

July 9, 2026

Illinois Environmental Protection Agency
Division of Water Pollution Control
Permit Section
2520 West Iles Avenue
Springfield, IL 62704

Application for Water Pollution Control Permit – Roxana SVE System Nonhazardous Condensate & Nonhazardous Groundwater
Equilon Enterprises LLC d/b/a Shell Oil Products US
1191150002 - Madison County
Roxana, Illinois

To Whom it May Concern;

On behalf of Equilon Enterprises LLC d/b/a Shell Oil Products US (Shell), AECOM Technical Services, Inc. (AECOM) has prepared this Application for a Water Pollution Control Permit for an industrial system with no pretreatment. Also enclosed is the payment for the Industrial Construction No Pretreatment Permit Fee (\$1,000.00).

If there are any questions regarding this application, please first contact AECOM Deputy Project Manager, Samuel Fisher, at 314-296-1969 or samuel.fisher@aecom.com. Other contacts are AECOM Project Manager, Wendy Pennington, at (314) 452-8929 or wendy.pennington@aecom.com, and the Shell Principal Program Manager, Leroy (Buddy) Bealer, at (484) 632-7955 or leroy.bealer@shell.com.

Sincerely,



Wendy Pennington, PE
Project Manager, AECOM
M: 314-452-8929
E: wendy.pennington@aecom.com

Enclosures: Application for Water Pollution Control Permit – SVE System Nonhazardous Condensate – Roxana, IL
Permit fee payment

cc: Buddy Bealer, Shell
Repositories (website, and Roxana Public Library)
Project File

Application for Water Pollution Control Permit

Industrial – No Treatment
Roxana, IL SVE System

Equilon Enterprises LLC d/b/a Shell Oil Products US

Project number: 60771235

July 2026

Quality information

Prepared by



Samuel Fisher, CHMM
Environmental Scientist

Verified and Approved by



Wendy Pennington, PE
Project Manager

Revision History

Revision	Revision date	Details	Authorized	Name	Position

Distribution List

# Hard Copies	PDF Required	Association / Company Name

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1. Project Description

Equilon Enterprises LLC d/b/a Shell Oil Products US (Shell) manages work at the Roxana, Illinois project Site (Site). The corrective action work is primarily being conducted under the conditions of the RCRA Post-Closure Hazardous Waste Permit (RCRA Permit) B-43R, issued September 23, 2010 and most recently modified July 1, 2026. Shell retained URS Corporation (now AECOM Technical Services, Inc. [AECOM]) to design, construct and operate a soil vapor extraction (SVE) system to remediate vadose zone impacts in the Village of Roxana (Village). The SVE system was constructed in 2011 and began operation in 2012. The SVE system has two legs: the West Fenceline (WFL) Leg and the Public Works (PW) Leg (see **Figure 1** below). The WFL Leg began operating in January 2012, and the PW Leg began operating in February 2013.

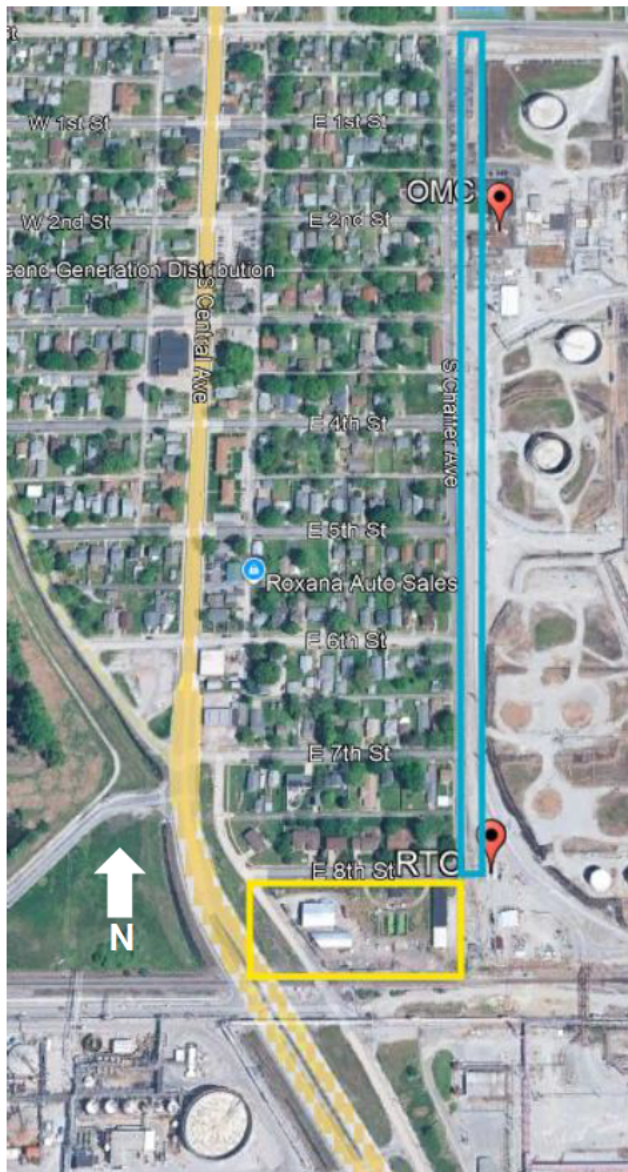


Figure 1 – Roxana SVE System Location and Legs
Yellow = Public Works Leg; Blue = West Fenceline Leg

The SVE system has been continuously operating since 2012. SVE wells on the WFL Leg are located inside the Wood River Refinery (WRR) North Property, along the West Fenceline, parallel to Chaffer Avenue, from approximately Tydeman Avenue going south to E. 8th Street. SVE wells on the PW Leg are located inside the Former Public Works Yard (FPWY). The SVE wells are connected via 4-inch piping to either the WFL vapor/liquid separator (VLS) or the PW VLS, depending on leg of the system. A rotary lobe positive displacement blower housed within a customized intermodal freight container (conex) provides the vacuum necessary to extract vapor from the SVE wells and pull it through the piping. Piping from the SVE wells feeds into the conex, where vapor moves through the VLSs, before traveling through the blower and a baffle connected to a regenerative thermal oxidizer (RTO) for destruction. A system fan located on the RTO side of the baffle pushes the vapor into the RTO and adds fresh air to dilute the vapor stream as necessary. Moisture in the vapor stream settles out as condensate (water) in the VLSs and is automatically pumped into the WFL aboveground storage tank (AST) or the PW AST, depending on which leg of the system the condensate originates from. A process flow diagram is included as **Appendix A**. The condensate is not treated at any point while traveling through the SVE system or tanks.

Condensate in the WFL AST originates from SVE wells inside the WRR, and is therefore treated via the WRR National Pollution Discharge Elimination System (NPDES) permitted Wastewater Treatment Plant (WWTP). The WFL condensate is not the subject of this permit application.

Public Works Leg Condensate

The FPWY is bounded on the west and north by Illinois Route 111/Old Edwardsville Road and East 8th Street, respectively. There is a Norfolk Southern railroad corridor along the southern boundary and the Phillips 66 Wood River Refinery (WRR) forms the eastern boundary. Residential properties are directly north of the FPWY. The property occupies approximately 2.4 acres, where approximately 0.4 acres is covered or obstructed by buildings and/or structures. The FPWY is enclosed by a locked and gated chain link fence.

The subsurface stratigraphy at the FPWY generally consists of the following materials from the ground surface down.

- Fill – (mainly clay, some gravel and cinders, etc.) Extends from the surface to approximately six feet below ground surface (bgs).
- Clay/Silt – (primarily silty clay) Where present, the clay generally extends from the base of the fill to approximately 12 feet bgs.
- Sand – (consisting primarily of fine to medium grained sand, which coarsens with depth, with some silt and clay especially at the shallower depths) The sand begins at the base of the clay (or base of the fill if the clay is not present) and extends the total depth of the borings.

SVE wells on the PW Leg have screens that are at least 4 ft or more above the groundwater table, and condensate does not originate from groundwater.

Soil vapor extraction has been occurring in the FPWY for over 13 years. Over that period the shallow and medium depth zones above the groundwater table (vadose zone) have been remediated. As a result, the hydrocarbon content of condensate has decreased in comparison to the early years of operation. PW condensate has historically been managed as hazardous waste, due to inappropriate early characterization in 2012 based on groundwater below the FPWY, and hauled via a tanker truck to an approved treatment, storage & disposal facility (TSDF). However, recent evaluation of the generation of the PW condensate indicates that it is characteristically nonhazardous. AECOM proposes to transport PW condensate to the Roxana publicly-owned treatment works (POTW) for treatment and discharge. The PW condensate will not be discharged directly to a sewer, and will require a tanker truck to haul batches to the POTW with a manifest as an Illinois special waste.

PW condensate accumulates in the PW AST at varying rates depending on outdoor ambient temperatures. More condensate is generated during cold months due to the warmer soil vapor cooling as it travels through aboveground piping, and less condensate is generated during the warmer months because the outdoor

ambient temperature is warmer than the soil vapor. Condensate accumulation rates range from 0 gallons per day (gpd) to approximately 200 gpd.

Village Groundwater

In addition to operating the SVE system, AECOM (on behalf of Shell) performs other environmental activities in the Village of Roxana. One of the activities is groundwater monitoring. There is a network of groundwater monitoring wells in Roxana that AECOM samples once per quarter. The wells have been routinely sampled since 2010. Some wells are known to contain chemical concentrations that exceed applicable groundwater quality standards (GQS). Approximately 1 to 5 gal of excess groundwater is generated per well during sampling activities. Groundwater from wells that are known to exceed GQS is stored separately from nonhazardous groundwater. In **Figure 1** above, the nonhazardous wells are located north of the yellow box, between Central Avenue and the blue box. The nonhazardous groundwater is stored in a portable AST. In a typical quarter approximately 100 to 150 gal of nonhazardous groundwater is generated.

AECOM proposes to discharge the nonhazardous groundwater to a sewer manhole located at the FPWY after confirming it is nonhazardous. The sewer manhole is connected via pumping station and underground piping to the Roxana POTW. Hazardous groundwater will not be discharged to the Roxana POTW; it will continue to be sent to a hazardous waste TSDF in accordance with applicable regulations.

2. Condensate and Groundwater Analysis

2.1 PW Condensate

Before each batch of PW condensate is removed from the PW AST and transported to the POTW, it will be sampled and analyzed for benzene (constituent of primary concern¹). If the benzene concentration in the condensate meets the criterion listed in the table below, it will be considered characteristically nonhazardous. The nonhazardous condensate would then be removed from the PW AST and transported to the Roxana POTW via a tanker truck with a manifest as an Illinois special waste.

Constituent	Criterion	Source/Logic
Benzene	0.5 mg/L	hazardous waste characterization toxicity threshold

If the benzene analytical result is greater than the 0.5 mg/L criterion, the batch will be managed as hazardous and not taken to the Roxana POTW. Hazardous condensate would be transported to an alternate TSDF according to applicable regulations.

The Roxana POTW operates under NPDES Permit IL-0077356. The Roxana POTW average daily influent water volume is approximately 649,584 gal (451.1 gpm). The anticipated maximum volume of a single tanker load of PW condensate is approximately 4,000 gal, which represents 0.62% of POTW daily average influent. Tanker loads of condensate are anticipated to be delivered to the POTW approximately zero to four times per month, depending on the rate of condensate accumulation.

¹ Benzene is the primary constituent of concern because a benzene pipeline release occurred near the FPWY in 1986. Subsurface benzene contamination is the remedial focus of the PW Leg of the SVE system.

2.2 Village Groundwater

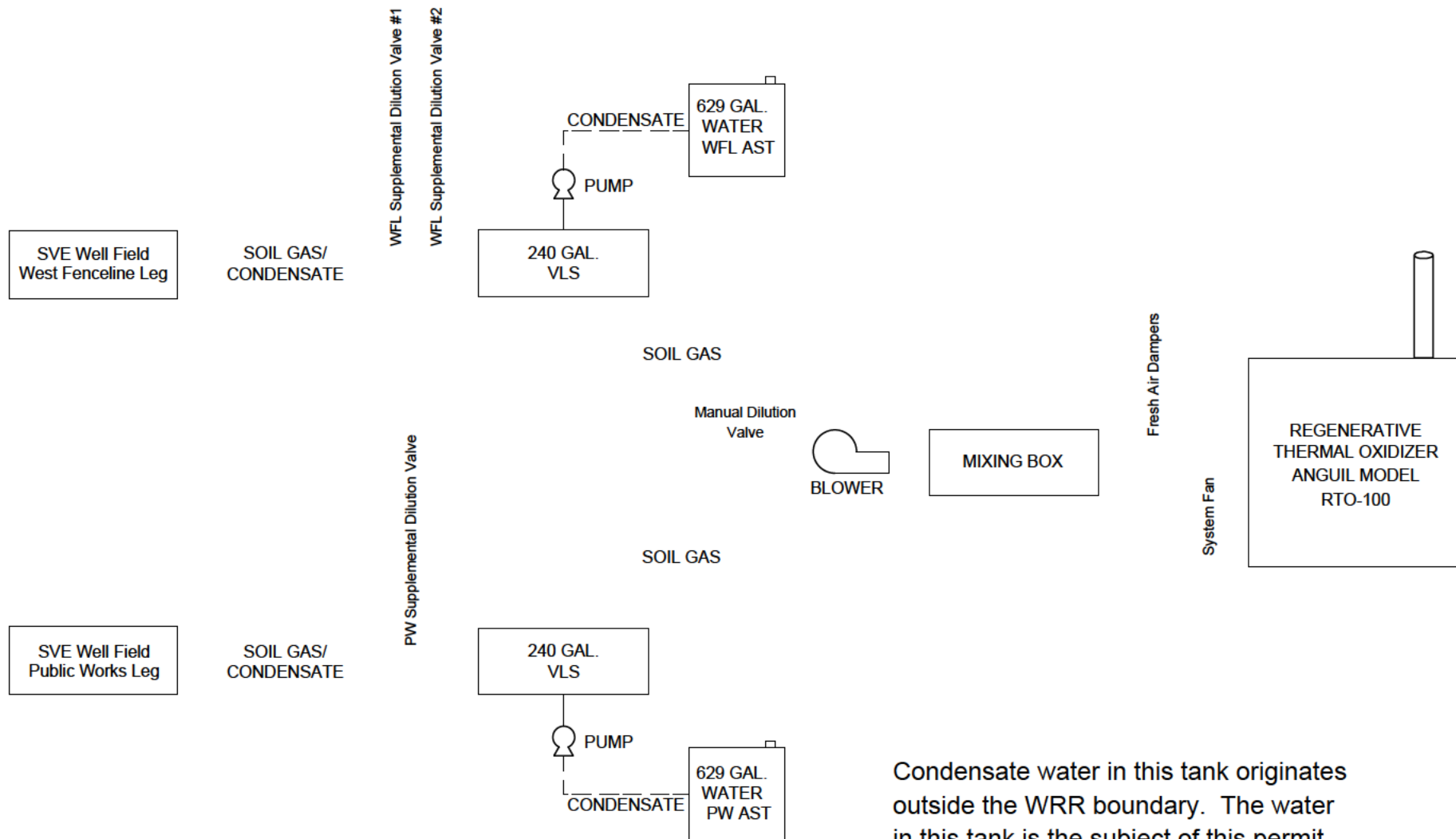
Before each batch of Village groundwater is discharged to the sewer, it will be sampled and analyzed for benzene. If the benzene concentration in the groundwater is less than 0.5 mg/L it will be considered characteristically nonhazardous. The nonhazardous groundwater would then be discharged to the Roxana POTW sewer via a manhole in the FPWY.

If the benzene analytical result is greater than the 0.5 mg/L criterion, the groundwater will be managed as hazardous and not discharged to the sewer. Hazardous groundwater would be transported to an alternate TSDf according to applicable regulations.

The anticipated maximum volume of groundwater to be discharged to the sewer in a single day is approximately 200 gal, which represents 0.031% of POTW daily average influent. Groundwater will be discharged approximately four days per year.

Appendix B contains the permit application forms for this request. The information in the **Schedule N** form applies to both the condensate and the groundwater.

Appendix A – Process Flow Diagram



Condensate water in this tank originates outside the WRR boundary. The water in this tank is the subject of this permit application.

SHELL OIL PRODUCTS US ROXANA, ILLINOIS		PROJECT NO.
AECOM		
DRN. BY:chs DSGN. BY:jrm CHKD. BY:sjs	SVE Process Diagram	FIG. NO.

Appendix B – Permit Application Forms



Instructions for Application for Construction/Operation Permit Approval WPC-PS-1

This form must be submitted for all Authorizations to Construct or Permit Applications. Two sets of the applications must be submitted. Items which are self-explanatory are omitted in these instructions. Signatures on at least one (1) submittal must be original.

1. Name and Location of the Project. Include the nearest street and city address.
2. Provide a brief description of the scope of the project such as "A sanitary sewer extension serving Happy Hills Subdivision" or "A sanitary sewer system and activated sludge, sand filter, and disinfection waste treatment facilities serving Happy Hills Subdivision."
3. A detailed explanation of when each of the indicated schedules must be submitted is indicated on the instruction sheet for the appropriate schedule. Generally, if the project involves any of the items listed, submit the corresponding schedule and check the appropriate space(s).
 - 3.1 Submit a copy of the IHPA approval letter if available.
4. The Land Trust Disclosure Submittal should be made on Schedule T.
5. Indicate the type of application (construction, operating permit, supplemental permit, etc.) being filed with the Agency.
 - 5.B If there is an existing NPDES Permit, indicate the Permit Number and the date of issuance.
 - 5.E If there is an existing NPDES Permit, indicate the Permit Number and the date of issuance. Submit a completed WPC-PS-1 form and any appropriate schedule for a Supplemental Permit request. The Supplemental Permit request should itemize the modifications to the original project/permit.

5.2 Permit Fees

415 ILCS 5./12.2 requires the following permit fees for the following types of permits:

Permit Type	Fee	Design P.E.
Municipal Sludge Generator	\$2,500	N/A
Industrial Sludge	\$2,500	N/A
Sludge User	\$5,000	N/A
Sewer Construction	\$100 \$400 \$800 \$1,200 \$2,400	(1) (2 to 20) (21 to 100) (101 to 499) (500 or more)
Industrial Construction/No Pretreatment (1)	\$1,000	N/A
Industrial Construction/Pretreatment - No Toxics (2)	\$3,000	N/A
Industrial Construction/Pretreatment - Toxics (3)	\$6,000	N/A

(1) The industrial wastewater source does not require pretreatment prior to discharge to the publicly owned treatment works or the publicly regulated treatment works.

(2) The industrial wastewater sources require pretreatment of the wastewater for non-toxic pollutants prior to discharge to the publicly owned treatment works or the publicly regulated treatment works.

(3) The industrial wastewater sources require pretreatment of the wastewater for toxic pollutants prior to discharge to the publicly owned treatment works or the publicly regulated treatment works.

6. Certificate by Design Engineer

- 6.1 The Design Engineer should complete this section. This certificate must be provided by all applicants for a construction permit. The Illinois Professional Engineering Act requires that engineers practicing in Illinois be registered in Illinois.

7. Certifications and Approvals for Permits

- 7.1.1 This certificate applies to the person, firm, or other entity which intends to construct the proposed sewer, wastewater source or treatment works. The applicant to construct is the person, firm, agency or the entity paying for the cost of construction.

An application submitted by a corporation must be signed by a principal executive officer of at least the level of vice president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the application form originates. In the case of a partnership or a sole proprietorship, the application must be signed by a general partner or the proprietor respectively. In the case of a publicly owned facility, the application must be signed by either a principal executive officer, ranking elected official or other duly authorized employee.

- 7.1.2 The certificate applies to the person, agency, firm, or other entity which owns or is responsible for the operation and maintenance of the proposed project.
- 7.2 Provide the name of the applicant as it is officially or legally referred to, i.e., the Springfield Metro Sanitary District, Metropolitan Water Reclamation District of Greater Chicago, the City of Marion, or the Super Deluxe Development Corporation. Do not use colloquial names as a substitute for the official name. This must be certified by the city clerk, village clerk, sanitary district clerk, etc. for governmental bodies.
- 7.3 The mailing address of the applicant should be the complete mailing address as its main office. This often will not be the same address as is used to designate the location of the work or activity.
- 7.4 These certificates apply to the owners of the intercepting sewers to which the project will be tributary. This section must be completed even for projects where the intercepting sewer is owned by the same entity as the receiving treatment works. The Additional Certificate by Intermediate Sewer Owner: must be completed if intermediate sewers are owned by more than one governing body. If additional certifications are required, please supply the required information on a plain sheet of paper and attach hereto.
- 7.5 35 Ill. Adm. Code 309.222(b) indicates that permit applications for sewer construction or modification shall be accompanied by signed statements from the owners of all intermediate receiving sewers and the receiving treatment works certifying that their facilities have adequate capacity to transport and/or treat the wastewater that will be added through the proposed sewer without violating any provisions of the Act and Subtitle C, Chapter I. Therefore, it will be necessary to have all such owners provide a certification as required by Subtitle C, Chapter I.

Note: Original signatures on the application forms must be submitted to the Agency. Original signatures are also required on other application forms.

MWRDGC Service Area -- A copy of an approved permit from MWRDGC may be submitted in lieu of a signed WPC-PS-1 form. An unsigned WPC-PS-1 form and Schedule A/B are required with any MWRDGC permit submitted to the Agency.

This form must be submitted to:

Illinois Environmental Protection Agency
Permit Section, Division of Water Pollution Control
2520 West Iles Avenue
P.O. Box 19276
Springfield, IL 62794-9276



Illinois Environmental Protection Agency

2520 West Iles Avenue • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Application for Permit or Construction Approval WPC-PS-1

For IEPA Use Only

This form must be typewritten or printed legibly. This form may be completed manually or online using Adobe Reader, a copy of it saved locally, printed, and signed before it is submitted to:

Illinois Environmental Protection Agency
Permit Section, Division of Water Pollution Control
2520 West Iles Avenue
P.O. Box 19276
Springfield, IL 62794-9276

Reset All Fields

1. Owner Name: Equilon Enterprises LLC d/b/a Shell Oil Products US (Shell)
Name of Project: Roxana Soil Vapor Extraction System Nonhazardous Condensate & Nonhazardous Groundwater
Project Location Address (include nearest street and city address): WRB Refinery Near Intersection of Chaffer Ave & Eight St
City: Roxana Zip Code: 62084
Township: Wood River County: Madison

2. Brief Description of the Project:

Shell owns a soil vapor extraction (SVE) system that has been operating since 2012. Condensate (water), which originates from above the groundwater table, accumulates in the piping and is collected in an AST. Analytical data indicate the untreated condensate is nonhazardous. Condensate was being hauled to a facility in Indiana, but due to cost, we request a permit allowing tanker hauling of untreated condensate to local Roxana WWTP for disposal.

3. Documents being Submitted: If the Project involves any of the items listed below, submit the corresponding schedule, and check the appropriate boxes

	Schedule		Schedule
Private Sewer Connection/Extensions	A/B ☐	Spray Irrigation	H ☐
Sewer Extension Construction Only	C ☐	Septic Tanks	I ☐
Sewage Treatment Works	D ☐	Industrial Treatment/Pretreatment	J ☐
Excess Flow Treatment	E ☐	Waste Characteristics	N ☒
Lift Station/force Main	F ☐	Erosion Control	P ☐
Fast Track Service Connection	FTP ☐	Trust Disclosure	T ☐
Sludge Disposal	G ☐		

Plans:

Title: Appendix A - SVE Process Diagram No. of Pages: 1

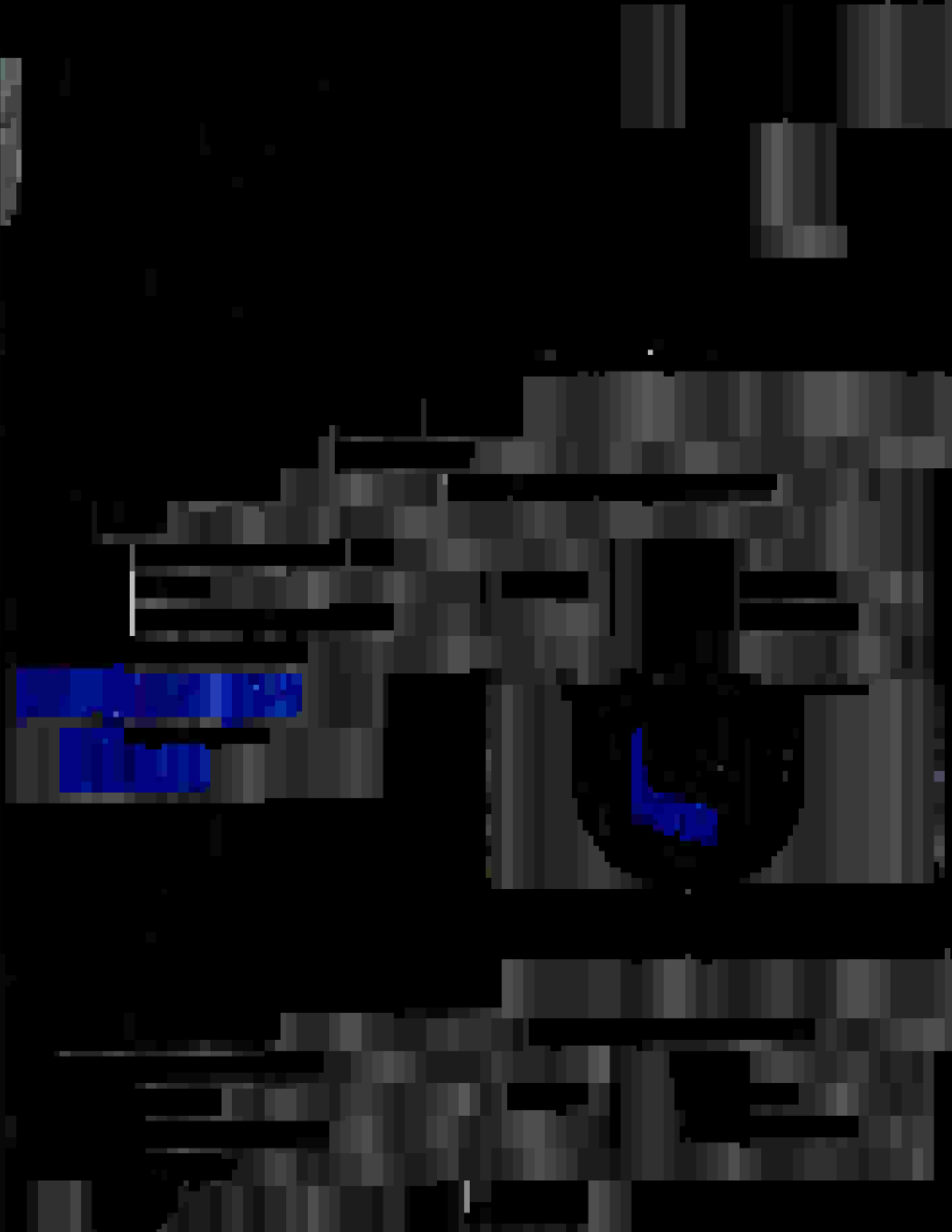
Specifications:

Title: not applicable No. of Books/Pages:

Other Documents: none
(Please specify)

- 3.1 Illinois Historic Preservation Agency approval letter ☐ Yes ☒ No

(If you have a copy of the IHPA approval letter, please send in with the Permit Application Package)



7.1.2 Name of Applicant for Permit to Own and Operate: Wendy Pennington

Title: Project Manager

Organization: AECOM

Street Address: 100 N. Broadway, 20th Floor

PO Box: _____

City: St. Louis

State: MO

Zip + 4: 63102-2728

Email Address: wendy.pennington@aecom.com

Phone: 314-452-8929

Printed Name: Wendy Pennington


Original Signature

7-9-2026
Date

7.2 Attested (Required When Applicant is a Unit of Government)

Title: Village Clerk

City clerk, Village Clerk, Sanitary District Clerk, etc.)


Original Signature

7/6/24
Date

7.3 Applications from non-governmental applicants which are not signed by the owner, must be signed by a principal executive officer of at least the level of vice president, or a duly authorized representative.

7.4 Certificate by Intermediate Sewer Owner

I hereby certify that (Please check one):

- ☒ 1. The sewers to which this project will be tributary have adequate reserve capacity to transport the wastewater that will be added by this project without causing a violation of the Illinois Environmental Protection Act or Subtitle C, Chapter I, or
- ☐ 2. The Illinois Pollution Control Board, in PCB _____ dated _____ granted a variance from Subtitle C, Chapter I to allow construction of facilities that are the subject of this application.

Name and location of sewer system to which this project will be tributary:

Collection System and Pump Station located at Former Public Works Yard

Sewer System Owner: Village of Roxana

Address: 310 NORTH CENTRAL AVENUE

City: ROXANA

State: IL

Zip + 4: 62084-

Email Address: m.Reynolds@ROXANA-IL.ORG

Phone: 618-254-0395

Printed Name: MARTY REYNOLDS


Original Signature

7/6/26
Date

7.4.1 Additional Certificate by Intermediate Sewer Owner

I hereby certify that (Please check one):

- ☐ 1. The sewers to which this project will be tributary have adequate reserve capacity to transport the wastewater that will be added by this project without causing a violation of the Illinois Environmental Protection Act or Subtitle C, Chapter I, or
- ☐ 2. The Illinois Pollution Control Board, in PCB _____ dated _____ granted a variance from Subtitle C, Chapter I to allow construction of facilities that are the subject of this application.
- ☒ 3. Not applicable.

Name and location of sewer system to which this project will be tributary:

Sewer System Owner: _____

Address: _____

City: _____ State: _____ Zip + 4: _____

Email Address: _____ Phone: _____

Printed Name: _____

Original Signature

Date

7.5 Certificate by Waste Treatment Works Owner

I hereby certify that (Please check one):

- ☒ 1. The wastewater treatment plant to which this project will be tributary has adequate reserve capacity to treat the wastewater that will be added by this project without causing a violation of the Illinois Environmental Protection Act or Subtitle C, Chapter I, or
- ☐ 2. The Illinois Pollution Control Board, in PCB _____ dated _____ granted a variance from Subtitle C, Chapter I to allow construction and operation of the facilities that are the subject of this application.
- ☒ 3. I also certify that, if applicable, the industrial waste discharges described in the application are capable of being treated by treatment works.
- ☐ 4. Not applicable.

Name of Waste Treatment Works: VILLAGE OF ROXANA WASTE WATER PLANT

Waste Treatment Works Owner: VILLAGE OF ROXANA

Address: 310 NORTH CENTRAL AVENUE

City: ROXANA State: IL Zip + 4: 62084-1123

Email Address: M.REYNOLDS@ROXANA-IL.ORG Phone: 618-254-0395

Printed Name: MARTY REYNOLDS

Marty Reynolds
Original Signature

7/6/26
Date

Save Form with New Name

Print Form

INSTRUCTIONS FOR SCHEDULE N - WASTE CHARACTERISTICS

This schedule must be submitted to show raw waste characteristics, effluent quality, and upstream and downstream quality of the receiving waters, sludge characteristics and other wastewater characteristics as required for the various schedules.

1. The name of the project must be the same as that indicated in WPC-PS-1.
2. Flow data
 - 2.1 Indicate existing, if applicable, and proposed or present design average flow.
 - 2.2 Indicate existing, if applicable, or proposed or present design maximum flow depending on the schedule originating the request.
 - 2.3 The information submitted to the Agency for temperature must be sufficient to prove that violations of the temperature portion, 203(i) of the Illinois Pollution Control Board Regulations Chapter 3 will not occur.

In the case of discharges from power plants, a graphical description of the discharge plume must be provided to the Agency which describes the various isotherm regimes in the plume and defines the boundaries of the discharge plume in relation to the receiving stream.

The definition of mixing zone is given in Rule 201(a) of the Illinois Pollution Control Board's Regulations. Make sure you are using the latest Illinois Pollution Control Board's interpretation of this definition - mixing zone.

- 2.6 The flow rate in the receiving stream at the time of stream sampling must be indicated.
3. Chemical Characteristics: The applicant must prove that the facility if permitted, will not cause violations of the Environmental Protection Act or of Regulations adopted by the Board pursuant to the Act. If the characteristics are not applicable so indicate with the letters NTF (not tested for).

For existing facility, the type of sample (grab, composite) and the number of samples taken should be indicated on Schedule N. The sampling points should be indicated on an appropriately labeled process flow sketch for raw wastewater and treated effluent. The process flow sketch should show all wastewater influent points to the treatment works before ultimate discharge.

Please review the following comments prior to proceeding.

- 3.1 The characteristics must show the average concentration of the particular waste parameter in the design year except when the schedule is being submitted to depict the current conditions.
 - 3.2 For existing domestic waste treatment works, as a minimum the influent and effluent analyses should include ammonia nitrogen, fecal coliform, (effluent only), nitrite and nitrate nitrogen, pH, phosphorous as p, suspended solids, total dissolved solids and biochemical oxygen demand (5 day).
 - 3.3 The influent and effluent should be analyzed for chemical parameters appropriate to reflect industrial discharges into the sewer system tributary to the treatment works. Guidelines for such additional analyses are contained in Table 1, which may also be used by industrial discharges as minimum required analysis guidelines.
 - 3.4 The effluent parameter concentrations shown must reflect the average and maximum concentrations of the treatment works or discharge effluent.
 - 3.5 An analysis must be performed on the influent and effluent, if it is existing, for each parameter shown on Table 1 for the appropriate industry.
 - 3.6 If the proper industrial category is not provided on Table 1, the consulting engineer should write the Illinois Environmental Protection Agency requesting a letter with a statement of the required parameters or use the parameters for a similar category on Table 1.

- 3.7 If background concentration, Rule 401(b), is considered by the applicant to be a factor in the allowable contaminants being discharged, submit an analysis of the water supply showing the concentration of the applicable parameters.
- 3.8 If any constituent level in any discharge or effluent exceeds the water quality standard then analyses must be performed for that parameter upstream and downstream in the receiving stream. The flow rate in the receiving stream at the time of stream sampling must be specified.
- 3.9 For proposed facilities approximations should be made and analysis performed in accordance with these items and Table 1.
- 3.10 The analysis must be performed in accordance with the Standard Methods for the Examination of Water and Wastewater, 13th edition or with the most current later edition or with other generally accepted procedures approved by the Agency. The methods indicated in Table A of the U.S. Environmental Protection Agency National Pollutant Discharge Elimination System Application Form Standard Form Instructions will be considered acceptable to the agency unless noted otherwise in subsequent changes to these instruction forms.
- 3.11 Upstream and downstream analyses will not be required for pretreatment facilities. However, if current data is not available regarding receiving treatment works effluent quality, additional data may be requested.
- 3.12 Upstream and downstream analyses will not be required if the minimum, 7-day, 10-year low flow of the stream is zero (0) c.f.s. The effluent quality must meet water quality standards.

For IEPA Use:

LOG #

DATE RECEIVED:

SCHEDULE N WASTE CHARACTERISTICS

1. Name of Project Roxana Soil Vapor Extraction System Nonhazardous Condensate & Nonhaz Groundwater

2. FLOW DATA

EXISTING

PROPOSED-DESIGN

2.1 Average Flow (gpd)

50

N/A

2.2 Maximum Daily Flow (gpd)

200

N/A

2.3 TEMPERATURE

Time of Year	Avg. Intake Temp. F	Avg. Effluent Temp. F	Max. Intake Temp F.	Max. Effluent Temp F.	Max. Temp. Outside Mixing Zone F
SUMMER		70		80	
WINTER		40		50	

2.4 Minimum 7-day, 10-year flow: 0 cfs 0 MGD.

2.5 Dilution Ratio: none ; _____

2.6 Stream flow rate at time of sampling 0.0003 cfs _____ MGD.

3. CHEMICAL CONSTITUENT Existing Permitted Conditions ☐ ; Existing conditions ☒ ; Proposed Permitted Conditions ☐ .

Type of sample: ☒ grab (time of collection 0840); ☐ composite (Number of samples per day)

(see instructions for analyses required)

CONSTITUENT	RAW WASTE (mg/l)	TREATED EFFLUENT Avg. (mg/l) Max.	UPSTREAM (mg/l)	DOWNSTREAM SAMPLES (mg/l)
Ammonia Nitrogen (as N)	NTF	N/A	N/A	N/A
Arsenic (total)	NTF	N/A	N/A	N/A
Barium	NTF	N/A	N/A	N/A
Boron	NTF	N/A	N/A	N/A
BOD ₅	NTF	N/A	N/A	N/A
Cadmium	NTF	N/A	N/A	N/A
Carbon Chloroform Extract	NTF	N/A	N/A	N/A
Chloride	NTF	N/A	N/A	N/A
Chromium (total hexavalent)	NTF	N/A	N/A	N/A
Chromium (total trivalent)	NTF	N/A	N/A	N/A

CONSTITUENT	RAW WASTE (mg/l)	TREATED EFFLUENT Avg. (mg/l) Max.	UPSTREAM (mg/l)	DOWNSTREAM SAMPLES (mg/l)
Copper	NTF	N/A	N/A	N/A
Cyanide (total)	NTF	N/A	N/A	N/A
Cyanide (readily released @ 150° F & pH 4.5)	NTF	N/A	N/A	N/A
Dissolved Oxygen	NTF	N/A	N/A	N/A
Fecal Coliform	NTF	N/A	N/A	N/A
Fluoride	NTF	N/A	N/A	N/A
Hardness (as Ca CO ₃)	NTF	N/A	N/A	N/A
Iron (total)	NTF	N/A	N/A	N/A
Lead	NTF	N/A	N/A	N/A
Manganese	NTF	N/A	N/A	N/A
MBAS	NTF	N/A	N/A	N/A
Mercury	NTF	N/A	N/A	N/A
Nickel	NTF	N/A	N/A	N/A
Nitrates (as N)	NTF	N/A	N/A	N/A
Oil & Grease (hexane solubles or equivalent)	NTF	N/A	N/A	N/A
Organic Nitrogen (as N)	NTF	N/A	N/A	N/A
pH	7.4	N/A	N/A	N/A
Phenols	NTF	N/A	N/A	N/A
Phosphorous (as P)	NTF	N/A	N/A	N/A
Radioactivity	NTF	N/A	N/A	N/A
Selenium	NTF	N/A	N/A	N/A
Silver	NTF	N/A	N/A	N/A
Sulfate	NTF	N/A	N/A	N/A
Suspended Solids	NTF	N/A	N/A	N/A
Total Dissolved Solids	NTF	N/A	N/A	N/A
Zinc	NTF	N/A	N/A	N/A
Others				
BENZENE	<0.5	N/A	N/A	N/A
N/A = Not Applicable				
NTF = Not Tested For				
Condensate and groundwat	are not treated,	so only Raw Waste is	applicable.	

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