

**TOWNSHIP OF DENNIS  
BOARD OF HEALTH  
REGULAR MEETING AGENDA  
November 12, 2024  
5:30 P.M.**

1. **CALL TO ORDER:** Frank L. Germanio, Jr., Chairperson
2. **MEETING NOTICE PURSUANT TO N.J.S. 10:4-6 to 10:4-21.**
3. **ROLL CALL:** \_\_\_\_ Z. Matalucci, \_\_\_\_ F. Germanio, \_\_\_\_ S. Turner, \_\_\_\_ T.VanArtsdalen  
\_\_\_\_ M. Cox, \_\_\_\_ J. Justice

4. **PLEDGE OF ALLEGIANCE**

5. **ITEMS THAT ARE PENDING:**

A. **CORRESPONDENCE:**

1. Cape May County Department of Health – 2024 Free Rabies Clinics.

Approved by: \_\_\_\_ Z. Matalucci, \_\_\_\_ F. Germanio, \_\_\_\_ S. Turner,  
\_\_\_\_ T.VanArtsdalen, \_\_\_\_ M. Cox, \_\_\_\_ J. Justice

B. **COUNTY INSPECTIONS/VIOLATIONS:**

None.

C. **DOG REPORT:**

1. There have been 265 dog licenses issued to date for 2024.

D. **NOTICE OF CONFINEMENT OF DOMESTIC ANIMAL(S) WITH KNOWN OR SUSPECTED EXPOSURE TO RABIES:**

None.

**E. SUSPECTED HAZARDOUS SUBSTANCE DISCHARGE NOTIFICATION:**

2500 Route 9 – Unknown liquid.  
Garden State Parkway mm 18.3 – revised Classification Exception Area and Well  
Restriction Area application.

**F. APPROVAL OF BOARD OF HEALTH REGULAR MEETING MINUTES:**

October 08, 2024 regular meeting minutes.

Approved by: \_\_\_\_\_ Z. Matalucci, \_\_\_\_\_ F. Germanio, \_\_\_\_\_ S. Turner,  
\_\_\_\_\_ T.VanArtsdalen, \_\_\_\_\_ M. Cox, \_\_\_\_\_ J. Justice

**6. COMMENTS:**

**7. MOTION TO ADJORN MEETING:**



## Cape May County's 2024 Free Rabies Clinics

**Date and Time:**

**Municipality:**

**Location:**

**October 26, 2024  
1:00 p.m.-3:00 p.m.**

**Upper Township**

**Shore Veterinary Animal Hospital  
73 Hope Corson Road, Seaville, NJ**

**November 16, 2024  
9:30 a.m.-10:30 a.m.**

**Middle Township**

**Public Works Building  
400 West Mechanic St. , CMCH, NJ**





## State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
EMERGENCY MANAGEMENT PROGRAM  
BUREAU OF COMMUNICATIONS & RESPONSE SERVICES

1400 Negron Drive

P.O. Box 402, Mail Code 1400-01

Trenton, New Jersey 08691

Tel. (609) 588-2848 • Fax (609) 584-4970

[www.nj.gov/dep](http://www.nj.gov/dep)

**PHILIP D. MURPHY**  
*Governor*

**TAHESHA L. WAY**  
*Lt. Governor*

**SHAWN M. LATOURETTE**  
*Commissioner*

Health Officer  
Cape May County Health Department  
4 Moore Road, DN-601  
Cape May Court House NJ 08210

TWP CLERK  
PO BOX 204  
DENNIS TWP NJ 08214

October 24, 2024

**SUSPECTED HAZARDOUS SUBSTANCE DISCHARGE NOTIFICATION**  
NJDEP CASE NUMBER: 24-10-23-1120-59

The New Jersey Department of Environmental Protection has received verbal notification of an incident that may have resulted in a discharge of a hazardous substance within your jurisdiction.

Pursuant to N.J.S.A. 13.1K-15 et seq., (P.L. 1984, c. 210) "Hazardous Substance Discharge - Reports and Notices Act" and N.J.A.C. 7:1E-5.1 et seq., "Hazardous Substance Discharge: Reports and Notices," attached is a copy of our Incident Notification Form which contains details of the suspected discharge. Further information concerning this incident may be obtained by contacting:

Water - Southern Regional Office  
Water Quality  
856-614-3655

Please refer to the above "NJDEP CASE NUMBER" in all correspondence concerning this incident.

Stephanie Cardell  
Communications Officer  
New Jersey Department of Environmental Protection

**Emergency Management Program  
Bureau of Communications & Response Services**

**New Jersey Department of Environmental Protection  
COMMUNICATION CENTER NOTIFICATION REPORT (A310)**

<b>Received:</b>	23-OCT-24	<b>Comm. Center #:</b>	24-10-23-1120-59
<b>Operator:</b>	60	<b>Reviewed By:</b>	
<b>Incident ID:</b>	925405		

<b>Reporter Type:</b>	Citizen Complaint		
<b>Reported By:</b>	John Zettinger	<b>Affiliation:</b>	<b>Phone:</b> 609-204-6447
<b>Street Address:</b>	<NO DATA FOUND>	<b>Municipality:</b>	Dennis Twp <b>State:</b> New Jersey

<b>Incident Category:</b>	Other						
<b>Location Description:</b>	Wawa parking lot						
<b>Address:</b>	2500 Rt 9						
<b>Municipality:</b>	Dennis Twp	<b>County:</b>	Cape May	<b>State:</b>	New Jersey	<b>Zip Code:</b>	08214
<b>Location Type:</b>	Other	<b>Occurred Date:</b>	10/23/2024	<b>Occurred Time:</b>	11:10 AM		

**Substance Released:**

ID	Substance	CAS#	Quantity	Units	Type	HAZMAT	TCPA	State	Contained
Known	UNKNOWN LIQUID		0	unknown	Unknown	Unknown	Unknown	Liquid	No

<b>Incident Type:</b>	Improper disposal/Storage			<b>Incident Type 2:</b>					
<b>Injuries:</b>	N	<b>Public Evac:</b>	N	<b>Facility Evac:</b>	N	<b>Public Exposure:</b>	N	<b>Police at Scene:</b>	N
<b>Firemen at Scene:</b>	N	<b>DEP Requested:</b>	Y	<b>Road Closure:</b>	N	<b>Wind Speed/Direction:</b>			
<b>Contamination of:</b>	Water								
<b>Watershed:</b>				<b>Other Watershed:</b>	storm drain				
<b>Incident Description:</b>	Caller saw a tractor trailer with NJ trailer Reg TYG39A over a storm drain dumping unknown amount of liquid into it. Caller has a picture of it for enforcement and he would like a call about it.								

<b>Responsible Party Name:</b>	unknown company				<b>Responsible Party Phone:</b>					
<b>Responsible Party Street Address:</b>										
<b>Municipality:</b>				<b>County:</b>			<b>State:</b>	New Jersey	<b>Zip Code:</b>	

**Officials Notified:**

Name	Affiliation	Phone	Date & Time	Action
	Water - South		10/23/2024 11:10 AM	Notification - Email
Op # 15008	DENNIS TWP	609-861-5300	10/23/2024 11:10 AM	Notification - A310
	NJSP-ROIC		10/23/2024 11:10 AM	Notification - Email
	F&W - South		10/23/2024 11:10 AM	Notification - Email

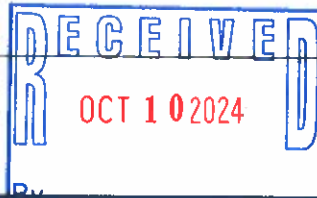
## Jackie Justice

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**From:** a310notification@dep.nj.gov  
**Sent:** Thursday, October 24, 2024 5:58 AM  
**To:** Jackie Justice; thomas@co.cape-may.nj.us  
**Subject:** NJDEP A310 Incident Notification - Communication Center ID:24-10-23-1120-59 (Dennis Twp / Cape May County )  
**Attachments:** 0\_C02243346\_35588159.pdf

**ATTENTION! This e-mail is from an External Source!**

**SUSPECTED HAZARDOUS SUBSTANCE DISCHARGE NOTIFICATION: NJDEP INCIDENT NOTIFICATION NUMBER: 24-10-23-1120-59** The New Jersey Department of Environmental Protection has received notification of an incident that may have resulted in a discharge of a hazardous substance within your jurisdiction. Pursuant to N.J.S.A. 13.1K-15 et seq., (P.L. 1984, c 210) "Hazardous Substance Discharge - Reports and Notices Act" and N.J.A.C. 7:1E-5.1 et seq., Hazardous Substance Discharge: Reports Notices, attached to this email is a copy of our Incident Notification Form which contains details of the suspected discharge. Further information concerning this incident may be obtained by reviewing attached Notification Letter and Incident Report.



# TRANSMITTAL FORM

Attention:	Reference:	Date:
Frank Germanio Chairman, Dennis Township Board of Health 571 Petersburg Road, PO Box 204 Dennisville, NJ 08214	NJTA Oceanview Service Area Garden State Parkway Milepost 18.3 Dennis Twp, NJ 08230 PI No. 014105 LSRP: M. Patel (591566)	10/7/2024

Copies	Date	Description
1	10/7/2024	Cover Letter / Copy of CEA Revision Submitted to NJDEP BCAIN

**Transmitted:**

- For your approval
- For review and comment
- For your use
- As requested
- Please return
- Returned after loan to BEM

**Sent via:**

- Federal Express (FedEx)
  - Priority Overnight (by 10:30 am Next Day)
  - Standard Overnight (by 3:00 pm Next Day)
  - 2-Day Express Saver (by 4:30 pm 3 Bus. Days)
  - Ground (1-5 Bus. Days)
- U.S. Mail (Certified)

**Remarks:** Attached is a copy of the Classification Exception Area (CEA) Revision request package and associated cover letter for your records in relation to the above-referenced site. These documents were submitted to the New Jersey Department of Environmental Protection (NJDEP) Bureau of Case Assignment & Initial Notice (BCAIN). Please contact me at (908) 598-2600, extension 762, or [rhughes@bemsys.com](mailto:rhughes@bemsys.com) with any questions. Thank you.

Copy to: New Jersey Turnpike Authority

Signed:   
 (Print): Robert Hughes, PE



October 7, 2024  
21-A3813-P1**SENT VIA CERTIFIED MAIL AND RETURN RECEIPT**

**Re: Public Notification of Classification Exception Area/Well Restriction Area  
NJTA Oceanview Service Area  
Garden State Parkway Milepost 18.3, Dennis Township, Cape May County, NJ  
NJDEP Program Interest No. 014105  
Case Number 86-03-11-06C**

**To Whom It May Concern:**

BEM Systems, Inc. (BEM), on behalf of the New Jersey Turnpike Authority (Authority), has investigated environmental conditions at the NJTA Oceanview Service Area site located at Garden State Parkway Milepost 18.3, Dennis Township, Cape May County, New Jersey, from a historic release from former underground storage tanks (USTs) on-site. The site is currently used as a fueling station and service area for the Garden State Parkway roadway. Remediation activities are being conducted in general accordance with the New Jersey Department of Environmental Protection (NJDEP) Administrative Requirements for the Remediation of Contaminated Sites (ARRCS), New Jersey Administrative Code (N.J.A.C.) 7:26C and the Technical Requirements for Site Remediation (TRSR), N.J.A.C. 7:26E. The site can be referenced on NJDEP's website under Program Interest Number (No.) 014105.

We are currently notifying you of the revised Classification Exception Area (CEA) and Well Restriction Area (WRA) application for the Site in accordance with the NJDEP ARRCS 7:26C-7.3 (d). The CEA establishes that groundwater is contaminated and at what levels, the area of the groundwater contamination, and the assumed length of time required for the groundwater contamination to reach the NJDEP Groundwater Quality Standard (GWQS), N.J.A.C. 7:9C. The existing CEA/WRA has been revised based on our groundwater investigation conducted over the past two years. In accordance with the WRA, we recommend that any potable or pumping wells installed within the CEA footprint are sampled for the parameters of concern (1,2,4-trimethylbenzene, n-propylbenzene and total synthetic organic compounds) prior to initial use. Please note that the Authority will continue to monitor the groundwater and report the results to NJDEP until the contaminants are below the GWQS. Attached please find a copy of the CEA / WRA Fact Sheet Form.

We will continue to send public notifications with regard to additional future activities, as required. You are welcome to contact Mr. Mittul Patel as the Licensed Site Remediation Professional (LSRP) for this site with any questions or concerns: (908) 598-2600. Additionally, you may contact Mr. Christopher Rossi of the Authority (the responsible party) at (732) 750-5300.

Sincerely,

BEM Systems, Inc.

A handwritten signature in blue ink, appearing to read "Rob Hughes".

Robert Hughes, PE  
Project Manager

cc: Christopher Rossi, New Jersey Turnpike Authority  
Jeffrey Wilhelm, New Jersey Turnpike Authority  
Mittul Patel, BEM  
NJDEP (via online portal)  
Jackie Justice, Dennis Township Clerk  
Frank Germanio, Dennis Township Board of Health  
Rita M. Rothberg, Cape May County Clerk  
Judy Startare, Cape May County Health Department  
Leslie Gimeno, Cape May County Planning Department



**New Jersey Department of Environmental Protection  
Site Remediation and Waste Management Program  
CLASSIFICATION EXCEPTION AREA / WELL RESTRICTION  
AREA (CEAWRA) FACT SHEET FORM**

Date Stamp  
(For Department use only)

**SECTION A. SITE INFORMATION**

Site Name: Sunoco#0273-3368

Program Interest (PI) Number(s): 014105

Case Tracking Number(s) for this submission: 86-03-11-06C

**This form must be attached to the Cover / Certification Form  
if not submitted through the Remedial Phase Report Online Service**

1. Indicate the reason for submission of this form (see instructions):

- New CEA     Revise CEA     Reestablish CEA     Existing CEA with no changes  
 CEA for historic fill     CEA for Historically Applied Pesticides (HAP)     CEA lift/removal

If you are submitting this form for an existing CEA provide the CEA Subject Item ID: CEA100117097

2. Indicate the type of ground water Remedial Action (RA):

- Natural     Active     Final RA not yet selected

3. Is this form being submitted with a Remedial Action Permit (RAP) Form (for Soil or Ground Water)?....  Yes     No

**SECTION B. CEA COMPONENT AND VAPOR INTRUSION INFORMATION**

Name of document that includes the CEA Fate and Transport Description: Remedial Action Report for AOC-1 & AOC-6

Date of document: 09/30/2024

1. **Ground Water Classification:** What is the ground water classification within the CEA as per N.J.A.C. 7:9C?

(Check all that apply)

- Class I-A     Class II-A  
 Class I-PL Pinelands Protection Area     Class III-A  
 Class I-PL Pinelands Preservation Area     Class III-B

2. **Contaminant Data:** This CEAWRA applies only to the contaminants listed below with concentrations above, or assumed to be above, numeric values established for the applicable classification area via the [Ground Water Quality Standards](#) (GWQS), N.J.A.C. 7:9C. Except for historic fill CEAs based on assumed ground water contamination, list the maximum contaminant value for all ground water data that could be representative of **current** conditions for any well or sampling point used to establish the CEA. See form instructions before entering data into the below table.

Contaminant	Concentration <sup>(1)</sup>	GWQS <sup>(2)</sup>	SWQS <sup>(3)</sup>	GWSL <sup>(4)</sup>
1,2,4-Trimethylbenzene	2100	100		
N-Propylbenzene	240	100		
Synthetic Organic Chemicals [Total]	500	7180		

- Notes: (1) Maximum concentration in Micrograms Per Liter  
(2) New Jersey Ground Water Quality Standards, N.J.A.C. 7:9C-1.7 and 1.9(c)  
(3) [Surface Water Quality Standards](#), N.J.A.C. 7:9B - Applicable only where contaminants in the CEA may discharge to a surface water body.  
(4) Current NJDEP Vapor Intrusion (VI) Ground Water Screening Levels (GWSL) available at <http://www.nj.gov/dep/srp/guidance/vaporintrusion/>

Check if attaching the form Addendum to list additional contaminants and associated information.

**3. CEA Boundaries and VI Pathway Status:**

Year of tax map used: N/A

Are there volatile contaminants in the CEA? .....  Yes  No

Is there LNAPL currently found in the CEA? .....  Yes  No

For CEA revisions only:

Check if CEA Boundary has changed (See instructions)

Check if Block and Lot numbers have changed (See instructions)

List the block(s) and lot(s) included in the areal extent of the CEA and check the appropriate boxes:

Block	Lot(s)	Check if off-site	Check if VI pathway was evaluated*	Check if VI pathway status is indeterminate*
N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Check if attaching an Addendum to list additional Blocks/Lots and associated information. (see instructions)

\*Follow instructions for parcels where the vapor intrusion (VI) pathway was evaluated and the status is indeterminate.

Direction of ground water flow: Southwest (If multiple water bearing zones exist within the CEA and/or there is no predominant flow direction, see instructions.)

Vertical depth of CEA: 82 (ft bgs) and -67.1 (msl).

Horizontal extent of CEA: 29958 Indicate units:  acres or  square feet

Name(s) of the affected Geologic Formation(s)/Unit(s) (see instructions if multiple formations/units affected):  
Cape May

Narrative description of proposed CEA boundaries:

The CEA remains on-site. Groundwater flow direction is to the southwest. The horizontal boundary is provided by monitoring wells MW-1, MW-6, MW-7, MW-11, and MW-12. MW-11 is the sentinel well. The vertical boundary is provided by MW-24.

**4. Projected Term of CEA:** (Based on modeling/calculations in the fate and transport description)

Proposed Duration in Years: 4.48 Anticipated Expiration Date: 09/04/2027

or  Indeterminate (Review instructions before selecting "Indeterminate" for the CEA duration.)

**5. ATTACH AND/OR SUBMIT THE FOLLOWING:** (see instructions for additional information/requirements)

**Exhibit A: Site Location Maps** – Based on USGS Quadrangle Map;

**Exhibit B: CEA Map and Cross Section Figure** – See N.J.A.C 7:26C- 7.3(c)1 and 2 and instructions regarding what is required to be included on the map and the cross-section figure.

**Exhibit C: GIS Deliverables** – CEA Boundary Extent Map. The CEA Boundary Extent Map shall be submitted via email to [srpgis\\_cea@dep.nj.gov](mailto:srpgis_cea@dep.nj.gov). (See the instructions for detailed GIS deliverable requirements.)

Identify format of CEA Boundary Extent Map being submitted: .....  Shape File  CAD File  N/A

If there is a CEA map already on [NJ-GeoWeb](http://NJ-GeoWeb), does it need to be revised? .....  Yes  No  N/A

**SECTION C. CURRENT GROUND WATER USE DOCUMENTATION**

- 1. Indicate the year of the most recent well search completed per N.J.A.C. 7:26E-1.14: 2023
- 2. If this Fact Sheet form is for a revised CEA or an existing CEA with no changes, have new wells been installed since the CEA was established? .....  Yes     No     N/A
- 3. Are there any pumping wells (e.g., potable, industrial, irrigation or recovery wells) within the foot print of the CEA? .....  Yes     No

If "Yes" list/attach list of the type and status of any pumping well(s) within CEA:

**SECTION D. WELL RESTRICTION INFORMATION**

Certain well restrictions relevant to potable ground water use, such as "Double Case Wells", "Sample Potable Wells", and "Evaluate Production Wells", are consistently set within the boundaries of all CEAs established by the NJDEP in Class I and II-A areas (*see instructions*).

- 1. Are there any other site-specific well restrictions relevant to potable ground water use that should be set within or near the boundaries of the proposed CEA? .....  Yes     No

If "Yes", describe below any such site-specific well restrictions proposed for this CEA:

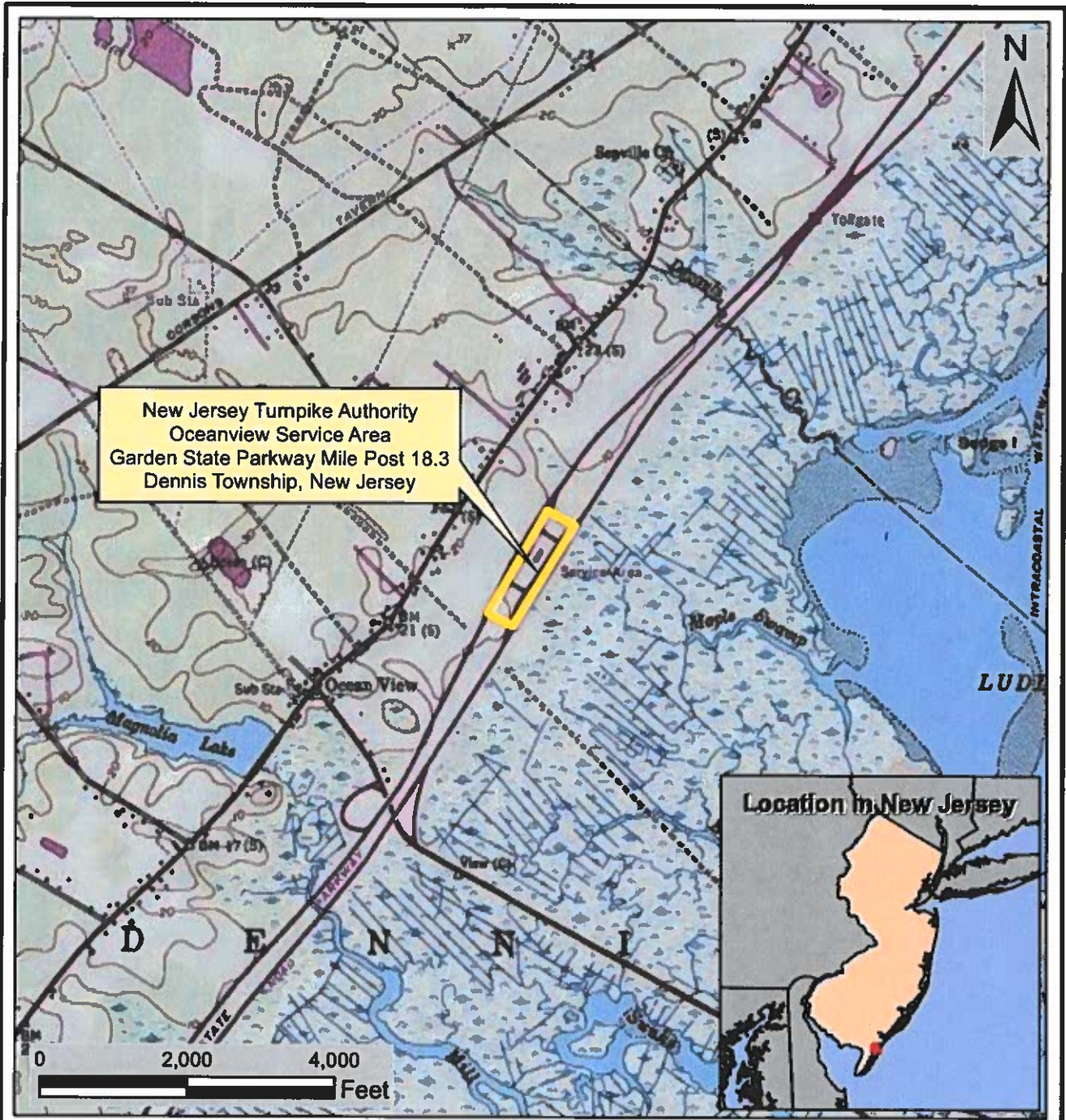
**SECTION E. PUBLIC NOTIFICATION REQUIREMENTS**

- 1. Indicate which of the following entities have been notified pursuant to N.J.A.C. 7:26C-7.3(d) and the dates each notification was sent. (*check all that apply*)


- Municipal and county clerk(s) ..... Dated mailed: 10/7/2024
- Local, county or regional health department(s) ..... Dated mailed: 10/7/2024
- Designated County Environmental Health Act agency (if applicable) ..... Dated mailed: \_\_\_\_\_
- County Planning Board ..... Dated mailed: 10/7/2024
- Pinelands Commission (if applicable) ..... Dated mailed: \_\_\_\_\_
- Owners of real property overlying CEA foot print ..... Dated mailed: \_\_\_\_\_







**Legend**

 Site Limits



**New Jersey Turnpike Authority  
Oceanview Service Area**

**Classification Exception Area**

**Exhibit A: Site Location Map**

Project No.:  
21-A3813-P1

Date:  
September 2024

Created By:  
AG

Service Layer Credits: Copyright: © 2013  
National Geographic Society  
States. ESRI data and maps (2014)  
Parcel: NJGIN (2015)



7 Giralda Farms, STE 180  
Madison, NJ 07940  
P. (908) 598-2600





- Monitoring Well
- Abandoned Monitoring Well
- Approximate CEA Boundary
- Site Limits



Source: NJDOT (2020)  
 Aerial: NJDOT (2020)  
 Monitoring Well Locations: H2M (2016)



**New Jersey  
 Tumplike Authority  
 Oceanview Service Area**

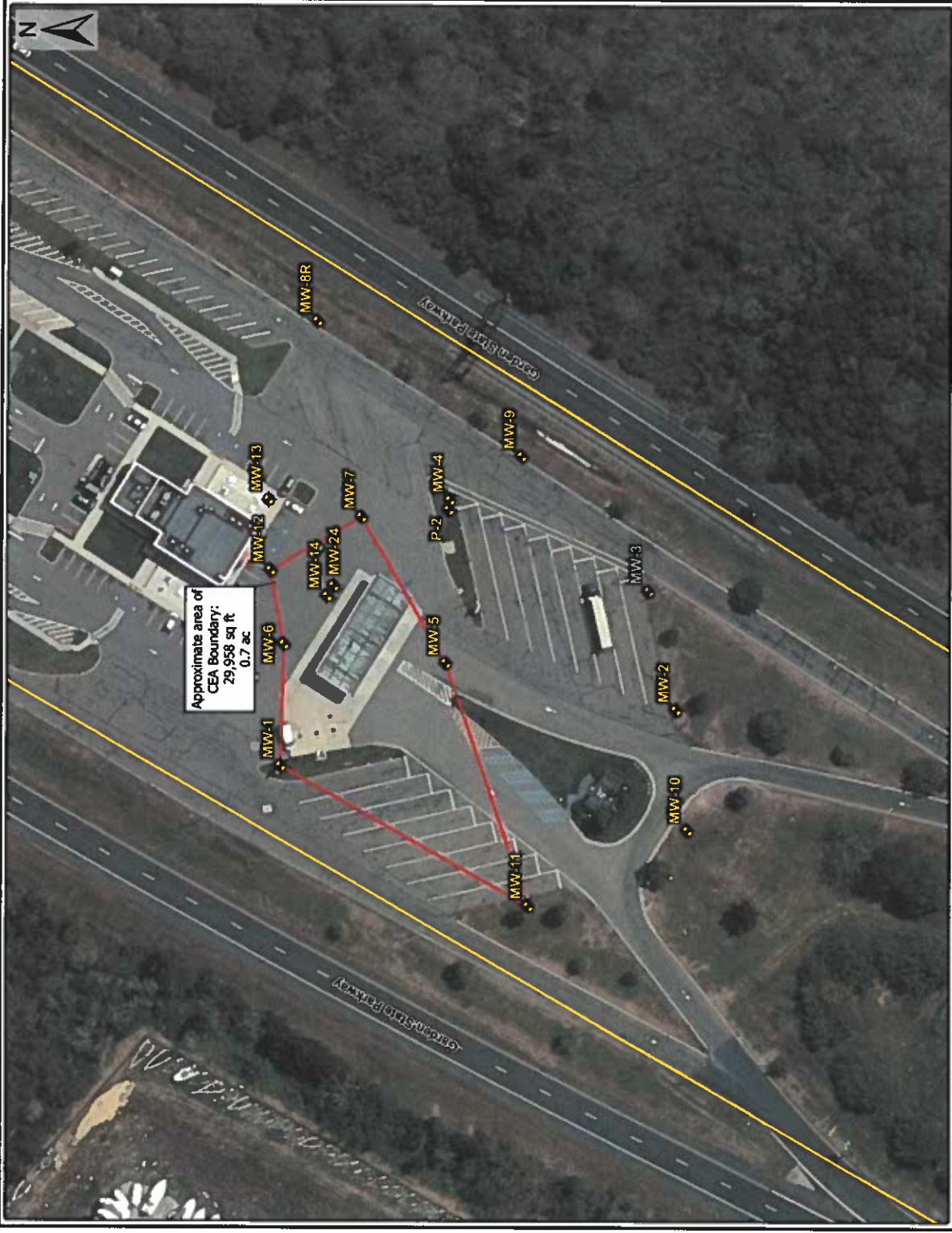
**Classification Exception Area**

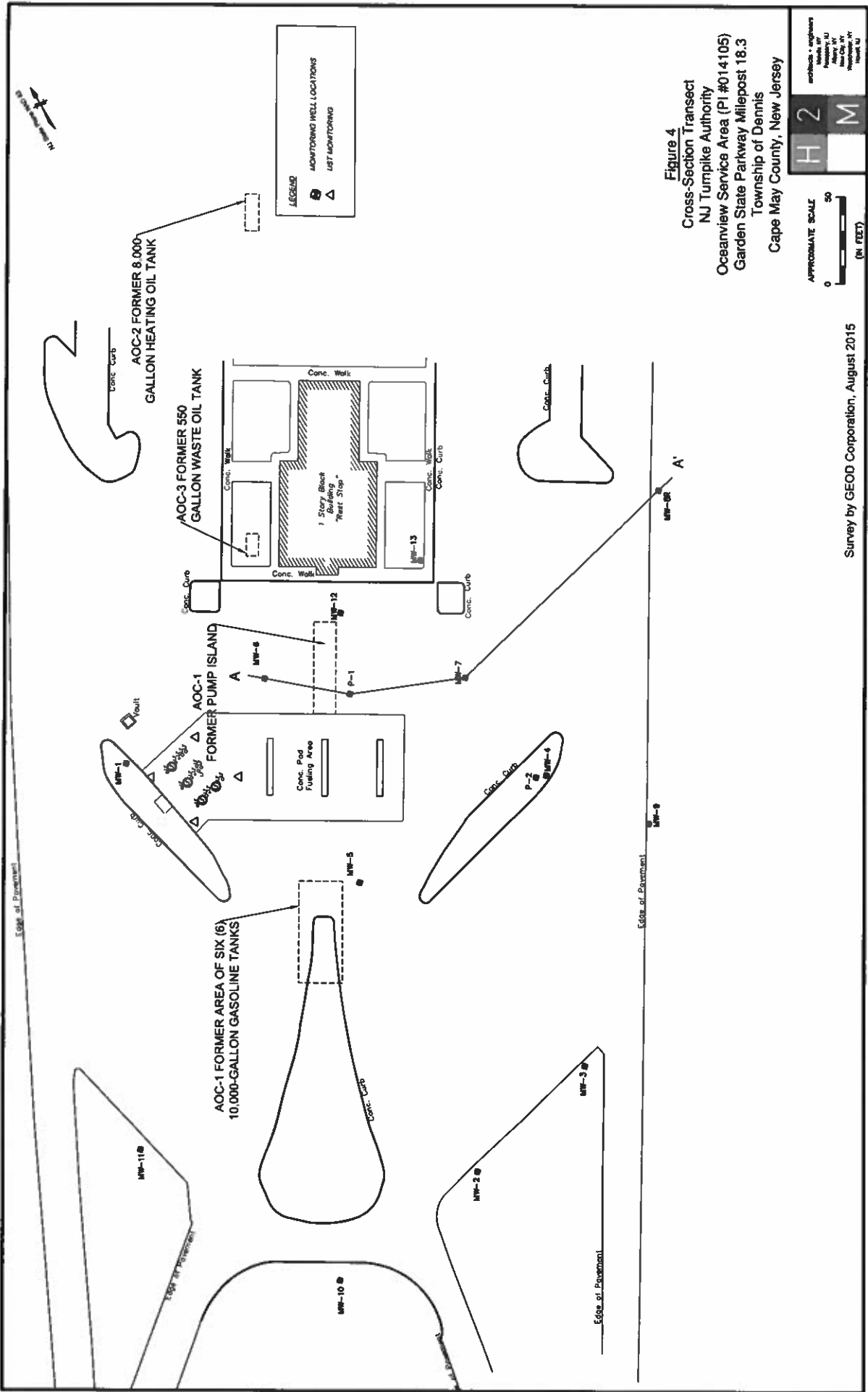
**Exhibit B-1: Proposed Classification  
 Exception Area**

Project No.: 21-A3813-P1  
 Date: September 2024  
 Created By: CW

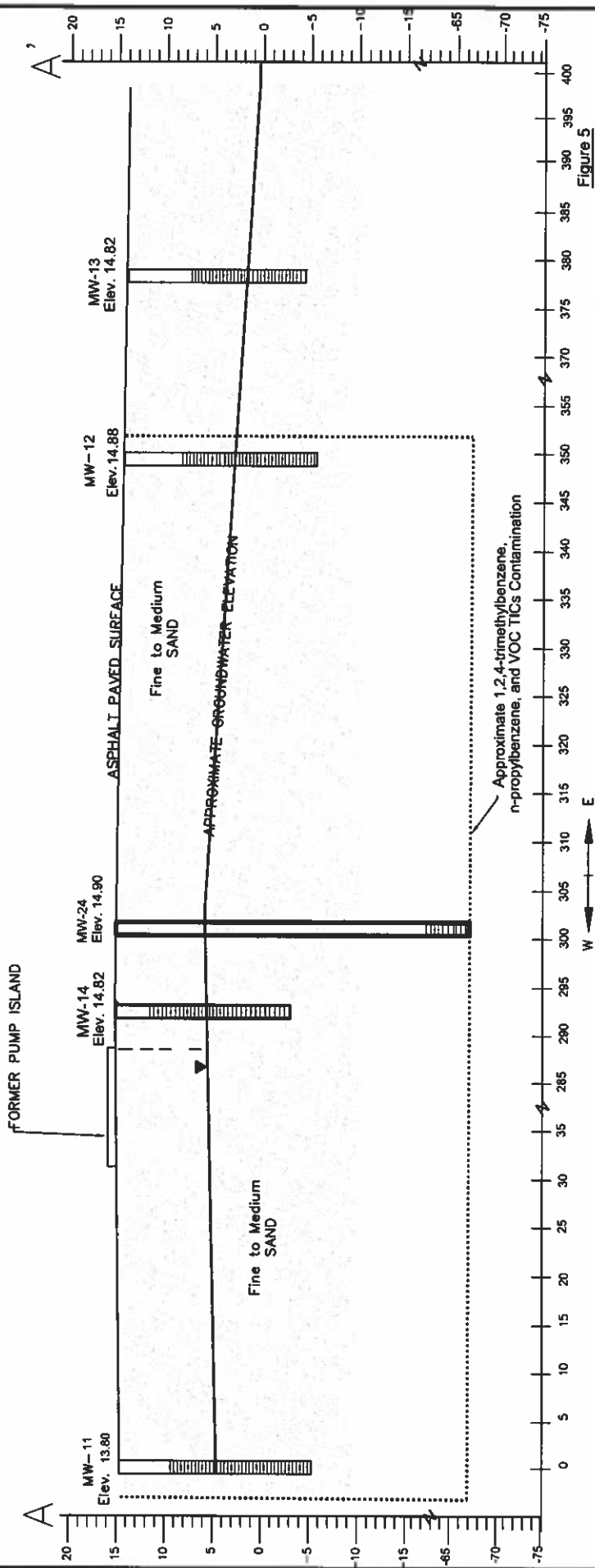
**BEM**  
 7 Girarde Farms, STE 180  
 Madison, NJ 07940  
 P. (908)598-2800

Path: \\data\GISDATA\Projects\NJ\_Tumplike\2021\_OnCall\Contract\TaskP-1\_Oceanview\2023\_PRRMap\Oceanview\_Figures.aprx  
 This map and all information contained herein is authorized for use only by our client and cannot be reprinted, copied, reproduced, or otherwise disseminated without the prior written consent of the issuing agency or user.





Survey by GEOD Corporation, August 2015



## CEA Calculation Oceanview Service Area - MW-14: 1,2,4-Trimethylbenzene

### CEA Duration:

$$t = -\ln(C/C_0)/k$$

C	Final Concentration (ug/L)	100
C <sub>0</sub>	Initial Concentration (ug/L)	940
k	degradation rate (days <sup>-1</sup> ) or (0.693/t <sub>1/2</sub> )	0.0014
t	time (days)	1636
y	time (years)	4.48

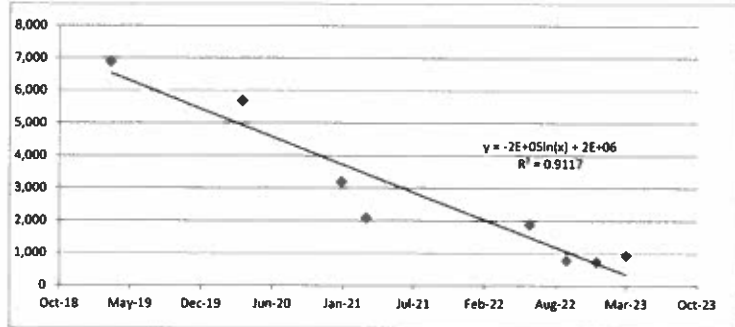
#### Source Information

The NJDEP GWQS for benzene

The most recent concentration of 1,2,4-trimethylbenzene in MW-14

The degradation coefficient for each compound is a function of the half-life of each compound in groundwater. It is equal to the natural logarithm of two divided by the half-life. The TICs half-life was determined by comparing concentrations of benzene over time in MW-14.

Date	Concentration (ppb)
3/20/2019	6,900
3/26/2020	5,700
12/30/2020	3,200
3/11/2021	2,100
6/14/2022	1,900
9/27/2022	790
12/20/2022	740
3/14/2023	940



Duration (Days) = 1455  
 $-\ln(C/C_0) = 1.993396815$   
 Half Life (t<sub>1/2</sub>) = 505.83  
 k = 0.0014

Date expected to meet standard: **9/4/2027**

### CEA Transport Distance:

Groundwater seepage velocity equation:

$$V_s = (K^*)/n_s$$

K	Hydraulic Conductivity of aquifer material (feet/day)	2.8
i	Hydraulic Gradient (feet/foot)	0.03
n <sub>s</sub>	Effective Porosity (decimal fraction)	0.39
V <sub>s</sub>	Seepage Velocity (feet/day)	0.215384615

The hydraulic conductivity was selected on the average results determined by others  
 Hydraulic gradient was calculated and averaged using data collected from measurements of several onsite monitoring wells.

Porosity values were chosen based on review and interpretation of the geologic logs collected during well installation. Using the dominant grain size, the effective porosity was selected for fine sand and silt (Morris and Johnson, 1967).

### Retardation Factor:

$$R_d = 1 + (K_{oc} * f_{oc} * \rho_b) / n_s$$

K <sub>oc</sub>	Organic Carbon Partition Coefficient (cm <sup>3</sup> )	814.3
f <sub>oc</sub>	Fraction of Organic Carbon (decimal fraction)	0.001
ρ <sub>b</sub>	Dry Bulk Density of Aquifer Matrix (g/cm <sup>3</sup> )	1.8
n <sub>s</sub>	Effective Porosity (decimal fraction)	0.39
R <sub>d</sub>	Retardation Factor	3.520205128

The K<sub>oc</sub> is a chemical specific partition coefficient between organic carbon in soil and the organic phase. Larger K<sub>oc</sub> values indicate greater affinity of COCs for the organic carbon fraction in soil. The K<sub>oc</sub> assumed in this model is 58.9 L/kg for benzene based on the NJDEP default value (NJDEP, 2007)

The fraction of organic carbon in the aquifer sediments is assumed to be the default standards of 0.001 (NJDEP, 2012).

Soil Bulk Density is based on fine to medium sand, which averages between 1.55 and 1.69 g/cm<sup>3</sup> (Morris and Johnson, 1967)

Porosity values were chosen based on review and interpretation of the geologic logs collected during well installation. Using the dominant grain size, the effective porosity was selected for fine to medium sand (Morris and Johnson, 1967).

### Pollutant Transport Rate:

$$V_{pt} = V_s / R_d$$

V <sub>s</sub>	Seepage Velocity (feet/day)	0.215384615
R <sub>d</sub>	Retardation Factor	3.520205128
V <sub>pt</sub>	Pollutant Transport Rate (feet/day)	0.061185246

### Pollutant Transport Distance Equation:

$$D = V_{pt} * t$$

V <sub>pt</sub>	Pollutant Transport Rate (feet/day)	0.061185246
t	time (days)	1635.516106
D	Pollutant Travel Distance (feet) upon reaching	100.0694547

#### References:

Morris, D.A. and Johnson, A. I. 1967. *Summary of Hydrologic and Physical Properties of Rock and Soil Materials, as Analyzed by the Hydrologic Laboratory of the U.S. Geological Survey - United States*  
 NJDEP (2007). *Chemical Properties for Calculations of Impact to Groundwater Soil Remediation Standards*, accessed at <http://www.nj.gov/dep/srp/guidance/rs/chemproperties.pdf> on May 5, 2016

## CEA Calculation Oceanview Service Area - MW-14: Propylbenzene

### CEA Duration:

$$t = -\ln(C/C_0)/k$$

C	Final Concentration (ug/L)	100
C <sub>0</sub>	Initial Concentration (ug/L)	110
k	degradation rate (days <sup>-1</sup> ) or [0.693/t <sub>1/2</sub> ]	0.0015
t	time (days)	66
y	time (years)	0.18

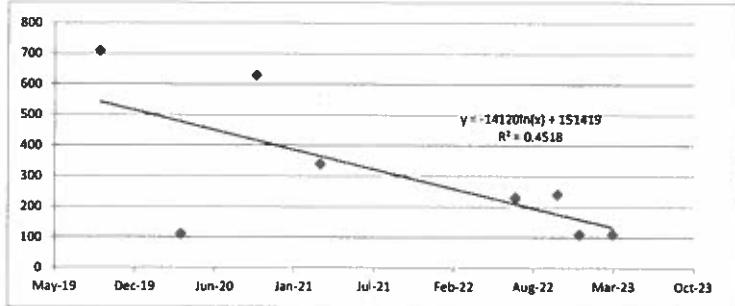
### Source Information

The NJDEP GWQS for Ethylbenzene

The most recent concentration of Propylbenzene in MW 14

The degradation coefficient for each compound is a function of the half-life of each compound in groundwater. It is equal to the natural logarithm of two divided by the half-life. The Propylbenzene half-life was determined by comparing concentrations of Propylbenzene over time in MW-14.

Date	Concentration (ppb)
9/5/2019	710
3/26/2020	110
9/30/2020	630
3/11/2021	340
7/14/2022	230
10/27/2022	240
12/20/2022	110
3/14/2023	110



Duration (Days) =	1286
$-\ln(C/C_0) =$	1.864784604
Half Life (t <sub>1/2</sub> ) =	477.9094
k =	0.0015

Date expected to meet standard: **5/18/2023**

**Y&T Analytical Data - Mann Whitney "U" Test**

1 **N-Propylbenzene**  
**MW-14**

2 Monitoring Quarters:  
Sampling Round  
Sampling Result (ppb)

Year 1				Year 2			
1	2	3	4	5	6	7	8
110a	630a	340a	240a	230b	240b	110b	110b

3 a)

1	110b
2	110b
3	110a
4	230b
5	240b
6	240a
7	340a
8	630a

b)

1	110a
2	110b
3	110b
4	230b
5	240a
6	240b
7	340a
8	630a

4

a) 110a = 2, 630a = 0, 340a = 0, 240a = 0  
b) 110a = 3, 630a = 0, 340a = 0, 240a = 1

5

a) 2+0+0+0      2  
b) 3+0+0+1      4      U= 3

"U" is 3, therefore we reject the null hypothesis, and it is concluded, with at least 90 % confidence, that the concentration for the individual contaminant has decreased with time at the specific monitoring well.

**Y&T Analytical Data - Mann Whitney "U" Test**

1 **1,2,4-Trimethylbenzene  
MW-14**

2 Monitoring Quarters:  
Sampling Round  
Sampling Result (ppb)

Year 1				Year 2			
1	2	3	4	5	6	7	8
1400a	5700a	3200a	2100a	1900b	1600b	740b	940b

3

1	740b
2	940b
3	1400a
4	1600b
5	1900b
6	2100a
7	3200a
8	5700a

4

1400a = 2, 2100a = 0, 3200a = 0, 5700a = 0

5

2+0+0+0 = 2

"U" is 2, therefore we reject the null hypothesis, and it is concluded, with at least 90 % confidence, that the concentration for the individual contaminant has decreased with time at the specific monitoring well.

**TOWNSHIP OF DENNIS  
BOARD OF HEALTH  
REGULAR MEETING MINUTES  
October 08, 2024  
5:30 P.M.**

**MINUTES OF THE REGULAR MEETING HELD ON:**

**DATE: October 08, 2024  
TIME: 5:30 P.M.  
PLACE: Dennis Township Municipal Building**

Acting Chairman S. Turner called the meeting to order reading the notice pursuant to the Open Public Meeting Act.

Secretary, J. Justice conducted a roll call of the members present with, M. Cox, Z. Matalucci, S. Turner, T. VanArtsdalen, and J. Justice present, F. Germanio was absent.

**PLEDGE OF ALLEGIANCE:**

**ITEMS THAT WERE DISCUSSED:**

**CORRESPONDENCE:**

1. 10/08/2024 – Cape May County Health Department of Health – Senior Center Flu Vaccine Clinic – (Dennis Township’s 10/22/2024 12:30 pm to 1:30 pm).
2. Cape May County Department of Health – 2024 Free Rabies Clinics.

A motion was made by Z. Matalucci, seconded by T. VanArtsdalen for approval of the correspondence, with 5 ayes and 1 absent (Germanio), that the correspondence was approved.

**COUNTY INSPECTIONS:**

None.

**DOG REPORT:**

1. There have been 264 dog licenses issued to date for 2024.

**NOTICE OF CONFINEMENT OF DOMESTIC ANIMAL(S) WITH KNOWN OR SUSPECTED EXPOSURE TO RABIES:**

None.



**SUSPECTED HAZARDOUS SUBSTANCE DISCHARGE NOTIFICATION:**

None.

A motion was made by Z. Matalucci and seconded by T. VanArtsdalen for approval of the September 10, 2024 regular meeting minutes, with 5 ayes and 1 absent (Germanio), that the minutes were approved.

Let the record reflect that there were no comments from those present.

There being no further business a motion was made by M. Cox and seconded by T. VanArtsdalen, that the meeting be adjourned.

\_\_\_\_\_  
Attest: Jacqueline B. Justice, Secretary

\_\_\_\_\_  
Attest: Scott J. Turner, Acting Chairperson