- A C-factor of 130 was used in determining pipe friction. This is arguably a conservative number for HDPE piping.
- Lastly, the design assumes a conservative peaking factor of 4.0. Using population equivalents a factor of about 3.1 is calculated, which lowers peak design flows compared to those used in the design.

The project includes construction of the following low-pressure sewers, force mains and gravity sanitary sewers (all quantities are approximate):

- 74,800 feet of 1-1/4-inch diameter HDPE (ASTM D3035, DR-11 (IPS), 200-psi rated) pipe, to be installed by horizontal directional drilling (HDD);
- 4,440 feet of 1-1/2-inch diameter HDPE (ASTM D3035, DR-11 (IPS), 200-psi rated) pipe, to be installed by HDD;
- 51,100 feet of 2-inch diameter HDPE (ASTM D3035, DR-11 (IPS), 200-psi rated) pipe, to be installed by HDD;
- 37,200 feet of 3-inch diameter HDPE (ASTM D3035, DR-11 (IPS), 200-psi rated) pipe, to be installed by HDD;

- 55,200 feet of 4-inch diameter HDPE (ASTM D3035, DR-11 (IPS), 200-psi rated) pipe, to be installed by HDD;
- 28,600 feet of 6-inch diameter HDPE (ASTM D3035, DR-9 (IPS), 200-psi rated) pipe, be installed by HDD;
- 15,300 feet of 6-inch diameter HDPE (ASTM D3035, DR-11 (IPS), 200-psi rated) pipe, to be installed by HDD;
- 32,800 feet of 8-inch diameter HDPE (ASTM D3035, DR-11 (IPS), 200-psi rated) pipe, to be installed by HDD;
- 23,100 feet of 12-inch diameter HDPE (ASTM D3035, DR-11 (IPS), 200-psi rated) pipe, to be installed by HDD;
- 610 feet of 6-inch diameter PVC (ASTM D2241, SDR-21, 200-psi rated) gravity sanitary sewer laterals, to be installed by open-cut methods;
- 1,360 feet of 8-inch diameter PVC (ASTM D2241, SDR-21, 200-psi rated) gravity sanitary sewer, to be installed by open-cut methods.

Air/vacuum release valve pits and flushing connections will be constructed at locations as shown on the approved plans.

The District has or will coordinate with users on the proposed locations of where one of 5 different configurations/types of grinder pump stations will be installed by the District. A total of 623 simplex and 559 duplex progressive cavity-type grinder pump stations will be installed, with pumps capable of at least 7 GPM at 207 feet TDH. In addition, 6 simplex and 42 duplex centrifugal-type grinder pump stations will be installed with pumps capable of at least 24 GPM at 149 feet TDH. Centrifugal pumps will be used at larger commercial connections and after short runs of gravity sewer serving multiple homes. Note that the District will be running separate electrical feeds for the grinder stations, and metering for same.

The use of low-pressure sewers under 4 inches in diameter was requested by the project engineer, as an alternate to the Technical Standards, in order to achieve 2 fps flushing velocity in most cases. Note that the District will put in place a comprehensive maintenance regimen once the system is in operation. Said request is hereby approved, as provided by 327 IAC 3-6-32.

The use of horizontal directional drilling (HDD) and the proposed HDPE pipe for low-pressure sewers and force mains are hereby approved as an alternate to the Technical Standards, as provided by 327 IAC 3-6-32, and requested by the project engineer.

Note that a discharge flow meter and structure is proposed about 300 feet upstream of the discharge point into the City of Warsaw system. Said meter will measure the combination of all flows leaving the proposed RSD system.

Three separate pump stations (lift stations) are proposed. Pump Station No.1 will convey flows to Pump Station No. 2, Pump Station No. 2 will convey flows to Pump Station No. 3, and Pump Station No. 3 conveys all wastewater to the City of Warsaw collection system as described above.

MAJOR ELEMENTS OF PUMP STATION No. 1:

- Construction of an 8-foot diameter by 16.7-foot deep wet well structure with two (2) submersible pumps, each rated for 300 GPM at 150 feet TDH, complete with all appurtenances;
- Construction of a 10-foot diameter valve vault, including a combination air/vacuum valve;
- A separate flow meter vault;
- A dedicated stand-by natural gas electrical generator;
- A hydrogen sulfide/odor control chemical feed system;
- Installation of a control panel and associated electrical equipment, including VFD's, audiovisual alarm system and SCADA telemetry integration.

MAJOR ELEMENTS OF PUMP STATION No. 2:

- Construction of a 12-foot diameter by 17-foot deep wet well structure with two (2) submersible pumps, each rated for 700 GPM at 161 feet TDH, complete with all appurtenances;
- Construction of a 10-foot diameter valve vault, including a combination air/vacuum valve;
- A separate flow meter vault;
- A dedicated stand-by natural gas electrical generator;
- NO odor control system proposed due to the relatively short force main length and presence of odor control at receiving pump station No.3;
- Installation of a control panel and associated electrical equipment, including VFD's, audiovisual alarm system and SCADA telemetry integration.

MAJOR ELEMENTS OF PUMP STATION No. 3:

- Construction of a 12-foot diameter by 21.5-foot deep wet well structure with two (2) submersible pumps, each rated for 1,000 GPM at 169 feet TDH, complete with all appurtenances;
- Construction of a 10-foot diameter valve vault, including with a combination air/vacuum valve;
- A separate flow meter vault;
- A dedicated stand-by natural gas electrical generator;
- A hydrogen sulfide/odor control chemical feed system;
- Installation of a control panel and associated electrical equipment, including VFD's, audiovisual alarm system and SCADA telemetry integration.

OTHER ELEMENTS OF THE PROPOSED SYSTEM:

- The District will keep spare pumps/VFD's for the main pump stations
- Proper septic tank abandonment will be ensured as part of the customer connection permit process
- Restaurants and food-service establishments will be required to install proper functioning grease traps prior to system connection as part of the District's future Use Ordinance
- "Floodplain lids" will be installed on grinder stations for services located within the regulatory (100-year) flood elevation
- The District will enact a comprehensive maintenance regimen to ensure the system continues to operate as intended

Inspection during construction of the system will be provided by Jones Petrie Rafinski Corp. Maintenance after completion of construction will be provided by the Tippecanoe and Chapman Regional Sewer District. Wastewater treatment will be provided by the City of Warsaw Wastewater Treatment Plant.

CONDITIONS AND LIMITATIONS TO THE AUTHORIZATION FOR  
CONSTRUCTION OF SANITARY SEWERS

During the period beginning on the effective date of this permit and extending until the expiration date, the permittee is authorized to construct the above-described sanitary sewer system. Such construction shall conform to all provisions of State Rule 327 IAC 3 and the following specific provisions:

PART I

SPECIFIC CONDITIONS AND LIMITATIONS TO THE CONSTRUCTION PERMIT

Unless specific authorization is otherwise provided under the permit, the permittee shall comply with the following conditions:

1. Any local permits required for this project, along with easement acquisition, shall be obtained before construction is initiated.
2. If pollution or nuisance conditions are created, immediate corrective action will be taken by the permittee.
3. If construction is located within a floodway, a permit may also be required from The Department of Natural Resources prior to the start of construction. It is the permittee's responsibility to coordinate with that agency and obtain any required approvals if applicable. Questions may be directed to the Technical Services Section, Division of Water at 317/232-4160.

4. The separation of sanitary sewers from water mains and drinking water wells must comply with 327 IAC 3-6-9.
5. All gravity sewer pipe must be leak tested using either a hydrostatic test or air test in accordance with 327 IAC 3-6-19(d). If using a hydrostatic test, the rate of exfiltration or infiltration shall not exceed 200 gallons per inch of pipe diameter per linear mile per day. Air tests shall be as prescribed.
6. All force mains and low-pressure sewers must be pressure and leak tested in accordance with 327 IAC 3-6-19(e).
7. Deflection tests must be performed on all flexible\* pipe after the final backfill has been in place at least 30 days. No pipe shall exceed a vertical deflection of 5%. Deflection test results shall be submitted with the infiltration/exfiltration test results. (\*The following are considered nonflexible pipes: vitrified clay pipe, concrete pipe, ductile iron pipe, cast iron pipe, asbestos cement pipe.)
8. Manholes shall be air tested in accordance with ASTM C1244, Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test. The manhole test results shall be submitted with the gravity sewer leakage test results.
9. Air relief valves shall be installed at high points in the force mains and low-pressure sewers.
10. The results of the gravity sewer leakage test, low-pressure sewer and force main leakage tests on the completed sewers shall be submitted to this office within three months of completion of construction.

Failure to submit test results within the allotted time-period or failure to meet guidelines as set forth in the above conditions could be subject to enforcement proceedings as provided by 327 IAC 3-5-3.



PART II

GENERAL CONDITIONS

1. No significant or material changes in the scope of the plans or construction of this project shall be made unless the following provisions are met:
  - a. Request for permit modification is made 60 days in advance of the proposed significant or material changes in the scope of the plans or construction;
  - b. Submit a detailed statement of such proposed changes;
  - c. Submit revised plans and specifications including a revised design summary; and
  - d. Obtain a revised construction permit from this agency.
2. This permit may be modified, suspended, or revoked for cause including, but not limited to the following:
  - a. Violation of any term or conditions of this permit:
  - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.
3. Nothing herein shall be construed as guaranteeing that the proposed sanitary sewer system shall meet standards, limitations or requirements of this or any other agency of state or federal government, as this agency has no direct control over the actual construction and/or operation of the proposed project.

PART III

NOTICE OF RIGHT TO ADMINISTRATIVE REVIEW

Anyone wishing to challenge this construction permit must do so by filing a Petition for Administrative Review with the Office of Environmental Adjudication (OEA), and serving a copy of the petition upon IDEM. The requirements for filing a Petition for Administrative Review are found in IC 4-21.5-3-7, IC 13-15-6-1 and 315 IAC 1-3-2. A summary of the requirements of these laws is provided below.

A Petition for Administrative Review must be filed with the Office of Environmental Adjudication (OEA) within fifteen (15) days of the issuance of this notice (eighteen (18) days if notice was received by U.S. Mail), and a copy must be served upon IDEM. Addresses are:

Director  
Office of Environmental Adjudication  
Indiana Government Center North  
Room 103  
100 North Senate Avenue  
Indianapolis, Indiana 46204

Commissioner  
Indiana Department of Environmental  
Management  
Indiana Government Center North  
Room 1301  
100 North Senate Avenue  
Indianapolis, Indiana 46204

The petition must contain the following information:

1. The name, address and telephone number of each petitioner.
2. A description of each petitioner's interest in the permit.
3. A statement of facts demonstrating that each petitioner is:
  - a. a person to whom the order is directed;
  - b. aggrieved or adversely affected by the permit; or
  - c. entitled to administrative review under any law.
4. The reasons for the request for administrative review.
5. The particular legal issues proposed for review.
6. The alleged environmental concerns or technical deficiencies of the permit.
7. The permit terms and conditions that the petitioner believes would be appropriate and would comply with the law.
8. The identity of any persons represented by the petitioner.
9. The identity of the person against whom administrative review is sought.
10. A copy of the permit that is the basis of the petition.
11. A statement identifying petitioner's attorney or other representative, if any.

Failure to meet the requirements of the law with respect to a Petition for Administrative Review may result in a waiver of the Petitioner's right to seek administrative review of the permit. Examples are:

1. Failure to file a Petition by the applicable deadline;
2. Failure to serve a copy of the Petition upon IDEM when it is filed; or
3. Failure to include the information required by law.

If Petitioner seeks to have a permit stayed during the administrative review, he or she may need to file a Petition for a Stay of Effectiveness. The specific requirements for such a Petition can be found in 315 IAC 1-3-2 and 315 IAC 1-3-2.1.

Pursuant to IC 4-21.5-3-17, OEA will provide all parties with notice of any pre-hearing conferences, preliminary hearings, hearings, stays, or orders disposing of the review of this action. Those who are entitled to notice under IC 4-21.5-3-5(b) and would like to obtain notices of any pre-hearing conferences, preliminary hearings, hearings, stays, or orders disposing of the review of this action without intervening in the proceeding must submit a written request to OEA at the address above.

More information on the review process is available at the website for the Office of Environmental Adjudication at <http://www.in.gov/oea>.