

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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Eric J. Holcomb

Brian C. Rockensuess

Commissioner

March 19, 2024

VIA ELECTRONIC MAIL

Mr. Rodney Cox, Owner Four Seasons Realty 1907 Holler Road Mount Vernon, Indiana 47620

Dear Mr. Cox:

Re: Preliminary Effluent Limitations

Proposed Four Seasons Apartments Wastewater Treatment Plant (WWTP)

Vanderburgh County

This letter is in response to your request for preliminary effluent limitations for a proposed Four Seasons Apartments Wastewater Treatment Plant (WWTP). The average design flow of the WWTP is expected to be less than 0.10 MGD. The proposed discharge location will be to an unnamed tributary to Wolf Creek. The Q7,10 low-flow of the receiving stream at the point of discharge is considered to be zero cfs.

This letter also serves as notification that supplemental information is required to fully evaluate the proposed discharge. Construction and NPDES permitting may not proceed until the supplemental information specified herein has been submitted to, and been preliminarily approved by, this Office.

Preliminary effluent limitations are impacted by numeric and narrative water quality criteria as well as antidegradation requirements. Current Indiana Antidegradation Standards at 327 IAC 2-1.3-3 contain a provision for all surface waters of the State. The existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. The antidegradation rules for Indiana are found in 327 IAC 2-1.3.

Before approving a new discharge of treated wastewater, alternatives to the proposed discharge must be evaluated to satisfy antidegradation requirements. If this office makes a preliminary determination that the new discharge is necessary on the basis of economic or social factors, the effluent limitations contained herein (developed to minimize the potential lowering of water quality) may be utilized for construction and NPDES permitting. If this office determines the discharge is not necessary on the basis of economic or social factors, the proposed new discharge will not be allowed, and construction and NPDES permits will not be issued.



ANTIDEGRADATION DEMONSTRATION REQUIREMENTS FOR AMMONIA-NITROGEN

327 IAC 2-1.3-5(a) requires every antidegradation demonstration shall include the following basic information:

- (1) The regulated pollutants known or believed to be present in the wastewater and proposed to be discharged.
- (2) The estimated concentration and mass loading of all regulated pollutants proposed to be discharged.
- (3) The location of the proposed discharge and a map of the area of the proposed discharge that shows the receiving water or waters that would be affected by the new or increased loading, including the area downstream of the proposed discharge.

Every antidegradation demonstration shall include the following necessary information:

- (1) The availability, reliability, cost-effectiveness, and technical feasibility of the following:
 - (A) No degradation.
 - (B) Minimal degradation.
 - (C) Degradation mitigation techniques or alternatives.
- (2) An analysis of the effluent reduction benefits and water quality benefits associated with the degradation mitigation techniques or alternatives required to be assessed under subdivision (1)(C), including the following:
 - (A) A review of pollution prevention alternatives and techniques that includes the following:
 - (i) A listing of alternatives and techniques, including new and innovative technologies.
 - (ii) A description of how the alternatives and techniques available to the applicant would minimize or prevent the proposed significant lowering of water quality.
 - (iii) The effluent concentrations attainable by employing the alternatives and techniques.
 - (iv) The costs associated with employing the alternatives and techniques.
 - (v) An identification of the pollution prevention alternatives and techniques selected to be employed and an explanation of why those selections were made.
 - (B) An evaluation of the feasibility and costs of connecting to an existing POTW or privately owned treatment works, within the vicinity of the proposed new or increased loading, that:
 - (i) will effectively treat the proposed discharge; and
 - (ii) is willing to accept wastewater from other entities.
 - (C) For POTWs, if the proposed significant lowering of water quality is a result of a proposed new or increased loading from one (1) or more indirect dischargers, the analysis shall also include the following:
 - (i) The requirements of clause (A) shall be completed for the

indirect discharger or dischargers as well as for the POTW. The POTW may require the indirect dischargers to prepare this information.

- (ii) If one (1) or more of the indirect dischargers proposes or does discharge to a combined sewer or sanitary sewer that is connected to a combined sewer, all combined sewer overflows (CSOs) between the point of discharge to the sewer and the POTW shall be identified.
- (3) The availability, cost-effectiveness, and technical feasibility of central or regional sewage collection and treatment facilities, including long-range plans for discharges outlined in:
 - (A) state or local water quality management planning documents; and
 - (B) applicable facility planning documents.
- (4) The availability, cost-effectiveness, and technical feasibility of discharging to another waterbody that:
 - (A) is not an OSRW; or
 - (B) has a higher assimilative capacity for the regulated pollutant.
- 327 IAC 2-1.3-5(g) requires the antidegradation demonstration include the following social and economic analysis information:(g) For each regulated pollutant in the proposed new or increased loading associated with activities in subsection (f), each antidegradation demonstration shall include the following social and economic analysis information:
 - (1) The anticipated impact on aquatic life and wildlife, considering the following:
 - (A) Endangered or threatened species.
 - (B) Important commercial or recreational sport fish species.
 - (C) Other individual species.
 - (D) The overall aquatic community structure and function.
 - (2) The anticipated impact on human health.
 - (3) The degree to which water quality may be lowered in waters located within the following:
 - (A) National, state, or local parks.
 - (B) Preserves or wildlife areas.
 - (C) OSRWs or ONRWs.
 - (4) The extent to which the resources or characteristics adversely impacted by the lowered water quality are unique or rare within the locality or state.
 - (5) Where relevant, the anticipated impact on economic and social factors, including the following:
 - (A) Creation, expansion, or maintenance of employment.
 - (B) The unemployment rate.
 - (C) The median household income.
 - (D) The number of households below the poverty level.
 - (E) Community housing needs.
 - (F) Change in population.
 - (G) The impact on the community tax base.
 - (H) Provision of fire departments, schools, infrastructure, and other necessary public services.
 - (I) Correction of a public health, safety, or environmental problem.

- (J) Production of goods and services that protect, enhance, or improve the overall quality of life and related research and development.
- (K) The impact on the quality of life for residents in the area.
- (L) The impact on the fishing, recreation, and tourism industries.
- (M) The impact on endangered or threatened species.
- (N) The impact on economic competitiveness.
- (O) Demonstration by the applicant that the factors identified and reviewed under clauses (A) through (N) are necessary to accommodate important social or economic development despite the proposed significant lowering of water quality.
- (P) Inclusion by the applicant of additional factors that may enhance the social or economic importance associated with the proposed discharge, such as an approval that recognizes social or economic importance and is given to the applicant by:
 - (i) a legislative body; or
 - (ii) other government officials.

In determining whether a proposed discharge is necessary to accommodate important economic or social development in the area in which the waters are located under antidegradation standards and implementation procedures, the commissioner will give substantial weight to any applicable determinations by governmental entities.

Once an antidegradation demonstration has been received by this Office and determined complete, the antidegradation demonstration will be public noticed for a thirty day period requesting comment in accordance with 327 IAC 5-2-11.2. If this office makes a tentative determination to approve the submitted antidegradation demonstration, then construction and NPDES permitting may proceed with the understanding that a final determination will not be made until public input on the tentative decision has been considered. This office will seek public input on the tentative decision during the public participation process for the issuance of the NPDES permit. It should be noted that the public participation process and/or permit appeal process included in the rules for the issuance of NPDES permits could alter (and possibly make more stringent) the limits that are established in the final NPDES permit, or result in the denial of the request. Should the tentative decision be to deny the antidegradation demonstration, the tentative decision for denial will be public noticed for a thirty day period requesting comment in accordance with 327 IAC 5-2-11.2. The public process for an antidegration demonstration can be found at 327 IAC 2-1.3-6.

Preliminary Effluent Limitations for Sanitary-Type Wastewater

Table 1

			10 <i>1</i> : (
	Summer		Winter		
	Monthly	Weekly	Monthly	Weekly	
Parameter	Average	Average	Average	Average	Units
CBOD5	10	15	10	15	mg/l
TSS	12	18	12	18	mg/l
Ammonia-N	1.1	1.6	1.6	2.4	mg/l

Table 2

	Daily	Monthly	Daily	
Parameter	Minimum	Average	Maximum	Units
рН	6.0		9.0	s.u
Dissolved	6.0			mg/l
Oxygen				
E. coli		125	235	count/100mL

The effluent flow must be measured. The mass limits for CBOD₅, NH₃-N, and TSS are calculated by multiplying the average design flow (in MGD) by the concentration value and by 8.345. Summer effluent limits apply from May 1 through November 30 of each year. Winter effluent limits apply December 1 through April 30 of each year.

*The effluent limitations for *E. coli* are 125 colonies/100 ml as a monthly average calculated as a geometric mean and 235 colonies/100 ml as a daily maximum. Ultraviolet light disinfection or disinfection by other non-halogen compounds is required as a consideration in antidegradation. Disinfection by chlorination or other halogen compounds will require the applicant to demonstrate that disinfection by ultraviolet light is either not technically feasible or that it is not affordable.

If the preliminary effluent limitations specified above are not acceptable to the discharger, then alternate limitations may be pursued. To pursue alternate limitations, an assessment of alternative feasible treatment technologies comparing the expected effluent concentrations with the expected capital and maintenance costs for each alternative, and the corresponding expected new or increased loading above the level generated by the effluent limits specified above must be submitted for review. The assessment must also include an affordability analysis and justification for selecting the most cost-effective treatment plant design that is affordable. In no case will limitations be approved which will result in exceedances of State water quality standards.

If there are any questions regarding design requirements of the construction permit, please contact Ms. Missy Nunnery at 317/232-5579. The NPDES permit will not be issued until the construction permit is finalized.

If there are any questions regarding the antidegradation requirements or NPDES permit requirements, please feel free to contact John Donnellan at idonnell@idem.in.gov or 317/234-0865.

Sincerely,

Leigh Voss, Chief Municipal NPDES Permits Section Office of Water Quality

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date: February 13, 2024

To: Leigh Voss, Chief AN

Municipal NPDES Permits Section Municipal NPDES Permit Section

From: John Donnellan 9770

Municipal NPDES Permits Section

Subject: Stream Characterization Report for Four Seasons Apartments WWTP in

Vanderburgh County (Proposed, WLA002752)

A stream characterization was done in support of an antidegradation analysis for the proposed Four Seasons Apartments WWTP. Effluent limitations for the proposed discharge will be determined as part of the antidegradation analysis. The proposed WWTP will treat sanitary-type wastewater from a proposed apartment complex. The average design flow has yet to be determined but would be less than 0.10 MGD. The proposed discharge location would be to an unnamed tributary to Wolf Creek. There is no lake or reservoir within 40 miles downstream of the proposed outfall. A map showing the location of the proposed outfall is included as an attachment. The proposed discharge is covered under the rules for the non-Great Lakes system. Information about the characteristics of the receiving stream and effluent limitations necessary to protect the designated stream uses is provided below.

Designated Stream Uses

The receiving stream is designated for full body contact recreation and shall be capable of supporting a well-balanced, warm water aquatic community. There are no drinking water intake downstream of the proposed outfall. The proposed discharge would not be directly to or tributary to an outstanding state resource water.

Assessment Unit and 303(d) Listing

The unnamed tributary to Wolf Creek is in assessment unit INB1376_T1004 and the HUC12 is 051201130706. This assessment unit is on the 2022 303(d) list as impaired for Biological Integrity. A TMDL which includes the receiving stream has not been completed.

Stream Design Flows

The unnamed tributary to Wolf Creek is shown as an intermittent tributary on the USGS topographic map. Therefore, the receiving stream is considered to have a $Q_{7,10}$ and $Q_{30,10}$ low flows of 0 cfs.

Water Quality Information

A retrieval from the IDEM Assessment Information Management System (AIMS) database was completed for water quality information for Wolf Creek and its tributaries in HUC12 051201130706. There is water quality data from a 1999 IDEM Watershed Survey which includes sampling for pH, temperature, ammonia-nitrogen, dissolved oxygen, and various metals.

Nearby Dischargers

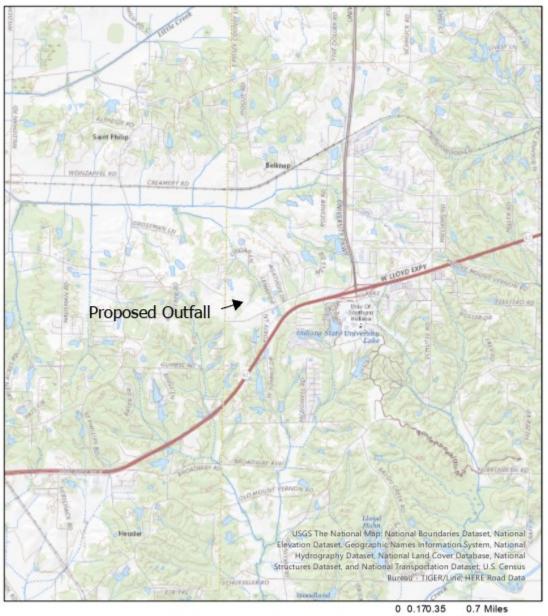
A search was made for nearby permitted point source dischargers. There were no nearby facilities which would impact the development of water quality-based effluent limitations for this proposed discharge.

Protection of Designated Stream Uses

Based on the above stream characterization, antidegradation-based effluent limitations equivalent to a monthly average CBOD5 of 10 mg/l, monthly average summer/winter ammonia-N of 1.1/1.6 mg/l and daily average DO of 6.0 mg/l are adequate to protect aquatic life from a discharge containing these pollutants of concern. In addition, *E. coli* limitations established based on meeting criteria in the undiluted discharge are adequate to protect recreational uses.

Attachment

OUTFALL LOCATION MAP



Map Created By: John Donnellan

Date: February 13, 2024

0.170.35 0.7 Miles

Legend

CitiesTowns
StateBoundary

effluent limitation development at one time. However, this Office reserves the right to request refinement of any request which includes multiple scenarios to provide the best use of Office resources to serve all applicants.

APPLICATION DEFICIENCIES

If the applicant fails to provide all necessary information, or if unique information is required for the proposed activity, this Office will attempt to obtain the information from the applicant via phone or via mailing in a reasonable time frame. Failure to submit the necessary information requested in a timely manner will result in delays in generating preliminary effluent limitations.

QUESTIONS?

For questions or forms related to preliminary effluent limitations, or NPDES permits please call 317-232-8698. For questions or forms related to Construction Permits, please contact staff of the Facility Construction and Engineering Support Section at 317-232-5579.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMEN OFFICE OF WATER QUALITY - MAIL CODE 65-42 MUNICIPAL NPDES PERMIT SECTION 100 North Senate Avenue Indianapolis, Indiana 46204-2251

- INSTRUCTIONS: 1. Mail this completed application to the above address.
 - 2. For questions or forms related to preliminary effluent limitations or NPDES permits please call 317-232-8698.
 - 3. For questions or forms related to Construction Permits, please contact staff of the Facility Construction and Engineering Support Section at 317-232-5579.

PERSON COMP	PLETING APPLICATION	
Rodney Cox	Title (Consultant, Compliance Manager, etc.)	
Mailing address (number and stree 1907 HOLLER RO	t, city, state, and ZIP code) J. Mt. Vernun IN 4	7620
Telephone number(s) Fax number () 812 - 453+() NA	E-mail address RODNEYFOUY SCASONE	DAOL.COM
2957		

Four Seasons' Realty

IDEM-WATER QUALITY

JAN 2-2 2024

	Mailing address (number and street, city, state, and ZIP code) 1907 HOWEY Rd. Mt. Vernon	IN 47620
812-	Telephone number(s) Fax number E-mail address 0.453 - 29570 NA. ROOMEY FOUL SCOS	son@AOL.com

FACILITY CER	TIFIED OPER	RATOR (optional)
Name N/A		Certification number
Mailing address of facility	y (number and stre	et, city, state, and ZIP code)
Telephone number(s) ()	Fax number	E-mail address

			•
	FACILITY INFORMATION	IN	i
Name of facility		Rlease check one:	
	V	New Existing Facility	į
Mailing address (number and street, city, state, and ZIP or 1907 HOLLEY Rd. Mt. Vernor	TN. 47620		
Telephone number of facility	Fax number of facility	is the collection system connected to another entity for	
0812 - 453 - 2957	O N/A	wastewater treatment? Yes (No)	
If yes, identify the entity.		NPDES number of entity	
County facility is will be in Vanderburah	1	Nearest city or town EVANSVIIIE	
If new facility, list the identity and distance to the nearest p collection system (sewer lines) Half a Mile	ublicly-owned wastewater treatment plant's EVONSVILLE SEWER	f existing facility, NPDES permit number	
NOTE: Provide street address as well as latitude this application form which indicates the exact loc		e a copy of a portion of a topographic map as an attachment to he facility. 10201 MIddle, Mt. Vernon K	1. 47712
Facility location (Existing and/or proposed location(s)) 10201 Middle Mt. Vo	mon Rd. Evansvi	11e. IN 47712	
NOTE: Use latitude and longitude to describe exi attachment to this application form which indicate		s); also include a copy of a portion of a topographic map as an location(s).	
Outfall location (Existing and/or proposed location(s)) 37.93947° N 87	.69511°W	Elevation: 430 ft.	

RECEIVING STREAM	M		
If an existing facility, provide the name of the stream, lake, drain, etc. that the plant outfall discharges into currently (i.e. "An unnamed ditch to the Wabash River").			
If a new facility, or if proposing to relocate the outfall of an existing facility, provide the name of the s	stream, lake, drain, etc. that the plant outfall is proposed to discharge into.		
Type of wastewater to be treated (i.e. sanitary only, commercial and sanitary, sanitary and industrial	ıl, landfill leachale, etc.)		
If an existing facility, list the current average design flow in Millions of Gallons per Day (MGD) NGD	lew or Existing Facility, list the proposed average design flow(s) in MGD 12 UNITS / TWO DCG YOUM MGD		

IREATMENT FACILITY DESCRIPTION

Note: For each type of treatment selected, please provide specific information regarding the type of treatment proposed such as bio-mechanical (i.e. extended aeration, oxidation ditch, sequential batch reactor), or a waste stabilization lagoon, an aerated lagoon, etc. Please specify the type of disinfection equipment to be utilized.

For each type of treatment selected, please provide specific information regarding the type of treatment proposed.

Type of disinfection equipment to be utilized

ADDITIONAL INFORMATION

Please provide any additional information which might be helpful in describing the proposed activity or special concerns. Feel free to attach additional pages as necessary.

Public Sewer at 700 Agathor Street

Evansville IN 47712

