

NPDES Permit No. IL0080262

Notice No. JAR:23111501

Public Notice Beginning Date: **November 17, 2023**

Public Notice Ending Date: **December 19, 2023**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

PUBLIC NOTICE/FACT SHEET
of
Draft New NPDES Permit to Discharge into Waters of the United States

Public Notice/Fact Sheet Issued By:

Illinois EPA
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Permittee:

Sonya Carney
1011 Heather Lane
Greenville, Illinois 62246

Name and Address of Facility:

Sonya Carney Private Sewage Disposal System
1294 Red Ball Trail
Greenville, Illinois 62246
(Bond County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES Permit to discharge into the waters of the United States and has prepared a draft Permit and associated fact sheet for the above named Permittee. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. All comments on the draft Permit and requests for hearing must be received by the IEPA by U.S. Mail, carrier mail or hand delivered by the Public Notice Ending Date. Interested persons are invited to submit written comments on the draft Permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the Permit applicant. The NPDES Permit and notice numbers must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft Permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft Permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final Permit is issued. For further information, please call Jaime Rabins at 217/782-0610.

The following water quality and effluent standards and limitations were applied to the discharge:

Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board and the Clean Water Act were applied in determining the applicable standards, limitations and conditions contained in the draft Permit.

The applicant is engaged in treating less than 1500 gpd of domestic wastewater from a private residence. Treatment consists of: extended aeration process with non-mechanical flow equalization, pretreatment of the influent, attached growth filtration and disinfection of the final effluent. The treatment system provides primary, secondary and tertiary treatment of the wastewater flow with polishing and ultraviolet disinfection of the effluent prior to discharge. Wastewater enters the pretreatment chamber where anaerobic bacterial action combines with the effects of gravity to precondition the waste before it flows into the aeration chamber. Once in the aeration chamber, aerobic bacteria utilize the organic matter in the wastewater to biologically convert the waste into stable substances. Following aeration, flow is transferred to the clarification chamber where the effects of gravity settle out biologically active material. The Bio-Static sludge return, located in the clarification chamber, creates hydraulic currents that gently transfer settled particles back to the aeration chamber. As clarified liquids pass through the Bio-Kinetic system, they are filtered, settled and flow equalized. Effluent then passes through the Bio-Film Reactor where the liquid is treated to a near pristine state before passing through the 500-F filter. Finally, the AT 1500 UV disinfection system reduces bacteria levels to meet state effluent standards.

The length of the Permit is approximately 5 years.

The main discharge number is 001. The seven day once in ten year low flow (7Q10) of the receiving stream, Governor Bond Lake is 0 cfs.

Pursuant to the waiver provisions authorized by 40 CFR § 123.24, this draft permit is within the class, type, and size for which the Regional Administrator, Region V, has waived his right to review, object, or comment on this draft permit action.

Application is made for the new discharge which is located in Bond County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

<u>Discharge Number</u>	<u>Receiving Stream</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Stream Classification</u>	<u>Integrity Rating</u>
001	Governor Bond Lake	41° 20' 09" North	89° 11' 54" West	General Use	Not Rated

To assist you further in identifying the location of the discharge(s) please see the map on page 4 of the Public Notice/Fact Sheet.

The stream segment, waterbody segment ROP, receiving the discharge from outfall 001 is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aesthetic quality with a potential cause given as total phosphorus, fish consumption with a potential cause given as mercury, and public and food processing water supply use with a potential cause given as atrazine. Aquatic life use is fully supported.

The discharge(s) from the facility is proposed to be monitored and limited at all times as follows:

Discharge Number(s) and Name(s): 001 STP Outfall

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/L			Regulation
	Yearly Average	Weekly Average	Daily Maximum	Yearly Average	Weekly Average	Daily Maximum	
BOD ₅				10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids				12		24	35 IAC 304.120 40 CFR 133.102
pH	Shall be in the range of 6 to 9 Standard Units						35 IAC 304.125
Fecal Coliform	Daily maximum shall not exceed 400 per 100 mL						35 IAC 304.121
Chlorine Residual						0.038	35 IAC 302.208

This draft Permit also contains the following requirements as special conditions:

1. Reopening of this Permit to include different final effluent limitations.
2. Submission of the operational data in a specified form and at a required frequency at any time during the effective term of this Permit.
3. More frequent monitoring requirement without Public Notice.
4. Effluent sampling point location.
5. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or other water quality study.
6. Transfer or termination of permit coverage.
7. Permittee shall comply with all conditions of the permit and other applicable laws, regulations or ordinances.
8. Information on construction, operation and maintenance.
9. Proof of ongoing maintenance agreement.
10. Use of approved chlorine tablets.
11. Discharge of hazardous pollutants, toxic wastes and wastes that causes a violation of an applicable water quality standard not authorized.
12. Operation and maintenance manual and all applicable records must be available. Sampling ports must be accessible.
13. No violation of water quality.
14. Soil Design Groups II through XI, and Soil Groups 7G, 7J, 7L, 8E, and 8I within Design Group XII.

Antidegradation Assessment for the Sonya Carney Private Sewage Disposal System
NPDES Permit No. IL0080262 Bond County

Sonya Carney ("Applicant") has applied for a permit to install a surface discharging private sewage disposal system at a new residence located at 1294 Red Ball Trail in the City of Greenville. The proposed treatment system is commercially available and will treat exclusively domestic wastewater. Discharges will be intermittent in nature and are dictated by water use in the dwelling. Due to soil conditions at the

site location, a sub-surface soil based treatment system is not technically feasible and a surface discharging system is needed. Permits for the design and installation of the treatment system are also required from the Illinois Department of Public Health or their authorized agent.

Identification and Characterization of the Affected Water Body

The treatment system will discharge to a rock bed prior to reaching Governor Bond Lake. Governor Bond Lake, Waterbody Segment IL_ROP, is a General Use Water with 0 cfs of flow during 7Q10 low-flow conditions. Governor Bond Lake is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System* or given an integrity rating in that document. Governor Bond Lake is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aesthetic quality with a potential cause given as total phosphorus, fish consumption with a potential cause given as mercury, and public and food processing water supply use with a potential cause given as atrazine. Aquatic life use is fully supported. Governor Bond Lake is not subject to enhanced dissolved oxygen standards.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses

The treatment system will be capable of meeting and will receive effluent limits of 10 mg/L for biochemical oxygen demand (BOD) and 12 mg/L total suspended solids (TSS) on a yearly average basis. Fecal coliform bacteria may not exceed 400 colony forming units (CFU) in the effluent. BOD, TSS, ammonia, and phosphorus may increase in the receiving waterbody because of the discharge.

Fate and Effect of Parameters Proposed for Increased Loading.

The BOD and ammonia discharged by the system will decay into simpler and harmless byproducts by naturally occurring organisms in the receiving water. Some of the nitrogen originating in the ammonia remains in the waterbody in the form of nitrates or organic nitrogen. The nutrients discharged are absorbed by aquatic or riparian terrestrial plants or remain in the stream. Due to disinfection by the system, fecal coliform bacteria standards will be met in the effluent. Governor Bond Lake is impaired for phosphorus with a wasteload allocation as part of the Kaskaskia River Watershed. The most effective best management practice (BMP) for managing loads from septic systems is regular maintenance. Additional BMP Recommendations include replacing failed systems with systems that comply with new requirements.

The TMDL states:

"Septic systems near the lake and tributaries can contribute nutrient and fecal coliform pollution. Like livestock manure, human effluent is rich in nutrients, oxygen-demanding waste materials, and fecal coliforms. Typical septic systems include a settling chamber where the large solids settle out and a drainfield, where liquid waste is dispersed over a large area and slowly percolates through soil. The settling tanks need to be pumped periodically (every three to five years, depending on size and load) or they will contribute to failure of the system. Drainfields can also get clogged over time, which prevents effective polishing of the liquid waste.

Septic systems should be sited far enough away from the lakeshore to allow for sufficient filtering of nutrients and fecals by soil and for uptake of nutrients by plants, prior to discharge into the lake. In areas here soils are not sufficient for septic systems (e.g., shallow depth to groundwater, infiltration too slow), aeration or mounded systems can be installed. Aeration systems generally discharge the liquid effluent at the surface; therefore, discharge should be at a point sufficiently far from the lakeshore such that there is plenty of time for nutrients to infiltrate into the ground and be taken up by plants. All systems need to be maintained; failed systems short-circuit or bypass the treatment processes and contribute to water quality pollution."

The facility will meet the BMPs by installation of a rock bed approximately 50 feet away from the lake to which the effluent will be discharged.

Purpose and Anticipated Benefits of the Proposed Activity

Residences located in areas greater than 300 feet from a sewage collection system and which are located where soils conditions are not suitable for a soil-based treatment system, often have no other choice but to rely on a surface discharging individual sewage treatment systems. These systems, when subject to the restrictions mandated by the permit, allow for safe and effective treatment of sewage, thereby benefitting residents of rural areas and small towns that lack sewer systems.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation

Due to poor soils it was determined to be technically infeasible to install a subsurface soil based treatment system and with no sewage collection system within 300 feet of the residence the site is not available for connection. The applicant has provided as much opportunity as practicable for the effluent to be absorbed into the ground. This minimizes the amount of effluent reaching the receiving water and also affords the reduction of effluent constituents before the stream or ditch receives the effluent.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities

IDNR will have the opportunity to review the public notice and fact sheet containing this assessment. Any comments by IDNR or other entities received prior to the end of the public notice period will be reviewed after the public notice period and appropriate responses will be made at that time.

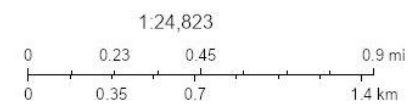
Agency Conclusion

This assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard). We find that the proposed activity will result in the attainment of water quality standards. All existing uses will be fully protected. All technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity. The permit for an individual sewage treatment system will benefit the community at large by providing a means for the Illinois EPA to efficiently regulate the system. The proposed activity is therefore compliant with the Antidegradation standard.

Sonya Carney Private Sewage Disposal System



11/15/2023



NPDES Permit No. IL0080262

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

New (NPDES) Permit

Expiration Date:

Issue Date:
Effective Date:

Name and Address of Permittee:

Sonya Carney
1011 Heather Lane
Greenville, Illinois 62246

Facility Name and Address:

Sonya Carney Private Sewage Disposal System
1294 Red Ball Trail
Greenville, Illinois 62246
(Bond County)

Receiving Waters: Governor Bond Lake

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the Effluent Limitations, Monitoring, and Reporting requirements; Special Conditions and Standard Conditions attached herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the Permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Brant. D. Fleming, P.E.
Manager, Municipal Unit, Permit Section
Division of Water Pollution Control

BDF:JAR:23111501

NPDES Permit No. IL0080262
Effluent Limitations, Monitoring, and Reporting
 FINAL

Discharge Number(s) and Name(s): 001 STP Outfall

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/L			Sample** Frequency	Sample Type
	Yearly Average	Weekly Average	Daily Maximum	Yearly Average	Weekly Average	Daily Maximum		
Flow (MGD)*								
BOD ₅				10		20		Grab
Suspended Solids				12		24		Grab
pH	Shall be in the range of 6 to 9 Standard Units							Grab
Fecal Coliform	Daily maximum shall not exceed 400 per 100 mL							Grab
Chlorine Residual***						0.038		Grab

Effluent shall be free of floating debris, visible oil, odor, plant or algal growth, color or turbidity of other than of natural origin.

*Flow is to be reported as the amount that is discharged in a day (24 hrs), expressed as the average daily discharge occurring over a calendar year. Flow may be estimated from direct visual readings, mechanical flow measurement, or water use records and may not exceed 1500 gallons per day or the permitted capacity as authorized by the Illinois Environmental Protection Agency (IEPA).

**See Special Condition 9.

***Sampling for chlorine residual is only required when chlorine is used for disinfection.

NPDES Permit No. IL0080262

Special Conditions

SPECIAL CONDITION 1. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws and regulations. The IEPA will public notice the permit modification.

SPECIAL CONDITION 2. The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

SPECIAL CONDITION 3. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR § 122.63 and Without Public Notice.

SPECIAL CONDITION 4. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 5. This Permit may be modified to include alternative or additional final effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) Study or upon completion of an alternate Water Quality Study.

SPECIAL CONDITION 6. When a treatment system covered by this permit is sold to a New Owner or when discharges to waters of the U.S. cease because the system is removed, closed out, or because discharges are routed to a separate wastewater collection and treatment system, the permittee must submit a completed Illinois EPA Form ILG62 Notice of Termination (NOT) to the IEPA and Illinois Department of Public Health (IDPH). The new property owner must submit a US EPA Form ILG62 Simplified Notice of Intent (NOI).

The Illinois EPA Form ILG62 NOT is available here: <https://epa.illinois.gov/topics/forms/water-forms/wastewater-permits.html>

The Illinois EPA Form ILG62 Simplified NOI or Illinois EPA Form ILG62 NOT must be filed with IEPA and IDPH at the following addresses:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attention: Permit Section, Mail Code #15
P.O. Box 19276
Springfield, Illinois 62794-9276

Illinois Department of Public Health
Division of Environmental Health
525 West Jefferson
Springfield, Illinois 62761

SPECIAL CONDITON 7: The permittee shall comply with all conditions of this Permit, all applicable IEPA regulations, IDPH sewage code requirements and all other applicable federal, state, or local laws, regulations or ordinances. Any noncompliance constitutes a violation of the Clean Water Act and the Code of Illinois and is grounds for enforcement action, termination of coverage under this Permit, or for denial of a request for coverage under a reissued general permit.

SPECIAL CONDITION 8: Upon request, the permittee shall furnish to the IDPH or the local administrative authority any information relative to the construction, operation, or maintenance of this facility, including effluent sample tests results, within the time period specified by the IDPH or the local administrative authority.

SPECIAL CONDITION 9:

- A. The permittee shall have the individual discharging treatment system whose discharge is covered by this permit inspected at least every twelve (12) months. The inspection must be conducted by a qualified individual with sufficient training to ensure that permit requirements are met. Qualified individuals include trained and experienced wastewater treatment plant operators, licensed environmental health practitioners, Illinois Department of Public Health licensed Private Sewage Disposal System Installation Contractors, individuals holding the basic or advanced Certified Installer of Onsite Wastewater Treatment System certification, and Illinois licensed professional engineers. The Owner or Operator is responsible for assuring that this provision is fulfilled. During the inspection, a representative sample shall be collected, properly preserved, and analyzed by a certified laboratory for BOD₅, suspended solids, pH, fecal coliform, chlorine residual, and dissolved oxygen. Any nuisance, health hazard, equipment malfunction or deficiency noted on the inspection report, shall be addressed and corrective action taken within 30 days.
- B. The permittee shall submit copies of the inspection report and results of any effluent monitoring report pursuant to Special Condition 9.A to the Agency. The inspection and monitoring report shall be submitted twelve (12) months from the effective date of this permit and annually thereafter. The Permittee is required to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA unless a waiver has been granted by the Agency. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <https://epa.illinois.gov/topics/water-quality/surface-water/netdmr.html>. Permittees that have been granted a waiver shall mail the Discharge Monitoring Reports with an original signature to the IEPA at the following address. The reports shall be submitted to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section,
Discharge Monitoring Reports, Mail Code #19

- C. Upon request of either the IDPH or local administrative authority, inspection reports shall be provided to that authority. Otherwise

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Special Conditions

the system owner is responsible to maintain all such records on site or electronically, and have such records available for review by any authorized IEPA, IDPH or local/county health administrator.

SPECIAL CONDITION 10: If chlorine tablets are used for disinfection, then only those tablets approved for use in disinfection of wastewater shall be utilized.

SPECIAL CONDITION 11: This permit does not authorize discharge of any effluent which contains any hazardous pollutant, toxic waste, waste that causes a violation of an applicable water quality standard, any waste which is considered a nuisance or health hazard, stormwater, grease, oil or solvents, car wash facility, hair salon, photographic laboratory, medical facility, facility that generates automotive waste, or any substance other than domestic wastewater.

SPECIAL CONDITION 12: The operation and maintenance manual and all records including installation, inspection and sampling shall be available during an inspection of the facility. The sampling port or free fall discharge shall be readily accessible during an inspection. A Permittee associated with a food service establishment, with a grease trap, shall make the grease trap readily accessible during an inspection.

SPECIAL CONDITION 13: The effluent, alone or in combination with other sources, shall not cause or contribute to a violation of any applicable water quality standard outlined in 35 Ill. Admin. Code 302.

SPECIAL CONDITION 14: A surface discharge is prohibited from systems installed in Soil Design Groups II through XI, and Soil Groups 7G, 7J, 7L, 8E, and 8I within Design Group XII, as the groups are defined in 77 Ill. Adm. Code 905.

