



**STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION**



**BUREAU OF WATER MANAGEMENT
PERMITTING, ENFORCEMENT & REMEDIATION DIVISION
FEDERAL REMEDIATION PROGRAM**

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July 6, 1999

Mr. Mark Evans
U.S. Department of the Navy
Northern Division, Naval Facilities Engineering Command, Code 1823
10 Industrial Way, Mail Stop 82
Lester, PA 19113-2090

Re: State Comments Regarding Proposed Plan for Site 8- Goss Cove Landfill,
Naval Submarine Base New London, Groton, Connecticut

Dear Mr. Evans:

The purpose of this letter is to transmit the formal comments of the State of Connecticut regarding the Proposed Plan for Goss Cove Landfill during the Public Comment Period, which ends on July 9, 1999. The Proposed Plan is dated June 1999.

The Department supports the preferred alternative, which consists of the following: 1) No further action for Goss Cove surface water and sediment, 2) Containment: Engineered control cap for the landfill area, 3) Institutional controls to limit future land use and ensure that the site is not used in a manner which would disturb the cap or soil, 4) Long term monitoring of groundwater to evaluate the effectiveness of the cap 5) Routine maintenance and inspection of the cap 6) Five year site reviews.

The Navy has agreed in previous discussions that the cap will comply with the requirements specified in section 22a-133k-2(f)(2) for an engineered control for polluted soils. Most importantly, the cap will have a permeability of less than 10^{-6} cm/sec. The State is pleased that this requirement will be incorporated into the design of the landfill cap.

A storm water conveyance line (storm drain) currently runs from the ball fields northeast of the landfill, through the Goss Cove Landfill, discharging to the Thames River at the west edge of the landfill. Figure 2 of the Proposed Plan shows this as a proposed storm sewer, which will continue to run through the landfill after the landfill is capped. If this storm drain is left in place within the landfill it will be a source of concern for the State for many reasons. First, the storm drain will create a potential path for water to be introduced or migrate beneath the cap. This could occur either by water leaking from the storm drain into the landfill, or by water which flows into the landfill through backfill surrounding the drain pipe. Second, if an active storm water conveyance line is located beneath the cap in landfill materials, it will make maintenance of the storm drain very difficult in the event repairs are required. It might be necessary to disturb the cap in order to repair the storm drain. Third, a storm water conveyance line and backfill could serve as a conduit to carry leachate, contaminated groundwater, or landfill gases out of the landfill.

The State has previously told the Navy that we would strongly prefer that this storm water conveyance line be re-routed so that it no longer traverses the landfill. If this is not possible, then the design of the storm drain must include significant measures to ensure that the storm drain does not introduce water beneath the cap, and does not serve as a conduit for leachate, contaminated groundwater, or landfill gases to exit the landfill. The design should also ensure that the cap need not be disturbed for maintenance of the storm drain. The Navy has

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responded that it would explore the feasibility of doing so. However, the Navy stated that high elevations along Military Highway, the most likely alternative route, might preclude re-routing the storm drain.

As an alternative to rerouting the storm water conveyance line around the landfill or allowing the storm water conveyance line to remain in place in waste material beneath the cap, the Navy may wish to consider designing the cap so that the storm drain traverses the landfill in approximately the same corridor, but is located above the cap. This would involve excavating a limited amount of waste to create a "clean zone" around the storm drain. If possible, the excavated waste could be consolidated beneath the landfill cap. Abandonment of the existing storm water conveyance lines and catch basins must also be included so that they do not serve as preferential pathways for flow of leachate, contaminated groundwater, or landfill gases.

Another source of concern for the State is the catch basins which are currently located in the *Nautilus* Museum parking lot. It will be necessary to install new catch basins after the landfill is capped to continue to provide for drainage. Under the base wide permit for storm water, treatment of the discharge from these catch basins will be required. It is likely that a storm water treatment unit or units will penetrate beneath the cap. If this is the case, then the portions of the treatment unit which are below the cap must be sealed so that water does not leak from the unit and groundwater, leachate, or landfill gases do not leak into the unit. The cap must also be sealed to the storm water treatment units. All utilities which might serve as a preferential pathway for groundwater, leachate, or landfill gases must be located above the cap, or properly abandoned. This includes conveyance piping for storm water, water and sewer service, fire hydrants, and any other utilities located below grade. The State would be happy to provide input to the Navy and its consultants during design of the Goss Cove Landfill cap.

I look forward to continuing to work cooperatively with the Navy and EPA during design and installation of the Goss Cove Landfill cap.

If you have any questions regarding this letter, please contact me at (860) 424-3768.

Sincerely,



Mark R. Lewis
Senior Environmental Analyst
Federal Remediation Program
Permitting, Enforcement & Remediation Division
Bureau of Water Management

cc: Kimberlee Keckler, US EPA New England, Federal Facilities Section
Darlene Ward, NSBNL Environmental Department
Jack Looney, CT Attorney General's Office
Matthew Bartman, Tetra Tech NUS, Inc.