



Instructions for Completing the General Permit Registration Form for the Comprehensive General Permit for Discharges to Surface Water and Groundwater

Use these instructions to complete the registration form for the Comprehensive General Permit for Discharges to Surface Water and Groundwater (DEEP-WPED-REG-028). These instructions are not a substitute for the requirements of any relevant statutes or regulations. You should review all applicable laws prior to completing the registration form. Remember, it is your responsibility to comply with all applicable laws.

A completed registration form must be submitted for each site discharging the wastewater categories authorized by this general permit. Please note that the submittal of a Permit Application Transmittal Form is not necessary.

Introduction

The Water Permitting and Enforcement Division (WPED) of the Connecticut Department of Energy and Environmental Protection's (DEEP) Bureau of Materials Management and Compliance Assurance (BMMCA) administers the *Comprehensive General Permit for Discharges to Surface Water and Groundwater* (Comprehensive General Permit). DEEP uses both individual and general permits to regulate wastewater discharge activities. Individual permits are issued directly to an applicant, whereas general permits are permits issued to authorize similar activities by one or more applicants throughout a prescribed geographic area. A general permit sets terms and conditions for conducting an activity which, when complied with, are protective of the environment. General permits are a quicker and more cost-effective method to permit specific activities for both the department and the applicant.

Any questions that you may have regarding WPED's general permit program should be directed to 860-424-3025.

Who May Apply for General Permit Authorization?

Any person wishing to initiate, create, originate or maintain a wastewater discharge listed below:

- Non-contact cooling or geothermal heat pump water
- Water treatment wastewater
- Hydrostatic pressure testing of natural gas and petroleum tanks and pipelines wastewater
- Fire suppression testing wastewater

to groundwater or a surface water must apply for general permit authorization (see Table 4.1 of the [Comprehensive General Permit](#) for discharge locations requiring registration).

Any person proposing to transfer a DEEP permit must submit a completed [License Transfer Form](#) (DEEP-APP-006) and transfer fee to DEEP. The *License Transfer Form* may be used for changes in owners and operators of the licensed activity; if other changes are

proposed to the facility, the site, and/or to facility operations, the proposed transferee must also request a permit modification. Please note that not all licenses are transferable. For further information concerning permit transfers or to obtain a *License Transfer Form*, please contact the Office of Planning and Program Development (OPPD) at DEEP.OPPD@ct.gov .

How To Apply

Your general permit registration must include the following:

- An original *General Permit Registration Form for the Comprehensive General Permit for Discharges to Surface water and Groundwater* (DEEP-WPED-APP-28) and all supporting documents;
- The applicable initial fee, paid by check or money order, made payable to the “Department of Energy and Environmental Protection”.

You must submit the above materials together as a package to:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

A copy of the registration form should also be sent to the Inland Wetlands Agent of the town in which the discharge is located.

Refer to the Available Resources Section at the end of these instructions to obtain all required documents related to the subject general permit.

When submitting your general permit registration, label your supporting documents as directed on your registration form and always include, on each document, the registrant's name as indicated on the *Registration Form*. When additional space is necessary to answer a question stated in the registration, please insert additional sheets by the appropriate question. Label each sheet with the registrant's name as indicated on the *Registration*

Form, along with the corresponding part number and question number indicated on the general permit registration form. You should retain a copy of all documents for your files.

Part I: Registration Type

Check the appropriate box to specify if the registration is for a *new* authorization under a general permit, (also indicate if it is a *replacement* of an existing individual permit or registration. Discharges previously authorized under the Noncontact Cooling Water, Water Treatment Wastewater, or Hydrostatic Pressure Testing general permits should check this box.); a *renewal* of an existing authorization under a general permit (indicate if there is a new owner), or a *modification* of an existing authorization under a general permit. If your activity has been formerly licensed by an individual permit, registration or other authorization, or if you are applying for a renewal or modification of an existing general permit authorization, please identify the previous or existing permit/authorization/registration number in the space provided and the expiration date of the existing license.

Provide a brief description of the activity and the town location of the subject activity. The description should be specific to identify the registration. For example “discharge of noncontact cooling water from power generation to the Connecticut River” vs. “wastewater discharge”.

Part II: Fee

See Table 4.1 of the [Comprehensive General Permit](#) for a list of discharges requiring “Registration Only” or “Registration with Approval”. Determine if your site has discharges to *surface water only*, *groundwater only*, or to both *surface water and groundwater* and work within that particular column in Part II. A fee of \$625.00 must be submitted for each registration form requiring “Registration Only” (top half of columns in Part II). A fee of \$1250.00 must be submitted for each registration form requiring

“Registration with Approval” (bottom half of columns in Part II). Each discharge site requires a separate registration and fee, but multiple discharges at one site must be included in one registration. For multiple discharges, only pay the higher fee (\$1250 or \$625). There is no fee for modifications. The registration will not be processed without the fee. The payment should be in the form of a check or money order made payable to “Department of Energy and Environmental Protection”. For municipalities, the 50% discount applies.

Part III: Registrant Information

If there are any changes or corrections to your company/facility or individual mailing or billing address or contact information, please complete and submit the [Request to Change Company/Individual Information](#) to the address indicated on the form. If there is a change in name of the entity holding a DEEP license or a change in ownership, contact the Office of Planning and Program Development (OPPD) at DEEP.OPPD@ct.gov. For any other changes you must contact the specific program from which you hold a current DEEP license.

When completing this part, please use the following standards:

- *Name* - Provide the full, legal *company/firm* name. (If identifying an entity registered with the Secretary of the State, fill in the name exactly as it is shown on such registration. Please note, for those entities registered with the Secretary of State, the registered name will be the name used by DEEP. This information can be accessed at [CONCORD](#)). If identifying an *individual*, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.). If the registrant is a governmental body, identify the city or town of such body followed by the relevant department, board or division.
- *Phone* - Unless otherwise indicated, the phone number provided should be the number where the corresponding individual can be contacted during daytime business hours.
- *Contact Person* - Provide the name of the specific individual within the company whom DEEP may contact.
- *E-Mail* – Registrants must provide an accurate email address when completing their registration form. The email address may be used for future correspondence from the DEEP to your business.

1. *Registrant* - Complete the information concerning the registrant.
2. *Billing Contact* – If the registrant is not the billing contact, complete this section.
3. *Primary Contact* - If you have authorized a consultant, engineer, attorney or other individual to act for you during the processing of this [approval of] registration, complete this section. DEEP will direct copies of all correspondence and inquiries to this primary contact. Please be aware that for legal reasons there will be circumstances when DEEP will notify the registrant instead of the primary contact.
4. *Attorney* - It is not required that a registrant be represented by an attorney or any other agent. If you do have an attorney, complete this section.
5. *Facility Operator* - If the registrant is not the operator of the affected facility or equipment, complete this section.
6. *Owner* - If the registrant is not the owner of the affected facility or equipment, complete this section.
7. *Engineers or Consultants* - List any engineers or other consultants employed or retained to assist in preparing the registration or to design, construct or operate the proposed activity. Be sure to identify the service that is being provided by each.

Part IV: Site Information

1. Site Location

The site name, if applicable, should be the name by which the site is commonly known and/or uniquely identified.

The information given as the location address should be the address of the property at which the proposed activity will take place. Include the street address and municipality. If the property does not have a street number, describe the location in terms of the distance and direction from an obvious landmark such as an intersection with another roadway, a bridge, or a river. For example, "... on River Street, approximately 1000 feet north of its intersection with Bear Swamp Road."

2. Indian Lands

Check the appropriate box to specify if the activity which is the subject of the registration will be located on federally recognized Indian lands.

DEEP strongly encourages all registrants to conduct a review of the following Coastal, Natural Diversity Data Base and Aquifer Protection information as soon as possible and to resolve any outstanding issues, where feasible, before submitting their general permit registration to DEEP to ensure a more timely and efficient review of their general permit registration.

3. Coastal Management Act Consistency

Activities within the state's coastal area must be consistent with the Connecticut Coastal Management Act, i.e., sections 22a-90 through 22a-112 of the Connecticut General Statutes (CGS). You may be required to complete a *Coastal Consistency Review Form* (DEEP-APP-004) to demonstrate that the activity is consistent with the standards and policies of the Connecticut Coastal Management Act. To determine whether this requirement pertains to you, you must first decide if your activity is, or is proposed to be, located in either the coastal area or the coastal boundary.

The *coastal area*, as defined in CGS section 22a-94 (a), includes the land and water within the following towns:

| | | |
|---------------------------|-------------|----------------------------------|
| Branford | Guilford | Old Saybrook |
| Bridgeport | Hamden | Orange |
| Chester | Ledyard | Preston |
| Clinton | Lyme | Shelton |
| Darien | Madison | Stamford |
| Deep River | Milford | Stonington (Borough and Town of) |
| East Haven | Montville | Stratford |
| East Lyme | New London | Waterford |
| Essex | New Haven | West Haven |
| Fairfield | North Haven | Westbrook |
| Greenwich | Norwalk | Westport |
| Groton (City and Town of) | Norwich | Old Lyme |

The *coastal boundary*, as defined in CGS section 22a-94(b), is a designated region within the coastal area. It is delineated on DEEP-approved coastal boundary maps which are available for review at the DEEP Land and Water Resources Division, the DEEP File Room, and municipal offices of towns located in the coastal area. Copies of these maps may also be purchased from DEEP Maps and Publications. The map can also be viewed at: www.cteco.uconn.edu/map_catalog.asp (Select the town and then select coastal boundary. If the town is not within the coastal boundary you will not be able to select the coastal boundary map.)

Activities within the coastal boundary:

If your activity is, or is proposed to be, located in the coastal boundary, and you are applying for a new authorization or a modification of an existing authorization where the physical footprint of the subject activity changes, you must complete a *Coastal Consistency Review Form* (DEEP-APP-004) and submit it with your registration as Attachment B.

For renewals or other modifications located within the coastal boundary, you are not required to submit a *Coastal Consistency Review Form* with your initial registration materials. However, DEEP may notify you that submission of this form is required to process your

registration depending upon the specific activities to be conducted and their potential impact on coastal resources.

Activities outside the coastal boundary but within the coastal area:

For general permit registrations for activities located outside of the coastal boundary, but within a town in the coastal area, you are not required to submit a *Coastal Consistency Review Form* with your initial registration materials. However, DEEP may notify you that submission of this form is required to process your registration depending upon the specific activities to be conducted and their potential impact on coastal resources.

If you need copies of the *Coastal Consistency Review Form*, refer to the Available Resources Section at the end of these instructions. For assistance in completing the form, or if you have questions on this process, call the Land and Water Resources Division at 860-424-3019.

4. Natural Diversity Data Base (NDDB)

Endangered And Threatened Species

Section 26-310 (a) of the Connecticut General Statutes states that each state agency, in consultation with the DEEP commissioner, shall conserve endangered and threatened species and their essential habitats, and shall ensure that any activity authorized, funded or performed by such agency does not threaten the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat designated as essential to such species.

Please refer to “Requests for Natural Diversity Data Base State Listed Species Reviews” located on the DEEP website at: [Request for NDDB State Listed Species Review Form](#) to determine if your activity, including any areas beyond the immediate footprint of the project and beyond the property line that will be either directly or indirectly affected, is located within an area identified as, or otherwise known to be, a habitat for endangered,

threatened or special concern species. Include areas such as equipment and materials staging areas, areas receiving discharge and dredge material disposal areas. If applicable, prior to submitting the subject registration, you must submit a [Request for NDDB State Listed Species Review form](#) (DEEP-APP-007) to NDDB. Please note that NDDB review generally takes 4 to 6 weeks and may require the registrant to produce additional documentation, such as ecological surveys, which must be completed prior to submitting the subject registration. A copy of the NDDB Determination response letter that has not expired **must** be submitted with the completed subject registration as Attachment C. Include a copy of any mitigation measures developed for this activity and approved by NDDB. Do *not* submit any NDDB Preliminary Site Assessments with your registration. Be aware that you must renew your NDDB Determination if it expires before project work commences.

5. Aquifer Protection Areas

Aquifer protection areas are defined in CGS section 22a-354a through 22a-354bb and are the areas that contribute water to public water supply wells. Many towns within the state are required to establish Aquifer Protection Areas. Level A areas are final, regulated areas under the aquifer protection program. Level B areas are preliminary approximations of aquifer protection areas that have not yet been mapped to final standards, so the shape of the area may change when final mapping is completed. Level B maps provide an approximation of the Aquifer Protection Areas.

Review the [Aquifer Protection Area](#) maps to determine if your site is located in a Level A or Level B mapped aquifer protection area and check the appropriate box.

If your site is within a Level A aquifer protection area and your business is

registered with either the local aquifer protection agency or DEEP, then no action is required.

If your site is within a Level A aquifer protection area and your business is not already registered, check the [Table of Regulated Land Uses](#) to determine if your activity is required to be registered under the Aquifer Protection Area Program. If you determine your activity is required to be registered, then contact the [local aquifer protection agent](#) or DEEP to take appropriate actions.

If your site is within a Level B aquifer protection area, then no action is required at this time. However, you may be required to register under the Aquifer Protection Area Program in the future when the area is delineated as Level A.

For more information on the Aquifer Protection Area Program visit the DEEP website at [Aquifer Protection](#) or contact the program at DEEP.AquiferProtection@ct.gov.

6. Conservation or Preservation Restriction

If the activity which is the subject of the registration is located within a conservation or preservation restriction area, proof of written notice of the registration to the holder of such restriction or a letter from the holder of such restriction verifying that the registration is in compliance with the terms of the restriction, must be submitted as Attachment D, in accordance with CGS section 47-42d. The municipality where the site is located may have information concerning such restrictions.

Part V.a: Discharge Information for All Categories of Discharge

Please complete this part for each discharge point to either surface water or groundwater.

Reproduce this page as often as necessary. “Existing discharges” are discharges that were discharging legally under a DEEP discharge permit before March 30, 2018. “New discharges” are discharges not previously permitted under a DEEP permit.

- 1. Discharge Serial Number:** Please number each discharge consecutively starting with discharge serial number 001. For discharges previously authorized by an individual wastewater discharge permit from DEEP, use the same serial number assigned in the previous permit for each discharge.
- 2. Discharge Type:** Please check the box beside the wastewater type that will be discharged under this discharge serial number at a single discharge location. If multiple types will be discharged at the same discharge location, check all necessary boxes.
- 3. Discharge Location:** Please indicate whether the discharge is directed to a surface water body or the ground. Please keep in mind that a discharge to a stormwater catch basin is often a discharge to a surface water. Also, discharges to the ground that do not completely infiltrate and spill over to a surface water are considered surface water discharges.
- 4. Latitude of the Discharge Point:** Please provide the latitude of the discharge point. One method is to use Google Maps. (www.google.com/maps)
Once at the website, the user can zoom in to their specific location in Connecticut using the “Map” view (choose “Map” or “Satellite” by toggling in the lower left corner of the screen). When the user single-clicks on the discharge location, a box will appear on the screen with the town, state and zip code of the location listed. Below the town information will be two numbers. The first number is the latitude. The second number is the longitude. (The latitude will range from ~40 in the southwest portion of Connecticut to ~42 along the border with Massachusetts. The longitude will range from ~ -71.8 along the border with Rhode Island to ~ -73.7 in the westernmost area of Greenwich.)

5. Longitude of the Discharge Point: Please provide the longitude of the discharge point. (See question #4 above.)

6. Date Discharge Began or Will Begin: Please indicate the date this discharge was first initiated or will be initiated.

7. Continuous or Intermittent: Please check the proper box to indicate if the discharge is:

- continuous throughout operating hours; except for infrequent shut downs for maintenance, process changes or other similar activities; or
- an intermittent discharge.

8. Total Maximum Daily Flow: Please provide the total maximum daily flow of this discharge location in gallons per day (gpd) which means the greatest volume of wastewater to be discharged over any one operating day.

9. Average Daily Flow: Please provide the average daily flow of the discharge location in gallons per day.

10. Maximum Hourly Flow Rate: Please provide the maximum hourly flow rate of the discharge location in gallons per hour.

11. Maximum Instantaneous Flow Rate: Please provide the maximum instantaneous flow rate of the discharge location in gallons per minute.

12. Frequency of Intermittent Discharges: Please use this space to describe the duration and frequency of intermittent discharges (providing both maximum and average flows). For example, "The supernatant discharge from the basin happens twice per day. Each discharge lasts four hours with a maximum flow of 200 gallons per hour and an average flow of 100 gallons per hour."

13. Flow Measurement: Please describe the method of flow measurement of the discharge (dedicated incoming or outgoing water meter, bucket and stop watch, maximum pump

capacity, pump rate, generally acceptable engineering practices, etc.) Keep in mind that discharges greater than 5000 gallons per day require either: 1) a flow meter which measures, visually indicates and records instantaneous and total daily flow or 2) a method which a Qualified Professional has determined will measure and record total daily flow during all periods of discharge.

14. Activity or Process Generating the Discharge: Provide a detailed description of the process or activities generating the discharge(s). When different processes or activities produce different discharges, please be specific about each.

15. Substances used or added to the wastewater: List the substances used or added to the wastewater, including but not limited to those substances for which effluent limits are specified in subsection 5(b) of the Comprehensive General Permit and those substances listed in Appendix B Table II, III and V or Appendix D of Section 22a-430-4 of the Regulations of Connecticut State Agencies (Those tables can be found at the end of these registration instructions.) Any such substances *must* be identified by their generic chemical names and Chemical Abstract System (CAS) number. Refer to Material Safety Data Sheets (MSDS) provided by the vendor of the substances and the vendors themselves to determine the presence of toxic and hazardous substances, their concentration and whether they are in the manufacture of the substance.

16. Wastewater Treatment Processes: Describe any wastewater treatment processes, including but not limited to, neutralization, oil/water separation, sedimentation, precipitation of solids or metals, etc. which the registrant utilizes or will utilize to achieve compliance with any of the effluent limits or conditions

specified in Section 5 of the Comprehensive General Permit.

17. Surface Water Discharge Information

For all discharges to surface water, provide the following information; a Monitoring Plan as required by Section 4(c)(2)(N) of the Comprehensive General Permit as Attachment E and a NetDMR Subscriber Agreement as required by Section 5(f)(1) of the Comprehensive General Permit as Attachment F.

In order to answer many of the subquestions here, it will be helpful to use the [University of Connecticut's Environmental Conditions Online](http://www.cteco.uconn.edu) (CTECO) (www.cteco.uconn.edu) to find the information necessary for the registration.

Once at the CTECO site, follow this sequence of screens: > Map Viewers > Simple Map Viewer > Layer List (in left margin). From the menu of layers on the left hand side of the viewer, choose "Water Resources" and then "CT 303(d) Impaired Waterbodies 2016" (highest on the list).

This layer will allow the user to determine the name of the waterbody as well as determine whether it is impaired or not. The entire state of Connecticut will be shown at first, so the user must zoom in to their specific site.

To turn on the legend for the map, choose the Panel Actions Menu icon at the top right of the Layers List and click "Show Legend". Impaired waterbodies will appear orange on the map as demonstrated by the legend.

By clicking directly on a waterbody, the user can determine the Waterbody Name (e.g. Connecticut River), Waterbody Class (e.g. Inland Surface Waters Class B), the length of the waterbody segment (e.g. 10.48 miles), and the Waterbody Segment ID (e.g. CT4000-00_02). (see Figure 1 at end of these instructions) This Waterbody Segment ID will be helpful in determining more specific impairment information in the Connecticut Integrated Water Quality Report Pursuant to Clean Water Act section 303(d) and 305(b).

The "Supported for" information will indicate if the waterbody is impaired or not. For example, if the information following "Aquatic Life" indicates "Not Supporting", this indicates that this particular stream segment is impaired for Aquatic Life Use.

- a. Name of stream or surface water body receiving the discharge:** Please provide the name of the waterbody as determined from a USGS map or the CTECO website (instructions for accessing are above).
- b. 7Q10 Flow of the Receiving Stream:** "7Q10" or "Seven-Day, Ten Year Low Flow" means the lowest seven consecutive-day mean stream flow with a recurrence interval of ten years. Appendices B & C of the [Comprehensive General Permit](#) provide 7Q10 flows for many of the existing non-contact cooling water and water treatment wastewater discharges previously permitted by DEEP. If the waterbody that receives your facility's discharge is not listed in one of those appendices, please contact the Water Permitting and Enforcement Division at 860-424-3025.
- c. Water Quality Classification of the Receiving Surface Waterbody:** Please provide the water quality classification (a.k.a. Waterbody Class) of the receiving surface waterbody using the method explained at the beginning of question 17.
- d. Instream waste concentration of this discharge** (please show calculations): The Instream Waste Concentration must be calculated to determine the correct effluent limits from Table 5.3 of the Comprehensive General Permit. The Instream Waste Concentration shall be calculated by dividing the maximum gallon/hr flow of the discharge by the sum of the maximum

gallon/hr flow of the discharge and the seven day ten year low flow of the receiving stream and multiplying the result by 100 (Footnote 1 of Table 5.3 of the Comprehensive General Permit).

In equation form this would read:

Instream waste concentration =

$$\left(\left(\max \frac{\text{gal}}{\text{hr}} \text{ flow of discharge} \right) \div \left(\max \frac{\text{gal}}{\text{hr}} \text{ flow of discharge} + 7Q10 \text{ flow} \right) \right) \times 100$$

For example:

$$\begin{aligned} \text{-Max gal/hr flow of discharge} &= 300 \text{ gal/hr} \\ \text{-7Q10 of receiving stream} &= 4000 \text{ gal/hr} \\ 300/(300 + 4000) &= 0.7 \\ 0.7 \times 100 &= 7\% = \text{Instream Waste Concentration} \end{aligned}$$

Thus, this discharge would be subject to the effluent limits in Table 5.3 of the Comprehensive General Permit for the Instream Waste Concentration Column that reads “>5% -- 10%”.

e. Is Waterbody Listed as Impaired in the Most Recent Connecticut Integrated Water Quality Report?

This information can be determined using the method explained at the beginning of question 17.

As an alternative, using the waterbody segment ID, one can use the [Connecticut Integrated Water Quality Report pursuant to Clean Water Act section 303\(d\) and 305\(b\)](#) to determine impairment information. To get to this report, follow this sequence of screens:

From the DEEP homepage ([Department of Energy and Environmental Protection](#)), choose Environmental Quality > Water > Water Quality > Surface Water > Integrated Water Quality Report to Congress > 2016 Connecticut Integrated Water Quality Report.

An easier route might be to search the DEEP website for 2016 Connecticut Integrated Water Quality Report.

Once at the report, Table 3-4, Connecticut Impaired Waters List begins on page 212 of the report. Using the Waterbody Segment ID obtained at the beginning of Question 17, search the list for your segment.

For example, using Waterbody Segment ID CT4000-00_02, we find that this segment of the Connecticut River (found on page 219 of the report) is impaired for both Fish consumption and Recreation. The cause of the Fish Consumption impairment is Polychlorinated biphenyls (PCB). The cause of the Recreation impairment is Escherichia coli.

f. Pollutant That Is the Cause of the Impairment—The method for determining this was explained at the beginning of Question 17 and also in the prior subquestion.

g. If Impairment is for “Aquatic Life Use” also known as “Habitat for Fish, Other Aquatic Life and Wildlife - The CTECO site uses the term “Aquatic Life Use” and the Connecticut Integrated Water Quality Report uses the term “Habitat for Fish, Other Aquatic Life and Wildlife”, but the two terms are synonymous.

If one of these terms is listed as the impairment for the waterbody segment, the registrant must attach monitoring data that confirms that the discharge does not contain concentrations of any pollutants with a Water Quality Criteria (WQC) identified in Table 3 of [section 22a-426-9 of the Regulations of Connecticut State Agencies](#) in concentrations greater than the more restrictive of the chronic aquatic life criteria or applicable human health criteria.

To get to this table, follow this sequence of screens:

From the DEEP homepage ([Department of Energy and Environmental Protection](#)), choose “Laws and Regulations” (from the “Quick Links” menu on the left hand side of the DEEP homepage) > Final Regulations – Sorted by Citation > 22a-426-1 through 9 > 22a-426-9

Environmental Criteria. Once at this page, the user must scroll down the page to “Table 3 NUMERICAL WATER QUALITY CRITERIA FOR CHEMICAL CONSTITUENTS”.

The registrant is expected to supply monitoring data for the same chemicals that the registrant will be monitoring for during the permit term and any of the pollutants that can reasonably be expected to be present in the discharge. For example water treatment facilities that discharge water treatment wastewaters would be expected to provide monitoring data for all of the pollutants in Table 5.4 (Surface Water Discharge Monitoring Parameters) as well as chemicals used in the treatment process.

- h. Does discharge contain impairment contaminant that was provided in question 17.f?** See question 17.f.
- i. Is there an established Total Maximum Daily Load (TMDL) for the impaired segment?**

TMDLs provide the framework for restoring impaired waters by establishing the maximum amount of a pollutant that a waterbody can receive without adverse impact to fish, wildlife, recreation, or other uses. This amount is divided up between all potential sources (both point and nonpoint) of that pollutant, and is expressed as:

TMDL = Point Sources + Nonpoint Sources + Background + Margin of Safety

The end result of the TMDL process is a Water Quality Management Plan with quantitative goals to reduce pollutant loadings to the impaired waterbody. TMDLs can be expressed as concentrations, percent reductions, or mass loads.

To determine if a TMDL exists for the water body segment, go to the [Connecticut Integrated Water Quality Report pursuant to Clean Water Act section 303\(d\) and 305\(b\)](#) (navigation instructions provided at 17.e).

Once at the report, Table 3-5, Waterbodies with Adopted TMDLs starts on page 270 of the report. Using the Waterbody Segment ID obtained at the beginning of Question 17, search the list for your segment to determine if a TMDL exists for that segment.

- j. (i) Discharge will contain contaminant listed as cause of impairment and no TMDL exists for the waterbody segment**

Section 3(b)(10)(A), paragraph #1 of the Comprehensive General Permit is the basis for this requirement. Table 3, NUMERICAL WATER QUALITY CRITERIA FOR CHEMICAL CONSTITUENTS in [section 22a-426-9 of the Regulations of Connecticut State Agencies](#) will provide the in-stream water quality criteria for this pollutant. (see question 17 g. for steps to reach this table). From Table 3, find the pollutant that is the cause of the impairment. For example, if copper is the cause of the impairment, we find copper in

Table 3 and see that the maximum amount of copper that can be present in the discharge is 4.8 ug/l (micrograms per liter) which is the Chronic Freshwater limit.

j. (ii.) Discharge will contain contaminant listed as cause of impairment and a TMDL exists for the waterbody segment

Because a TMDL exists for the segment, the Water Quality group in the Bureau of Water Protection and Land Reuse must be contacted at 860-424-3020 to determine remaining waste load allocations for this pollutant in this waterbody.

18. Groundwater Discharge Information

- a. Name of Nearest Downgradient Stream Wetland or Other Waterbody**—Please use a USGS or equivalent map to determine the nearest waterbody that is lower in elevation than the discharge point and would receive the discharge if it were to flow over the surface of the ground.
- b. Distance to Nearest Downgradient Stream, Wetland, or Other Waterbody**—Please provide the distance from the discharge point to the waterbody named in question 18.a. Please include the unit of measure.
- c. Description of structure receiving the wastewater**—Please provide a brief description of the structure that will receive the wastewater. This structure could be a subsurface disposal system, a nonstormwater basin, ground surface containing riprap, etc. If the structure is a subsurface disposal system or a basin or some other structure that will temporarily hold the wastewater, please provide the capacity of the structure. If the discharge is to the ground, please provide the Best Management Practices that will be employed to prevent erosion of the ground surface.

Part V.b. Specific Discharge Information by Category of Discharge

- 1. Non-contact Cooling Water**
 - a. Source of the cooling water**—Please provide the source of the water used for non-contact cooling purposes (groundwater, surface water, public water supply or other). If other, please describe the source.
 - b. Indication of any known source of contamination**—If the source of the water could be contaminated in any way (e.g groundwater that contains petroleum or high nitrates), please indicate the contamination and any known concentration levels.
 - c. For tidal surface waters, available dilution at low tide as determined by the commissioner**—If the non-contact cooling water will be discharged to a tidal surface water, please contact the Water Quality group in the Bureau of Water Protection and Land Reuse at 860-424-3020 to determine the dilution available at low tide.
 - d. For existing discharges, a table summarizing the last two years of monitoring data**—For non-contact cooling water that was being discharged under a DEEP permit before March 29, 2018, please attach as Attachment I a table showing the last two years of monitoring data which includes flow, temperature, and aquatic toxicity testing results including chemical parameters.
 - e. For existing discharges to surface water, a Discharge Analysis** as required by Section 4(c)(2)(O) of the Comprehensive General Permit as Attachment J.

2. Water Treatment Wastewater

a. **List of water storage tanks** For potable water treatment facilities, please provide a list of all water storage tanks associated with that facility as Attachment K.

b. **Residual chlorine**—Please indicate whether the discharge will contain residual chlorine. If yes, approximate the level of residual chlorine expected.

c. **For existing discharges, a table summarizing the last two years of monitoring data**—For water treatment wastewater that was being discharged under a DEEP permit before March 29, 2018, please attach as Attachment L a table showing the last two years of monitoring data which includes flow and aquatic toxicity testing results including chemical parameters

d. **For existing discharges to surface water, Discharge Analysis**, as required by Section 4(c)(2)(O) of the Comprehensive General Permit as Attachment M.

e. **For new discharges to the ground, Plans & Specifications**, as required by Section 4(c)(2)(P) of the Comprehensive General Permit as Attachment N.

f. **Residuals Management Plan** -- For water treatment facilities producing solid or semi-solid residuals removed during the treatment process, please attach the Residuals Management Plan described at Section 4(c)(3)(B)(vi) of the Comprehensive General Permit as Attachment O.

(i) The plan must include the various types of residuals produced (e.g. clarification process waste or filter backwash waste) and their average solids content;

(ii) From a representative sample of residuals being removed during the treatment process, a chemical analysis of its content (percent solids and total metals in mg/kg) must be made. The following

metal concentrations will be determined:

- Arsenic (As),
- Barium (Ba),
- Cadmium (Cd),
- Chromium (Cr),
- Copper (Cu),
- Lead (Pb),
- Mercury (Hg),
- Selenium (Se)
- Silver (Ag).

(iii) Standard operating procedures for residuals management and maintenance at the water treatment facility must be discussed. At a minimum, the plan must include a summary of the operation and maintenance plans for any lagoons, a description of where the solid material removed is to be placed, stored, and disposed of as well as the techniques used to prevent the removed solids from reentering the surface waters from any onsite storage;

g. **Aluminum Variance Request**—For water treatment facilities seeking a variance pursuant to Section 5(a)(3)(T) of this general permit, please attach the variance request form available on the DEEP Permits and Licenses website as Attachment P.

3. Hydrostatic Pressure Testing of Natural Gas and Petroleum Tanks and/or Pipelines Wastewater

a. Please provide the type of product that will be/was in the tank or pipeline.

b. Please provide the ambient flow rate of the receiving stream in gallons per day

Part VI: Supporting Documents

Check the appropriate box by each attachment being submitted as verification that all applicable attachments have been submitted. Please label all attachments as referenced in the registration form and these instructions and be sure to include the name of the registrant as indicated on the *registration form*.

Attachment A: United States Geological Survey (USGS) Topographic Quadrangle Map

Submit, as Attachment A, an 8 ½" x 11" or larger copy of the relevant portion or a full-sized original of a USGS Quadrangle Map, at a scale of 1:24,000, indicating the exact location of the project site and proposed activities.

The quadrangle name should be noted on the copy of the map submitted.

DEEP will use this map to enter your project location into its Geographic Information System (GIS). It is important that you accurately locate the project site and proposed activities because the GIS generates natural resource information relevant to your site. An inaccurate description of the project location may delay the processing of your registration.

Attachment B: Coastal Consistency Review Form

Activities within the state's coastal area which includes the coastal boundary must be consistent with the Connecticut Coastal Management Act (CGS sections 22a-90 through 22a-112). You may be required to complete a *Coastal Consistency Review Form* (DEEP-APP-004) to demonstrate that the activity is consistent with the standards and policies of the Connecticut Coastal Management Act. Please refer to the instructions in Part IV, item 3, to determine if this requirement pertains to you.

Attachment C: Natural Diversity Data Base (NDDB) -Endangered or Threatened Species Information

Submit a copy of the NDDB Determination response letter that has not expired as Attachment

C, as explained in Part IV, item 4 of these instructions.

Attachment D: Conservation or Preservation Restriction

If the activity which is the subject of the registration is located within a conservation or preservation restriction area, submit proof of written notice of this registration to the holder of such restriction or a letter from the holder of such restriction verifying that this registration is in compliance with the terms of the restriction, as Attachment D. The municipality where the site is located may have information concerning such restrictions.

For Discharges to Surface Water Only – Attachments E through H

Attachment E: Monitoring Plan for all surface water discharges as required by Section 4(c)(2)(N) of the Comprehensive General Permit. This plan should contain at a minimum for each discharge location:

- the parameters to be monitored for
- the frequency of monitoring
- the location of monitoring
- the limits the monitoring results will be compared to
- the type of sample (e.g. grab, composite, probe, etc.)

Attachment F: NetDMR Subscriber Agreement for all discharges to surface water as required by Section 5(f)(1) of the Comprehensive General Permit.

Attachment G: For Discharges to Waterbodies Impaired for “Habitat for Fish, Other Aquatic Life and Wildlife”, monitoring data that indicates that the discharge does not contain concentrations of any pollutants with a Water Quality Criteria (WQC) identified in Table 3 of section 22a-426-9 of the Regulations of Connecticut State Agencies in concentrations greater than the more restrictive of the chronic aquatic life criteria or applicable human health criteria.

Attachment H: For Discharges to Impaired Waterbodies Without a Total Maximum Daily Load Evaluation Where the Discharge Contains the Pollutant Causing the Impairment

data and technical information that demonstrates that the discharge will meet instream water quality criteria at the point of discharge to the waterbody. See the instructions for question 17.j.

For Discharges of Non-contact Cooling Water Only – Attachments I and J

Attachment I: Non-contact Cooling Water Monitoring Data from existing sources as required by Section 4(c)(3)(A)(v) of the Comprehensive General Permit.

Attachment J: Discharge Analysis for Existing Non-contact Cooling Water Discharges to Surface Water

Because all Connecticut waterbodies are listed as impaired for nutrients, Section 4(c)(2)(O)(i) of the Comprehensive General Permit requires one screening of existing discharges for total Kjeldahl nitrogen, nitrates, and total phosphorus only if additives containing nitrogen or phosphorus have been added to the process water at some point.

Section 4(c)(2)(O)(ii) of the Comprehensive General Permit requires existing noncontact cooling water discharges from a cooling tower be tested for: 1) E-coli bacteria (for discharges to fresh water) or 2) enterococci and fecal coliform bacteria (for discharges to saline waters).

For Discharges of Water Treatment Wastewater Only - Attachments K through P

Attachment K: Water Storage Tanks Please provide a list of water storage tanks associated with the water treatment facility that is the subject of the registration as required by Section 4(c)(3)(B)(i) of the Comprehensive General Permit.

Attachment L: Water Treatment Wastewater Monitoring Data

For water treatment facilities with existing discharges, please provide a table summarizing

the last 2 years of monitoring data including flow, and aquatic toxicity testing results including chemical parameters as required by Section 4(c)(3)(B)(v) of the Comprehensive General Permit.

Attachment M: Discharge Analysis for Existing Water Treatment Wastewater Discharges to Surface Water

Because all Connecticut waterbodies are listed as impaired for nutrients, Section 4(c)(2)(O)(i) of the Comprehensive General Permit requires one screening of existing discharges for total Kjeldahl nitrogen, nitrates, and total phosphorus only if additives containing nitrogen or phosphorus have been added to the process water at some point.

Section 4(c)(2)(O)(ii) of the Comprehensive General Permit requires existing water treatment wastewaters from an outdoor lagoon be tested for: 1) E-coli bacteria (for discharges to fresh water) or 2) enterococci and fecal coliform bacteria (for discharges to saline waters).

Attachment N: Plans & Specifications for New Water Treatment Wastewater Discharges to the Ground as required by Section 4(c)(2)(P) of the Comprehensive General Permit.

Attachment O: Residuals Management Plan for water treatment facilities producing solid or semi-solid residuals removed during the treatment process as required by Section 4(c)(3)(B)(vi) of the Comprehensive General Permit.

Attachment P: Aluminum Variance Request for water treatment facilities seeking a variance pursuant to Section 5(a)(3)(T) of the Comprehensive General Permit.

Part VII: Qualified Professional

Certification For all registrations, this certification must be signed by a Qualified Professional as defined in Appendix A of the Comprehensive General Permit. A

registration will be considered incomplete if the certification is not attached.

Part VIII: Registrant Certification

After the registration has been completed it must be reviewed and signed by the registrant.

The certification of the registration package shall be signed as follows:

1. For an individual(s) or sole proprietorship: by the individual(s) or proprietor, respectively;
2. For a corporation: by a principal executive officer of at least the level of vice president, or his agent;
3. For a limited liability company (LLC): by a manager, if management of the LLC is vested in a manager(s) in accordance with the company's "Articles of Organization", or by a member of the LLC if no authority is vested in a manager(s);
4. For a partnership: by a general partner;
5. For a municipal, state, or federal agency or department: by either a principal executive officer, a ranking elected official, or by other representatives of such registrant authorized by law.

Part IX: Preparer Certification

The individual(s) who actually prepared the registration and any part thereof must sign this certification. This may include consultants, professional engineers, surveyors, soil scientists, etc. By their signature, they certify that, to the best of their knowledge and belief, the information contained in the registration, including all attachments, is true, accurate and complete.

A registration will be considered insufficient unless all required signatures are provided.

Available Resources:

Below is a list of possible resources for specific information required for this registration. Be sure to also check the DEEP website, [Department of](#)

[Energy and Environmental Protection](#) and your local town hall or library for maps and other reference materials.

The DEEP File Room;

DEEP.RecordsCenter@ct.gov, 860-424-4180 is located on the store level at 79 Elm Street, Hartford, CT. Please call in advance for hours of operation.

The [DEEP Store](#), deep.store@ct.gov, 860-424-3555 is only available on line or by phone.

For general assistance regarding industrial wastewater discharges: contact the Water Permitting and Enforcement Division at 860-424-3025.

For the subject general permit, registration form, instructions and other required documents visit the DEEP website at: [Water Discharge Permits and General Permits \(ct.gov\)](#)

- Coastal Boundary Areas: Town Hall and/or [DEEP Store](#), deep.store@ct.gov, 860-424-3555; "Coastal Boundary Map". Additional information: LWRD: 860-424-3034
 - www.cteco.uconn.edu/map_catalog.asp
 - magic.lib.uconn.edu/connecticut_data.html#water
- [Coastal Consistency Review Form](#)
- Coastal Resource Maps: Town Hall and/or [DEEP Store](#), deep.store@ct.gov, 860-424-3555
- USGS Topographic Quadrangle Map: [Geographic Information Systems \(ct.gov\)](#); [DEEP Store](#), 860-424-3555, or USGS Office, 303-202-4700, or US Geological Survey, Western Distribution Branch, Box 25286, Denver Federal Center, Denver, CO 80225 (sells USGS maps and publications) www.usgs.gov

- Endangered or Threatened Species Areas: DEEP.RecordsCenter@ct.gov; "State and Federal Listed Species and Natural Communities"; [Endangered Species \(ct.gov\)](http://www.ct.gov)
- Aquifer Protection Area Maps: [Aquifer Protection Program](http://www.ct.gov), [DEEP Store](http://www.ct.gov), 860-424-3555
- DEEP's Environmental Equity Policy, Environmental Justice Program, Environmental Justice Public Participation Guidelines: [Environmental Justice \(ct.gov\)](http://www.ct.gov)
- Pollution Prevention: A variety of pollution prevention publications are available from DEEP's Office of Pollution Prevention, DEEP.pollutionprevention@ct.gov ; 860-424-3297
- Aerial Photographs: DEEP LWRD 860-424-3034
 - CTECO internet site maintained by the University of Connecticut [www.cteco.uconn.edu]
- Historic Aerial Photographs:
 - State Library: 860-566-4301
 - Connecticut Historical Aerial Photography (Map & Geographic Information Center at UCONN) magic.lib.uconn.edu/
 - CTECO internet site maintained by the University of Connecticut [www.cteco.uconn.edu]
- Tidal Wetland Boundary Maps: [DEEP Store](http://www.ct.gov), deep.store@ct.gov, 860-424-3555
- Coastal Policies and Use Guidelines (Planning Report 30): DEEP LWRD 860-424-3034
- Wetlands of Connecticut: [DEEP Store](http://www.ct.gov), deep.store@ct.gov, 860-424-3555
- National Wetland Inventory Maps: <https://www.fws.gov/wetlands/>, [DEEP Store](http://www.ct.gov), 860-424-3555
- [2002 Connecticut Guidelines for Soil Erosion and Sediment Control](http://www.ct.gov)
- [Connecticut Guidelines for Stormwater Quality Management](http://www.ct.gov),
- Drainage Basins: DEEP Maps and Publications, "Natural Drainage Basins in Connecticut", 1988; [Geographic Information Systems \(ct.gov\)](http://www.ct.gov)
- Archeological or Historical Landmarks: Town Hall or Connecticut Historical Commission
- Land Conservation Areas: Town Hall and/or [DEEP Store](http://www.ct.gov), deep.store@ct.gov, 860-424-3555; "Open Space Map"
- Soil Series Description and Delineation: County Soil and Water Conservation District Offices and the United States Department of Agriculture Conservation Service Office
- US Army Corps of Engineers
 - Regulatory Program <https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/>
 - New England District, Regulatory Office
696 Virginia Road
Waltham, MA 02254
Concord, MA 01742-2751
www.usace.army.mil
800-343-4789; 978-318-8335; 978-318-8338
- Copies of the Structures, Dredging and Fill Statutes, CGS sections 22a-359 through 22a-363f; the Tidal Wetlands Act, CGS sections 22a-28 through 22a-35a; and the Connecticut Coastal Management Act, CGS sections 22a-90 through 22a-112:

- State and federal statutes and regulations are available for review at various locations:

On the web:

- State Statutes: [Legislative Commissioners' Office of the Connecticut General Assembly](#)
- DEEP website for Statutes and Regulations: [Laws and Regulations \(ct.gov\)](#)
- US EPA website for Federal Laws, Regulations (Code of Federal Regulations; CFR), Policy, Guidance and Legislation: [Laws & Regulations | US EPA](#)

Book Format:

- State Library (Hartford)
- University Law Schools (UCONN-Hartford, Yale)
- Superior Courthouse Libraries (located throughout the state)
- Town Halls and Libraries (statutes)

Affirmative Action, Equal Employment Opportunity and Americans with Disabilities

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to complying with the requirements of the Americans with Disabilities Act. Please contact DEEP Office of Diversity and Equity at (860) 418-5910 or by email @ deep.accommodations@ct.gov if you are requesting a communication aid or service, have limited proficiency in English, need some other type of accommodation, or if you wish to file an ADA or Title VI discrimination complaint. In order to facilitate efforts to provide an accommodation, please request all accommodations as soon as possible following notice of any agency hearing, meeting, program or event.

Section 22a-430-4 of the Regulations of Connecticut State Agencies: Appendix B, Tables II, III, V and Appendix D

Appendix B: Table II – Organic Toxic Substances in Each of Four Fractions in Analysis by Gas Chromatography/Mass Spectroscopy (GS/MS)

Volatiles

| Name of Compound | CAS Number | Name of Compound | CAS Number |
|-----------------------------|------------|-------------------------------|------------|
| 1 acrolein | 107-02-8 | 17 1,2-dichloropropane | 78-87-5 |
| 2 acrylonitrile | 107-13-1 | 18 1,3-dichloropropylene | 542-75-6 |
| 3 benzene | 71-43-2 | 19 ethylbenzene | 100-41-4 |
| 5 bromoform | 75-25-2 | 20 methylbromide | 74-83-9 |
| 6 carbon tetrachloride | 56-23-5 | 21 methylchloride | 74-87-3 |
| 7 chlorobenzene | 108-90-7 | 22 methylene chloride | 75-09-2 |
| 8 chlorodibromomethane | 124-48-1 | 23 1,1,2,2-tetrachloroethane | 79-34-5 |
| 9 chloroethane | 75-00-3 | 24 tetrachloroethylene | 127-18-4 |
| 10 2-chloroethylvinyl ether | 110-75-8 | 25 toluene | 108-88-3 |
| 11 chloroform | 67-66-3 | 26 1,2-trans-dichloroethylene | 156-60-5 |
| 12 dichlorobromomethane | 75-27-4 | 27 1,1,1-trichloroethane | 71-55-6 |
| 14 1,1-dichloroethane | 75-34-3 | 28 1,1,2-trichloroethane | 79-00-5 |
| 15 1,2-dichloroethane | 107-06-2 | 29 trichloroethylene | 79-01-6 |
| 16 1,1-dichloroethylene | 75-35-4 | 31 vinyl chloride | 75-01-4 |

Acid Compounds

| Name of Compound | CAS Number | Name of Compound | CAS Number |
|------------------------|------------|--------------------------|------------|
| 1 2-chlorophenol | 95-57-8 | 7 4-nitrophenol | 100-02-7 |
| 2 2,4-dichlorophenol | 120-83-2 | 8 p-chloro-m-cresol | 59-50-7 |
| 3 2,4-dimethylphenol | 105-67-9 | 9 pentachlorophenol | 87-86-5 |
| 4 4,6-dinitro-o-cresol | 534-52-1 | 10 phenol | 108-95-2 |
| 5 2,4-dinitrophenol | 51-28-5 | 11 2,4,6-trichlorophenol | 88-06-2 |
| 6 2-nitrophenol | 88-75-5 | | |

Base/Neutral

| Name of Compound | CAS Number | Name of Compound | CAS Number |
|--------------------------------|------------|--|------------|
| 1 acenaphthene | 83-32-9 | 24 diethyl phthalate | 84-66-2 |
| 2 acenaphthylene | 208-96-8 | 25 dimethyl phthalate | 131-11-3 |
| 3 anthracene | 120-12-7 | 26 di-n-butyl phthalate | 84-74-2 |
| 4 benzidine | 92-87-5 | 27 2,4-dinitrotoluene | 121-14-2 |
| 5 benzo(a)anthracene | 56-55-3 | 28 2,6-dinitrotoluene | 606-20-2 |
| 6 benzo(a)pyrene | 50-32-8 | 29 di-n-octyl phthalate | 117-84-0 |
| 7 3,4-benzofluoranthene | 205-99-2 | 30 1,2-diphenylhydrazine (as azobenzene) | 103-33-3 |
| 8 benzo(ghi)perylene | 191-24-2 | 31 fluroranthene | 206-44-0 |
| 9 benzo(k)fluoranthene | 207-08-9 | 32 fluorene | 86-73-7 |
| 10 bis(2-chloroethoxy)methane | 111-91-1 | 33 hexachlorobenzene | 118-74-1 |
| 11 bis(2-chloroethyl)ether | 111-44-4 | 34 hexachlorobutadiene | 87-68-3 |
| 12 bis(2-chloroisopropyl)ether | 108-60-1 | 35 hexachlorocyclopentadiene | 77-47-4 |
| 13 bis(2-ethylhexyl)phthalate | 117-81-7 | 36 hexachloroethane | 67-72-1 |
| 14 4-bromophenylphenyl ether | 101-55-3 | 37 indeno(1,2,3-cd)pyrene | 193-39-5 |
| 15 butylbenzyl phthalate | 85-68-7 | 38 isophorone | 78-59-1 |
| 16 2-chloronaphthalene | 91-58-7 | 39 naphthalene | 91-20-3 |
| 17 4-chlorophenyl phenyl ether | 7005-72-3 | 40 nitrobenzene | 98-95-3 |
| 18 chrysene | 218-01-9 | 41 N-nitrosodimethylamine | 62-75-9 |
| 19 dibenzo(a,H)anthracene | 53-70-3 | 42 N-nitrosodi-n-propylamine | 621-64-7 |
| 20 1,2-dichlorobenzene | 95-50-1 | 43 N-nitrosodiphenylamine | 86-30-6 |
| 21 1,3-dichlorobenzene | 541-73-1 | 44 phenanthrene | 85-01-8 |
| 22 1,4-dichlorobenzene | 106-46-7 | 45 pyrene | 129-00-0 |
| 23 3,3-dichlorobenzidine | 91-94-1 | 46 1,24-trichlorobenzene | 120-82-1 |

Pesticides

| Name of Compound | CAS Number | Name of Compound | CAS Number |
|-----------------------|------------|-----------------------|------------|
| 1 aldrin | 309-00-2 | 14 endrin | 72-20-8 |
| 2 alpha-BHC | 319-84-6 | 15 endrin aldehyde | 7421-93-4 |
| 3 beta-BHC | 319-85-7 | 16 heptachlor | 76-44-8 |
| 4 gamma-BHC | 58-89-9 | 17 heptachlor epoxide | 1024-57-3 |
| 5 delta-BHC | 319-86-8 | 18 PCB-1242 | 53469-21-9 |
| 6 chlordane | 57-74-9 | 19 PCB-1254 | 11097-69-1 |
| 7 4,4-DDT | 50-29-5 | 20 PCB-1221 | 11104-28-2 |
| 8 4,4-DDE | 72-55-9 | 21 PCB-1232 | 14975-23-6 |
| 9 4,4-DDD | 72-54-8 | 22 PCB-1248 | 12672-29-6 |
| 10 dieldrin | 60-57-1 | 23 PCB-1260 | 11096-82-5 |
| 11 alpha-endosulfan | 959-98-8 | 24 PCB-1016 | 12674-11-2 |
| 12 beta-endosulfan | 33213-65-9 | 25 toxaphene | 8001-35-2 |
| 13 endosulfan sulfate | 1031-07-8 | | |

Table III - Other Toxic Substances: Metals, Cyanide, and Total Phenols

| Name of Compound | CAS Number | Name of Compound | CAS Number |
|------------------------|-------------|----------------------|------------|
| 1 Antimony, Total | 7440-36-0 | 10 Nickel, Total | 7440-02-0 |
| 2 Arsenic, Total | 7440-38-2 | 11 Selenium, Total | 7782-49-2 |
| 3 Beryllium, Total | 7440-41-7 | 12 Silver, Total | 7440-22-4 |
| 4 Cadmium, Total | 7440-43-9 | 13 Thallium, Total | 7440-28-0 |
| 5 Chromium, Total | 7440-47-3 | 14 Zinc, Total | 7440-66-6 |
| 6 Chromium, Hexavalent | 185540-29-9 | 15 Cyanide, Total | 57-12-5 |
| 7 Copper, Total | 7440-50-8 | 16 Cyanide, Amenable | 57-12-5 |
| 8 Lead, Total | 7439-92-1 | 17 Phenols, Total | 64743-03-9 |
| 9 Mercury, Total | 7439-97-6 | | |

Table V - Other Toxic Substances and Hazardous Substances

| Name of Compound | CAS Number | Name of Compound | CAS Number |
|-------------------------------------|-------------|------------------------|------------|
| Toxic Substances | | | |
| 1 Asbestos | 132207-33-1 | 27 Diethyl amine | 109-89-7 |
| Hazardous Substances | | 28 Dimethyl amine | 124-40-3 |
| | | 29 Dintrobenzene | 99-65-0 |
| 1 Acetaldehyde | 75-07-0 | 30 Diquat | 231-36-7 |
| 2 Allyl alcohol | 107-18-6 | 31 Disulfoton | 298-04-4 |
| 3 Allyl chloride | 107-05-1 | 32 Diuron | 330-54-1 |
| 4 Amyl acetate | 628-63-7 | 33 Epichlorohydrin | 106-89-8 |
| 5 Aniline | 62-53-3 | 34 Ethanolamine | 141-43-5 |
| 6 Benzonitrile | 100-47-0 | 35 Ethion | 563-12-2 |
| 7 Benzyl chloride | 100-44-7 | 36 Ethylene diamine | 107-15-3 |
| 9 Butyl acetate | 123-86-4 | 37 Ethylene dibromide | 106-93-4 |
| 10 Butylamine | 109-73-9 | 38 Formaldehyde | 50-00-0 |
| 11 Captan | 133-06-2 | 39 Furfural | 98-01-1 |
| 12 Carbaryl | 63-25-2 | 40 Guthion | 86-50-0 |
| 13 Carbofuran | 1563-66-2 | 41 Isoprene | 78-79-5 |
| 14 Carbon disulfide | 75-15-0 | 42 Isopropanolamine | 78-96-6 |
| 15 Chlорpyrifos | 2921-88-2 | 43 Kelthane | 115-32-2 |
| 16 Coumaphos | 56-72-4 | 44 Kepone | 143-50-0 |
| 17 Cresol | 1319-77-3 | 45 Malathion | 121-75-5 |
| 18 Crotonaldehyde | 4170-30-3 | 46 Mercaptodimethyl | 2032-65-7 |
| 19 Cyclohexane | 110-82-7 | 47 Methoxychlor | 72-43-5 |
| 20 2,4-Dichlorophenoxy acetic acid) | 94-75-7 | 48 Methyl mercaptan | 74-93-1 |
| 21 Diazinon | 333-41-5 | 49 Methyl methacrylate | 80-62-6 |
| 22 Dicamba | 1918-00-9 | 50 Methyl parathion | 298-00-0 |
| 23 Dichlobenil | 1194-65-6 | 51 Mevinphos | 7786-34-7 |
| 24 Dichlone | 117-80-6 | 52 Mexacarbate | 315-18-4 |
| 25 2,2-Dichloropropionic acid | 75-99-0 | 53 Monoethyl amine | 75-04-7 |
| 26 Dichlorvos | 62-73-7 | 54 Monomethyl amine | 74-89-5 |

| Name of Compound | CAS Number | Name of Compound | CAS Number |
|--------------------|------------|-----------------------------|------------|
| 55 Naled | 300-76-5 | 69 2,4,5-T (2,4,5- | |
| 56 Napthenic acid | 1338-24-5 | Trichlorophenoxy acetic | 93-76-5 |
| 57 Nitrotoluene | 1321-12-6 | acid) | |
| 58 Parathion | 56-38-2 | 70 TDE | 72-54-8 |
| 59 Phenolsulfanate | -- | (Tetrachlorodiphenylethane) | |
| 60 Phosgene | 75-44-5 | 71 2,4,5-TP [2-(2,4,5- | 93-72-1 |
| 61 Propargite | 2312-35-8 | Trichlorophenoxy) | |
| 62 Propylene oxide | 75-56-9 | 72 Trichlorofan | -- |
| 63 Pyrethrins | 8003-34-7 | 73 Triethylamine | 121-44-8 |
| 64 Quinoline | 91-22-5 | 74 Trimethylamine | 75-50-3 |
| 65 Resorcinol | 108-46-3 | 75 Uranium | 7440-61-1 |
| 66 Strontium | 7440-24-6 | 76 Vanadium | 7440-62-2 |
| 67 Strychnine | 57-24-9 | 77 Vinyl acetate | 108-05-4 |
| 68 Styrene | 100-42-5 | 78 Xylene | 1330-20-7 |
| | | 79 Xylenol | 1300-71-6 |
| | | 80 Zirconium | 7440-67-7 |

Appendix D

| | | | | |
|----|--|------------------------|--|------------------------|
| 1 | Acenaphthene | 83-32-9 | Dichloropropene | 26952-23-8 |
| 2 | Acrolein | 107-02-8 | 30 2,4-dimethylphenol | 105-67-9 |
| | Acrylonitrile | 107-13-1 | 31 Dinitrotoluene | 25321-14-6 |
| 4 | Aldrin/ | 309-00-2 | 32 Diphenylhydrazine | 38622-18-3 |
| | Dieldrin | 60-57-1 | 33 Endosulfan and metabolites | 115-29-7 |
| 5 | Antimony and compounds | 7440-36-0 | 34 Endrin and metabolites | 72-20-8 |
| 6 | Arsenic and compounds | 7440-38-2 ¹ | 35 Ethylbenzene | 100-41-4 |
| 7 | Asbestos | 132207-33-1 | 36 Fluoranthene | 206-44-0 |
| 8 | Benzene | 71-43-2 | 37 Haloethers (other than those listed elsewhere; includes chlorophenylphenyl ethers, includes chlorophenylphenyl ethers, bromophenylphenyl ether, bis-(dischloroisopropyl) ether, bis-(chloroethoxy) methane and polychlorinated diphenyl ethers) | N/A |
| 9 | Benzidine | 92-87-5 | | |
| 10 | Beryllium and compounds | 7440-41-7 ² | | |
| 11 | Cadmium and compounds | 7440-43-9 ³ | | |
| 12 | Carbon tetrachloride | 56-23-5 | | |
| 13 | Chlordane (technical mixture and metabolites) | 12789-03-6 | | |
| 14 | Chlorinated benzenes (other than dichlorobenzenes) | N/A | | |
| 15 | Chlorinated ethanes (including 1,2-dichloroethane, 1,1,1-trichloroethane, and hexachloroethane) | N/A | 38 Halomethanes (other than those listed elsewhere; includes methylene chloride, methylchloride, methylbromide, bromoform, dichlorobromomethane, trichlorofluoromethane, dichlorodifluoromethane) | |
| 16 | Chloroalkyl ethers (chloromethyl, chloroethyl, and mixed ethers) | N/A | | N/A |
| 17 | Chlorinated naphthalene | -- | | |
| 18 | Chlorinated phenols (other than those listed elsewhere; includes trichlorophenols and chlorinated cresols) | 1336-35-2 | 39 Heptachlor and metabolites | 76-44-8 ⁷ |
| | | | 40 Hexachlorobutadiene | 87-68-3 |
| | | | 41 Hexachlorocyclohexane (all isomers) | -- |
| 19 | Chloroform | 67-66-3 | | |
| 20 | 2-chlorophenol | 95-57-8 | 42 Hexachlorocyclopentadiene | 77-47-4 |
| 21 | Chromium and compounds | 7440-47-3 ⁴ | 43 Isophorone | 78-59-1 |
| 22 | Copper and compounds | 7440-50-8 ⁵ | 44 Lead and compounds | 7439-92-1 |
| 23 | Cyanides | 57-12-5 | 45 Mercury and compounds | 7439-97-6 |
| 24 | DDT and metabolites | 50-29-3 ⁶ | 46 Naphthalene | 91-20-3 |
| 25 | Dichlorobenzenes (1,2-1,3-, and 1,4-dichlorobenzenes) | 25321-22-6 | 47 Nickel and compounds | 7440-02-0 ⁸ |
| 26 | Dichlorobenzidine | 1331-47-1 | 48 Nitrobenzene | 98-95-3 |
| 27 | Dichloroethylenes (1,1-and 1,2-dichloroethylene) | 540-59-0 | 49 Nitrophenols (including 2,4-dinitrophenol, dinitrocresol) | -- |
| 28 | 2,4-dichlorophenol | 120-83-2 | 50 Nitrosamines | 35576-91-1 |
| 29 | Dichloropropane | 26638-19-7 | 51 Pentachlorophenol | 87-86-5 |
| | | | 52 Phenol | 108-95-2 |

| Name of Compound | CAS Number |
|--|--|
| 53 Phthalate esters | * |
| 54 Polychlorinated biphenyls (PCBs) | See Pesticides, App. B, Table 2 |
| 55 Polynuclear aromatic hydrocarbons (including benzanthracenes, benzopyrenes, benzofluoranthene, chrysenes, dibenzanthracenes, and indenopyrenes) | -- |
| 56 Selenium and compounds | 7782-49-2 |
| 57 Silver and compounds | 7440-22-4 ⁹ |
| 58 2,3,7,8 - (TCDD) | Tetrachlorodibenzo-p-dioxin 1746-01-6 |
| 59 Tetrachloroethylene | 127-18-4 |
| 60 Thallium and compounds | 7440-28-0 ¹⁰ |
| 61 Toluene | 108-88-3 |
| 62 Toxaphene | 8001-35-2 |
| 63 Trichloroethylene | 79-01-6 |
| 64 Vinyl chloride | 75-01-4 |
| 65 Zinc and compounds | 7440-66-6 ¹¹ |

¹CAS number is only for pure arsenic.

²CAS number is for only for pure beryllium.

³CAS number is only for pure cadmium.

⁴CAS number is only for pure chromium.

⁵CAS number is only for pure copper.

⁶CAS number is only for pure DDT.

⁷CAS number is only for pure heptachlor.

⁸CAS number is only for pure nickel.

⁹CAS number is only for pure silver.

¹⁰CAS number is only for pure thallium.

¹¹CAS number is only for pure zinc.

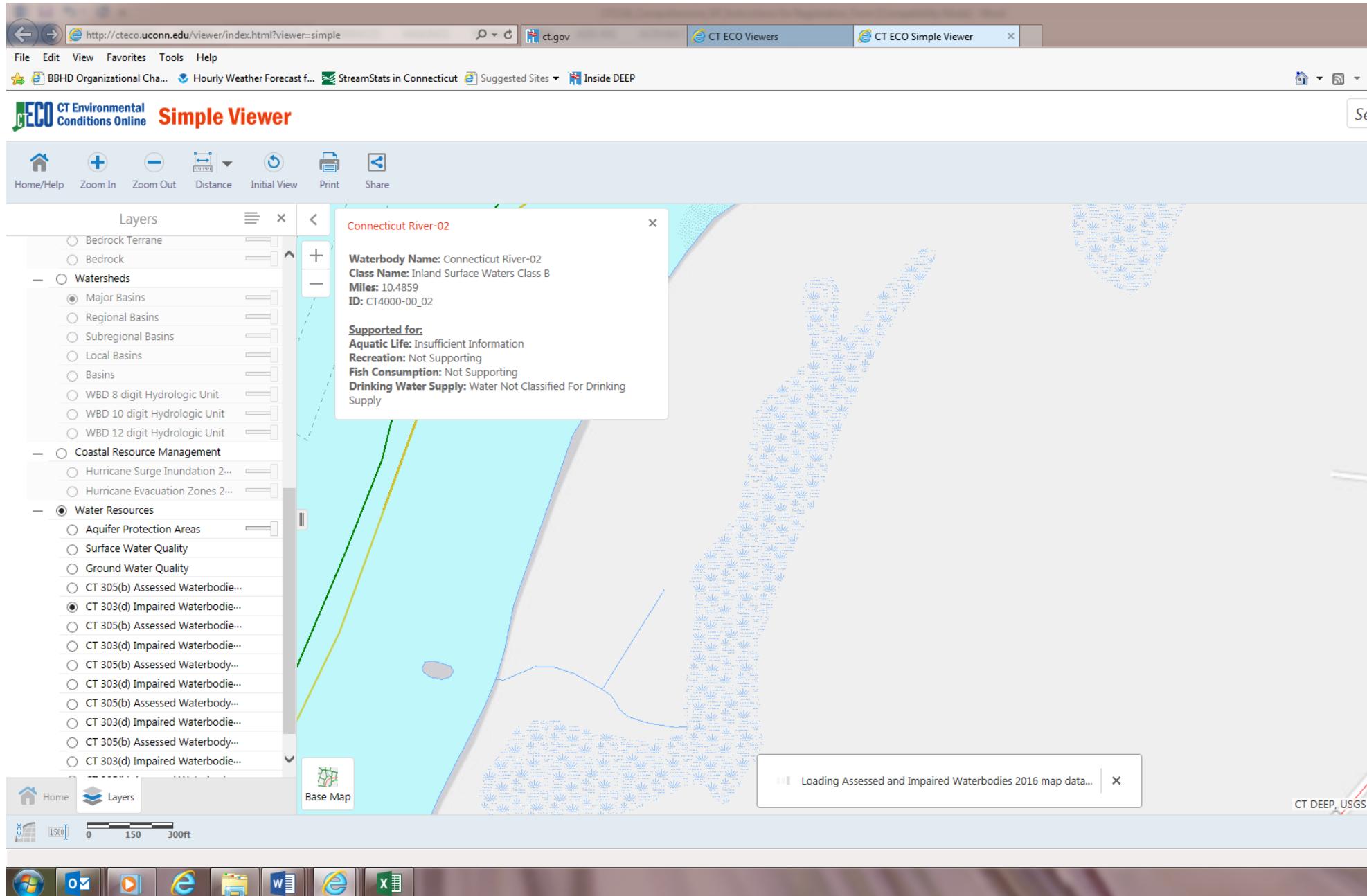


Figure 1—Waterbody Information Using CTECO Simple Viewer