

# Underground Injection Control Program Fact Sheet

## SECTION 1.0 FACILITY SUMMARY

<b>APPLICANT</b>	Town of Guilford – Guilford Public Schools
<b>PERMIT NO.</b>	UI0000268
<b>APPLICATION NO.</b>	200303568
<b>DATE APPLICATION RECEIVED</b>	September 30, 2003
<b>LOCATION ADDRESS</b>	181 Ledge Hill Road, Guilford, CT 06437
<b>FACILITY CONTACT</b>	Paul Freeman, Superintendent of Schools <a href="mailto:freemanp@guilford.k12.ct.us">freemanp@guilford.k12.ct.us</a> Clifford Gurnham, Director of the Facilities <a href="mailto:gurnhamc@guilfordschools.org">gurnhamc@guilfordschools.org</a>
<b>MAILING DDRESS</b>	55 Parker Street, Guilford, CT 06437
<b>PERMIT TERM</b>	10 Years
<b>PERMIT TYPE</b>	Renewal
<b>PERMIT CATEGORY</b>	UIC Class V Injection Well
<b>TREATMENT DESCRIPTION</b>	5W11 Conventional System
<b>OWNERSHIP</b>	Municipal
<b>COMPLIANCE SCHEDULE</b>	Yes
<b>RECENT ENFORCEMENT HISTORY</b>	Yes
<b>RECEIVING WATERBODY</b>	West River Watershed
<b>WATER QUALITY CLASSIFICATION(S)</b>	GA
<b>DISCHARGE LOCATION(S)</b>	DSN 301-2
<b>DEEP STAFF ENGINEER</b>	Antoanela Daha, <a href="mailto:antoanela.daha@ct.gov">antoanela.daha@ct.gov</a>

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## SECTION 2.0 PERMIT FEES

Discharge Code: 312000a Representing: DSN 301-2 Annual Fee: \$555

## SECTION 3.0 PROJECT HISTORY

On September 30, 2003, a permit renewal application (No. 200303568) was received for the discharge of domestic sewage to a subsurface sewage treatment and disposal system from the Town of Guilford- Guilford Public School, for the Melissa Jones School, in Guilford, Connecticut. On June 8, 2004, DEEP issued a Notice of Sufficiency for this application. DEEP's technical review of the application concluded that the Engineering Report (Attachment Q of the application) was deficient and lacking information. DEEP made several attempts to obtain the missing information and schedule an inspection. An inspection was performed on May 16, 2008, and was followed by a report filed on March 10, 2009. The site had limited natural soils and the original system was failing, and as a result the current system constructed in 1990 included the addition of a lateral sand filter and nitrogen dilution basin with the potential for toe of the slope surface water discharge. This element of the design was later found nonconformant with Water Quality Standards.

Section 22a-426-4(e)(1) of the Water Quality Standards was revised on February 28, 2011, to allow such discharges, provided that such discharges are necessary and don't include any additional sources of discharge. Additionally, there was a change in regulatory jurisdiction for conventional systems in 2017 delegating sites discharging 7,500 gallons per day or less to the Department of Public Health, the DEEP maintained its jurisdiction to issue an individual permit to Guilford Public Schools for Melissa Jones School because of the design of the system and the potential for a surface water discharge.

DEEP completed the review of the application and additional information, including a detailed review of the Discharge Monitoring Reports ("DMR"). DEEP determined that DMRs were missing for the last four years. A Notice of Violation ("NOV") was issued on August 5, 2024. The required information was received August 21, 2024, and the NOV was closed on October 1, 2024. Although the DMR reports identify seepage at the toe of the wetland section which likely refers to a downgradient area of the dilution basin, based on the groundwater depth in the monitoring wells, seepage seems unlikely and may be an administrative error on the permittees DMRs. Therefore, a permit compliance evaluation report required to be submitted six months after the permit issuance, requesting the applicant to evaluate potential seepage in the area of the nitrogen dilution basin. The permittee is compliant with continued permit requirements and the ground water monitoring shows compliance with the drinking water standards.

## SECTION 4.0 SITE INSPECTION

The DEEP and the permittee's representatives completed a site inspection on November 15, 2024. During the inspection, the DEEP went over the operation, maintenance and reporting requirements included in the permit. Following a discussion about the design of the lateral sand filter and the nitrogen dilution basin/stormwater infiltration system, a walk over the leaching field and downgradient nitrogen dilution basin/stormwater infiltration system, revealed no

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seepage through the riprap downgradient of the nitrogen dilution basin. Because of the limited hydraulic capacity of the natural soils, the design conservatively assumed no infiltration in the underlying natural soils. However, as the lateral sand filter is not lined, there is infiltration in the natural soils through the bottom of the lateral sand filter and it is very likely that the treated wastewater doesn't reach the nitrogen dilution basin, most of the time. The permittee's engineer confirmed that the seepage identified in the DMRs occurs after storm events. When it occurs, the seepage through the riprap is minor and a viable sample cannot be collected for testing.

## SECTION 5.0 NATURE OF BUSINESS GENERATING DISCHARGE

Melissa Jones School is an elementary school in Guilford, Connecticut discharging domestic sewage to a subsurface sewage disposal system.

## SECTION 6.0 PROCESS AND TREATMENT DESCRIPTION (by DSN)

**Conventional Treatment ( X )    Advanced Treatment ( )    RECYCLE ( )**

DSN 301-2 represents the discharge from the existing conventional sewage treatment system consisting of two septic tanks, two grease traps, two pump chambers, a constructed lateral sand filter, and a nitrogen dilution basin for stormwater infiltration and nitrogen attenuation.

## SECTION 7.0 COMPLIANCE SCHEDULE

Does the permit include a compliance schedule?      YES (X)      NO ( )

The proposed permit includes the following compliance schedules:

- 1) Record the permit in the town's land records;
- 2) Submit the results of a detailed permit compliance evaluation report six months after the permit issuance; and
- 3) Submit the results of a detailed permit compliance audit after five years.

## SECTION 8.0 BASIS FOR LIMITATIONS, PERMIT STANDARDS OR CONDITIONS

In accordance with section 22a-430 of the Regulations of Connecticut State Agencies ("RCSA"), DEEP's "Seepage and Pollutant Renovation (1982)", and DEEP's review of the permit application, site investigation and hydraulic capacity and pollutant analyses of the wastewater, a determination has been made that the existing system along with the downgradient nitrogen dilution basin protect the ground and surface water from pollution.

### 8.1 Conventional Wastewater Treatment

The conventional subsurface sewage disposal system, aka septic system, was designed to meet the following parameters:

- Average daily flow: 2,320 gallons per day
- Maximum daily flow: 4,700 gallons per day

Monitoring of additional parameters, such as nitrate, has been included in the permit to quantify

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nitrogen loading and to validate design criteria and year-round operations of the treatment system.

## **8.2 Leaching Bed Requirements**

The leaching field is a lateral sand filter with the dimensions of 140 ft x 190 ft and 11 ft deep in the area of the leaching trenches and tapered down to a depth of 7 ft in the area of the nitrogen dilution basin each. The leaching field, with the dimensions of 90 ft x 112 ft, was designed to accept and transmit the flow of 4,700 gallons per day.

The leaching system and the unsaturated zone beneath it are designed to absorb phosphorus and the absorption rate has been demonstrated through calculations thus limiting the discharge of significant concentrations of phosphorus to the groundwater.

Bacteria and virus inactivation is achieved as partially treated wastewater continues to flow through the unsaturated area under the leaching bed and downgradient of it. In accordance with the DEEPs design criteria, the minimum required travel time for the wastewater to all points of environmental concern is not less than 21 days.

## **8.3 Groundwater Monitoring Requirements**

Groundwater monitoring at the edge of the property is required to ensure the treated domestic wastewater does not cause pollution. Groundwater leaving the site boundaries must meet the primary maximum contaminant levels (MCLs) in the Safe Drinking Water Act. Groundwater will be monitored for the following parameters: depth to groundwater (feet), nitrate, as N (mg/L), nitrite, as N (mg/L), ammonia, as N (mg/L), total Kjeldahl nitrogen, as N (mg/L), and total nitrogen, as N (mg/L), total phosphorus as P (mg/l), pH (standard units), and total coliform.

## **SECTION 9.0 VARIANCES AND WAIVERS**

The facility did not request a variance or a waiver.

## **SECTION 10.0 E-REPORTING**

The permittee is required to electronically submit discharge monitoring reports.

## **SECTION 11.0 PUBLIC PARTICIPATION PROCEDURES**

### **11.1 Information Requests**

Interested persons may obtain copies of the application from Town of Guilford – Guilford Public Schools, 55 Parker Street, Guilford, CT 06437.

The application is available for inspection by contacting Antoanela Daha at 860-424-3876 or [antoanela.daha@ct.gov](mailto:antoanela.daha@ct.gov), at the Department of Energy and Environmental Protection, Bureau of Materials Management and Compliance Assurance, 79 Elm Street, Hartford, CT 06106-5127 from 8:30 to 4:30, Monday through Friday.

Any interested person may request in writing that his or her name be put on a mailing list to receive notice of intent to issue any permit to discharge to the surface waters of the state. Such request may be for the entire state or any geographic area of the state and shall clearly state in

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writing the name and mailing address of the interested person and the area for which notices are requested.

### **11.2 Public Comment**

Prior to making a final decision to approve or deny any application, the Commissioner shall consider written comments on the application from interested persons that are received within thirty (30) days of this public notice. Written comments should be directed to Antoanela Daha, Bureau of Materials Management and Compliance Assurance, Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127 or [DEEP.UICPermittong@ct.gov](mailto:DEEP.UICPermittong@ct.gov). The Commissioner may hold a public hearing prior to approving or denying an application if in the Commissioner's discretion the public interest will be best served thereby and shall hold a hearing upon receipt of a petition signed by at least twenty-five persons. Notice of any public hearing shall be published at least thirty (30) days prior to the hearing.

### **11.3 Petitions For Hearing**

Petitions for a hearing shall be submitted within thirty (30) days from the date of publication of this public notice and should include the application number noted above and also identify a contact person to receive notifications. Petitions may also identify a person who is authorized to engage in discussions regarding the application and, if resolution is reached, withdraw the petition. The Office of Adjudications will accept electronically-filed petitions for hearing in addition to those submitted by mail or hand-delivered. Petitions with required signatures may be sent to [deep.adjudications@ct.gov](mailto:deep.adjudications@ct.gov); those mailed or delivered should go to the DEEP Office of Adjudications, 79 Elm Street, Hartford, CT 06106. If the signed original petition is only in an electronic format, the petition must be submitted with a statement signed by the petitioner that the petition exists only in that form. Original petitions that were filed electronically must also be mailed or delivered to the Office of Adjudications within thirty (30) days of electronic submittal. Additional information can be found at [www.ct.gov/deep/adjudications](http://www.ct.gov/deep/adjudications).

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 (ADA). If you are seeking a communication aid or service, have limited proficiency in English, wish to file an ADA or Title VI discrimination complaint, or require some other accommodation, including equipment to facilitate virtual participation, please contact the DEEP Office of Diversity and Equity at 860-418-5910 or by email at [deep.accommodations@ct.gov](mailto:deep.accommodations@ct.gov). Any person needing an accommodation for hearing impairment may call the State of Connecticut relay number - 711. In order to facilitate efforts to provide accommodation, please request all accommodations as soon as possible following notice of any agency hearing, meeting, program, or event.