

March 30, 2012  
File No. 01.0171138.00



Dominion Nuclear Connecticut  
Rope Ferry Road  
Waterford, Connecticut 06385

Attention: J. David Dakers, P.E.

Re: Environmental Site Assessment and Wetland Report Updates for  
Dominion Nuclear Connecticut (DNC) Millstone Point Station  
Independent Spent Fuel Storage Installation (ISFSI), Waterford, Connecticut  
Connecticut Siting Council (CSC) Submittal Support Services

One Edgewater Drive  
Norwood,  
Massachusetts 02062  
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Fax: 781-278-5701  
<http://www.gza.net>

Dear Mr. Dakers:

In accordance with Purchase Order No. 70237837 dated December 8, 2011, GZA GeoEnvironmental, Inc. (GZA) is pleased to provide this letter report summarizing our review and update of our 2003 Environmental Site Assessment and Wetland Reports for the ISFSI at the Millstone Power Station (Site, **Figure 1**) to Dominion Nuclear Connecticut (DNC, Client). The objective of our work was to confirm the conclusions in our previous reports (GZA, Environmental Site Assessment Report and Wetlands Report, 2003) based on DNC's proposed changes to the ISFSI full-build-out storm drainage configuration, including the addition of approximately 0.09 acres of additional apron area (i.e., impervious area). It is GZA's opinion that the revisions to be performed do not significantly alter the conclusions in the 2003 Wetlands report and the Environmental Site Assessment report.

## **BACKGROUND**

The ISFSI Site, heavy haul path, and equipment laydown area, are contiguous and located in the southern portion of the Millstone Property, south of the Amtrak railroad line. In 2003, GZA, under subcontract to others, provided Connecticut Siting Council (CSC) submittal support services for the approximately 2-acre ISFSI area. Our completed scope of work included (among others) the development of: a) design drawings for site grading and drainage, b) a Drainage Report, c) an Inland Wetland and Watercourses Delineation Study and Impact Assessment, and d) an Environmental Site Assessment.

The first phase ("Phase I") of the ISFSI Project was constructed in 2004, and included the construction of a pad for 19 Horizontal Storage Modules (HSM). The ISFSI Site is designed to support a total of 135 HSMs at full build-out. Phase I also included the installation of a trench drain within the concrete aprons located west of the existing HSMs. It is our understanding that the opposing slope condition created by the grading and drainage design to convey runoff to the trench drain is a hindrance to loading HSMs. As such DNC is requesting a revision to the design of the full-build out portion of the ISFSI to eliminate similar future conditions. It is our understanding that the existing grading and



drainage for the Phase I ISFSI area, including the existing trench drain, need not be modified since the majority of the Phase I HSMs have already been loaded.

We also understand that DNC would like to add about 15-ft of top width at the southern and northern portions of the ISFSI apron to allow for easier access by the HSM transporter. This proposed change to the ISFSI apron would add less than 0.2 acres of additional apron area, which is regarded to be impervious area.

Our previous efforts in 2003 included development of the following:

- Construction and Site Development Plans;
- Drainage Report;
- Wetlands Report: Boundary survey and wetlands functions and values assessment and ISFSI impact analysis;
- Environmental Site Assessment: a summary description of the proposed project; evaluation of existing environmental resources on and in the vicinity of the ISFSI Project; analyzes certain environmental impacts associated with the construction and operation of the ISFSI; assesses the consistency of the project with coastal resource policies; and identifies measures that will be applied to mitigate or avoid adverse environmental effects from the ISFSI Project.

Construction and Site Development Plans and the Drainage Report have been updated as part of our current scope of work and were provided under separate cover (GZA, Drainage Report and Drawings, January 27, 2012).

## **RESULTS AND DISCUSSION**

GZA updated our 2003 Drainage Report based on the proposed revisions to the full build-out ISFSI. The additional impervious area within the ISFSI area does not appreciably increase peak outflows from the site, as much of the area had been previously developed. Substituting catch basins for the originally proposed trench drains has no effect on peak outflows. Thus, the hydrologic and hydraulic impacts to the area and to downstream areas are not changed from our 2003 reports, in GZA's opinion.

GZA also compiled updated baseline information concerning the existing resource characteristics to assess if changes to surrounding areas (e.g., receiving water bodies, nearby wetlands) that may be affected by the construction having occurred since 2003. Additional field evaluations (including wetland limits and mapping) and/or site visits are not included in our scope, as they are not judged to be necessary given the relatively short amount of time that has passed since our original development of the reports and the minor changes to the ISFSI area configuration.

Sources of baseline information included online GIS information from the Connecticut Department of Energy and Environmental Protection (including Office of Long Island



Sound Programs), the Connecticut Office of Policy and Management (review of State Plan of Conservation and Development), U.S. Fish and Wildlife Service, National Marine Fisheries Service, U.S. Environmental Protection Agency, and the Town of Waterford. This information is presented in **Figures 2 and 3** and compared to the information contained in our 2003 reports.

## CONCLUSION

Our evaluation of the hydrology and hydraulics of the revised full build-out configuration indicated that revisions will not increase peak outflows from the site as compared to pre-construction conditions. Our review of the baseline information described above in concert with our updated hydrologic evaluation indicated that, as concluded in 2003, overall because the ISFSI Site will be located in an upland area within the Millstone Property, on a portion of the Millstone Property already designated for continued use for electric-generation purposes, the project will not result in significant adverse environmental impacts. Therefore, we judge that the conclusions provided in our 2003 Wetlands and Environmental Site Assessment reports remain valid.

We thank you for the opportunity to participate with you on this project. If you have any questions please contact Peter Baril at (781) 278-3818.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in blue ink, appearing to read 'David M. Leone'.

David M. Leone, P.E.  
Senior Project Manager

A handwritten signature in blue ink, appearing to read 'Daniel C. Stapleton'.

Daniel C. Stapleton, PE  
Consultant / Reviewer

A handwritten signature in blue ink, appearing to read 'Peter H. Baril'.

Peter H. Baril, P.E.  
Principal

Attachments:            Limitations, Figures

## FIGURES



**MILLSTONE POWER STATION ISFSI**



PROJ. MGR.: DML  
 DESIGNED BY: KDH  
 REVIEWED BY: PHB  
 OPERATOR: KDH  
 DATE: 12-20-11

LOCUS MAP

INDEPENDENT SPENT FUEL STORAGE INSTALLATION

JOB NO.  
171138

FIGURE NO.  
**1**

**MILLSTONE POWER  
STATION ISFSI**



The State of Connecticut, Department of Energy and Environmental Protection is the collector of the data (compiler), the creator and maintainer of the data layer (editor), and producer (publisher) of this information for use. Data compiled at 1:24,000 scale. These data are updated on a regular basis two times each year.



Legend	
	Natural Diversity Area
<b>Critical Habitat</b>	
<b>ESTUARINE</b>	
	Estuarine, Beachshore, B
	Estuarine, Intertidal Marsh, IM
<b>PALUSTRINE FORESTED (None in Map Extent)</b>	
	Palustrine Forested, Acidic Atlantic White Cedar Swamp, AAWCS
	Palustrine Forested, Acidic Red/Black Spruce Basin Swamp, AcR/BSS
	Palustrine Forested, Circumneutral Northern White Cedar Swamp, CirNWCs
	Palustrine Forested, Floodplain Forest, FF
<b>PALUSTRINE NON-FORESTED (None in Map Extent)</b>	
	Palustrine Non-forested, Beachshore, B
	Palustrine Non-forested, Circumneutral Spring Fen, CirSF
	Palustrine Non-forested, Floodplain Forest, FF
	Palustrine Non-forested, Freshwater Aquatic, FA
	Palustrine Non-forested, Medium Fen, MF
	Palustrine Non-forested, Poor Fen, PF
	Palustrine Non-forested, Rich Fen, RF
	Palustrine Non-forested, Sea Level Fen, SLF
<b>TERRESTRIAL FORESTED (None in Map Extent)</b>	
	Terrestrial Forested, Coastal Woodland/Shrubland, CWS
	Terrestrial Forested, Dry Acidic Forest, DAF
	Terrestrial Forested, Dry Circumneutral Forest, DCF
	Terrestrial Forested, Dry Subacidic Forest, DSF
	Terrestrial Forested, Old Growth Forest, OGF
	Terrestrial Forested, Subacidic Cold Talus Forest/Woodland, SubCTFW
<b>TERRESTRIAL NON-FORESTED (None in Map Extent)</b>	
	Terrestrial Non-forested, Acidic Rocky Summit Outcrop, AcRSO
	Terrestrial Non-forested, Alluvial Grassland/Outcrop, AIG/O
	Terrestrial Non-forested, Circumneutral Rocky Summit Outcrop, CirRSO
	Terrestrial Non-forested, Coastal Bluffs and Headlands, CBH
	Terrestrial Non-forested, Coastal Grassland, CG
	Terrestrial Non-forested, Sand Barren, SB
	Terrestrial Non-forested, Subacidic Rocky Summit Outcrop, SubRSO
	CTDEEP TIDAL WETLANDS 1990s



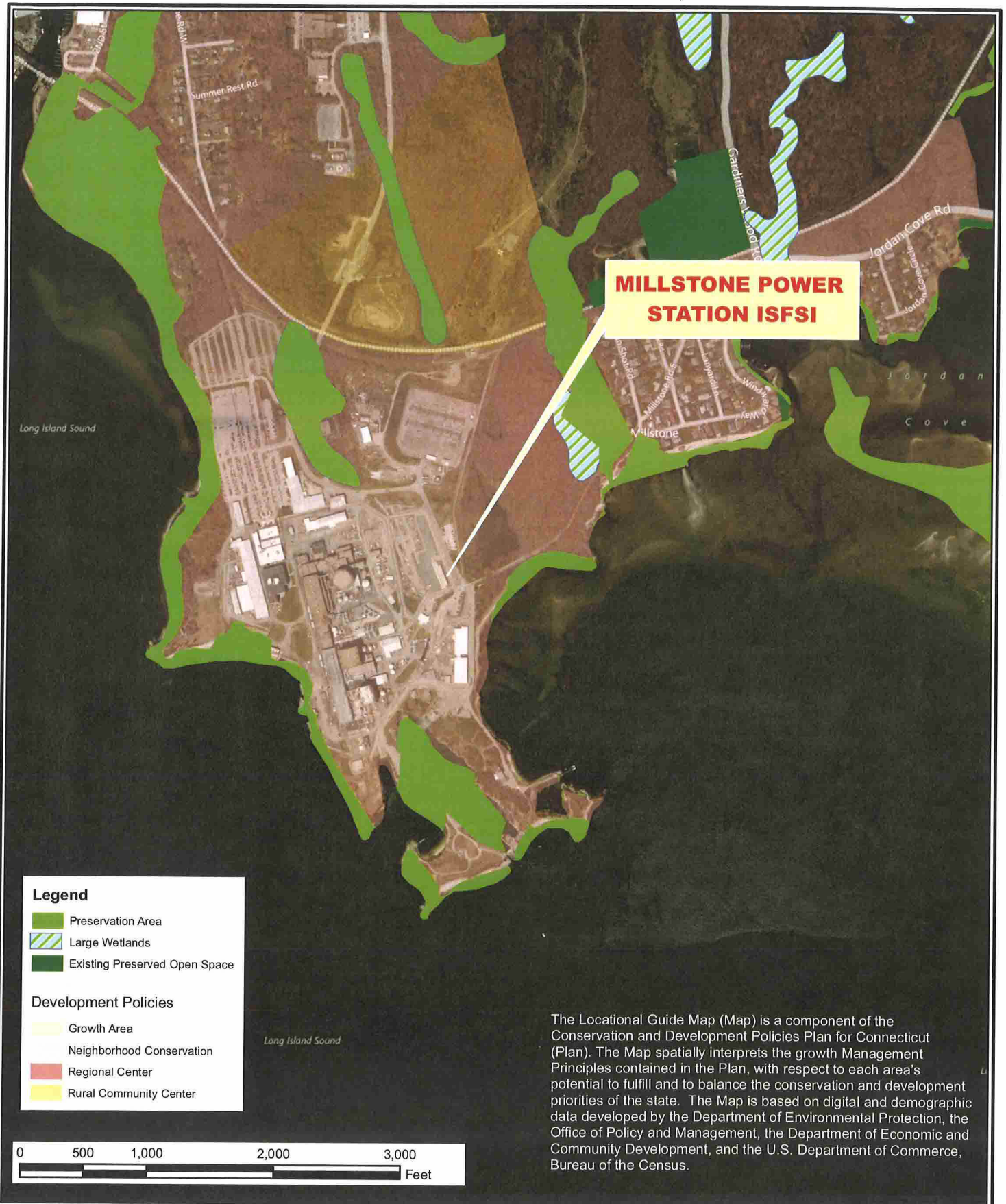
PROJ. MGR.: DML  
 DESIGNED BY: KDH  
 REVIEWED BY: DML  
 OPERATOR: KDH  
 DATE: 12 -20 -11

**CRITICAL HABITAT AND NATURAL DIVERSITY  
AREA MAP**

**INDEPENDENT SPENT FUEL  
STORAGE INSTALLATION**

JOB NO.  
171138

FIGURE NO.  
**2**



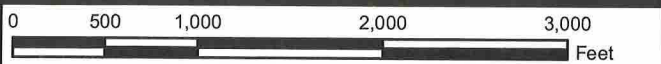
**MILLSTONE POWER  
STATION ISFSI**

**Legend**


- Preservation Area
- Large Wetlands
- Existing Preserved Open Space

**Development Policies**

- Growth Area
- Neighborhood Conservation
- Regional Center
- Rural Community Center



The Locational Guide Map (Map) is a component of the Conservation and Development Policies Plan for Connecticut (Plan). The Map spatially interprets the growth Management Principles contained in the Plan, with respect to each area's potential to fulfill and to balance the conservation and development priorities of the state. The Map is based on digital and demographic data developed by the Department of Environmental Protection, the Office of Policy and Management, the Department of Economic and Community Development, and the U.S. Department of Commerce, Bureau of the Census.

	PROJ. MGR.: DML DESIGNED BY: KDH REVIEWED BY: DML OPERATOR: KDH	<b>STATE PLAN OF CONSERVATION AND DEVELOPMENT MAP</b>	JOB NO. 171138
	DATE: 12 -20 -11	<b>INDEPENDENT SPENT FUEL STORAGE INSTALLATION</b>	FIGURE NO. <b>3</b>

**APPENDIX A**  
**LIMITATIONS**



## **LIMITATIONS**

1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein.
2. The purpose of this report was to confirm the conclusions in our 2003 Wetlands and Environmental Site Assessment Reports based on information review from publically available sources. Site reconnaissance survey and wetland delineation was not performed. If variations or other latent conditions appear evident during the intervening time, it may be necessary to reevaluate the conclusions and recommendations of this report.
3. In preparing this report, GZA has relied on certain information provided by state and local officials and other parties referenced therein, and on information contained the files of state and/or local agencies available to GZA at the time of the site assessment. Although there may have been some degree of overlap in the information provided by these various sources, GZA did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment.