

NPDES Permit No. IL0080242

Notice No. SKT:23041101.skt

Public Notice Beginning Date: **June 22, 2023**

Public Notice Ending Date: **July 24, 2023**

National Pollutant Discharge Elimination System (NPDES)  
Permit Program

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

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 Discharger:

7-Eleven Inc.-Speedway Store Number 1420  
9540 S. Winchester Avenue  
Chicago, Illinois 60643

Name and Address of Facility:

7-Eleven Inc.-Speedway Store Number 1420 STP  
15551 W. 143<sup>rd</sup> Street  
Homer Glen, Illinois 60491  
(Will County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES Permit to discharge into the waters of the state and has prepared a draft Permit and associated fact sheet for the above named discharger. 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 Surinder Tandon 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 domestic wastewater for the Speedway Store Number 1420 in Homer Glen.

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, unnamed tributary to Langen Creek is 0 cfs.

The design average flow (DAF) for the facility is 0.007 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 0.014 MGD. Treatment consists of screening, equalization, activated sludge, final clarification, ultraviolet disinfection. Sludge

is treated by aerobic digestion.

This new Permit increases the facility's DAF, DMF, concentration limits, and/or load limits.

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 a new discharge(s) which is located in Will 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	Unnamed tributary to Long Run	41° 37' 37.6" North	87° 59' 52.9" West	General Use	Not Rated

To assist you further in identifying the location of the discharge(s) please see the attached map.

Unnamed tributary to Long Run, tributary to Waterbody Segment, GHE-01, is not listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed.



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

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

Load limits computed based on a design average flow (DAF) of 0.007 MGD (design maximum flow (DMF) of 0.014 MGD)

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

Parameter	LOAD LIMITS lbs/day			CONCENTRATION LIMITS mg/L			Regulation	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
CBOD <sub>5</sub> **	0.58 (1.17)		1.17 (2.34)	10		20	35 IAC 304.120 40 CFR 133.102	
Suspended Solids**	0.70 (1.40)		1.40 (2.80)	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							0.05	35 IAC 302.208
Ammonia Nitrogen:								
March-May/Sept.-Oct.	0.07 (0.14)		0.16 (0.32)	1.2		2.7	35 IAC 355 and 35 IAC 302	
June-August	0.05 (0.11)	0.13 (0.27)	0.18 (0.35)	0.9	2.3	3.0		
Nov.-Feb.	0.16 (0.33)		0.23 (0.47)	2.8		4.0		
Dissolved Oxygen				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum		
March-July				N/A	6.0	5.0	35 IAC 302.206	
August-February				5.5	4.0	3.5		

\*Load Limits are calculated by using the formula:  $8.34 \times (\text{Design Average and/or Maximum Flow in MGD}) \times (\text{Applicable Concentration in mg/L})$ .

\*\*BOD<sub>5</sub> and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent.

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

1. Reopening of this Permit to include different final effluent limitations.
2. Operation of the facility by or under the supervision of a certified operator.
3. Submission of the operational data in a specified form and at a required frequency at any time during the effective term of this Permit.
4. More frequent monitoring requirement without Public Notice.
5. Prohibition against causing or contributing to violations of water quality standards.
6. Recording the monitoring results on Discharge Monitoring Report Forms using one such form for each outfall each month and submitting the forms to IEPA each month.
7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.
8. Effluent sampling point location.
9. A requirement to monitor and a limit of 0.05 mg/L for residual chlorine when it is used.
10. Submission of semi annual reports indicating the quantities of sludge generated and disposed.
11. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or other water quality study.
12. Notify Agency of Plant Completion.

#### Antidegradation Assessment

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The subject facility is proposing a new facility to replace their failed subsurface septic system. The existing abandoned system was installed in 2002 and consisted of four 1500 gallon wastewater storage tanks, one 300 GPD septic field dosing lift station, and approximately 4000 feet of subsurface finger system laterals. The proposed system is required due to the existing system being "red tagged" and removed from service by the Will County Board of Health due to its failure. There is insufficient room on the site to replace the system and as such, an activated sludge plant was designed. The proposed plant will treat sewage from the Speedway Store No. 1420 and will be installed next to the existing abandoned system. The facility is located at 15551 West 143<sup>rd</sup> Street, Homer Glen, Will County Illinois. The proposed design average flow (DAF) is 0.007 MGD.

Information used in this review was obtained from the Application for NPDES Permit and appendices dated July 22, 2021 and February 27, 2023, provided by the Applicant.

#### **Identification and Characterization of the Affected Water Body.**

The subject facility proposes to discharge to the unnamed tributary to Long Run at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. The unnamed tributary to Long Run is classified as a General Use Water. The unnamed tributary to Long Run 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*, nor is it given an integrity rating in that document. The unnamed tributary to Long Run, tributary to Waterbody Segment, IL\_GHE-01, is not listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed. This segment of the unnamed tributary to Long Run is not subject to enhanced dissolved oxygen standards.

The USGS Illinois Streamstats basin characteristics program gives a watershed size of 0.04 square miles at the discharge point on the unnamed tributary of Long Run. According to the Illinois State Water Survey, the unnamed tributary of

Long Run in the area of the proposed discharge is likely to be 7Q1.1 zero flow streams. In this region of Illinois, 7Q1.1 zero flow streams are streams with a watershed area of 1 square miles or less. These streams will exhibit no flow for at least a continuous seven day period nine out of ten years. Aquatic life communities in these headwater streams are not tolerant of the effects of drying. Depending on the rainfall received before biological surveys, either a very limited aquatic life community, or no community at all would be found. Given this flow regime, no additional biological characterization is required.

### **Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.**

The treated domestic waste that characterizes this proposed effluent would be similar to other treated effluents of largely domestic origin. Ammonia limits in the permit will be set at water quality standards. Biochemical oxygen demand (BOD) permit limits will be set at the most stringent effluent standards applicable in 35 IAC 304.120. The stream will nonetheless experience an increase in loading due to the new effluent discharge. Adverse impacts to the existing uses of the receiving stream are not anticipated.

### **Fate and Effect of Parameters Proposed for Increased Loading.**

The BOD and ammonia discharged by this facility will decay into simpler and harmless byproducts by naturally occurring organisms in the receiving stream. Some of the nitrogen originating in the ammonia will remain in the stream in the form of nitrates or organic nitrogen. The nutrients discharged will be absorbed by aquatic organisms or riparian terrestrial plants or will remain in the stream. Ammonia and dissolved oxygen standards will be met in the effluent prior to discharge to the receiving stream. Disinfection will be provided by UV disinfection.

### **Purpose and Social & Economic Benefits of the Proposed Activity.**

The proposed project will provide sewage collection and treatment for the facility and will eliminate potential health hazards associated with the malfunctioning septic tank systems.

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

The facility evaluated 3 options for the proposed project.

Option 1 – This option involves connecting to an available municipal sanitary sewer system. The advantage of this option is that the municipal plant oversees issues concerning treatment and disposal of the sewage. The disadvantage is that the municipal facility could require the proposed facility to meet their standards which can be costly, and that the two nearest municipal facilities are 1.5 and 2.1 miles from the proposed facility to the nearest connection point. However, due to easement, construction, and engineering costs, and any municipal fees, this option was not selected.

Option 2 – This option consists of furnishing and installation of an onsite subsurface or mound type septic system. This option provides good treatment with minor operation and maintenance costs; however, these systems require a large footprint which can make future expansion difficult if not impossible. These systems can become overloaded over the years, requiring significant repairs, or in some cases, complete removal and relocation of the system. The existing treatment for the Speedway station is a subsurface system which had failed in August 2014 and after numerous attempts to repair it, has not been approved by the Will County Health Department to go online. Due to the lack of additional land available for a new subsurface treatment system, this option was not selected.

Option 3 (Preferred Option) – This option requires installation of a wastewater treatment plant which discharges to waters of the State of Illinois. This will require an NPDES permit and therefore have to meet the effluent quality for the receiving body of water. This option can be costly and have high operational and legal requirements. This option was chosen as the preferred option as Options 1 and 2 were not available. The proposed project will involve discharge of the effluent to the drainage ditch located on the east side of Lemont Road.

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

On February 3, 2023, the IDNR EcoCAT web-based tool was used (IDNR Project Number: 2311028) and indicated that there were no endangered/threatened species, INAI sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves present in the vicinity of the discharge. The IDNR EcoCAT web-based tool terminated the consultation.

**Agency Conclusion.**

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that 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; and that this activity will benefit the community at large by providing reliable sewage treatment for the Speedway store. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.