

Lee D. Hoffman 90 State House Square Hartford, CT 06103-3702 p 860 424 4315 f 860 424 4370 lhoffman@pullcom.com www.pullcom.com

March 27, 2017

VIA HAND DELIVERY

Melanie Bachman Acting Executive Director Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: Petitions of LSE Canes Venatici LLC and LSE Coma Berenices LLC for a Declaratory Ruling that No Certificate of Environmental Compatibility and Public Need Is Required for the Construction, Operation and Maintenance of Solar Photovoltaic Facilities in East Windsor, Connecticut

Dear Ms. Bachman:

My clients, LSE Canes Venatici LLC and LSE Coma Berenices LLC are filing the two petitions for declaratory ruling as described in the caption above. Both companies are subsidiaries of Lodestar Energy LLC, and each project calls for the construction of a 2 MW AC solar photovoltaic facility to be located adjacent to a closed landfill located at 84 Wapping Road in East Windsor, Connecticut.

Because the projects are located on different parcels with different environmental configurations/impacts, the projects have been submitted to the Council as two petitions. However, the witnesses and personnel associated with both projects are the same, and the projects are both located in the same area of East Windsor. Therefore, we have designated the projects as Norcap North and Norcap South, and have no objection to the Council consolidating any site visits or hearings so that both projects are handled contemporaneously.

An original and 15 copies of each petition is included. In addition, three copies of full-size drawings are included with this submittal, as is a CD with electronic copies of each petition. A check for \$1,250.00 is also included as the filing fee for both petitions.



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If you have any questions concerning this submittal, please contact the undersigned at your convenience. We look forward to working with the Council to process these petitions.

Sincerely,

Lee D. Hoffin

Lee D. Hoffman

Enclosures

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STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

PETITION OF LSE COMA BERENICES LLC FOR A DECLARATORY RULING THAT NO CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS REQUIRED FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF A 2 MW AC SOLAR PHOTOVOLTAIC FACILITY IN EAST WINDSOR, CONNECTICUT

PETITION NO

MARCH 27, 2017



NORCAP SOUTH

84 WAPPING ROAD EAST WINDSOR, CONNECTICUT

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STATE OF CONNECTICUT

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NORCAP SOUTH

84 WAPPING ROAD EAST WINDSOR, CONNECTICUT

I INTRODUCTION

Pursuant to Conn. Gen. Stat.§§ 4-176 and 16-50k(a) and Conn. Agencies Regs.§ 16- 50j-38 *et seq.*, LSE Coma Berenices LLC, a subsidiary of Lodestar Energy LLC, ("Lodestar" or "Company") requests that the Connecticut Siting Council ("Council") approve by declaratory ruling the location, construction, operation, and maintenance of a solar photovoltaic facility capable of up to 2 MW AC, and associated equipment (known as the NORCAP South Project or "Project") consisting of approximately 10 acres of solar panels to be constructed within a 11.20 acre lease area located at 84 Wapping Road in East Windsor, Connecticut (the "Project Site").

Conn. Gen. Stat. § 16-50k(a) provides:

Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling... the construction or location of any customerside distributed resources project or facility or grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Energy and Environmental Protection.

As discussed in this Petition, the Lodestar Energy LLC's goal is to design an environmentally-compatible project that produces the maximum amount of energy while avoiding or minimizing adverse environmental impacts. Based on the evaluation presented in this Petition, the Project is not expected to cause any significant adverse environmental impacts to the immediate and surrounding area. Accordingly, the construction, operation, and maintenance of the Project satisfies the criteria of Conn. Gen. Stat. § 1 6-50k(a).

II PETITIONER

Lodestar Energy LLC is a Connecticut-based developer of renewable energy projects having its principal place of business at 3 Ellsworth Place, Suite 122, Avon, Connecticut 06001. Lodestar will lead the Project construction and development. Members of Lodestar's team have worked with utilities, school districts, cities, counties, commercial businesses, industrial clients and many others to develop more than 500 MW of solar projects with a value of more than \$1 billion across North America during the course of their careers in the renewable energy industry.

The representatives of Lodestar that will be most active with respect to this Petition are Jeffrey Macel, one of the principals and co-founders of Lodestar Energy LLC, along with John Switzer, who recently joined the Lodestar team. Please address all correspondence and/or communications regarding this Petition to them as follows:

> Jeffrey J. Mace1 Lodestar Energy LLC 3 Ellsworth Place, Suite 122 Avon, CT 06001 jmacel@lodestarenergy.com

John H. Switzer Lodestar Energy LLC 43 N. Moore Street New York, NY 10013 jswitzer@lodestarenergy.com

Please also provide a copy of all such correspondence and/or communications

to the Company's counsel as follows:

Lee D. Hoffman Pullman & Comley, LLC 90 State House Square Hartford, CT 06103 860-424-4315 (tele.) 860-424-4370 (fax) Ihoffman@pullcom.com

III PROPOSED PROJECT

A. PROJECT BACKGROUND

In developing this Project, the Company has taken into account the State's energy policy to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent." Conn. Gen. Stat. § 16a-35k. As a solar development, the proposed Project is considered a Class I renewable energy source under General Statutes § 16- 1(a)(26).

The Project creates several benefits for the Town of East Windsor, the State of Connecticut and their residents. First, the Project will return currently unused land to productive use. Over the course of a 20-year lease between the Company and the landowner, the Project will produce income in the form of rent for the landowner and a predictable tax base for the Town. When the solar array is removed from the Property upon expiration of the lease, the prior agricultural use of the Property can resume, if so desired. It should be noted, however, that the Project will be a participant in the state's Agricultural Virtual Net Metering Program. In addition, during its lifespan, the Project will help to reduce greenhouse gas emissions and pollutants.

B. SITE SELECTION

The Company based the site selection process for the Project on a detailed evaluation of the following key criteria:

- Site suitability (size, topography, and apparent lack of biological and hydrological conflicts in initial fatal flaw screening);
- Site availability and mutual benefits (ability to come to suitable lease terms with land owner; utilizing otherwise unusable land); and

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• Proposed cost of interconnecting to and proximity to critical infrastructure (suitable electrical grid access).

After performing an initial site evaluation, the Company began a preliminary design of a site layout that would best minimize negative environmental impacts. The Company conducted further diligence on the Project Site, negotiated fair and reasonable taxation terms with the Town, and entered into a contract option to lease the land. The Company performed significant public outreach within Town government (as delineated in Section III. F. below), including meeting with the Conservation Commission, the Zoning and Planning Commission and the East Windsor Board of Selectmen. The Company retained the following consultants to assist in the evaluation and design of the Project:

- Raber Associates Archaeologist
- Rema Ecological Services Wildlife Biologist
- J.R. Russo & Associates Civil Engineering/ Land Surveying/ Planning
- Highland Soils Wetland Report and Functional Assessment
- Power Engineers, LLC Electrical Design and Utility Interconnection
- GeoQuest Phase I Environmental Site Assessment

When evaluating the proposed Project Site, it is clear that there is an abandoned landfill immediately adjacent to the Project Site. The abandoned landfill area was considered for the Project, however, that location was ultimately not selected. While abandoned landfills are frequently appropriate sites for solar development, there are several reasons why the siting of the proposed solar array on top of the existing capped landfill was not pursued. These include but are not limited to:

- Limited area on top of the landfill with slope flat enough for a solar array;
- Difficulty in providing an access road to top of landfill cap for construction and future maintenance;
- Higher elevation would result in greater visibility from surrounding roads and residences; and
- Difficulty in constructing foundations for solar array, fencing supporting electrical equipment and electrical conduit without compromising the landfill cap.

Ultimately, the Project Site provides many benefits in terms of land re-use that more than compensate for the inability of the Project to use the capped landfill for the Project. As such, the Project believes that the site that has been selected is appropriate for solar development.

The Project Site consists of approximately 11.2 acres of undeveloped land, part of

C. PROPERTY DESCRIPTION

a larger 42-acre parcel located on the west side of Wapping Road across from the intersection with Miller Road in East Windsor, Connecticut. A Vicinity Map is provided as Exhibit 1. The property is owned by the Northern Capital Region Disposal Facility, Inc. ("NORCAP"). The site is bounded to the north by an existing capped landfill on other land owned by NORCAP, to the west by the Central New England Railroad, to the southwest by an industrial use, to the south by a former tree farm and agricultural land, and to the east by Wapping Road. Exhibit 2 includes a Land Use Map which depicts the surrounding land uses within one-half mile of the site.

The Project Site is located on the eastern portion of the property adjacent to Wapping Road. The Project Site is accessible from Wapping Road via an existing gravel driveway. With the exception of the very southern wooded fringe of the proposed development, the site has been historically mined for gravel. An earthen berm planted with arborvitaes exists along the Wapping Road frontage. Greater of detail of the area in the immediate vicinity of the site is shown on the Overall Site Plan, included in Exhibit 3.

Of the 11.20-acre subject site, approximately 4.6 acres is currently maintained as hay field, approximately 1.4 acres is wooded (but with "second growth" woods only), and the remaining 5.24 acres consists of exposed soils and stockpiles associated with an active gravel mining operation. The hay field was formerly mined for gravel, but has recently been restored with vegetation to prevent erosion within the last couple of years. As such, the Project will put currently unused lands back into productive use.

Although the land is owned by an entity that engages in commercial agriculture, and the property itself has been used for agricultural uses in the past, the gravel mining that has taken place at the site limits the potential agricultural uses of the Project Site in the future. Because the Project will be participating in the State's Agricultural Virtual Net Metering Program, the Project will have the salutary benefit of assisting the agricultural host with its agricultural business.

D. PROJECT DESCRIPTION

If this Project is approved by the Siting Council, Lodestar Energy LLC will enter into a lease agreement with NORCAP that will give it the right to construct, operate, and maintain the solar farm at the Project Site. The Project will involve the construction of approximately 10 acres of ground-mounted solar photovoltaic panels and improvements to an existing gravel driveway to provide access to the site from Wapping Road. The work will include clearing and grubbing; grading; construction of access roads; layout and placement of foundation systems, racking, approximately 9,288 solar PV panels and 34 string inverters; installation of utility pads and associated electrical equipment; installation of electrical conduit, conduit supports, electrical poles, and overhead wire; installation of a transmission line and associated transmission line tap; and installation of security fencing. The access road will be improved and widened in accordance with local requirements to accommodate emergency vehicles and fire trucks. The security fence will completely enclose the PV facilities and will consist of an 8-foot chain-link fence with gated access.

The PV panels and inverters will be mounted on a driven post racking system at a 25-degree tilt facing due south. Inverters will be mounted to the racking system, underneath the PV panels. The maximum height of the panels will be approximately 8 feet. The image on the next page is an example of the type of panels and racking system that will be utilized.



Grading is required at the Project Site, and removal of some trees will be necessary to prepare the array location for equipment installation, as well as to maximize the electrical production of the system. At the end of the operational life of the Project, the Company will remove all equipment (e.g. racking system, panels, inverters, electrical collection system, etc.) from the Project Site.

The Company will install the facilities in the area shown on the Site Plans in Exhibit 3. The image below is an example of a similar solar array field installed by the Company.



The Project construction period is estimated to take between four to six months once a Notice to Proceed has been issued. The Project is anticipated to be constructed according to the following schedule:

Task	Duration
Mobilization and Site Preparation	2 weeks
Civil Work: Road construction, tree clearing, grading	6 weeks
Racking, Panel, & Electrical Installation	8 weeks
Interconnection and Medium Voltage	2 weeks
System Testing	1 week
Approvals & Commissioning	2 weeks

E. INTERCONNECTION

The Company proposes interconnecting the Project to an existing 23kV overhead circuit that runs along Wapping Road, which is part of Eversource's distribution system. The interconnection will require the installation of new poles extending from the existing utility pole, located on the west side of Wapping Road at the entrance to the NORCAP access road, to the array location on the west side of the property. Eversource will own and install a pole mount recloser on the first new pole and an overhead primary metering cluster on the second new pole. The point of common coupling will be on the load side of the primary metering cluster. The Company will install an overhead 3-phase 23kV line running approximately 300 feet from the point of common coupling to the array location. The extension will follow the path of the access road with poles installed adjacent to the access road. The overhead portion of the extension will end at a riser pole at the array location where a pole mounted group operated disconnect will be installed by the Company. The extension will continue underground from the last riser pole to the pad mounted switchgear installed at the array location.

F. LOCAL INPUT AND NOTICE

The Company has actively sought input and approval from the Town of East Windsor throughout the planning and development of this Project, and remains committed to providing the Town with as much information regarding the Project as possible. In support of this goal, the Company:

• Attended the East Windsor Inland Wetland Watercourse Agency meeting on December 7, 2016, to present the Project site plan and solicit feedback;

- Attended the East Windsor Planning & Zoning Commission meeting on December 13, 2016, to present the Project site plan and solicit feedback;
- Attended the East Windsor Selectmen's meeting on December 20, 2016, to present the Project site plan and solicit feedback; and
- Will be providing a copy of this entire Petition to the Town of East Windsor concurrently with the submittal of this Petition to the Siting Council.

Additionally, as required by the Regulations of Connecticut State Agencies § 16-50j-40(a), the Company provided notice of this petition to all required persons and appropriate municipal officials and governmental agencies. Attached, as Exhibit 4, is a copy of the notice of service and a service list.

Additionally, the Company provided notice to the following Town officials:

- First Selectman Robert Maynard
- Alan Baker, Chairman Inland Wetlands Watercourse Agency
- Joseph Oullette, Chairman, Zoning and Planning Commission

IV POTENTIAL ENVIRONMENTALIMPACTS

On behalf of the Company, GeoQuest, Inc. conducted a comprehensive Phase I Environmental Site Assessment ("ESA"). (Attached as Exhibit 5.) The Company consulted the East Windsor Conservation Commission and other relevant agencies, evaluated potential environmental impacts, and analyzed potential visual impacts to nearby residences. In addition to the completion of the ESA, the Company engaged other environmental consultants to evaluate the potential for environmental impacts associated with the Project. Through the use of these consultants, and as explained in further detail below, this Project avoids, reduces, and mitigates potential environmental impacts.

A. ENVIRONMENTAL SITE ASSESSMENT

GeoQuest, Inc. performed a Phase I Environmental Site Assessment ("ESA") of the Project Site, in conformance with ASTM E 1527-13. The ESA concluded that the Project Site contained no recognized environmental conditions. Accordingly, GeoQuest concluded that no additional investigation or action was required at the Project Site. *See* Exhibit 5.

B. AIR QUALITY

The Project will have no air emissions during operation and only very minor air emissions of regulated air pollutants and greenhouse gases during construction. The Company will control any temporary emissions at the Project Site by enacting appropriate mitigation measures (e.g., water for dust control; avoiding mass early morning vehicle startups, etc.)

Accordingly, any potential air effects produced by the Project's construction activities will be *de minimis*. During operation, the Project is not anticipated to produce measurable volumes of regulated air pollutants or greenhouse gases (e.g., PM, VOCs, GHG or Ozone). No air permit will be required for either construction or operation of the Project.

C. BIOLOGICAL RESOURCES

A review of the Natural Diversity Database (NDDB) Area map dated December 2016 was reviewed and revealed that the Project Site is not located within an area identified to potentially have any State and Federal Listed Species & Significant Natural Communities. Based on the results of this preliminary screening, no further investigation into the presence of endangered species was required.

D. WETLANDS

The site was investigated for the presence of state and federal wetlands by Highland Soils, Inc. in April of 2016. No wetlands or watercourses were identified on or adjacent to the subject property. Furthermore, all runoff from the site is contained on the site where it infiltrates back into the ground. As a result, the proposed project is not anticipated to have any impacts on wetland resources.

E. STORMWATER MANAGEMENT

The majority of the Project Site currently consists of exposed, un-vegetated soil remaining from the former gravel removal operation. Runoff from the site currently results in sheet flows westerly to the low spot within the gravel pit where it ponds and eventually infiltrates back into the sandy soils. As a result of the grading at the subject property, there is currently no discharge of runoff to surrounding wetlands or watercourses.

The development of the site will result in disturbance of approximately 12 acres of land for grading and installation of the solar arrays. The majority of this disturbance will be in areas previously disturbed by historic gravel mining operations. The drainage patterns for the proposed development will mimic the existing drainage patterns with sheet flow overland to the existing low spot on the subject property. As a result, all runoff from the Project Site will be contained, and there will be no runoff discharge from the site. Thus, the completed development is not anticipated to have an adverse impact to the surrounding water and wetland resources. Because there is no stormwater discharge from the subject site, registration under the DEEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities is not required.

F. FLOODPLAINS

The attached Federal Emergency Management Agency (FEMA) Flood Map (included as Exhibit 8) indicates that no portion of the Project Site is located within the 100-year flood zone or special flood hazard areas.

G. DRINKING WATER RESOURCES

A review of the Connecticut Aquifer Protection Area Map prepared by the CT DEEP Bureau of Water Protection and Land Reuse (attached as Exhibit 9) identifies a mapped Level A aquifer protection area approximately 3,700 feet north of the Project Site. The aquifer protection area is located on the opposite side of the Ketch Brook, which is expected to act as a groundwater divide separating the groundwater beneath the site from aquifer. Based on the separation distance and presence of Ketch Brook, the proposed project is not anticipated to have an impact on the Aquifer Protection Area.

The surrounding properties on Wapping Road are served by private wells. However, the distance from the Project Site to the nearest residential property potentially served by a well is in excess of 300 feet. The proposed activities associated with the proposed project do not involve the withdrawal of water, nor the storage or use of oil or hazardous materials (other than what is present in the construction equipment). Thus, the proposed project is not anticipated to have an impact on any surrounding drinking water supplies. Furthermore, the Project Site is located adjacent to a capped landfill, which is known to have historically adversely impacted the water table in the immediate area. The presence of existing background contamination minimizes any potential additional impacts from the proposed project.

H. HISTORIC RESOURCES

The Petitioner retained Raber Associates, an archeologist recognized by the Connecticut State Historic Preservation Office (SHPO) to perform a cultural resources assessment and reconnaissance survey at the Project Site. Raber Associates completed the assessment and concluded that the proposed Project will have no effects on any cultural resources listed, eligible, or potentially eligible for the national or state registers of historic places (*See* Exhibit 10). The response that the Project received from SHPO is included as Exhibit 11. In that response, SHPO has concurred with the findings from Raber Associates.

I. SCENIC VALUES AND VISUAL EFFECTS

The Project is located along Wapping Road and separated from the street by an existing berm and evergreen plantings. Photographs of this existing visual buffer were taken from the viewpoints shown in the Nearby Residences Map (Exhibit 6) and the resulting views are depicted in the photographs included as Exhibit 7. Where tree clearing is proposed along the southern edge of the project near the road, an earthen berm and vegetative evergreen screen will be installed as indicated on the Site Plan to minimize visual impacts to the roadway. As a result of the existing and proposed visual buffers, views of the Project from Wapping Road will be minor and limited to passing traffic.

The nearest sensitive visual receptors to the Project were determined to be existing residential houses at least 850 feet to the east of the site on Graham Road and Miller Road. This large distance, as well as the presence of existing commercial buildings and evergreen plantings between these residences and the site, will minimize the visual impacts to these properties. In addition, the use of low profile Project components (e.g., racking system, panels, inverters, etc.) significantly reduces potential visible impact.

J. PUBLIC HEALTH AND SAFETY

The Company is firmly committed to the safe construction and operation of its Project. Overall, the Project will meet or exceed all health and safety requirements applicable for electric power generation. Each employee working on the Project Site will:

- Receive required general and site-specific health and safety training;
- Comply with all health and safety controls as directed by local, state, and federal requirements;
- Understand and employ the Site health and safety plan;
- Know the location of local emergency care facilities, travel times, ingress and egress routes; and
- Immediately report all unsafe conditions to the construction manager.

During construction, heavy equipment will be required to access the Project Site and higher levels of noise are anticipated; however, the Company will conduct all activities during normal working hours.

K. FEDERAL AVIATION ADMINISTRATION DETERMINATIONS

Pursuant to 14 CFR § 77.9 regarding the Federal Aviation Administration (FAA) Notice of Proposed Construction or Alteration, the FAA must be notified of "any construction or alteration that exceeds an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of the airport." 14 CFR § 77.9(b)(l) The northern property

line of the Project Site is approximately 18,000 feet from the southeastern end of the runway at Skylark Airpark. The Project's nearest panel is approximately another 15 feet+/- from the Project Site's property line. Thus, the closest structure (a PV panel) will be approximately 18,015 feet from the end of the runway.

However, the elevation at the end of the runway is about 121 feet. The elevation of the ground surface at the highest point where the Company is installing PV panels is approximately 185 feet. Even if the panels were to extend fifteen feet high (to elevation 200), the difference in elevation is only 79 feet over the 18,015 feet. Thus, the array's highest structure does not rise above the limiting 100:1 slope, which at a distance of 18,015 feet would be elevation 301 feet (121 feet+ 18,015 feet/100). Accordingly, when considering either the Project's distance to the end of the runway or the elevation of the Project's site in relation to the end of the runway, the Company is not required to file a notice with the FAA.

L. CARBON DEBT ANALYSIS

Lodestar Energy LLC performed an analysis using data from the Center for Urban Forest Research and US EPA to determine whether the proposed Project has the ability to produce a net improvement in carbon reduction compared to the loss of approximately 1.4 acres of forested land as required to prepare the site for construction and to prevent system shading. The analysis accounts for the loss of the trees, the carbon associated with the manufacture of the solar panels and related equipment, the carbon associated with the installation activity, and the carbon associated with the operations and maintenance of the system. The results indicate that the Project will have a payoff period of approximately 3.5 years to overcome the carbon debt incurred by the removal of trees. After that time, the results indicate that installation of the Project would result in a significant net improvement in overall carbon reduction over existing conditions at the Project Site. In other words, after the 3.5-year payback, the Project will produce a net-positive reduction in atmospheric carbon for the remaining years in its useful operational life.

V CONCLUSION

The Project, which is a grid-side distributed resources project with a capacity of less than 65 MW, is among the types of projects that the Council can approve by declaratory ruling. Based on the information provided in this Petition, Lodestar Energy LLC believes that it has adequately addressed any potential environmental impacts associated with the Project, and that the Project is appropriate for approval by the Council.

Accordingly, and for the reasons stated herein, because the proposed Project will meet state air and water quality standards and will not have a substantial adverse effect on the environment, Petitioner respectfully requests that the Council approve the location and construction of the proposed Project by declaratory ruling.

> Respectfully submitted, LES Coma Berenices LLC

Lee D. Hoffman Pullman & Comley, LLC 90 State House Square Hartford, CT 06103 860-424-4315 (tele.) 860-424-4370 (fax) <u>hoffman@pullcom.com</u> Its Attorneys





A-1 = AGRICULTURE/RESIDENTIAL 1 ZONE A-2 = AGRICULTURE/RESIDENTIAL 2 ZONE B-1 = BUSINESS 1 ZONE B-2 = BUSINESS 2 ZONE M-1 = MANUFACTURING 1 ZONER-3 = SINGLE FAMILY RESIDENTIAL 3 ZONE

SOURCE:

EAST WINDSOR GIS W/2012 AERIAL PHOTOGRAPH & ZONING BOUNDARY OVERLAYS Norcap South Solar Field Wapping Road East Windsor, Connecticut DATE 8-10-16 SCALE 1"=1,000' SCALE 1"=1,000'



Norcap South Solar Array

Wapping Road East Windsor, Connecticut



LOCATION MAP



Applicant

LSE Coma Berenices LLC 23 Salem Street Wakefield, MA 01880

Owner

Northern Capital Region Disposal Facility 321 Olcott Street Manchester, CT 06040

Prepared By





DRAWING INDEX		
SHEET TITLE	SHEET NO.	LATEST REVISION
<u>CIVIL</u> COVER SHEET LIMITED BOUNDARY SURVEY OVERALL SITE PLAN SITE PLAN (40 SCALE) DETAILS	1 of 5 2 of 5 3 of 5 4 of 5 5 of 5	12-05-16 12-05-16 12-05-16 12-05-16 12-05-16



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ZONE:	A1
MIN. LOT AREA:	43,560 S.1
MIN. FRONTAGE:	175'
FRONT YARD:	50'
SIDE YARD:	17.5'
REAR YARD:	30'
MAX. BLDG. HEIGHT:	30'



Acad\2016 Civil 3D\2016-037-NORCAP NORTH -Lodestar\Russo Drawings\2016-037.dwg







PROJECT NARRATIVE AND CONSTRUCTION SEQUENCE

This project is located the NORCAP Facility on Wapping Road in East Windsor, Connecticut. The proposed activity is the construction of a 2.0 MW AC photovoltaic solar facility. The suggested

5. Strip topsoil where present and stockpile within limits of work. Number and location of stockpiles to be determined in field. Temporarily seed (TS) stockpiles if they are to remain more than 30

6. Grade site. Re-spread topsoil and seed. Install erosion control blankets on slopes as shown on

Construction of this site is anticipated to begin in the Summer of 2017, pending approvals. Site work is anticipated to be completed within one construction season. Temporary erosion control measures shall be installed prior to any soil disturbance and maintained throughout construction until soils have

The Contractor shall keep the area of disturbance to a minimum and establish vegetative cover on exposed soils as soon as practical. All soil and erosion control measures shall be installed and maintained in accordance with these plans and the "Connecticut DEEP Guidelines for Soil Erosion and Sediment Control", as amended. The Contractor shall verify all conditions noted on the plans and

The developer shall be responsible for the repair/replacement/maintenance of all erosion control measures until all disturbed areas are stabilized. Sediment deposits shall be periodically removed from the upstream sides of silt fence (GSF). This material is to be spread and stabilized in areas not subject to erosion, or to be used in areas which are not to be paved or built on. Silt fences (GSF) are to be replaced as necessary to maintain proper filtering action. Silt fence (GSF) shall remain in place and shall be maintained to insure efficient sediment capture until all areas above the erosion





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NORCAP NORTH & SOUTH WAPPING ROAD, EAST WINDSOR

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CERTIFICATION OF SERVICE TO ABUTTING PROPERTY OWNERS CT SITING COUNCIL

	ABUTTING	From P & C Via Certified Mail	RECEIPT BACK [Green Card]		
	35		—		
Northern Capital Region Disposal 321 Olcott Street Manchester, CT 06040	North & South	03/21/17			
John F, and William Gilson	North				
11 Glenwood Road West Hartford, CT 06107		03/21/17			
John EP Maslak 176 Windsorville Road Broad Brook, CT 06016	North & South	03/21/17	c		
Apothecaries Hall Enterprises, LLC 125 Edwin Street South Windsor, CT 06074	North	03/21/17			
Leonard A. Mulnite, Trustee 28 Miller Road Broad Brook, CT 06016	South	03/21/17			
Estate of Joseph F. Belazaras 155 Griffin Road South Windsor, CT 06074	South	03/21/17			
Edward and Dorothy Markowski 216 Babbs Road West Suffield, CT 06093	South	03/21/17			
Mitchell Property Group, LLC PO Box 651 South Windsor, CT 06074	South	03/21/17			









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Lee D. Hoffman 90 State House Square Hartford, CT 06103-3702 p 860 424 4315 f 860 424 4370 lhoffman@pullcom.com www.pullcom.com

March 21, 2017

Via Certified Mail/Return Receipt Requested

Northern Capital Region Disposal 321 Olcott Street Manchester, CT 06040

Re: Lodestar Energy LLC; Petition for Declaratory Ruling For Solar Energy Project on Wapping Road, East Windsor, CT Dear Sir/Madam:

Dear Sir/Madam:

Pursuant to Section 16-50j-40(a) of the Connecticut Siting Council's (the "Council") regulations and Section 16-50*l*(b) of the General Statutes of Connecticut, we are notifying you that Lodestar Energy LLC, intends to file on or shortly after **March 24, 2017** a petition for declaratory ruling with the Council. This petition will request the Council's approval of the location and construction of an approximately two (2) megawatt solar photovoltaic ("PV") project (the "Project"), located at 84 Wapping Road in East Windsor, Connecticut.

The Project will consist of ground-mounted solar PV panels, will qualify as a Class I renewable energy resource, and will supply 100% renewable energy in furtherance of Connecticut's renewable energy goals.

If you have any questions regarding the Project, please contact the undersigned or the Council.

Sincerely,

Lee D. Hoffman

Attorney for Lodestar Energy LLC

ACTIVE/77284.1/KSHEATHELM/6466623v1


March 21, 2017

Via Certified Mail/Return Receipt Requested

John F. and William Gilson 11 Glenwood Road West Hartford, CT 06107

Re: Lodestar Energy LLC; Petition for Declaratory Ruling For Solar Energy Project on Wapping Road, East Windsor, CT Dear Sir/Madam:

Dear Sir/Madam:

Pursuant to Section 16-50j-40(a) of the Connecticut Siting Council's (the "Council") regulations and Section 16-50*l*(b) of the General Statutes of Connecticut, we are notifying you that Lodestar Energy LLC, intends to file on or shortly after **March 24**, 2017 a petition for declaratory ruling with the Council. This petition will request the Council's approval of the location and construction of an approximately two (2) megawatt solar photovoltaic ("PV") project (the "Project"), located at 84 Wapping Road in East Windsor, Connecticut.

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Lee D. Hoffman

Attorney for Lodestar Energy LLC

March 21, 2017

Via Certified Mail/Return Receipt Requested

John EP Maslak 176 Windsorville Road Broad Brook, CT 06016

ATTORNEYS

Re: Lodestar Energy LLC; Petition for Declaratory Ruling For Solar Energy Project on Wapping Road, East Windsor, CT Dear Sir/Madam:

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Sincerely,

Lee D. Hoffman *V1* Attorney for Lodestar Energy LLC



March 21, 2017

Via Certified Mail/Return Receipt Requested

Apothecaries Hall Enterprises, LLC 125 Edwin Street South Windsor, CT 06074

Re: Lodestar Energy LLC; Petition for Declaratory Ruling For Solar Energy Project on Wapping Road, East Windsor, CT Dear Sir/Madam:

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Lee D. Hoffman *V1* Attorney for Lodestar Energy LLC

March 21, 2017

Via Certified Mail/Return Receipt Requested

Leonard A. Mulnite, Trustee 28 Miller Road Broad Brook, CT 06016

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Re: Lodestar Energy LLC; Petition for Declaratory Ruling For Solar Energy Project on Wapping Road, East Windsor, CT Dear Sir/Madam:

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Lee D. Hoffman **//** Attorney for Lodestar Energy LLC



March 21, 2017

Via Certified Mail/Return Receipt Requested

Estate of Joseph F. Belazaras 155 Griffin Road South Windsor, CT 06074

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Sincerely,

Lee D. Hoffman

Attorney for Lodestar Energy LLC





March 21, 2017

Via Certified Mail/Return Receipt Requested

Edward and Dorothy Markowski 216 Babbs Road West Suffield, CT 06093

Re: Lodestar Energy LLC; Petition for Declaratory Ruling For Solar Energy Project on Wapping Road, East Windsor, CT Dear Sir/Madam:

Dear Sir/Madam:

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Sincerely, Lee D. Hoffman

Attorney for Lodestar Energy LLC



March 21, 2017

Via Certified Mail/Return Receipt Requested

Mitchell Property Group, LLC P.O. Box 651 South Windsor, CT 06074

Re: Lodestar Energy LLC; Petition for Declaratory Ruling For Solar Energy Project on Wapping Road, East Windsor, CT Dear Sir/Madam:

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Lee D. Hoffman *VI* Attorney for Lodestar Energy LLC

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East Windsor Town Clerk East Windsor Town Hall 11 Rye Street Broad Brook, CT 06016-9553	03/21/17	
Laurie Whitten, Town Planner East Windsor Town Hall 11 Rye Street Broad Brook, CT 06016-9553	03/21/17	
Joseph Ouellette, Chairman Planning and Zoning Commission East Windsor Town Hall 11 Rye Street Broad Brook, CT 06016-9553	03/21/17	с.
Rand Stanley Building Inspector East Windsor Town Hall 11 Rye Street Broad Brook, CT 06016-9553	03/21/17	
Leonard Norton Director of Public Works/Town Engineer/Tree Warden East Windsor Town Hall 11 Rye Street Broad Brook, CT 06016-9553	03/21/17	

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Eric Moffett (first named) Economic Development Commission East Windsor Town Hall 11 Rye Street Broad Brook, CT 06016-9553	03/21/17		
STATE GOVERNMENT			
Capitol Region Council of Governments 241 Main Street, Hartford, CT 06106-5310	03/21/17		
Office of the Attorney General State of Connecticut Attorney General George Jepsen 55 Elm Street Hartford, CT 06106	03/21/17		
Senator Richard Blumenthal 90 State House Square, 10 th Floor Hartford, CT 06103	03/21/17		
Senator Christopher Murphy One Constitution Plaza, 7th Fl. Hartford, CT 06103	03/21/17		
US Congressman John Larson 221 Main Street, 2nd Floor Hartford, CT 06106	03/21/17		

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State Senator Timothy Larson Legislative Office Building Room 3300 300 Capitol Avenue Hartford, CT 06106-159	03/21/17			
STATE ACENCIES				
State of Connecticut Department of Energy and Environmental Protection Robert Klee, Commissioner 79 Elm Street Hartford, CT 06106	03/21/17			
State of Connecticut Department of Public Health c/o Dr. Raul Pino, Commissioner 410 Capitol Avenue, PO Box 340308 Hartford, CT 06134	03/21/17			
State of Connecticut Council on Environmental Quality c/o Susan D. Merrow, Chair 79 Elm Street Hartford, CT 06106	03/21/17			
State of Connecticut Department of Agriculture c/o Steven K. Reviczky, Commissioner 165 Capitol Avenue Hartford, CT 06106	03/21/17			

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State of Connecticut Department of Economic and Community Development Catherine Smith, DECD Commissioner 505 Hudson Street Hartford, CT 06106	03/21/17	
State of Connecticut Department of Transportation c/o James P. Redeker, Commissioner 2800 Berlin Turnpike Newington, CT 06111	03/21/17	
Connecticut Department of Emergency Services and Public Protection Dora B. Schriro, Commissioner 1111 Country Club Road Middletown, CT 06457	03/21/17	Ĉ
State of Connecticut Department of Consumer Protection Jonathan A. Harris, Commissioner 165 Capitol Avenue Hartford, CT 06106	03/21/17	

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State of Connecticut Department of Labor Scott D. Jackson, Commissioner 200 Folly Brook Boulevard Wethersfield, CT 06109	03/21/17		

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SAMPLE LETTER FOR FILING

Lee D. Hoffman 90 State House Square Hartford, CT 06103-3702 p 860 424 4315 f 860 424 4370 lhoffman@pullcom.com www.pullcom.com

March 21, 2017

Via Certified Mail/Return Receipt Requested

«Name and Address»

Re: Lodestar Energy LLC; Petition for Declaratory Ruling For Solar Energy Project on Wapping Road, East Windsor, CT

Dear «Name»:

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Sincerely,

Lee D. Hoffman

Attorney for Lodestar Energy LLC



PHASE I ENVIRONMENTAL SITE ASSESSMENT BLOCK 65, LOT 31, MAP 27 EAST WINDSOR, CONNECTICUT

Prepared for:

NorCap South LLC c/o Conergy Projects 1801 NE 123rd St., Suite 421 North Miami, FL 33181

GeoQuest Project No. 2775

November 30, 2016

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1.0 SUMMARY

GeoQuest, Inc. (GeoQuest) has performed a Phase I Environmental Site Assessment (ESA) of an approximately 9.8 acre parcel of land identified in the East Windsor Assessor's files as Block 65, Lot 31 on Map 27. The current owner is listed as Northern Capital Region Disposal. This parcel of land shall be known in this report as the "site" or the "subject property". This ESA was performed in conformance with the scope and limitations of ASTM Practice E 1527-13 for Phase I ESAs.

The Site is a somewhat wedge shaped parcel of land that consists largely of open field with a few trees and a grass covered ridge separating the field from the gravel operation to the west. The site is located in a rural, largely agricultural area of East Windsor. It is bordered on the east by a thin stand of trees beyond which is Wapping Road. There are woods to the south. A dirt road runs along the northern edge of the site, providing access to the gravel operation to the west of the site. North of this road is a hill marking the remains of the NorCap landfill, now overgrown with trees.

Groundwater in the area of the Site has been classified by the Connecticut Department of Energy and Environmental Protection (CTDEEP) as "GB" which indicates that the water in this area is not suitable for use as a potable water supply without treatment.

GeoQuest reviewed the files of the East Windsor town offices regarding the Site. While there was considerable information regarding the landfill (which is not on the site), there was no information about the site itself.

A review of available state and federal environmental databases, obtained through Environmental Data Resources, Inc. (EDR), indicated that the site is not listed on any of the databases searched. In addition, there was no information found in the files of the Connecticut Department of Energy and Environmental Protection (CTDEEP) regarding the subject property.

Based on a review of documents and information collected during the Site walk-through and from the EDR database search there was no evidence that any listed activities (dry cleaning, furniture stripping, and auto body repair) identified in the Connecticut Property Transfer Act (Transfer Act) have occurred on-site. In addition, there is no evidence that any on-site activities have generated hazardous waste. Therefore, the Site would not be considered an "establishment" pursuant to the Transfer Act.

Based on the scope of services conducted and the information reviewed, GeoQuest did not identify any Recognized Environmental Conditions (RECs) on the subject property. Therefore, GeoQuest does not believe that any further assessment and/or remediation is warranted at this site at this time.

2.0 INTRODUCTION

GeoQuest, Inc. conducted a Phase I Environmental Site Assessment (ESA) of an approximately 9.8 acre parcel of land in East Windsor, Connecticut. The current owner of the site is listed as Northern Capital Region Disposal. For the purposes of this report this parcel shall be known as the "site" or the "subject property".

2.1 Purpose

The purpose of this assessment was to collect information that could assist the Client in assessing the environmental condition of the property and in making decisions regarding the property. To achieve these ends GeoQuest attempted to identify recognized environmental conditions (RECs) and liability issues in connection with the property to the extent feasible pursuant to the processes prescribed in the American Society for Testing Materials (ASTM) E 1527-13 guidelines. The term "REC" as defined by ASTM is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." The term is not intended to include *de minimis* conditions that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

The Phase I ESA includes information gathered from Federal, State, and local agencies; personal interviews with people familiar with the Site; and a Site visit conducted by GeoQuest personnel. The report is intended to meet the requirements of ASTM E 1527-13.

2.2 Detailed Scope of Services

The Phase I ESA included, but was not limited to, the following:

- a walk-through inspection of the subject property and reconnaissance of the site area;
- review of documents available from the offices of the East Windsor Assessor and Building Departments;
- review of documents and files available from Federal, State, and local regulatory offices;
- · interviews with people familiar with the Site, as available; and
- preparation of a report presenting our findings including a summary of conclusions and recommendations.

2.3 Significant Assumptions

The purpose of this Phase I ESA is to provide appropriate inquiry into the current and prior use of the Site consistent with good commercial and customary practice in an effort to minimize liability. GeoQuest assumes that the information provided by the Client, regulatory database provider, interviewees, and local and State government agencies is true and reliable.

2.4 Limitations and Exceptions

This report has been prepared for NorCap South, LLC and their counsel in accordance with the terms and conditions agreed upon¹. Only the party for whom this report was originally prepared, and other specifically named parties, may make use of and rely upon the information in this report, in its entirety, in accordance with the ASTM's "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" ASTM Designation E 1527-00 dated May 10, 2000, ASTM's "Standard Practice for Environmental Site Assessment Process" ASTM Designation E 1527-00 dated May 10, 2000, ASTM's "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" ASTM Designation E 1527-05 dated November 1, 2005, the Code of Federal Regulations (CFR) 40CFR Part 312 "Standards and Practices for All Appropriate Inquiries: Final Rule" dated November 1, 2005, and/or "Standards and Practices for All Appropriate Inquiries E 1527-13. After 180 days and prior to using the information contained herein, the report should be updated in accordance with ASTM Standards and Federal regulations.

GeoQuest does not assume responsibility for the discovery and elimination of environmental problems which could result in regulatory actions or for hazards which could cause accidents, injuries or damage. Compliance with submitted recommendations, suggestions, remedial actions or any proposed scope of services in no way assures elimination of hazards, environmental impairment or fulfillment of the owner's or potential purchaser's obligations as may be required by any local, state or federal laws or modifications or changes thereto. In addition, GeoQuest, does not provide any guarantees, certifications, or warranties (express or implied) that a property is free from environmental contamination. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and all applicable laws, codes, regulations, or standards. In many cases local, state or federal regulations and/or statutes require the prompt reporting to "appropriate" authorities should a "release" occur or be identified. It is the responsibility of the current owner or operator to notify authorities of any conditions which exist which are in violation of current laws or codes.

The findings and conclusions contained in this report are based solely on professional interpretation of observations of conditions as they presently exist and on information obtained while conducting the scope-of-services detailed in this report. If the recommendations or findings within this report are not implemented or acted upon within a reasonable period of time, there can be no assurances that intervening factors will not arise which will effect the conclusions contained herein. In addition, data available from further inspections, assessments, subsurface explorations, sampling and testing of the subject property may modify or indicate the need to modify the conclusions and recommendations of this report. Should additional information or observations collected at a later date indicate the presence of an environmental situation not addressed in this report, GeoQuest will determine the need to modify the conclusions and recommendations contained in this report, if contacted by the client. GeoQuest assumes no responsibility for damages (consequential or otherwise) arising from information or situations that are identified, but not brought to its attention immediately.

¹ The terms and conditions were attached to the original proposal. If for any reason these terms and conditions are not accepted, this report should be returned immediately to the sender.

2.5 Special Terms and Conditions

The scope of work for this Phase I ESA did not include an assessment of the presence or potential presence of asbestos containing material, lead based paint, radon, microbial material, radionuclides, or assessment of non-chemical potential hazards such as damage from earthquakes or floods.

2.6 User Reliance

This report is prepared for the exclusive use of NorCap South, LLC and its counsel. No use of the information contained in this report by others is permissible without receiving prior written authorization to do so from GeoQuest. GeoQuest is not responsible for independent conclusions, opinions, or recommendations made by others or otherwise based on the findings presented in this report.

3.0 Site DESCRIPTION

3.1 Location and Legal Description

The subject property consists of an approximately 9.8 acre parcel of land identified in the East Windsor Assessor's files as Block 65, Lot 31 on map 27. (It should be noted that as there were no markers delineating the site boundaries, this report is based on GeoQuest's estimate as to where the boundary lines were.) A Site Location Map can be found in Appendix A.

3.2 Site and Vicinity General Characteristics

The site is a rougly wedge shaped parcel of land bounded on the east by Wapping Road, by some woods on the south, by a dirt access road on the north, and by a sand and gravel operation on the west. The majority of the site consists of an open grassy field.

3.3 Current Use of the Property

The land currently is vacant but appears to have been mowed to keep it open for agricultural use.

3.4 Descriptions of Structures, Roads, and Other Improvements on the Site

This section provides details of the site improvements. A Site Layout Map can be found in Appendix A.

3.4.1 General Description of Structures

There are no structures on the site.

3.4.2 Roads

The only road is an access road which runs from Wapping Road along the northern edge of the field. There are currently no roads on the site itself.

3.4.3 Potable Water Supply

Currently there are no utilities on-site. There are no public water supply wells within 1.0 mile of the subject property.

3.4.4 Sewage Disposal System

There are no utilities on the site, including sewer.

3.5 Current Uses of Adjoining Properties

The site is bordered on the south by woods. To the east is a row of small trees screening

Wapping Road beyond. To the north is a dirt access road and a large garage building used by the machinery involved in the sand and gravel operation west of the site. Beyond this is a tree covered hill, the remains of the former NorCap landfill which was closed and capped circa 2006 and is now overgrown.

4.0 Site RECONNAISSANCE

4.1 Methodology and Limiting Conditions

On October 26, 2016 GeoQuest personnel conducted a walk-through of the subject property to determine the presence or absence of recognized environmental conditions which could have the potential to impact the site. The weather was clear and in the 50°s. GeoQuest revisited the site on November 29, 2016; the weather then was rainy and in the 50s.

Information about the site was provided by Mr. Adam Beal of Lodestar Energy. No one accompanied GeoQuest during the walk-through. Photographs of the site can be found in Appendix B.

4.2 General Site Setting

4.2.1 Current Use(s) of the Property

The land currently is a vacant agricultural field.

4.2.2 Past Use(s) of the Property

Based on the aerial photographs the site appears to have been agricultural in nature with wooded borders since approximately the 1930s.

4.2.3 Current Uses of Adjoining Properties

See Section 3.5

4.2.4 Past Uses of Adjoining Properties

Based on the aerial photographs adjoining properties were, and are, either wooded or open agricultural fields.

4.2.5 Current or Past Uses in the Surrounding Area

Based on the aerial photographs the surrounding area remains largely wooded or agricultural with some scattered residences.

4.2.6 Geologic, Hydrogeologic, Hydrologic, and Topographic Conditions

Based on geological maps of Connecticut, bedrock at the site consists of Portland Arkose, a reddish brown arkosic sandstone. According to the CTDEEP Map of Surficial Materials (1992) soils in the area are reported to largely be made up of sand overlying gravel where sand and gravel tend to be less than 20 feet thick. The topography of the site is quite flat, except near the gravel quarry. It appears, therefore, that overall

groundwater flow direction would be to the north northwest toward Ketch Brook located north of the site.

4.3 Exterior Observations

The site is relatively flat and largely grass covered. A dirt road runs along the northern edge of the site, giving access to the sand and gravel quarrying operation west of the site. This road leaves Wapping Road near the northeast corner of the site, forking shortly with one branch leading across the north edge of the site, another to the garages, and a third to lot 27A. There is a thin line of small trees along the eastern edge of the site, screening the site from Wapping Road.

There is some woods bordering the southern edge of the site. The apparent western edge of the site is marked by a ridge of dirt partially covered with tall grasses. The land on the eastern side of this ridge is sandy and flat, while the land on the western side of the ridge appears to be part of the sand and gravel operation with piles of dirt, gravel, etc.

There were no indications of any hazardous materials anywhere on the site. (It should be noted that as there were no markers delineating the site boundaries, this report is based on GeoQuest's estimate as to where the boundary lines were.)

Observations regarding the following items were made during GeoQuest'site walk-through in accordance with the ASTM standard.

4.3.1 Hazardous Substances and Petroleum Products in Connection with Identified Uses

No hazardous substances or petroleum products were identified on the site.

4.3.2 Storage Tanks

There were no indications of underground storage tanks (eg. vent and fill pipes) evident on the site.

4.3.3 Odors

GeoQuest did not note any noxious odors during the walk-through of the site.

4.3.4 Pools of Liquid

There were no pools of liquid observed on the site except for pools of rainwater in November.

4.3.5 Drums

There were no drums observed on the site.

4.3.6 Hazardous Substance and Petroleum Products Containers (Not Necessarily in Connection with Identified Uses)

There were no hazardous substance or petroleum containers observed on the site.

4.3.7 Unidentified Substance Containers

There were no unidentified substance containers noted on-site.

4.3.8 Polychlorinated Biphenyls (PCBs)

GeoQuest did not observe electrical equipment or hydraulic equipment on the property that would be expected to contain fluids with polychlorinated biphenyls (PCBs).

4.3.9 Pits, Ponds, or Lagoons

There were no pits, ponds or lagoons noted on site.

4.3.10 Stained Soil or Pavement

There were no indications of stained soil on-site.

4.3.11 Stressed Vegetation

No stressed vegetation was noted on the site.

4.3.12 Solid Waste

There was no solid waste noted on-site.

4.3.13 Wastewater

There were no stormwater or waste water discharges noted on the site during the walkthrough.

4.3.14 Wells

There were no indications of any wells on site; there are no public water supply wells within one mile of the site.

4.3.15 Septic Systems

Currently there are no utilities serving the site.

5.0 USER-PROVIDED INFORMATION

GeoQuest provided a "User Questionnaire" to the client. The answers as provided by the client are noted below. A copy of the completed questionnaire can be found in Appendix C.

5.1 Environmental Liens or Activity and Use Limitations

The Client is unaware of any environmental liens against the property or of any land use limitations or restrictions in place at the site.

5.2 Specialized Knowledge

The client indicates that he has no specialized knowledge relating to the property.

5.3 Commonly Known or Reasonably Ascertainable Information

The Client is aware only that there is a gravel operation near the site.

5.4 Knowledge of Litigation or Administrative Proceedings

The client has no information to indicate that there are any pending administrative proceedings relevant to hazardous substances on the property.

5.5 Are there any obvious indicators that point to the presence or likely presence of contamination at the property?

The client is unaware of any obvious indicators pointing to the presence or likely presence of contamination at the property.

5.6 Valuation Reduction for Environmental Issues

The client believes that they are paying the fair market lease rate for the land.

6.0 RECORDS REVIEW

6.1 Previous Environmental Reports

GeoQuest was not provided with any prior environmental reports.

6.2 Standard Environmental Record Sources

GeoQuest requested a search of available environmental records by Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut, which maps and lists properties in Federal and State environmental databases with existing conditions or status that may have the potential to affect the subject property. This search met the specific requirements of the ASTM Standard Practice for Environmental Assessments, E 1527-13, including those associated with government databases, search distances, and data currency. A copy of the EDR report can be found in Appendix D.

The site is not listed on any of the databases searched.

6.2.1 Federal Environmental Record Sources

In accordance with ASTM E 1527-13 guidelines Federal databases were searched for any sites on or within a one mile radius of the subject property. There is only one site listed in the EDR databases: NORCAP (the former landfill) is listed on the Leachate and Wastewater database (inactive). As this is an inactive site which was closed circa 2006, it is not expected to impact the subject property.

6.2.2 State Environmental Record Sources

ASTM E 1527-13 requires a review of available State databases. There were no sites listed on these databases within one mile of the subject property.

6.3 Additional Environmental Record Sources

The files of the Connecticut Department of Energy and Environmental Protection (CTDEEP) were checked for any information regarding the subject property or abutting properties including leaking underground storage tanks, oil or chemical spills, and manifests.

There were no named files for the subject property at the CTDEEP and the site does not appear on the UST/LUST, Spills, or Manifest databases. There were numerous files for the NORCAP landfill just to the north of the site; however, it is beyond the scope of this report to review these files as they do not directly pertain to the site. In addition, the landfill has been closed since roughly 2006. A summary page of the closure report for the landfill was reviewed which gives a rough time line of the closure activities between circa 1998 and 2005. A copy of this timeline is included in Appendix E.

6.4 Municipal File Information

6.4.1 Town Assessor's Office

GeoQuest reviewed the files of the East Windsor Assessor's office for the subject property. The property card for the site identifies it as Block 65, Lot 31 on Map 27. The parcel is listed as being 41.92 acres; however, the map of the "proposed lease area" indicates the size of the site to be approximately 9.8 acres. The current owner of the site is listed as Northern Capital Region Disposal. A copy of this card can be found in Appendix F.

6.4.2 Planning and Zoning Department

GeoQuest reviewed records maintained by the East Windsor Planning & Zoning Department. There was no environmental information pertaining to the site in these files.

6.5 Physical Setting Source(s)

6.5.1 Regional Physiographic Conditions

According to the EDR report the site is located at 184 feet above mean sea level in the central lowlands section of the New England Physiographic Province.

6.5.2 Soil Conditions

According to the CTDEEP Map of Surficial Materials (1992) soils in the area are reported to largely be made up of sand overlying gravel where sand and gravel tend to be less than 20 feet thick.

6.5.3 Geologic Conditions

According to the Bedrock Geological Map of Connecticut (1985), bedrock at the site consists of Portland Arkose, a reddish brown arkosic sandstone.

6.5.4 Surface Water and Groundwater Characteristics

While there is no detailed information on the hydrogeology of this area, it is assumed that the primary subsurface aquifer would be in the unconsolidated sediments overlying the bedrock. The movement and direction of groundwater flow is influenced by many factors, including the aquifer's hydraulic characteristics, surface and bedrock topography, the presence of surface water bodies, building foundations and the influence of pumping wells. Based on the overall topography of the site and the proximity of Ketch Brook (to the north) overall groundwater flow is assumed to be flowing to the north northwest. Based on the Water Quality Classification Map for the Connecticut River and South Central Coastal Basin (1993) the CTDEEP has classified groundwater in the site area as "GB". A GB classification indicates that the water in this area is not suitable for use as a potable water supply without treatment.

6.6 Historical Use Information on the Property

6.6.1 Land Title Records

Based on the property record card available at the East Windsor Assessor's office the current owner of the site is Northern Capital Region Disposal.

6.6.2 Sanborn Fire Insurance Maps

Sanborn Fire Insurance Maps (Sanborns) were requested from Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut. There were no Sanborn Maps for the site area.

6.6.3 Aerial Photographs

Aerial photographs for the site and surrounding area were requested from EDR. Aerial photographs for the years 1934, 1941, 1951, 1957, 1963, 1968, 1970, 1977, 1986, 1990, 1995, 2005, 2006, 2008, 2010, and 2012 were available and reviewed for this assessment to determine the presence of prior building structures, if any, and other land use features on-site. It should be noted that due to the variation in scale in the pictures some features may not appear in all of the photos. In addition, some portions of the photos are too dark to determine details. Copies of these photographs can be found in Appendix G.

- <u>1934-1963</u> The site and site area appear largely agricultural with some wooded areas.
- <u>1968-1995</u> Beginning circa 1968 the land to the north of the site appears to be undergoing clearing and/or excavation. By 1986 the area of the landfill is more clearly delineated. The site area remains open field.
- 2005 By 2005 the landfill (to the north of the subject property) appears to have been capped and is growing over. At this time the subject property continues to be open field; however, there are rows of trees to the west of the site.
- 2006 2012 The former landfill is increasingly covered with vegetation. Land to the west of the site shows more trees through 2008. However, by 2010 land further west of the site is being excavated, and by 2012 the sand and gravel operation has occupied much of the area west of the site. It also appears that the site itself may be being excavated, although it is difficult to tell whether it is being excavated or cleared for agriculture.
7.0 INTERVIEWS

7.1 Interviews with Owner/Site Contacts

GeoQuest spoke with Ms Laurie Whitten, Director of Planning & Development for the town of East Windsor. She offered some background information on the landfill (to the north of the subject property) and provided some maps which helped to pinpoint the general location of the subject property.

8.0 APPLICABILITY OF THE CONNECTICUT PROPERTY TRANSFER ACT

Based on a review of documents and information collected during the site walk-through and on file at the CTDEEP there was no evidence that the subject property is an "establishment" pursuant to the Connecticut Property Transfer Act (Transfer Act).

An "establishment", as defined in Connecticut General Statutes Section 22a-134, is "any real property at which or any business operation from which: (A) on or after November 19, 1980, there was generated, except as the result of remediation of polluted soil, groundwater, or sediment, more than one hundred kilograms (kg) of hazardous waste in any one month (mo.); (B) hazardous waste generated at a different location was recycled, reclaimed, reused, stored, handled, treated, transported, or disposed of; (C) the process of dry cleaning was conducted on or after May 1, 1967; (D) furniture stripping was conducted on or after May 1, 1967; or (E) a vehicle body repair facility was located on or after May 1, 1967".

There is no indication that the site has generated, stored, treated, or disposed of hazardous waste. In addition there is no indication that any listed activities (dry cleaning, furniture stripping, and auto body repair) identified in the Connecticut Property Transfer Act have occurred on-site. Therefore, this site would not be considered an "establishment" pursuant to the Transfer Act. However, this should be confirmed with counsel prior to any transfer of the property.

9.0 ADDITIONAL SERVICES

No additional services were performed for this site assessment.

10.0 FINDINGS

10.1 Recognized Environmental Conditions (RECs) and/or Areas of Concern (AOCs)

There were no RECs identified at the subject property.

10.2 De Minimis Conditions

No deminimis conditions were identified.

11.0 OPINION

This section includes the environmental professional's opinion(s) of the impact on the property of conditions identified in the findings section of the report. Based on the information reviewed and observations made during the site walk-through, GeoQuest found no evidence of any recognized environmental conditions at the site. While the former landfill abuts the site to the north, it has been closed for at least ten years and there are no indications that it is impacting the subject property. In addition, it is GeoQuest's understanding that there will not be residences on the site or facilities requiring the use of groundwater,

12.0 CONCLUSIONS

GeoQuest, Inc. has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of the site identified in the files of the East Windsor assessor as Block 65, Lot 31 on Map 27. Any exceptions to, or deletions from, this practice are described in Section 13.0 of this report. This assessment has revealed no evidence of any recognized environmental conditions in connection with the site. Therefore, GeoQuest believes that no further investigation of the site is warranted.

13.0 DEVIATION/DATA GAPS

The fact that the final boundaries of the Site were not delineated is considered a data gap; however, based on GeoQuest's walk-through there are no indications of any environmental issues on the adjoining edges of the site (which might impact the site). Therefore, GeoQuest believes that this data gap is not significant.

14.0 REFERENCES

The information contained in this report was collected during the walk-through of the property and from review and/or inspection of the following documents and files:

Interviews Ms Laurie Whitten, Director of Planning & Development for East Windsor East Windsor Assessor's Office Building Department Fire Marshal's Office United States Geological Survey Topographic Map, Broad Brook Quadrangle (7.5 minute series), 1997 Connecticut Department of Environmental Protection, Bureau of Waste Management Records Connecticut Department of Environmental Protection, Bureau of Waste Management Records

Connecticut Department of Environmental Protection, Water Compliance Unit, Adopted Water Quality Classifications for the Connecticut River and South Central Coastal Basins, 2001.

Bedrock Geological Map of Connecticut, Connecticut Geological and Natural History Survey, 1985

Surficial Materials Map of Connecticut, United States Geological Survey, 1992

15.0 STATEMENT OF ENVIRONMENTAL PROFESSIONAL

I declare that, to the best of my professional knowledge and belief, I meet the definition of environmental professional as defined in §312.10 of 40 C.F.R. 312. I have the specific qualifications based on education, training, and experience to assess as property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 C.F.R. part 312.

Man D. Cantan

Marc I. Casslar President

APPENDICES

APPENDIX A

SITE LOCATION MAP/SITE LAYOUT MAP

SITE LOCATION MAP



Source: U.S. Geological Survey, 7.5 Minute Quadrangle, Scale 1:24000



P.O. Box 85 Bloomfield, CT Tel: (860) 243-1757 Fax: (860) 243-9414

SITE LOCATION Block 65, Lot 31, Map 41 East Windsor, Connecticut PROJECT NUMBER

SITE LAYOUT MAP



GEOQUEST, inc. Fax:	D. Box 85 bomfield, CT I: (860) 243-1757 x: (860) 243-9414	SITE LOCATION Map 27, BI 65, Lot 31 East Windsor, CT	<u>DATE</u> Nov. 2016	PROJECT NUMBER 2775
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APPENDIX B

SITE PHOTOGRAPHS

Eastern Side of Site (View East)



Western Edge of Site

NorCap South, East Windsor



North Western Edge of Site (View Northwest)



View Southeast Across the Site



Eastern Edge of Site



Western Edge of Site (View East)

APPENDIX C

USER QUESTIONNAIRE

ASTM 1527-13 Phase I Environmental Site Assessment User Provided Information Questionnaire

The ASTM standard for Phase I ESAs requires that the user (usually the client) be responsible for certain information that is included in the Phase I report. The following questions are being provided to you as the "user". You may or may not know specifics about what is being asked.

Name:	Adam Beal, VP Development
Organization:	Lodeston Energy
Subject Site (& A	address): Nor Cap South Solar Facility
	84 Wapping Road, East Windsor, CT

Name(s) & Address(es) of party(ies) for whom report is being prepared:

Nor Cap South LLC, c/o Conergy Projects 1801 NE 123 12 st., Suite f21, North Miami, FL 3318

Permittin Reason why Phase I is required: Financine dash Signed: 1.21.16

Date:

Please provide the following information, if available:

- Any prior environmental site assessment reports,
- Environmental audit reports,
- Environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, NPDES permits, underground injection permits),
- Registrations for underground and above-ground storage tanks,
- Material safety data sheets,
- Community right-to-know plan,
 - Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; etc.,
 - Reports regarding hydrogeologic conditions on the property or surrounding area,

Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property,

- Hazardous waste generator notices or reports.
- Geotechnical studies,
- Risk assessments,
- Recorded Activity Use Limitations

2. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?

No.

3. Are you aware of any activity or land use limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

No.

4. Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

No. Tenant only.

No.

5. A v

Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,

a) Do you know the past uses of the property? If so, what are they?

Gravel operation.

b) Do you know of specific chemicals that are present or once were present at the property?

c) Do you know of spills or other chemical releases that have taken place at the property?

No-

d) Do you know of any environmental cleanups that have taken place at the property?

No.

7. Do you know of any pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?

No.

No.

8. Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?

9.

Do you believe that the value of the Site that was or is being paid for this property reasonably reflects the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

Yes- fair market lease rate.

APPENDIX D

EDR REPORT

Wapping Road

Wapping Road Broad Brook, CT 06016

Inquiry Number: 4734249.2s September 22, 2016

The EDR Radius Map[™] Report with GeoCheck[®]



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

FORM-LBD-BCS

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Physical Setting Source Map Findings	A-15
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Thank you for your business. Please contact EDR at 1-800-352-0050 with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

WAPPING ROAD BROAD BROOK, CT 06016

COORDINATES

Latitude (North):	41.8807560 - 41° 52' 50.72"
Longitude (West):	72.5476150 - 72° 32' 51.41"
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	703491.9
UTM Y (Meters):	4639231.5
Elevation:	184 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5644932 BROAD BROOK, CT
Version Date:	2012
South Map:	5644954 MANCHESTER, CT
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140717
Source:	USDA

Target Property Address: WAPPING ROAD BROAD BROOK, CT 06016

Click on Map ID to see full detail.

MAP				RELATIVE	DIST (ft. & mi.)
ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	ELEVATION	DIRECTION
1	NORCAP	WAPPING ROAD	LWDS	Higher	1 ft.

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
NPL LIENS	Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL_____ National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY______ Federal Facility Site Information listing SEMS______ Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE...... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS_____ Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

 RCRA-LQG
 RCRA - Large Quantity Generators

 RCRA-SQG
 RCRA - Small Quantity Generators

 RCRA-CESQG
 RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS_____ Land Use Control Information System US ENG CONTROLS_____ Engineering Controls Sites List

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS_____ Inventory of Hazardous Disposal Sites SDADB______ Site Discovery and Assessment Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... List of Landfills/Transfer Stations

State and tribal leaking storage tank lists

LUST	Leaking Underground Storage	Tank List
INDIAN LUST	Leaking Underground Storage	Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST	Underground Storage Tank Listing
UST	Underground Storage Tank Data
AST	Marine Terminals and Tank Information
INDIAN UST	Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS	Engineering Controls Listing
AUL	ELUR Sites

State and tribal voluntary cleanup sites

VCP......Voluntary Remediation Sites INDIAN VCP......Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Inventory

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY	Recycling Facilities
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

CDL	Clandestine Drug Lab Listing
US CDL	National Clandestine Laboratory Register

Local Land Records

CT PROPERTY	Property Transfer Filings
LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS.	Oil & Chemical Spill Database
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	. FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide
	Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing
AIRS	Permitted Air Sources Listing
CPCS	Contaminated or Potentially Contaminated Sites
DRYCLEANERS	Drycleaner Facilities

ENF	Enforcement Case Listing
Financial Assurance	Financial Assurance Information Listing
LEAD	Lead Inspection Database
MANIFEST	Hazardous Waste Manifest Data
NPDES	Wastewater Permit Listing
SEH	List of Significant Environmental Hazards Report to DEEP
FUELS PROGRAM	EPA Fuels Program Registered Listing
ECHO	Enforcement & Compliance History Information

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historic Gas Stations
EDR Hist Cleaner	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	Recovered Government Archive State Hazardous Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in *bold italics* are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

LWDS: The Leachate and Waste Water Discharge Inventory Data Layer (LWDS) includes point locations digitized from Leachate and Wastewater Discharge Source maps compiled by the Connecticut DEP.

A review of the LWDS list, as provided by EDR, and dated 07/17/2009 has revealed that there is 1 LWDS site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page	
NORCAP	WAPPING ROAD	0 - 1/8 (0.000 mi.)	1	8	
Leachate and Wastewater Number:	4200014				

There were no unmapped sites in this report.

OVERVIEW MAP - 4734249.2S



SITE NAME:	Wapping Road	CLIENT:	GeoQuest, Inc.
ADDRESS:	Wapping Road Broad Brook CT 06016	INQUIRY #	Beth 4734249 2s
LAT/LONG:	41.880756 / 72.547615	DATE:	September 22, 2016 4:44 pm



INQUIRY #: 4734249.2s DATE: September 22, 2016 4:46 pm Copyright © 2016 EDR, Inc. © 2015 TomTom Rel. 2015.

ADDRESS:

LAT/LONG:

Wapping Road

Broad Brook CT 06016 41.880756 / 72.547615

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	ITAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 TP		0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL si	ite list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site list							
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	CTS facilities li	st						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COF	RRACTS TSD f	acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generato	ors list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional con engineering controls re	ntrols / gistries							
LUCIS US ENG CONTROLS US INST CONTROL	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiv	alent CERCLIS	5						
SHWS SDADB	1.000 0.500		0 0	0 0	0 0	0 NR	NR NR	0 0
State and tribal landfill solid waste disposal sit	and/or te lists							
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking	storage tank l	ists						
LUST INDIAN LUST	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal register	red storage tar	nk lists						
FEMA UST	0.250		0	0	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST AST INDIAN UST	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
State and tribal institutio control / engineering col	onal ntrol registries							
ENG CONTROLS AUL	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal voluntar	y cleanup sites	;						
VCP INDIAN VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfie	elds sites							
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	ITAL RECORDS							
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites	Solid							
SWRCY INDIAN ODI ODI DEBRIS REGION 9	0.500 0.500 0.500 0.500		0 0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	0 0 0 0
Local Lists of Hazardous Contaminated Sites	s waste /							
US HIST CDL CDL US CDL	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Local Land Records								
CT PROPERTY LIENS LIENS 2	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Records of Emergency F	Release Report	s						
HMIRS SPILLS SPILLS 90	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Other Ascertainable Rec	ords							
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR	0.250 1.000 1.000 0.500 TP		0 0 0 NR	0 0 0 NR	NR 0 0 0 NR	NR 0 NR NR	NR NR NR NR NR	0 0 0 0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	Õ
ROD	1 000		0	0	0	0	NR	Õ
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	Õ
PRP	TP		NR	NR	NR	NR	NR	Õ
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	Õ
MLTS	TP		NR	NR	NR	NR	NR	0
	TP		NR	NR	NR	NR	NR	0
	0 500		0	0	0	NR	NR	Ő
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	Ő
RADINEO	TP		NR	NR	NR	NR	NR	õ
HIST FTTS	TP		NR	NR	NR	NR	NR	Õ
DOT OPS	TP		NR	NR	NR	NR	NR	Õ
CONSENT	1.000		0	0	0	0	NR	õ
INDIAN RESERV	1 000		Õ	Ő	Ő	Õ	NR	Õ
FUSRAP	1 000		õ	Ő	Ő	õ	NR	Õ
UMTRA	0.500		õ	õ	õ	NŘ	NR	õ
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	Õ
USAIRS	TP		NR	NR	NR	NR	NR	Õ
US MINES	0.250		0	0	NR	NR	NR	Õ
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	Ō
AIRS	TP		NR	NR	NR	NR	NR	0
CPCS	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
LEAD	TP		NR	NR	NR	NR	NR	0
LWDS	0.250		1	0	NR	NR	NR	1
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
SEH	0.500		0	0	0	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORIC	AL RECORDS							
EDR Exclusive Records	5							
	1 000		Ο	0	0	Ο	NR	Ο
FDR Hist Auto	0 125		0	NR	NR	NR	NR	ñ
FDR Hist Cleaner	0.125		0	NR	NR	NR	NR	ñ
		150	Ū				1 41 X	0
EDK REGOVERED GOVERNMENT AKCHIVES								
Exclusive Recovered G	ovt. Archives							
RGA HWS	TP		NR	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals		0	1	0	0	0	0	1

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID Direction		MAP FINDINGS		
Distance	Sito			EDR ID Number
1 < 1/8 1 ft.	NORCAP WAPPING ROAD EAST WINDSOR, CT		LWDS	S109937142 N/A
Relative: Higher Actual: 184 ft.	LWDS: Leachate and Wastewater Number: Status of the Discharge Activity: Leachate and Waste Flow: Alias: Alias2:	4200014 Inactive Ground Botticello Northern Capital Region Disposal Facility		

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)

NO SITES FOUND

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/07/2016 Date Data Arrived at EDR: 04/05/2016 Date Made Active in Reports: 04/15/2016 Number of Days to Update: 10 Source: EPA Telephone: N/A Last EDR Contact: 07/07/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC) Telephone: 202-564-7333

EPA Region 1 Telephone 617-918-1143

EPA Region 3 Telephone 215-814-5418

EPA Region 4 Telephone 404-562-8033

EPA Region 5 Telephone 312-886-6686

EPA Region 10 Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

EPA Region 6

EPA Region 7

EPA Region 8

EPA Region 9

Telephone: 214-655-6659

Telephone: 913-551-7247

Telephone: 303-312-6774

Telephone: 415-947-4246

Date of Government Version: 03/07/2016 Date Data Arrived at EDR: 04/05/2016 Date Made Active in Reports: 04/15/2016 Number of Days to Update: 10 Source: EPA Telephone: N/A Last EDR Contact: 07/07/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994 Number of Days to Update: 56 Source: EPA Telephone: 202-564-4267 Last EDR Contact: 08/15/2011 Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/07/2016 Date Data Arrived at EDR: 04/05/2016 Date Made Active in Reports: 04/15/2016 Number of Days to Update: 10 Source: EPA Telephone: N/A Last EDR Contact: 07/07/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/13/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/06/2016	Telephone: 703-603-8704
Date Made Active in Reports: 05/20/2016	Last EDR Contact: 07/06/2016
Number of Days to Update: 135	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/07/2016 Date Data Arrived at EDR: 04/05/2016 Date Made Active in Reports: 04/15/2016 Number of Days to Update: 10 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 07/22/2016 Next Scheduled EDR Contact: 10/31/2016 Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/07/2016 Date Data Arrived at EDR: 04/05/2016 Date Made Active in Reports: 04/15/2016 Number of Days to Update: 10 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 07/22/2016 Next Scheduled EDR Contact: 10/31/2016 Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/27/2016	Source: EPA
Date Data Arrived at EDR: 06/30/2016	Telephone: 800-424-9346
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 06/30/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 10/10/2016
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/21/2016 Date Data Arrived at EDR: 06/30/2016 Date Made Active in Reports: 09/02/2016 Number of Days to Update: 64 Source: Environmental Protection Agency Telephone: (888) 372-7341 Last EDR Contact: 06/30/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/21/2016 Date Data Arrived at EDR: 06/30/2016 Date Made Active in Reports: 09/02/2016 Number of Days to Update: 64 Source: Environmental Protection Agency Telephone: (888) 372-7341 Last EDR Contact: 06/30/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/21/2016 Date Data Arrived at EDR: 06/30/2016 Date Made Active in Reports: 09/02/2016 Number of Days to Update: 64 Source: Environmental Protection Agency Telephone: (888) 372-7341 Last EDR Contact: 06/30/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/21/2016Source:Date Data Arrived at EDR: 06/30/2016TelephoDate Made Active in Reports: 09/02/2016Last EDNumber of Days to Update: 64Next Scl

Source: Environmental Protection Agency Telephone: (888) 372-7341 Last EDR Contact: 06/30/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015	Source: Department of the Navy
Date Data Arrived at EDR: 05/29/2015	Telephone: 843-820-7326
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 08/12/2016
Number of Days to Update: 13	Next Scheduled EDR Contact: 11/28/2016
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/09/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/01/2016	Telephone: 703-603-0695
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 08/31/2016
Number of Days to Update: 93	Next Scheduled EDR Contact: 12/12/2016
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/09/2016	Sou
Date Data Arrived at EDR: 06/01/2016	Tele
Date Made Active in Reports: 09/02/2016	Last
Number of Days to Update: 93	Next

Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 08/31/2016 Next Scheduled EDR Contact: 12/12/2016 Data Release Frequency: Varies
Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/28/2016 Date Data Arrived at EDR: 03/30/2016 Date Made Active in Reports: 05/20/2016 Number of Days to Update: 51 Source: National Response Center, United States Coast Guard Telephone: 202-267-2180 Last EDR Contact: 06/28/2016 Next Scheduled EDR Contact: 10/10/2016 Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Inventory of Hazardous Disposal Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 04/23/2010	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 04/23/2010	Telephone: 860-424-3705
Date Made Active in Reports: 05/25/2010	Last EDR Contact: 06/30/2016
Number of Days to Update: 32	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: No Update Planned

SDADB: Site Discovery and Assessment Database

All sites reported to Permitting, Enforcement, and Remediation Division where it is suspected that hazardous waste may have been disposed or sites that are eligible for listing on the State Inventory of Hazardous Waste Disposal Sites.

Date of Government Version: 04/23/2010 Date Data Arrived at EDR: 04/23/2010 Date Made Active in Reports: 05/25/2010 Number of Days to Update: 32 Source: Department of Energy & Environmental Protection Telephone: 860-424-3705 Last EDR Contact: 06/28/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: No Update Planned

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: List of Landfills/Transfer Stations

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 07/02/2015 Date Data Arrived at EDR: 07/28/2015 Date Made Active in Reports: 08/05/2015 Number of Days to Update: 8 Source: Department of Energy & Environmental Protection Telephone: 860-424-3366 Last EDR Contact: 07/29/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/26/2016 Date Data Arrived at EDR: 04/29/2016 Date Made Active in Reports: 05/18/2016 Number of Days to Update: 19 Source: Department of Energy & Environmental Protection Telephone: 860-424-3376 Last EDR Contact: 07/05/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Semi-Annually

INDIAN LUST R5: Leaking Underground Storage Ta Leaking underground storage tanks located on	anks on Indian Land Indian Land in Michigan, Minnesota and Wisconsin.	
Date of Government Version: 02/17/2016 Date Data Arrived at EDR: 04/27/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 37	Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 07/27/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Varies	
INDIAN LUST R10: Leaking Underground Storage T LUSTs on Indian land in Alaska, Idaho, Oregor	Fanks on Indian Land n and Washington.	
Date of Government Version: 01/07/2016 Date Data Arrived at EDR: 01/08/2016 Date Made Active in Reports: 02/18/2016 Number of Days to Update: 41	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 07/27/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Quarterly	
INDIAN LUST R1: Leaking Underground Storage Ta A listing of leaking underground storage tank lo	anks on Indian Land ocations on Indian Land.	
Date of Government Version: 10/27/2015 Date Data Arrived at EDR: 10/29/2015 Date Made Active in Reports: 01/04/2016 Number of Days to Update: 67	Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 07/29/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Varies	
INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.		
Date of Government Version: 02/05/2016 Date Data Arrived at EDR: 04/29/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 35	Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 07/26/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Semi-Annually	
INDIAN LUST R9: Leaking Underground Storage Ta LUSTs on Indian land in Arizona, California, Ne	anks on Indian Land ew Mexico and Nevada	
Date of Government Version: 02/25/2016 Date Data Arrived at EDR: 04/27/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 37	Source: Environmental Protection Agency Telephone: 415-972-3372 Last EDR Contact: 07/27/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Quarterly	
INDIAN LUST R8: Leaking Underground Storage Ta LUSTs on Indian land in Colorado, Montana, N	anks on Indian Land Iorth Dakota, South Dakota, Utah and Wyoming.	
Date of Government Version: 10/13/2015 Date Data Arrived at EDR: 10/23/2015 Date Made Active in Reports: 02/18/2016 Number of Days to Update: 118	Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 07/27/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Quarterly	
INDIAN LUST R7: Leaking Underground Storage Ta LUSTs on Indian land in Iowa, Kansas, and Ne	anks on Indian Land braska	
Date of Government Version: 10/09/2015 Date Data Arrived at EDR: 02/12/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 112	Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 07/27/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Varies	

INDIAN LUST R6: Leaking Underground Storage LUSTs on Indian land in New Mexico and Ok	Tanks on Indian Land klahoma.
Date of Government Version: 12/11/2015 Date Data Arrived at EDR: 02/19/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 105	Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 07/27/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Varies
State and tribal registered storage tank lists	
FEMA UST: Underground Storage Tank Listing A listing of all FEMA owned underground sto	rage tanks.
Date of Government Version: 01/01/2010 Date Data Arrived at EDR: 02/16/2010 Date Made Active in Reports: 04/12/2010 Number of Days to Update: 55	Source: FEMA Telephone: 202-646-5797 Last EDR Contact: 07/07/2016 Next Scheduled EDR Contact: 10/24/2016 Data Release Frequency: Varies
UST: Underground Storage Tank Data Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Red Act (RCRA) and must be registered with the state department responsible for administering the UST program. Availa information varies by state program.	
Date of Government Version: 05/17/2016 Date Data Arrived at EDR: 06/01/2016 Date Made Active in Reports: 07/19/2016 Number of Days to Update: 48	Source: Department of Energy & Environmental Protection Telephone: 860-424-3376 Last EDR Contact: 08/29/2016 Next Scheduled EDR Contact: 12/12/2016 Data Release Frequency: Semi-Annually
AST: Marine Terminals and Tank Information A listing of bulk petroleum facilities that recei	ve petroleum by a vessel.
Date of Government Version: 07/01/2016 Date Data Arrived at EDR: 07/29/2016 Date Made Active in Reports: 08/16/2016 Number of Days to Update: 18	Source: Department of Energy & Environmental Protection Telephone: 860-424-3233 Last EDR Contact: 07/13/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Varies
INDIAN UST R4: Underground Storage Tanks on The Indian Underground Storage Tank (UST land in EPA Region 4 (Alabama, Florida, Ge and Tribal Nations)	Indian Land) database provides information about underground storage tanks on Indian orgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
Date of Government Version: 02/05/2016 Date Data Arrived at EDR: 04/29/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 35	Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 07/26/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015	Source: EPA Region 5
Date Data Arrived at EDR: 11/13/2015	Telephone: 312-886-6136
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 07/27/2016
Number of Days to Update: 52	Next Scheduled EDR Contact: 11/07/2016
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian Iand in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015	Source: EPA Region 6
Date Data Arrived at EDR: 02/04/2016	Telephone: 214-665-7591
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 07/27/2016
Number of Days to Update: 120	Next Scheduled EDR Contact: 11/07/2016
	Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 07/27/2016
Number of Days to Update: 65	Next Scheduled EDR Contact: 11/07/2016
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015 Date Data Arrived at EDR: 10/29/2015 Date Made Active in Reports: 01/04/2016 Number of Days to Update: 67 Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 07/29/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016 Date Data Arrived at EDR: 04/27/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 37 Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 07/27/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016Source:Date Data Arrived at EDR: 01/08/2016TelephoDate Made Active in Reports: 02/18/2016Last EDNumber of Days to Update: 41Next Source:

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 07/27/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016 Date Data Arrived at EDR: 02/05/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 119 Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 07/27/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Quarterly

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Listing

An Engineered Control is a permanent physical structure designed to safely isolate pollutants which would otherwise not comply with the self-implementing remedial options allowed in the Connecticut Remediation Standard Regulations (RSRs). The ECGD includes a description of what is eligible to be considered as an Engineered Control under section 22a-133k-2(f)(2) of the RSRs, a description of the information necessary for the preparation of complete and approvable applications, a step-by-step outline of the review and approval process, and supplemental resources provided in the appendices.

Date of Government Version: 03/05/2013	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 05/07/2013	Telephone: 860-424-3000
Date Made Active in Reports: 06/19/2013	Last EDR Contact: 08/05/2016
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/14/2016
	Data Release Frequency: Varies

AUL: ELUR Sites

Environmental Land Use Restriction sites.

Date of Government Version: 08/04/2016 Date Data Arrived at EDR: 08/08/2016 Date Made Active in Reports: 09/21/2016 Number of Days to Update: 44

Source: Department of Energy & Environmental Protection Telephone: 860-424-3912 Last EDR Contact: 08/03/2016 Next Scheduled EDR Contact: 11/21/2016 Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008 Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009 Next Scheduled EDR Contact: 07/20/2009 Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 07/01/2016
Number of Days to Update: 142	Next Scheduled EDR Contact: 10/10/2016
	Data Release Frequency: Varies

VCP: Voluntary Remediation Sites

Sites involved in the Voluntary Remediation Program.

Date of Government Version: 05/17/2016	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 05/20/2016	Telephone: 860-424-3705
Date Made Active in Reports: 06/22/2016	Last EDR Contact: 08/03/2016
Number of Days to Update: 33	Next Scheduled EDR Contact: 11/21/2016
	Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS 2: Brownfields Inventory

A brownfield site is generally defined as "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminanta?!"

Date of Government Version: 03/11/2016 Date Data Arrived at EDR: 06/22/2016 Date Made Active in Reports: 09/01/2016 Number of Days to Update: 71 Source: Department of Energy & Environmental Protection Telephone: 860-424-3705 Last EDR Contact: 06/22/2016 Next Scheduled EDR Contact: 10/03/2016 Data Release Frequency: Varies

BROWNFIELDS: Brownfields Inventory

CBRA has identified over 200 brownfield sites eligible for redevelopment. In most cases these are prime properties for commercial or industrial use. CBRA's grants, assistance and financing lower the financial risks and eliminate the legal, regulatory and environmental risks of redevelopment.

Date of Government Version: 03/25/2016 Date Data Arrived at EDR: 03/29/2016 Date Made Active in Reports: 05/18/2016 Number of Days to Update: 50 Source: Connecticut Brownfields Redevelopment Authority Telephone: 860-258-7833 Last EDR Contact: 09/19/2016 Next Scheduled EDR Contact: 01/02/2017 Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/21/2016 Date Data Arrived at EDR: 06/22/2016 Date Made Active in Reports: 09/02/2016 Number of Days to Update: 72 Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 09/21/2016 Next Scheduled EDR Contact: 01/02/2017 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facilities A listing of recycling facilities.

> Date of Government Version: 06/16/2016 Date Data Arrived at EDR: 06/21/2016 Date Made Active in Reports: 08/16/2016 Number of Days to Update: 56

Source: Department of Energy & Environmental Protection Telephone: 860-424-3223 Last EDR Contact: 09/12/2016 Next Scheduled EDR Contact: 12/26/2016 Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008 Number of Days to Update: 52 Source: Environmental Protection Agency Telephone: 703-308-8245 Last EDR Contact: 08/05/2016 Next Scheduled EDR Contact: 11/14/2016 Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009 Number of Days to Update: 137 Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 07/20/2016 Next Scheduled EDR Contact: 10/07/2016 Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004 Number of Days to Update: 39 Source: Environmental Protection Agency Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/04/2016	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 06/03/2016	Telephone: 202-307-1000
Date Made Active in Reports: 07/13/2016	Last EDR Contact: 08/31/2016
Number of Days to Update: 40	Next Scheduled EDR Contact: 10/10/2016
· ·	Data Release Frequency: No Update Planned

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations included in the Spills database.

Date of Government Version: 08/16/2016	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 08/23/2016	Telephone: 860-424-3361
Date Made Active in Reports: 09/21/2016	Last EDR Contact: 07/05/2016
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/04/2016 Date Data Arrived at EDR: 06/03/2016 Date Made Active in Reports: 07/13/2016 Number of Days to Update: 40 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 08/31/2016 Next Scheduled EDR Contact: 12/12/2016 Data Release Frequency: Quarterly

Local Land Records

CT PROPERTY: Property Transfer Filings

A listing of sites that meet the definition of a hazardous waste establishment. They can be generators, dry cleaners, furniture strippers, etc. These sites have been sold to another owner.

Date of Government Version: 05/17/2016 Date Data Arrived at EDR: 05/20/2016 Date Made Active in Reports: 06/22/2016 Number of Days to Update: 33 Source: Department of Energy & Environmental Protection Telephone: 860-424-3705 Last EDR Contact: 08/03/2016 Next Scheduled EDR Contact: 11/21/2016 Data Release Frequency: Semi-Annually

LIENS: Environmental Liens Listing

A listing of environmental liens placed by the Cost Recovery Program.

Date of Government Version: 10/23/2015	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 11/20/2015	Telephone: 860-424-3120
Date Made Active in Reports: 12/18/2015	Last EDR Contact: 05/13/2016
Number of Days to Update: 28	Next Scheduled EDR Contact: 08/29/2016
	Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014 Date Data Arrived at EDR: 03/18/2014 Date Made Active in Reports: 04/24/2014 Number of Days to Update: 37 Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 07/29/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015 Date Data Arrived at EDR: 06/26/2015 Date Made Active in Reports: 09/02/2015 Number of Days to Update: 68	Source: U.S. Department of Transportation Telephone: 202-366-4555 Last EDR Contact: 06/28/2016 Next Scheduled EDR Contact: 10/10/2016 Data Release Frequency: Annually
SPILLS: Oil & Chemical Spill Database Oil and Chemical Spill Data.	
Date of Government Version: 08/16/2016 Date Data Arrived at EDR: 08/23/2016 Date Made Active in Reports: 09/21/2016 Number of Days to Update: 29	Source: Department of Energy & Environmental Protection Telephone: 860-424-3024 Last EDR Contact: 07/05/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/15/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/11/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/21/2016 Date Data Arrived at EDR: 06/30/2016 Date Made Active in Reports: 09/02/2016 Number of Days to Update: 64 Source: Environmental Protection Agency Telephone: (888) 372-7341 Last EDR Contact: 06/30/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015	S
Date Data Arrived at EDR: 07/08/2015	Т
Date Made Active in Reports: 10/13/2015	La
Number of Days to Update: 97	N

Source: U.S. Army Corps of Engineers Telephone: 202-528-4285 Last EDR Contact: 09/09/2016 Next Scheduled EDR Contact: 12/19/2016 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 62 Source: USGS Telephone: 888-275-8747 Last EDR Contact: 07/15/2016 Next Scheduled EDR Contact: 10/24/2016 Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 339 Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 07/15/2016 Next Scheduled EDR Contact: 10/24/2016 Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011 Date Data Arrived at EDR: 03/09/2011 Date Made Active in Reports: 05/02/2011 Number of Days to Update: 54 Source: Environmental Protection Agency Telephone: 615-532-8599 Last EDR Contact: 08/15/2016 Next Scheduled EDR Contact: 11/28/2016 Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 05/08/2016SouDate Data Arrived at EDR: 05/18/2016TeleDate Made Active in Reports: 09/02/2016LasNumber of Days to Update: 107Nex

Source: Environmental Protection Agency Telephone: 202-566-1917 Last EDR Contact: 08/17/2016 Next Scheduled EDR Contact: 11/28/2016 Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 08/08/2016
Number of Days to Update: 88	Next Scheduled EDR Contact: 11/21/2016
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013 Date Data Arrived at EDR: 03/03/2015 Date Made Active in Reports: 03/09/2015 Number of Days to Update: 6 Source: Environmental Protection Agency Telephone: 703-308-4044 Last EDR Contact: 09/06/2016 Next Scheduled EDR Contact: 11/21/2016 Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 01/15/2015 Date Made Active in Reports: 01/29/2015 Number of Days to Update: 14 Source: EPA Telephone: 202-260-5521 Last EDR Contact: 06/24/2016 Next Scheduled EDR Contact: 10/03/2016 Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014	Source: EPA
Date Data Arrived at EDR: 11/24/2015	Telephone: 202-566-0250
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 08/26/2016
Number of Days to Update: 133	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 07/25/2016
Number of Days to Update: 77	Next Scheduled EDR Contact: 11/07/2016
	Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013	
Date Data Arrived at EDR: 12/12/2013	-
Date Made Active in Reports: 02/24/2014	l
Number of Days to Update: 74	1

Source: EPA Telephone: 703-416-0223 Last EDR Contact: 09/09/2016 Next Scheduled EDR Contact: 12/19/2016 Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/01/2016 Date Data Arrived at EDR: 05/26/2016 Date Made Active in Reports: 09/02/2016 Number of Days to Update: 99 Source: Environmental Protection Agency Telephone: 202-564-8600 Last EDR Contact: 07/25/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995 Number of Days to Update: 35 Source: EPA Telephone: 202-564-4104 Last EDR Contact: 06/02/2008 Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 08/12/2016
Number of Days to Update: 3	Next Scheduled EDR Contact: 11/21/2016
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

	0 504
Date of Government Version: 01/20/2016	Source: EPA
Date Data Arrived at EDR: 04/28/2016	Telephone: 202-566-0500
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 07/15/2016
Number of Days to Update: 127	Next Scheduled EDR Contact: 10/24/2016
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/06/2015	Telephone: 202-564-5088
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 07/07/2016
Number of Days to Update: 31	Next Scheduled EDR Contact: 10/24/2016
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/17/2016
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Governme	nt Version: 04/09/2009	Source: EPA
Date Data Arrived	at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active	in Reports: 05/11/2009	Last EDR Contact: 08/17/2016
Number of Days to	Update: 25	Next Scheduled EDR Contact: 12/05/2016
		Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 03/18/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 28

Source: Nuclear Regulatory Commission Telephone: 301-415-7169 Last EDR Contact: 09/05/2016 Next Scheduled EDR Contact: 11/21/2016 Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 09/09/2016
Number of Days to Update: 76	Next Scheduled EDR Contact: 12/19/2016
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 09/06/2016
Number of Days to Update: 40	Next Scheduled EDR Contact: 12/19/2016
	Data Release Frequency: Varies

B TRANSFORMER: PCB Transformer Registration Database The database of PCB transformer registrations that includes all PCB registration submittals.	
Date of Government Version: 02/01/2011 Date Data Arrived at EDR: 10/19/2011 Date Made Active in Reports: 01/10/2012 Number of Days to Update: 83	Source: Environmental Protection Agency Telephone: 202-566-0517 Last EDR Contact: 07/29/2016 Next Scheduled EDR Contact: 11/07/2016 Data Release Frequency: Varies
RADINFO: Radiation Information Database The Radiation Information Database (RADINF Environmental Protection Agency (EPA) regu	FO) contains information about facilities that are regulated by U.S. lations for radiation and radioactivity.
Date of Government Version: 07/07/2015	Source: Environmental Protection Agency

Date Data Arrived at EDR: 07/09/2015Telephone:Date Made Active in Reports: 09/16/2015Last EDR CNumber of Days to Update: 69Next Sched

Source: Environmental Protection Agency Telephone: 202-343-9775 Last EDR Contact: 07/07/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2007 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006Source:Date Data Arrived at EDR: 03/01/2007TelephoDate Made Active in Reports: 04/10/2007Last EDNumber of Days to Update: 40Next Soc

Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2008 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 08/07/2012 Date Made Active in Reports: 09/18/2012 Number of Days to Update: 42 Source: Department of Transporation, Office of Pipeline Safety Telephone: 202-366-4595 Last EDR Contact: 08/02/2016 Next Scheduled EDR Contact: 11/14/2016 Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2015 Date Data Arrived at EDR: 04/06/2016 Date Made Active in Reports: 09/02/2016 Number of Days to Update: 149 Source: Department of Justice, Consent Decree Library Telephone: Varies Last EDR Contact: 07/15/2016 Next Scheduled EDR Contact: 10/10/2016 Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 02/24/2015 Date Made Active in Reports: 09/30/2015 Number of Days to Update: 218 Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 08/26/2016 Next Scheduled EDR Contact: 12/05/2016 Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 34 Source: USGS Telephone: 202-208-3710 Last EDR Contact: 07/15/2016 Next Scheduled EDR Contact: 10/24/2016 Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/11/2016 Date Data Arrived at EDR: 03/15/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 80 Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 07/26/2016 Next Scheduled EDR Contact: 11/21/2016 Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 09/09/2016
Number of Days to Update: 146	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 03/07/2016	5
Date Data Arrived at EDR: 04/07/2016	Т
Date Made Active in Reports: 09/02/2016	L
Number of Days to Update: 148	Ν

Source: Environmental Protection Agency Telephone: 703-603-8787 Last EDR Contact: 07/08/2016 Next Scheduled EDR Contact: 10/17/2016 Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 36 Source: American Journal of Public Health Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/20/2015	Source: EPA
Date Data Arrived at EDR: 10/27/2015	Telephone: 202-564-2496
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 06/22/2016
Number of Days to Update: 69	Next Scheduled EDR Contact: 10/10/2016
	Data Release Frequency: Annually
US AIRS MINOR: Air Facility System Data A listing of minor source facilities.	

Date of Government Version: 10/20/2015 Date Data Arrived at EDR: 10/27/2015 Date Made Active in Reports: 01/04/2016 Number of Days to Update: 69 Source: EPA Telephone: 202-564-2496 Last EDR Contact: 06/22/2016 Next Scheduled EDR Contact: 10/10/2016 Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/09/2016Source: Department of Labor, Mine Safety and Health AdministrationDate Data Arrived at EDR: 03/02/2016Telephone: 303-231-5959Date Made Active in Reports: 04/15/2016Last EDR Contact: 09/01/2016Number of Days to Update: 44Next Scheduled EDR Contact: 12/12/2016Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005	Source: USGS
Date Data Arrived at EDR: 02/29/2008	Telephone: 703-648-7709
Date Made Active in Reports: 04/18/2008	Last EDR Contact: 09/02/2016
Number of Days to Update: 49	Next Scheduled EDR Contact: 12/12/2016
	Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 09/02/2016
Number of Days to Update: 97	Next Scheduled EDR Contact: 12/12/2016
	Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015 Date Data Arrived at EDR: 09/09/2015 Date Made Active in Reports: 11/03/2015 Number of Days to Update: 55	Source: EPA Telephone: (617) 918-1111 Last EDR Contact: 09/07/2016 Next Scheduled EDR Contact: 12/19/2016 Data Release Frequency: Quarterly
DOCKET HWC: Hazardous Waste Compliance Doc A complete list of the Federal Agency Hazardo	ket Listing us Waste Compliance Docket Facilities.
Date of Government Version: 06/02/2016 Date Data Arrived at EDR: 06/03/2016 Date Made Active in Reports: 09/02/2016 Number of Days to Update: 91	Source: Environmental Protection Agency Telephone: 202-564-0527 Last EDR Contact: 08/24/2016 Next Scheduled EDR Contact: 12/12/2016 Data Release Frequency: Varies
UXO: Unexploded Ordnance Sites A listing of unexploded ordnance site locations	
Date of Government Version: 10/25/2015	Source: Department of Defense

Date of Government Version: 10/25/2015 Date Data Arrived at EDR: 01/29/2016 Date Made Active in Reports: 04/05/2016 Number of Days to Update: 67 Source: Department of Defense Telephone: 571-373-0407 Last EDR Contact: 09/19/2016 Next Scheduled EDR Contact: 01/02/2017 Data Release Frequency: Varies

AIRS: Permitted Air Sources Listing

A listing of permitted air sources in Connecticut.

Date of Government Version: 07/11/2016	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 07/29/2016	Telephone: 860-424-3026
Date Made Active in Reports: 08/18/2016	Last EDR Contact: 07/25/2016
Number of Days to Update: 20	Next Scheduled EDR Contact: 11/07/2016
	Data Release Frequency: Varies

CPCS: Contaminated or Potentially Contaminated Sites

A list of Contaminated or Potentially Contaminated Sites within Connecticut. This list represents the "Hazardous Waste Facilities," as defined in Section 22a-134f of the Connecticut General Statutes (CGS). The list contains the following types of sites: Sites listed on the Inventory of Hazardous Waste Disposal Sites; Sites subject to the Property Transfer Act; Sites at which underground storage tanks are known to have leaked; Sites at which hazardous waste subject to the RCRA; Sites that are included in EPA's (CERCLIS); Sites that are the subject of an order issued by the Commissioner of DEP that requires investigation and remediation of a potential or known source of pollution; and Sites that have entered into one of the Department's Voluntary Remediation Programs.

Date of Government Version: 03/01/2016 Date Data Arrived at EDR: 03/03/2016 Date Made Active in Reports: 04/01/2016 Number of Days to Update: 29 Source: Department of Energy & Environmental Protection Telephone: 860-424-3766 Last EDR Contact: 08/03/2016 Next Scheduled EDR Contact: 11/21/2016 Data Release Frequency: Quarterly

DRYCLEANERS: Drycleaner Facilities

A listing of drycleaner facility locations.

	Date of Government Version: 07/18/2008 Date Data Arrived at EDR: 08/08/2008 Date Made Active in Reports: 08/27/2008 Number of Days to Update: 19	Source: Department of Energy & Environmental Protection Telephone: 860-424-3026 Last EDR Contact: 09/12/2016 Next Scheduled EDR Contact: 12/26/2016 Data Release Frequency: Varies
	ENFORCEMENT: Enforcement Case Listing The types of enforcement actions included ar dispositions of civil cases through the Attorne	e administrative consent orders, final unilateral orders and final y General's Office.
	Date of Government Version: 07/15/2016 Date Data Arrived at EDR: 07/19/2016 Date Made Active in Reports: 08/16/2016 Number of Days to Update: 28	Source: Department of Energy & Environmental Protection Telephone: 860-424-3265 Last EDR Contact: 07/13/2016 Next Scheduled EDR Contact: 10/31/2016 Data Release Frequency: Varies
Financial Assurance 1: Financial Assurance Information Listing A listing containing RCRA financial assurance information submitted on behalf of the CT DEP's Program Analysis Group of the Waste Engineering and Enforcement Division.		
	Date of Government Version: 06/30/2016 Date Data Arrived at EDR: 07/13/2016 Date Made Active in Reports: 08/16/2016 Number of Days to Update: 34	Source: Department of Energy & Environmental Protection Telephone: 860-418-5930 Last EDR Contact: 09/19/2016 Next Scheduled EDR Contact: 01/02/2017 Data Release Frequency: Varies
Financial Assurance 2: Financial Assurance Information Listing A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.		
	Date of Government Version: 06/30/2016 Date Data Arrived at EDR: 07/13/2016 Date Made Active in Reports: 08/16/2016 Number of Days to Update: 34	Source: Department of Energy & Environmental Protection Telephone: 860-418-5930 Last EDR Contact: 09/19/2016 Next Scheduled EDR Contact: 01/02/2017 Data Release Frequency: Varies
	LEAD: Lead Inspection Database The Lead Poisoning Prevention and Control F	Program lead inspection database.
	Date of Government Version: 03/26/2014 Date Data Arrived at EDR: 03/27/2014 Date Made Active in Reports: 05/08/2014 Number of Days to Update: 42	Source: Department of Public Health Telephone: 860-509-7299 Last EDR Contact: 09/02/2016 Next Scheduled EDR Contact: 12/19/2016 Data Release Frequency: Varies
LWDS: Connecticut Leachate and Wastewater Discharge Sites The Leachate and Waste Water Discharge Inventory Data Layer (LWDS) includes point locations digitized from Leachat and Wastewater Discharge Source maps compiled by the Connecticut DEP. These maps locate surface and groundwa discharges that (1) have received a waste water discharge permit from the state or (2) are historic and now defunct waste sites or (3) are locations of accidental spills, leaks, or discharges of a variety of liquid or solid wastes.		
	Date of Government Version: 07/17/2009 Date Data Arrived at EDR: 10/21/2009 Date Made Active in Reports: 10/30/2009	Source: Department of Energy & Environmental Protection Telephone: N/A Last EDR Contact: 10/15/2014

Next Scheduled EDR Contact: 01/26/2015

Data Release Frequency: Varies

Number of Days to Update: 9

TC4734249.2s Page GR-21

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

	Date of Government Version: 07/30/2013 Date Data Arrived at EDR: 08/19/2013 Date Made Active in Reports: 10/03/2013 Number of Days to Update: 45	Source: Department of Energy & Environmental Protection Telephone: 860-424-3375 Last EDR Contact: 08/10/2016 Next Scheduled EDR Contact: 11/28/2016 Data Release Frequency: No Update Planned
NPC	ES: Wastewater Permit Listing A listing of permits issued by the DEP.	
	Date of Government Version: 07/08/2016 Date Data Arrived at EDR: 07/12/2016 Date Made Active in Reports: 08/16/2016 Number of Days to Update: 35	Source: Department of Energy & Environmental Protection Telephone: 860-424-3832 Last EDR Contact: 07/07/2016 Next Scheduled EDR Contact: 10/10/2016 Data Release Frequency: Varies
SEH	List of Significant Environmental Hazards Rep The Significant Environmental Hazard Statute is specific environmental conditions identified in t of the significant environmental hazard condition the release. However, a significant environment potential long-term risks may not have been ac	bort to DEEP is intended to identify and abate short-term risks associated with he statute. After abatement of short-term risks (meaning abatement on), there may still be potential long-term risks associated with that hazard can be considered abated under the statute even though Idressed.
	Date of Government Version: 07/15/2016 Date Data Arrived at EDR: 07/26/2016 Date Made Active in Reports: 08/16/2016 Number of Days to Update: 21	Source: Department of Energy & Environmental Protection Telephone: 860-424-3766 Last EDR Contact: 07/22/2016 Next Scheduled EDR Contact: 10/31/2016 Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/20/2015 Date Data Arrived at EDR: 09/23/2015 Date Made Active in Reports: 01/04/2016 Number of Days to Update: 103 Source: Environmental Protection Agency Telephone: 202-564-2280 Last EDR Contact: 09/20/2016 Next Scheduled EDR Contact: 01/02/2017 Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/24/2016 Date Data Arrived at EDR: 05/25/2016 Date Made Active in Reports: 07/13/2016 Number of Days to Update: 49 Source: EPA Telephone: 800-385-6164 Last EDR Contact: 08/23/2016 Next Scheduled EDR Contact: 12/05/2016 Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Energy & Environmental Protection formerly know as the DEP which changes in July 2011 in Connecticut.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/02/2014 Number of Days to Update: 185 Source: Department of Energy & Environmental Protection Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Energy & Environmental Protection formerly know as the DEP which changes in July 2011 in Connecticut.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/02/2014 Number of Days to Update: 185 Source: Department of Energy & Environmental Protection Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NJ M	ANIFEST: Manifest Information Hazardous waste manifest information.	
	Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 07/17/2015 Date Made Active in Reports: 08/12/2015 Number of Days to Update: 26	Source: Department of Environmental Protection Telephone: N/A Last EDR Contact: 07/11/2016 Next Scheduled EDR Contact: 10/24/2016 Data Release Frequency: Annually
NY M	IANIFEST: Facility and Manifest Data Manifest is a document that lists and tracks haz facility.	zardous waste from the generator through transporters to a TSD
	Date of Government Version: 08/01/2016 Date Data Arrived at EDR: 08/03/2016 Date Made Active in Reports: 09/09/2016 Number of Days to Update: 37	Source: Department of Environmental Conservation Telephone: 518-402-8651 Last EDR Contact: 08/03/2016 Next Scheduled EDR Contact: 11/14/2016 Data Release Frequency: Annually
PA N	IANIFEST: Manifest Information Hazardous waste manifest information.	
	Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 07/24/2015 Date Made Active in Reports: 08/18/2015 Number of Days to Update: 25	Source: Department of Environmental Protection Telephone: 717-783-8990 Last EDR Contact: 07/18/2016 Next Scheduled EDR Contact: 10/31/2016 Data Release Frequency: Annually
RI M	ANIFEST: Manifest information Hazardous waste manifest information	
	Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 06/19/2015 Date Made Active in Reports: 07/15/2015 Number of Days to Update: 26	Source: Department of Environmental Management Telephone: 401-222-2797 Last EDR Contact: 09/20/2016 Next Scheduled EDR Contact: 12/05/2016 Data Release Frequency: Annually
VT M	ANIFEST: Hazardous Waste Manifest Data Hazardous waste manifest information.	
	Date of Government Version: 05/02/2016 Date Data Arrived at EDR: 05/24/2016 Date Made Active in Reports: 07/13/2016 Number of Days to Update: 50	Source: Department of Environmental Conservation Telephone: 802-241-3443 Last EDR Contact: 07/18/2016 Next Scheduled EDR Contact: 10/31/2016 Data Release Frequency: Annually

WI MANIFEST: Manifest Information Hazardous waste manifest information.

Date of Government Version: 12/31/2015 Date Data Arrived at EDR: 04/14/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 50 Source: Department of Natural Resources Telephone: N/A Last EDR Contact: 09/12/2016 Next Scheduled EDR Contact: 12/26/2016 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Child Care Facilities

Source: Department of Public Health

Telephone: 860-509-8045

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Tidal Wetlands

Source: Department of Energy & Environmental Protection Telephone: 860-424-4054

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

WAPPING ROAD WAPPING ROAD BROAD BROOK, CT 06016

TARGET PROPERTY COORDINATES

Latitude (North):	41.880756 - 41° 52' 50.72"
Longitude (West):	72.547615 - 72° 32' 51.41"
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	703491.9
UTM Y (Meters):	4639231.5
Elevation:	184 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5644932 BROAD BROOK, CT
Version Date:	2012
South Map:	5644954 MANCHESTER, CT
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

- Groundwater flow direction, and
 Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General North

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
09003C0245F	FEMA FIRM Flood data
Additional Panels in search area:	FEMA Source Type
09003C0239F 09003C0377F 09003C0381F 09003C0382F	FEMA FIRM Flood data FEMA FIRM Flood data FEMA FIRM Flood data FEMA FIRM Flood data
NATIONAL WETLAND INVENTORY	
	NWI Electronic
NWI Quad at Target Property	Data Coverage
BROAD BROOK	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeolog	ical Data*:
Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID Not Reported LOCATION FROM TP GENERAL DIRECTION GROUNDWATER FLOW

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era:	Mesozoic Category:	Stratified Sequence	
System:	l riassic		
Series:	Triassic		
Code:	Tr (decoded above as Era, System & Series)		

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4734249.2s



LAT/LONG. 41.880/38/72.34/813	SITE NAME: ADDRESS: LAT/LONG:	Wapping Road Wapping Road Broad Brook CT 06016 41.880756 / 72.547615
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DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1	
Soil Component Name:	Haven
Soil Surface Texture:	silt loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained
Hydric Status: Partially hydric	
Corrosion Potential - Uncoated Steel:	Low
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

Soil Layer Information							
Boundary				Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	7 inches	14 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	14 inches	20 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5

Soil Layer Information							
Boundary		Classi	Classification				
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
4	20 inches	24 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
5	24 inches	59 inches	stratified very gravelly sand to gravelly fine sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 703 Min: 141	Max: 6 Min: 4.5

Soil Map ID: 2				
Haven				
silt loam				
Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.				
Well drained				
Hydric Status: Partially hydric				
Low				
> 0 inches				
> 0 inches				

	Soil Layer Information							
	Βοι	Boundary		Classification		Saturated		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)	
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5	

	Soil Layer Information						
	Boundary Classification		fication	Saturated hydraulic			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
2	7 inches	14 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	14 inches	20 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	20 inches	24 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
5	24 inches	59 inches	stratified very gravelly sand to gravelly fine sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 703 Min: 141	Max: 6 Min: 4.5

Soil Map ID: 3	
Soil Component Name:	Udorthents
Soil Surface Texture:	loam
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	Well drained
Hydric Status: Unknown	
Corrosion Potential - Uncoated Steel:	Moderate
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

	Soil Layer Information						
	Bou	Indary		Classi	Classification		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	5 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 4.5
2	5 inches	21 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 703 Min: 0.01	Max: 7.8 Min: 4.5
3	21 inches	79 inches	very gravelly sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 703 Min: 0.01	Max: 7.8 Min: 4.5

Soil Map ID: 4	
Soil Component Name:	Haven
Soil Surface Texture:	silt loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained
Hydric Status: Partially hydric	
Corrosion Potential - Uncoated Steel:	Low
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

	Soil Layer Information						
	Bou	Boundary		Classi	fication	Saturated hvdraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	7 inches	14 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	14 inches	20 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	20 inches	24 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
5	24 inches	59 inches	stratified very gravelly sand to gravelly fine sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 703 Min: 141	Max: 6 Min: 4.5

Soil Map ID: 5	
Soil Component Name:	Manchester
Soil Surface Texture:	gravelly sandy loam
Hydrologic Group:	Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.
Soil Drainage Class:	Excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classi	Classification		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	9 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6 Min: 4.5
2	9 inches	18 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 703 Min: 42	Max: 6 Min: 4.5
3	18 inches	64 inches	stratified extremely gravelly coarse sand to very gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 703 Min: 42	Max: 6 Min: 4.5

Soil Map ID: 6	
Soil Component Name:	Hinckley
Soil Surface Texture:	gravelly sandy loam
Hydrologic Group:	Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.
Soil Drainage Class:	Excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

			Soil Laye	r Information			
	Boundary			Classi	Classification		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	gravelly sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6 Min: 3.5
2	7 inches	20 inches	very gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6 Min: 3.5
3	20 inches	27 inches	very gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6 Min: 3.5
4	27 inches	42 inches	stratified cobbly coarse sand to extremely gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 703 Min: 141	Max: 6 Min: 3.5
5	42 inches	59 inches	stratified cobbly coarse sand to extremely gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 703 Min: 141	Max: 6 Min: 3.5

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000229385	1/8 - 1/4 Mile SSE
2	USGS40000229400	1/4 - 1/2 Mile East
3	USGS40000229387	1/4 - 1/2 Mile ESE
4	USGS40000229353	1/2 - 1 Mile South
5	USGS40000229483	1/2 - 1 Mile NE
6	USGS40000229454	1/2 - 1 Mile ENE
7	USGS40000229442	1/2 - 1 Mile ENE
8	USGS40000229521	1/2 - 1 Mile NNE
9	USGS40000229499	1/2 - 1 Mile NE
10	USGS40000229373	1/2 - 1 Mile WSW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 4734249.2s



SITE NAME: Wapping Road	CLIENT: GeoQuest, Inc.			
ADDRESS: Wapping Road	CONTACT: Beth			
Broad Brook CT 06016	INQUIRY #: 4734249.2s			
LAT/LONG: 41.880756 / 72.547615	DATE: September 22, 2016 4:47 pm			
Map ID Direction				
--	---	---	---	-----------------
Elevation			Database	EDR ID Number
1 SSE 1/8 - 1/4 Mile Lower			FED USGS	USGS40000229385
Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert accmeasure units: Vert accmeasure units: Vert coord refsys: Aquifername: Formation type:	USGS-CT USGS Connecticut Water Science USGS-415241072324501 CT-EW 83 Well Not Reported 01080205 Not Reported -72.5453651 1 Interpolated from map NAD83 feet feet Interpolated from topographic ma NGVD29 Early Mesozoic basin aquifers Not Reported	e Center Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val: p Countrycode:	Not Reported Not Reported 41.8781534 Not Reported seconds 180.00 5. US	
Aquifer type: Construction date: Welldepth units: Wellholedepth units: Ground-water levels, Numb Feet below	Not Reported 1957 ft Not Reported er of Measurements: 1 Feet to	Welldepth: Wellholedepth:	360 Not Reported	
Date Surface	Sealevel			
 1958-07-01 31.00				
2 East 1/4 - 1/2 Mile Higher			FED USGS	USGS40000229400
Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert accmeasure units: Vert coord refsys: Aquifername: Formation type:	USGS-CT USGS Connecticut Water Science USGS-415249072323001 CT-EW 19 Well Not Reported 01080205 Not Reported -72.5411983 1 Interpolated from map NAD83 feet feet Interpolated from topographic mat NGVD29 Early Mesozoic basin aquifers Not Reported	e Center Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: Vert measure val: Vertacc measure val: p Countrycode:	Not Reported Not Reported 41.8803756 Not Reported seconds 195.00 5. US	

Aquifer type		Not Reported			
Construction	n date:	Not Reported	Welldepth:	165	
Welldepth u	nits:	ft	Wellholedepth:	Not Reported	
Wellholedep	Wellholedepth units:	edepth units: Not Reported		norroponou	
Ground-wate	er levels, Numb	per of Measurements: 1			
Date	Feet below Surface	Feet to Sealevel			
1948-01-01	35.00				
3 ESE				FED USGS	USGS40000229387
1/4 - 1/2 Mile Higher					
Org. Identifi	er:	USGS-CT			
Formal nam	e:	USGS Connecticut Water Scier	nce Center		
Monloc Iden Monloc nam	ntifier: ne:	USGS-415242072322701 CT-EW 131			
Monloc type	:	Well			
Monloc deso	C:	Not Reported			
Huc code:		01080205	Drainagearea value:	Not Reported	
Drainageare	ea Units:	Not Reported	Contrib drainagearea:	Not Reported	
Contrib drai	nagearea units:	Not Reported	Latitude:	41.8784312 Not Deported	
	oocuro:	-72.540365	Horiz Acc mossure unite:	Not Reported	
Horiz Collec	tion method	Internolated from man	Holiz Acc measure units.	Seconds	
Horiz coord	refsvs:	NAD83	Vert measure val	215.00	
Vert measur	re units:	feet	Vertacc measure val:	5.	
Vert accmea	asure units:	feet		-	
Vertcollectio	on method:	Interpolated from topographic n	nap		
Vert coord r	efsys:	NGVD29	Countrycode:	US	
Aquifername	e:	Early Mesozoic basin aquifers			
Formation ty	/pe:	Not Reported			
Aquifer type	:	Not Reported			
Construction	n date:	1967	Welldepth:	70	
Welldepth u	nits:	ft	Wellholedepth:	Not Reported	
Wellholedep	oth units:	Not Reported			
Ground-wate	er levels, Numb Feet below	per of Measurements: 1 Feet to			
Date	Surface	Sealevel			
1967-04-01	10.00				
4					
South 1/2 - 1 Mile				FED USGS	USGS40000229353
Higher					
Org. Identifie	er:	USGS-CT	_		
Formal nam	e:	USGS Connecticut Water Scier	nce Center		
Monloc Iden	ntifier:	USGS-415222072325201			
Nonloc nam	ie:				
Monloc type	·. ~	VVEII Not Reported			
Huc code	J.	01080205	Drainagearea value:	Not Reported	
Drainageare	a Units:	Not Reported	Contrib drainagearea	Not Reported	
Contrib drai	nagearea units:	Not Reported	Latitude:	41.8728757	
Longitude:	5	-72.5473097	Sourcemap scale:	Not Reported	

	Horiz Acc me Horiz Collecti	easure:	1 Interpolated from map	Horiz Acc measure units:	seconds	
	Horiz coord re	efsys:	NAD83	Vert measure val:	175.00	
	Vert measure	e units:	feet	Vertacc measure val:	5.	
	Vert accmeas	sure units:	feet			
	Vert coord ret	n methoa: feve:		ip Countrycode:	115	
	Aquifername:		Early Mesozoic basin aquifers	Countrycode.	00	
	Formation typ	be:	Not Reported			
	Aquifer type:		Not Reported			
	Construction	date:	1969	Welldepth:	125	
	Welldepth un	its:	ft	Wellholedepth:	Not Reported	
	Wellholedept	h units:	Not Reported			
	Ground-wate	r levels, Numb	er of Measurements: 1			
		Feet below	Feet to			
	Date	Surface	Sealevel			
	1969-02-01	40.00				
_						
5 NE	E 2 - 1 Mile				FED USGS	USGS40000229483
Hi	gher					
	Org. Identifier	r:	USGS-CT			
	Formal name	:	USGS Connecticut Water Science	e Center		
	Monloc Identi	ifier:	USGS-415320072321301			
	Monloc name):	CI-EW 129			
	Monloc type:		Well Not Reported			
	Huc code		01080205	Drainagearea value:	Not Reported	
	Drainagearea	a Units:	Not Reported	Contrib drainagearea:	Not Reported	
	Contrib draina	agearea units:	Not Reported	Latitude:	41.8889866	
	Longitude:	0	-72.5364759	Sourcemap scale:	Not Reported	
	Horiz Acc me	asure:	1	Horiz Acc measure units:	seconds	
	Horiz Collecti	on method:	Interpolated from map			
	Horiz coord re	efsys:	NAD83	Vert measure val:	195.00	
	Vert measure	e units:	feet	Vertacc measure val:	5.	
	Vert accmeas	sure units:	feet			
	Vertcollection	method:	Interpolated from topographic ma	ap		
	Vert coord ret	tsys:	NGVD29	Countrycode:	05	
	Aquitername:		Early Mesozoic basin aquifers			
	Aquifor typo:	Je.	Not Reported			
	Construction	data:	1965	Welldenth:	50	
	Welldenth un	its.	ft	Wellholedepth:	Not Reported	
	Wellholedept	h units:	Not Reported			
	Ground-wate	r levels. Numh	er of Measurements [,] 1			
		Feet below	Feet to			
	Date	Surface	Sealevel			

1965-10-01 23.00

6 ENE 1/2 - 1 Mile Higher

FED USGS USGS40000229454

Org. Identifier:	USGS-CT		
Formal name:	USGS Connecticut Water Science	e Center	
Monloc Identifier:	USGS-415306072315801		
Monloc name:	CT-EW 20		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	01080205	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	41.8850978
Longitude:	-72.5323091	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	205.00
Vert measure units:	feet	Vertacc measure val:	5.
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic ma	р	
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Early Mesozoic basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	1934	Welldepth:	132
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1 Feet below Feet to Date Surface Sealevel

1948-01-01 19.00

7 ENE 1/2 - 1 Mile Higher

Org. Identifier: USGS-CT Formal name: USGS Connecticut Water Science Center USGS-415302072315501 Monloc Identifier: CT-EW 95 Monloc name: Monloc type: Well Monloc desc: Not Reported Huc code: 01080205 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported 41.8839867 Latitude: Longitude: -72.5314757 Sourcemap scale: Not Reported Horiz Acc measure: Horiz Acc measure units: seconds 1 Horiz Collection method: Interpolated from map NAD83 Vert measure val: 205.00 Horiz coord refsys: Vert measure units: feet Vertacc measure val: 5. Vert accmeasure units: feet Interpolated from topographic map Vertcollection method: US Vert coord refsys: NGVD29 Countrycode: Aquifername: Early Mesozoic basin aquifers Formation type: Sedimentary Bedrock

FED USGS USGS40000229442

Aquifer type	:	Not Reported			
Construction	n date:	1966	Welldepth:	125	
Welldepth units:	ft V	Wellholedepth:	Not Reported		
Wellholedep	Wellholedepth units:	Not Reported			
Ground-wate	er levels, Numb	per of Measurements: 1			
Date	Surface	Sealevel			
1966-10-01	15.00				
8					11000 100000000000
NNE 1/2 - 1 Mile Higher				FED USGS	05G540000229521
Org. Identifie	er:	USGS-CT			
Formal name	e:	USGS Connecticut Water Scien	ce Center		
Monloc Iden	tifier:	USGS-415334072323301			
Monloc nam	ie:	CI-EW 67			
Nonloc type		vveii Not Poportod			
Huc code:	<i>.</i>	01080205	Drainagearea value:	Not Reported	
Drainageare	a Units	Not Reported	Contrib drainagearea	Not Reported	
Contrib drair	nagearea units:	Not Reported	Latitude:	41.8928755	
Longitude:	g	-72.5420316	Sourcemap scale:	Not Reported	
Horiz Acc m	easure:	1	Horiz Acc measure units:	seconds	
Horiz Collec	tion method:	Interpolated from map			
Horiz coord	refsys:	NAD83	Vert measure val:	190.00	
Vert measur	e units:	feet	Vertacc measure val:	5.	
Vert accmea	asure units:	feet			
Vertcollectio	n method:	Interpolated from topographic m	ap Countrycodo:	110	
	eisys. 	Farly Mesozoic basin aquifers	Countrycode.	03	
Formation ty	/ne:	Not Reported			
Aquifer type	:	Not Reported			
Construction	date:	1955	Welldepth:	200	
Welldepth u	nits:	ft	Wellholedepth:	Not Reported	
Wellholedep	oth units:	Not Reported			
Ground-wate	er levels, Numb	er of Measurements: 1			
Date	Surface	Sealevel			
	65.00				
9					
NE 1/2 - 1 Mile Lower				FED USGS	USGS40000229499
Org. Identifie	er:	USGS-CT			
Formal name	e:	USGS Connecticut Water Scien	ce Center		
Monloc Iden	tifier:	USGS-415326072321201			
Monloc nam	e:	CT-EW 16			
Monloc type	: 	Well			
IVIONIOC GESC	<i>.</i>	1100 Reported		Not Reported	
Drainageare	a Units	Not Reported	Contrib drainagearea	Not Reported	
Contrib drain	nagearea units:	Not Reported	Latitude:	41.8906533	
Longitude:	<u>.</u>	-72.5361981	Sourcemap scale:	Not Reported	

Horiz Acc me	easure:	1	Horiz Acc measure units:	seconds		
Horiz Collect	ion method:	Interpolated from map				
Horiz coord r	efsys:	NAD83	Vert measure val:	180.00		
Vert measure	e units:	feet	Vertacc measure val:	5.		
Vert accmea	sure units:	feet				
Vertcollection	n method:	Interpolated from topographic m	ар			
Vert coord re	efsys:	NGVD29	Countrycode:	US		
Aquifername	:	Early Mesozoic basin aquifers				
Formation ty	pe:	Not Reported				
Aquifer type:		Not Reported				
Construction	date:	Not Reported	Welldepth:	75		
Welldepth ur	nits:	ft	Wellholedepth:	Not Reported		
Wellholedept	th units:	Not Reported				
Ground-wate	er levels, Numb	er of Measurements: 1				
	Feet below	Feet to				
Date	Surface	Sealevel				
1948-01-01	1.00					
10 WSW 1/2 - 1 Mile Lower				FED USGS	USGS40000229373	
Org. Identifie	er:	USGS-CT				
Formal name	e:	USGS Connecticut Water Scien	ce Center			
Monloc Ident	ifier:	USGS-415235072335901				
Monloc name	ə:	CT-EW 93				
Monloc type:		Well				
Monloc desc	:	Not Reported				
Huc code:		01080205	Drainagearea value:	Not Reported		
Drainagearea	a Units:	Not Reported	Contrib drainagearea:	Not Reported		
Contrib drain	agearea units:	Not Reported	Latitude:	41.8764868		
Longitude:		-72.5659215	Sourcemap scale:	Not Reported		
Horiz Acc me	easure:	1	Horiz Acc measure units:	seconds		
Horiz Collect	ion method:	Interpolated from map				
Horiz coord r	efsys:	NAD83	Vert measure val:	160.00		
Vert measure	e units:	feet	Vertacc measure val:	5.		
Vert accmea	sure units:	feet				
Vertcollection	n method:	Interpolated from topographic m	ар			
Vert coord re	efsys:	NGVD29	Countrycode:	US		
Aquifername	:	Early Mesozoic basin aquifers				
Formation ty	pe:	Sedimentary Bedrock				
Aquifer type:		Not Reported				
Construction	date:	1966	Welldepth:	400		
Welldepth ur	nits:	ft	Wellholedepth:	Not Reported		
Wellholedent	th units:	Not Reported				

Ground-water levels, Number of Measurements: 0

GEOCHECK[®] - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CT Radon

Radon Test Results

Southington 27 12 (44.4) 11 (40.7) 4 (14.8) 0 (0) 0 (0) 0 Suffield 12 10 (83.3) 2 (16.7) 0 (0) 0 (0) 0 (0) 0	(0) (0) (0) (0)
Suffield1210 (83.3)2 (16.7)0 (0)0 (0)0 (0)	(0) (0) (0)
	(0) (0)
Unionville 5 5 (100) $0(0)$ $0(0)$ $0(0)$ $0(0)$	(0)
We atomic 6 $6(100)$ $0(0)$ $0(0)$ $0(0)$ $0(0)$ $0(0)$	(0)
West Hartford 55 $46(83.6)$ 7 (12.7) 1 (1.8) 1 (1.8) 0 (0) 0	(0)
West Simsbury 13 $12(923) 1(77) 0(0) 0(0) 0(0) 0(0)$	(0)
West Suffield 5 $5(100) 0(0) 0(0) 0(0) 0(0) 0(0)$	(0)
Wethersfield 33 27 (81.8) 5 (15.2) 1 (3) 0 (0) 0 (0) 0	(0)
Windsor 19 15 (78.9) 4 (21.1) 0 (0) 0 (0) 0 (0) 0	(0)
Windsor Locks 8 8 (100) 0 (0) 0 (0) 0 (0) 0 (0) 0 (0) 0	(0)
Tariffville 2 1 (50) 0 (0) 0 (0) 1 (50) 0 (0) 0	(0)
East Hampton 110 83 (100) 19 (0) 8 (0) 0 (0) 0 (0) 0	(0)
Manchester 34 24 (70.6) 10 (29.4) 0 (0) 0 (0) 0 (0) 0	(0)
Avon 15 8 (53.3) 6 (50) 1 (6.7) 0 (0) 0 (0) 0	(0)
Berlin 11 7 (63.6) 1 (9.1) 4 (36.4) 0 (0) 0 (0) 0	(0)
Bloomfield 7 7 (100) 0 (0) 0 (0) 0 (0) 0 (0) 0 (0)	(0)
Bristol 17 10 (58.8) 4 (23.5) 3 (17.6) 0 (0) 0 (0) 0	(0)
Broad Brook 3 1 (33.3) 2 (66.7) 0 (0) 0 (0) 0 (0) 0	(0)
Burlington 125 125 (100) 0 (0) 0 (0) 0 (0) 0 (0) 0	(0)
Canton 8 6 (75) 2 (25) 0 (0) 0 (0) 0 (0) 0	(0)
Collinsville 1 0 (0) 1 (100) 0 (0) 0 (0) 0 (0) 0	(0)
East Berlin 6 4 (66.7) 2 (33.3) 0 (0) 0 (0) 0 (0) 0	(0)
East Granby 13 8 (61.5) 0 (0) 1 (7.7) 0 (0) 4 (30.8) 0	(0)
East Hartford 20 20 (100) 0 (0) 0 (0) 0 (0) 0 (0) 0 (0) 0	(0)
East Hartland 1 1 (100) 0 (0)	(0)
East Windsor 4 3 (75) 1 (25) 0 (0) 0 (0) 0 (0) 0	(0)
Enfield 2 2 (100) 0 (0) 0 (0) 0 (0) 0 (0) 0 (0) 0	(0)
Farmington 34 31 (91.2) 1 (2.9) 0 (5.9) 2 (0) 0 (0) 0	(0)
For estimate 3 $3(100)$ $0(0)$ $0(0)$ $0(0)$ $0(0)$ $0(0)$ $0(0)$	(0)
Glastonbury 152 120 (78.9) 22 (14.5) 5 (3.3) 4 (2.6) 0 (0) 1	(.7)
$\begin{array}{cccc} Granby & 10 & 8(80) & 2(20) & 0(0) & 0(0) & 0(0) & 0 \end{array}$	(0)
Hartford 99 $95(96)$ $5(4)$ $0(0)$ $0(0)$ $0(0)$ $0(0)$	(0)
Kensington 7 $6(85.7)$ 1 (14.3) $0(0)$ $0(0)$ $0(0)$ $0(0)$ 0	(0)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	(0)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	(0)
New Britain 20 $3(65)$ $5(25)$ $2(10)$ $0(0)$ $0(0)$ 0	(0)
Newligion 45 20 (57.6) 12 (26.7) 6 (15.3) 1 (2.2) 0 (0) 0 (0) 0 (0)	(0)
Notification 2 $2(100)$ $0(0)$ $0(0)$ $0(0)$ $0(0)$ $0(0)$	(0)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	(0)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	(0)
Toory I IIII 24 19 (13.2) 3 (12.3) 2 (0.3) 0 (0) 0 (0) Simebury 13 12 (02.3) 1 (7.7) 0 (0) 0 (0) 0 (0)	(0)
South Clastophury 13 $10/76.0$ $0(0)$ $1(7.7)$ $0(0)$ $0(0)$ $0(0)$ $0(0)$ 1	(0) (7 7)
South Vindsor 23 23 (100) 0 (0) 0 (0) 0 (0) 0 (0) 0 (0)	(0)

AREA RADON INFORMATION

Federal EPA Radon Zone for HARTFORD County: 3

Note: Zone 1 indoor average level > 4 pCi/L. : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L. : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 06016

Number of sites tested: 3

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.200 pCi/L	100%	0%	0%

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627 Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Tidal Wetlands

Source: Department of Energy & Environmental Protection Telephone: 860-424-4054

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Connecticut Leachate and Wastewater Discharge Sites

Source: Department of Environmental Protection

The Leachate and Waste Water Discharge Inventory Data Layer (LWDS) includes point locations digitized from Leachate and Wastewater Discharge Source maps compiled by the Connecticut DEP. These maps locate surface and groundwater discharges that (1) have received a waste water discharge permit from the state or (2) are historic and now defunct waste sites or (3) are locations of accidental spills, leaks, or discharges of a variety of liquid or solid wastes.

EPA-Approved Sole Source Aquifers in Connecticut

Source: EPA

Sole source aquifers are defined as an aquifer designated as the sole or principal source of drinking water for a given aquifer service area; that is, an aquifer which is needed to supply 50% or more of the drinking water for the area and for which there are no reasonable alternative sources should the aquifer become contaminated.

Community and Non-Community Water System Wells

Source: Department of Public Health, Water Supplies Section

Telephone: 860-509-7333

Active, emergency and inactive wells used for potable purposes that are owned and operated by active community and non-community water systems in Connecticut.

OTHER STATE DATABASE INFORMATION

RADON

State Database: CT Radon Source: Department of Public Health Telephone: 860-509-7367 Radon Statistical Summary

Area Radon Information

Source: USGS Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones Source: EPA Telephone: 703-356-4020 Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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APPENDIX E

SUMMARY OF NORCAP CLOSURE TIME LINE

RECEIVED

FEB 2 1 2006

Landfill Closure Report NORCAP Landfill Wapping Road, East Windsor, CT

DEP-WASTE MANAGEMENT BUREAU EXECUTIVE SUMMARY OF WONDREAM A ENFORCEMENT

Closure Timeline

- The Northern Capitol Region Disposal Facility, Inc. (NORCAP) landfill on Wapping Road, East Windsor, CT was closed in four parts. The first part was in October and November 1997. Membrane placement and seaming was undertaken by Resicon Containment, Inc. Part two was completed in June through July 1998 by New England Liner, Inc. Part three was completed in November 1998 by Samleen, LLC. The fourth part was also completed by Samleen, LLC in August through September 2002.
- Botticello, Inc. undertook earthwork, including placement of the cover soils and topsoil layer, and vegetation between 1997 and 2003. Repairs of "wash-outs" were completed in 2004. Drainage improvements were finished in January 2006.

<u>Closure Activities</u>

- Geomembrane panels were deployed by the installers, and then seams were welded together by both fusion welding and extrusion welding. Destructive and non-destructive field tests were performed by the installers. Laboratory testing was undertaken by Geotesting Express of Boxborough, MA and Geotechnics of East Pittsburgh, PA.
- All geomembrane panel seams were tested. All known defects were repaired. Documentation of this is included in the report.
- Anchor Engineering observed field non-destructive testing and corrective measures. Documentation of this is included in the report.
- Following completion of geomembrane installation, cover soils and a vegetative growth layer were installed. Vegetation has been established over the entire landform.

Final Inspections

- On July 27 and 28, 2003, Anchor Engineering personnel excavated test holes (one per acre, forty-seven total) to verify thickness of soil cover and vegetative growth layers. All areas with the exception of three were found to have sufficient thickness to meet DEP requirements. Mark Zessin of Anchor Engineering and David McKeegan of DEP discussed this issue as well as the fact that cover soils had been installed over the landfill prior to the installation of the geomembrane as a soil preparation. It was concluded that these three areas.
- Both prior to and since the time of landfill capping, Anchor Engineering has performed continuous quarterly monitoring of groundwater, surface water, and perimeter landfill gas in accordance with the DEP permit for the site. Vegetative cover was observed as recently as December 2005.
- On December 7, 2005 all areas of the landform were observed to have fully maintained their stability.

- i -

APPENDIX F

HISTORICAL AERIAL PHOTOGRAPHS

Wapping Road Wapping Road Broad Brook, CT 06016

Inquiry Number: 4734249.5 September 23, 2016

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com







































PHOTOGRAPH 1 – FROM WAPPING ROAD FACING NORTHWEST



PHOTOGRAPH 2 – FROM WAPPING ROAD FACING WEST



Wapping Road East Windsor, Connecticut



DATE
8-10-16
SCALE
1"=1000'
JOB NUMBER
2016-037
SHEET
EXHIBIT XII

SOURCE: EAST WINDSOR GIS W/FLOOD BOUNDARY OVERLAYS



AQUIFER MAP

Norcap South Solar Field Wapping Road East Windsor, Connecticut MATE 8-10-16 SCALE 1"=1,000' SCALE 1"=1,000'

<u>SOURCE:</u> EAST WINDSOR GIS W/2012 AERIAL PHOTOGRAPH & AQUIFER BOUNDARY OVERLAYS

RABER ASSOCIATES

CONSULTANTS IN THE HISTORICAL AND SOCIAL SCIENCES

December 14, 2016

Catherine Labadia Deputy State Historic Preservation Officer, Staff Archaeologist State Historic Preservation Office Connecticut Commission on Culture and Tourism One Constitution Plaza, Second Floor Hartford, CT 06103



RE: Norcap South Solar Development Town of East Windsor, Connecticut

Dear Ms. Labadia:

This letter and the attached report supplement the letter sent to you on August 11, 2016 by Timothy Coon of J.R. Russo & Associates LLC, summarizing the Norcap North and Norcap South solar developments and requesting any evaluation you might have. Lodestar Energy LLC (Lodestar), a developer of renewable energy projects, will submit separate petitions to the Connecticut Siting Council (CSC) for approval of the two proposed projects. Based on past experience with similar projects, Raber Associated has completed the attached cultural resources assessment and reconnaissance survey for the Norcap South Project, including discussion of any potential viewshed impacts on structures listed or eligible for listing on the National Register of Historic Places.

In brief, the survey found that sand and gravel extraction and related operations appear to have removed all Holocene soils in the western half of the Project area, and stripped topsoil from most of the remaining area except in a small wooded area. Seventy-five tests in the area with stripped topsoil revealed some intact subsoils, but only very limited amounts of recent cultural material. Another thirteen tests in the wooded area revealed more intact soils, but similar results regarding cultural material. No subsurface cultural resources eligible for the National Register of Historic Places appear to exist within proposed Project limits. Historic resource surveys and listings of architectural properties on the National Register of Historic Places indicate no such properties listed, eligible, or potentially eligible for the National Register are located within approximately 1.5 miles of the Project area. Based on the criteria used in prior evaluations of visual effects, there appear to be no potential adverse visual effects from proposed construction.

No further cultural resource investigations, or protective measures to address indirect visual effects, appear necessary. Please contact me if you have any questions or concerns.

Sincerely,

Michael S. Raber

Attachment

xc: Adam Beal, Lodestar Energy LLC Timothy Coon, J.R. Russo & Associates LLC

> 81 Dayton Road • P.O. Box 46 South Glastonbury • CT 06073 (860) 633-9026 voice/fax)/msraber@aol.com (e-mail)
RABER ASSOCIATES

CONSULTANTS IN THE HISTORICAL AND SOCIAL SCIENCES



CULTURAL RESOURCES INVESTIGATIONS

FOR PROPOSED NORCAP SOUTH SOLAR DEVELOPMENT

WAPPING ROAD, EAST WINDSOR, CONNECTICUT

Michael S. Raber

prepared for:

Lodestar Energy LLC 3 Ellsworth Place, Suite 122 Avon, CT 06001

December 2016

81 Dayton Road • P.O. Box 46 South Glastonbury • CT 06073 (860) 633-9026/msraber@aol.com

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- 1. LOCATION OF NORCAP SOUTH PROJECT ON BROAD BROOK, CONN. U.S.G.S. 7.5-MINUTE QUADRANGLE
- 2. PROJECT AREA LIMITS, APPROXIMATE GRAVEL PIT LIMITS, AND RECONNAISSANCE SHOVEL TEST PITS
- 3. EARLY 2016 PROJECT AREA CONDITIONS

I. INTRODUCTION

Lodestar Energy LLC (Lodestar), a developer of renewable energy Projects, is currently developing plans for a ground-mounted solar photovoltaic facility at the Northern Capital Region Disposal Facility (NORCAP) on Wapping Road in East Windsor, Connecticut. Lodestar will submit a petition to the Connecticut Siting Council (CSC) for a declaratory ruling that no certificate of environmental compatibility and public need is required for the proposed Norcap South Project (Project). Among the issues to be addressed for approval of the Project's environmental compatibility, potential Project effects on cultural resources must be reviewed by the Connecticut State Historic Preservation Office (SHPO) under the Connecticut Environmental Policy Act (Connecticut General Statutes Chapter 439 Section 22a), Connecticut General Statutes Section 221-90 (1)(J), and under Section 16-50k(a) of the Public Utilities Environmental Standards Act (PUESA). Cultural resources subject to review under these acts include historic architectural properties, historic industrial or engineering resources, and pre-Contact or Euroamerican archaeological sites eligible for the state or national registers of historic places. Lodestar has provided SHPO with Project information, and based on past experience with similar Projects has initiated a professional cultural resources assessment and reconnaissance survey, including potential viewshed impacts on structures listed or eligible for listing on the National Register of Historic Places (letter, Timothy A. Coon to Catherine Labadia, August 11, 2015). To be eligible, cultural resources must possess physical integrity and meet at least one of the following criteria:

- A. Association with important historic events or activities;
- B. Association with important persons;
- C. Distinctive design or physical characteristics, including representation of a significant entity whose individual components may lack distinction;
- D. Potential to provide important information about prehistory or history.

Lodestar retained Raber Associates to conduct the investigations, which were completed to standards of the SHPO *Environmental Review Primer for Connecticut's Archaeological Resources*, and the Secretary of the Interior's "Standards for Archaeology and Historic Preservation" for Identification, Evaluation and Planning. Michael S. Raber acted as principal investigator. Marc L. Banks acted as project archaeologist, assisted by field technicians Chantal Henry, Amara Litten, Bonnie Plourde, and Wil Sikorsky. Background and field investigations were conducted between August and October 2016.

II. PROJECT AREA, PROJECT DESCRIPTION AND ENVIRONMENTAL CONTEXT

The Norcap South Project area consists of 11.2 acres of leased undeveloped land immediately west of Wapping Road, the approximate west half of which has been mined for gravel. Unmined areas are relatively level, and include an open area from which topsoil was stripped in early 2016, and a densely-wooded area of approximately 1 acre along the south side of the proposed lease area. An earthen berm parallel to Wapping Road borders the open area. The Project will involve the construction of approximately 9.8 acres of ground-mounted solar photovoltaic panels and security fencing. The south side of the Project will be graded to create a vegetated berm which will act as a visual screen. The Project will include clearing and grubbing, grading, layout and placement of foundation systems, racking, and solar PV panels, installation of utility pads and associated electrical equipment, installation of electrical conduit, conduit supports, electrical poles, and overhead wire, and security fencing. No existing structures will be impacted by the proposed Project. The solar panels are expected to be supported on steel posts, and will extend approximately 8 feet above graded surfaces at the upper end of tilted panel surfaces. (Figures 1-3; J.R. Russo & Associates LLC 2016; personal communication, Dennis Botticello).

The Project area lies within Connecticut's Central Valley or Central Lowlands (sometimes known as North-Central Lowlands physiographic province). The valley, known to geologists as the Hartford Basin, is predominantly a lowland with "red-bed" Triassic sedimentary sandstone and arkose bedrock which slopes down to the east. The lowland is generally characterized by broad level surfaces in which the Connecticut River and most tributaries meander with limited slope, except where the waters encounter higher bedrock deposits. The bedrock underlies the lowland at varying depths, below relatively small-sized glacial till which is well covered in most places north of Rocky Hill by level deposits associated with late-glacial Lake Hitchcock and its smaller predecessor Lake Middletown. Project area bedrock depths are estimated to exceed 50 feet below the surface. Lake Hitchcock drowned the lowland along 150 miles of the present river course some 11-13,000 years ago. Lake deposits included fine silts and clays later exploited for brick manufacture, broad sandy deltaic fans or terrace deposits around larger tributary streams, and beach deposits of reddish brown sand, silt and gravel. Well-developed post-glacial sand dunes and other aeolian deposits are locally extensive above the lake and terrace deposits. After Lake Hitchcock drained, the river cut through the lake deposits, indifferent in most places to the erosible arkose, to create the gradual river slope seen in most of the lowland today. The Project area is drained by the Ketch Brook tributary of the Scantic River sub-basin of the Connecticut River. Ketch Brook flows just approximately 1500 feet north of the Project area, and runs through high, steep deposits of collapsed stratified glacial drift and deltaic deposits associated with Lake Middletown. Similar but more level glacial deposits underlie the Project area (Figure 1; Colton 1965; Hyde and Colton 1973; Dowhan and Craig 1976; Rodgers, ed. 1985; Bell 1985; Stone et al. 1998).

Aerial photographs and soil surveys indicate that until approximately 2010, the Project area had well-drained Enfield and Haven silt loam Holocene soils. Nearly all of the area was cultivated, with the exception of the wooded section. Recent sand and gravel extraction has removed all Holocene soils in the western half of the project area, but as confirmed by field investigations described in Section IV below the open area abutting Wapping Road retained intact subsoils, and the wooded area had largely intact soils (Figures 1-3; Fairchild Aerial Survey 1934; U.S. Geological Survey 1944; Robinson Aerial Surveys 1951-52; U.S. Department of Agriculture 1962, 2003, 2008; Keystone Aerial Surveys, Inc. 1965; Connecticut Department of Energy and Environmental Protection 2010).

In some periods of Native American and Euroamerican occupation, Ketch Brook likely provided freshwater and anadromous fish as prey, along with birds and mammals attracted to fresh water. Wetland plants may also have provided seasonal resources.

III. BACKGROUND DATA AND CULTURAL RESOURCE SENSITIVITY

A. Native American Resources

1. Summary of Regional Background Material

There are no reported Native American sites within at least several miles of the Project area, although this absence of data may reflect limited archaeological investigation rather than a lack of Native American activity in this vicinity. The nature and distribution of reported sites in central Connecticut probably reflects a wide variety of natural resources once available to Indian peoples, from shellfish, finfish, waterfowl and plants along the Connecticut River to seasonally-available mammals, birds, and fish on tributary drainages such as Ketch Brook. These resources were probably used in several types of settlement pattern, revealed in archaeological research conducted primarily after the mid-20th century. Prior to the introduction of agriculture in southern New England late in the first millennium A.D., archaeological evidence suggests there was generally more seasonal movement and less semi-permanent settlement through periods extending back to the earliest Native Americans in this region in Paleoindian times (c12,000-10,000 B.P.). By Middle Archaic times, c6,000-8000 B.P., seasonal resource use was well established, and site types included spring fishing camps along major streams (Dincauze 1976; Barber 1981). During Late Archaic times, there may have been a shift from seasonal or task-specific occupation of knolls just above floodplain elevations to larger seasonal camps on terraces adjacent to the floodplain as well as knolls within floodplain areas. In Woodland and early historic/Contact times (c3,000-400 years ago), Native American settlement patterns in central Connecticut focused on semi-permanent villages near planting fields, with seasonal movements to hunting or sheltered winter camps, and continual short trips to hunt or collect mammals, fish, shellfish, and a wide variety of plant resources. The larger settlements in these periods were along the Connecticut River and its coves, with relatively level, well-drained areas along the upper river and its tributaries probably used for short-term or winter activities. The Late Woodland Period (c1,200-450 B.P.) is characterized regionally by the intensive use of maize, beans, and squash. Approximately 2 miles east of the Project, area the Late Woodland Fox Run 2 Site (Site No. 47-11) included a feature, radiometrically dated to 600 ± 60 B.P., with includes charred maize and other organic materials. Fox Run 2 is one of a very small number of Connecticut Native American sites with charred maize, and the only one reported a mile or more from a coastline or major river. Archaeological work during the past few decades also suggests that the Farmington River Valley, a short distance from the Project area, was a relatively self-contained region for Native American social geography beginning in Late Archaic times (McBride 1978, 1984; Feder 1981; Raber 1997; Forrest 1999; Banks 2000; Jones and Forrest 2003; Forrest et al. 2006; Lavin 2013).

By the 1630s, when direct European contact was felt throughout Connecticut's coasts and larger rivers, Indians were organized in groups of small households which banded together along ethnic and territorial lines in larger villages during the spring and summer and dispersed during other seasons. These small groups engaged in hunting, fishing, and gathering of wild plant foods, and in the later prehistoric period were engaged in maize horticulture. During the Contact period, trapping of beaver and other fur-bearing animals was an important economic activity. In the late prehistoric and contact periods, settlement was focused on or adjacent to the flood plains of the major tributaries, reflecting the importance of agricultural activities, fishing, and access to transportation and communication routes. Planting in the spring and capture of anadromous fish at waterfalls and choke points brought together households. Upland areas were used for hunting, trapping, and gathering from the late summer through the winter by the component household groups of the larger ethnic divisions.

For reasons which remain unclear, there appears to be a strong correlation between the territorial boundaries of Indian ethnic groups and drainage boundaries by the 1630s. Social boundaries among the Algonquian-speaking Indians of southern New England were not rigid, and political organization for most purposes was loose, with male and occasionally female sachems recognized in limited spheres of authority. With fur trade, however, political and territorial boundaries hardened and the fortified villages observed by the Europeans may date to this era of inter-tribal conflicts. Competition for trapping grounds and access to

RABER ASSOCIATES – CULTURAL RESOURCE INVESTIGATIONS FOR NORCAP SOUTH SOLAR DEVELOPMENT - PAGE 3

fur markets became intense in the early seventeenth century, and some English adjudication of such matters in Connecticut during later decades used drainage boundaries as political boundaries. There is evidence from other parts of New England for at least a historic period pattern of territoriality based on drainages, and to some extent this pattern probably predates European contact. We can only surmise at this point that stream locations and water resources were always important in determining the movement of game animals and their human predators, while at the same time watercourses were often effective avenues of travel in upland areas. With competition for fur animals, both initial demands for trapping grounds and expansion of these grounds as downstream areas were depleted of furs may have resulted in attempts to control headwater areas for the first time.

In the early 17th century, there was a substantial population of Native Americans in the Connecticut River Valley. The Algonquian-speaking peoples who lived there had practiced agriculture for 500-700 years, but they also continued to hunt, gather, and fish to supplement the crops from their fields. River meadows were the primary areas of maize cultivation (Stiles 1891). The Enfield Rapids would have been an obvious location for seasonal fishing camps, and there were probably villages with cultivated fields in the nearby area as well. Smaller bands hunted in this area in the fall and winter. The earliest white explorer, Adriaen Block, saw an Indian fort along the river above Hartford in 1614. European explorers and colonists, confused about the organization of and identification of various tribes and bands, have left us with many conflicting accounts of tribal names and leadership. Historians, responding to this confusion, have often referred to the many groups on the Connecticut River as the River Tribes. From early sources we see references to the Tunxis who lived to the west on the Farmington River, the Poquonocks at present Windsor, the Massacos above the Poquonocks near Simsbury, and the Sicaogs in present West Hartford. The territory of the Agawam, centered at present Springfield, extended as far south as Stony Brook in Suffield and at about the present border of Enfield and East Windsor. One authority has estimated the pre-epidemic population of these five "sachemdoms" at 3200 (Cook 1976: 57, 61-65). There were also Mattabesecs, Wongunks, and Hammonassets south of Hartford. The Project area lies within the former territory of the Podunks, who occupied lands on the east side of the Connecticut river south of the Agawam to about Keeney Cove in present Glastonbury, and from whom some sources say English settlers purchased land rights in Enfield (Spiess and Bidwell 1924; Ingersoll, ed., 1934). To the south and east, larger tribes such as the Niantics, Pequots, and Mohegans lived along the coast and in interior areas (Cook 1976; DeForest 1851).

The Podunk population c1630 has been estimated at about 1600 people, who lived in six or seven villages and perhaps an unknown number of smaller winter encampments. Most of their principal villages were located on the Scantic, Podunk, and Hockanum rivers in present East Hartford, South Windsor, and Manchester, although some sources place two smaller villages in East Windsor, on the Scantic in the vicinity of present Broad Brook village and near the mouth of Namerick Brook. Given the models of settlement discussed above for prehistoric periods, small temporary camps or task-specific resource-procurement sites were probably dispersed within short distances of the villages. Known Podunk burial grounds were in South Windsor, on the Podunk River and opposite the mouth of the Farmington River. Burials found elsewhere, such as some at Warehouse Point uncovered before the early 19th century, have been attributed to the Podunk but could be from earlier groups (McClure 1806; Stiles 1891; Spiess and Bidwell 1924; Ingersoll, ed., 1934; Cook 1976).

The Dutch West India Company began a small trading post at later Hartford in 1623, stimulating a trade in furs which led to conflicts among Amerindian tribes. The Podunks and other River Tribes soon found themselves at odds with the larger Pequot and Mohegan groups of the Thames River drainage. The advent of English settlement around Hartford in the 1630s was in part a response to an invitation from a River Tribe sachem who may have been a Podunk. The Podunk sold land rights to English settlers of early Windsor in 1636, although there was no English settlement east of the river until the 1660s (Stiles 1891). The Mohegans, subservient to the Pequots until the Pequot War of 1637, claimed large areas of the Connecticut Valley and eastern highlands following the defeat of the Pequots. The Mohegans, under their leader Uncas, became the most important Indian political force in eastern Connecticut, using alliances with the English to subjugate or outmaneuver Indian opponents in the region. Uncas was involved in wars or serious quarrels

with nearly every Indian group in the region between the Pequot War and King Philip's War of 1676. Many of these disputes originated over control of fur trade resources and markets. During this period of conflict, the English settled affairs between the Mohegan and the Podunk by defining a boundary between them running through Bolton Notch in 1666. This line corresponds approximately to the drainage divide between the Connecticut and Thames River basins. The Mohegan may have retained a later claim to Podunk lands near the Connecticut River through Uncas' son Joshua, whose wife was willed these areas c1672 by her father, a Podunk or Sicaog sachem (Stiles 1891).

The Podunk evidently survived a 1633-34 smallpox epidemic which devastated native populations on the west side of the river around Hartford, and retained a viable military presence until about the time of King Philip's War. By the 1670s, the hunting and trapping grounds of southern New England were probably depleted as sources of Indian income, and those groups which had survived the disease and warfare of the early Contact period had begun trading land rights or money, goods, or political security. Although they resisted being drawn into tributary relations with the Pequot or Mohegan, the Podunk suffered occasional attacks from the Iroquoian Mohawks from New York, who also tried to control trade networks. The decline of the Podunk in the late 17th century is not well documented, but has been associated with Mohawk attacks and the choice by many Podunk to side with the unsuccessful Indian alliance against the English during King Philip's War. It is possible, though not documented, that the large Indian site in Enfield near Indian Run Road may in part represent a Podunk fort from this period. In 1678 and 1680, English settlers based primarily in Springfield purchased some land rights from the Podunk in present Enfield, but there is little published information on Contact-era Native American groups in this town. Small numbers of Podunk lived in East Windsor into the third quarter of the 18th century, and some were present in Manchester into the early 19th century (Stiles 1891; Speiss and Bidwell 1924; Bridge, ed. 1977: 5-7; Miller 1998).

2. Potential Issues in Project Area

In environments such as the Project area, Native American subsurface resources typically appear in welldrained soils, often in proximity to wetlands and streams. Although gravel extraction and soil stripping have removed much of the Holocene soils in the Project area, the areas with wholly- or partially-intact welldrained soils left open the possibility of Native American archaeological sites, most likely representing shortterm hunting and gathering episodes. Intact evidence of small seasonal Native American occupations might yield significant new information on Native American upland settlement in the central Connecticut lowland. In particular, the use of upland areas for small sites of seasonal, temporary, or specialized activities such as fishing, and the relation of such sites to larger, more permanent encampments along major streams, remain issues of regional archaeological importance.

B. Euroamerican Resources

The Connecticut River was always an important travel corridor for early European settlers. Dutch explorer Adrien Block sailed upriver to the bottom of Enfield Rapids in 1614, the first serious obstacle for small sailing vessels, but no serious attempts at European settlement began on the river for almost another twenty years. The Dutch West India Company began a small trading post at later Hartford in 1623, completing a small fort a decade later on the eve of English settlement from the Plymouth and Massachusetts Bay colonies, which soon pushed out the Dutch. Families from Dorchester, Massachusetts began the permanent English settlement of Windsor in 1635-36, and edged out a group of fur traders from Plymouth Colony who had arrived in 1633 as well as small group arriving in 1635 with a patent from an English nobleman. Along with Hartford and Wethersfield, Windsor was one of Connecticut's first three English towns. Like many of the early river towns, Windsor began as a small fortified settlement near riparian meadows, in this instance at the mouth of the Farmington River, a major east-flowing Connecticut River tributary. Settlement quickly developed along a road parallel to Connecticut River meadows, and gradually dispersed along the Farmington's meadows as well. Alluvial meadows were the most immediately attractive cultivable areas for these English families, most of whom grew grain and managed small numbers of sheep and cattle. Windsor included present East Windsor and South Windsor, but Windsor's small population and the continued

occupation of the Podunk restricted nearly all English settlement east of the river until after King Philip's War. Prior to that conflict, English use of present East or South Windsor included the Bissell Ferry, a small number of homes along present Route 5, and the beginnings of that road as a link between Warehouse Point and Hartford. The Bissell ferry, authorized by the General Assembly in 1641 and operating by 1648, was among the earliest in the United States and ran until after the Revolution. It was located near the mouth of the Scantic River by at least c1667, but one source places the original ferry at a point on the river about opposite the Project area (Stiles 1892, I: 412, 497-8; 535-42; Potwin 1952; DeVito 1968: 12).

While the Connecticut river towns were establishing a new government in 1636, William Pynchon established a settlement upriver at Agawam, later Springfield, with a party from Roxbury, Massachusetts. This was the first European settlement on the river above Enfield Rapids, and the basis for the later founding of Suffield and Enfield. Pynchon had to use canoes or wagons for any movement of goods beyond the rapids, and soon set up transhipment facilities at Warehouse Point, on the east side of the river below the rapids. Massachusetts Bay authorized his monopoly on fur trade with the upper river basin's Native Americans in 1638, and, in 1648, gave Springfield rights on the east side of the river to a point just below Pynchon's warehouse (Winch 1886: 139). Windsor's prior claim to some of this land was one of many boundary issues requiring over a century of argument and adjustment, the most notable of which was Massachusetts' 1642 Woodward and Saffery survey which overextended the colonial border to the south by several miles.

William Pynchon's son John took over the family's extensive business and political responsibilities in 1652, and sought new outposts between Springfield, Warehouse Point, and the Connecticut river towns within the disputed area. Following land purchases from local Native Americans, he spearheaded the settlement of Suffield in 1670 and Enfield in 1679. Suffield was abandoned during King Philip's War, but quickly resettled in 1677. Windsor families moved east of the river after this conflict, establishing a separate parish in 1694 which included an area claimed by Enfield. Resolution of the boundary issues c1713-49 put Enfield and Suffield in Connecticut, and confirmed the limits between Suffield and Windsor, and Enfield and East Windsor; the latter community became a town in 1768.

The towns around Enfield Rapids agricultural economies and relatively dispersed settlement patterns typical of 18th-century Connecticut river towns, exporting produce and livestock to metropolitan and West Indian markets. East Windsor settlement after c1680 followed a model used in other river towns, with large 3-milelong tracts granted perpendicular to the river to give families meadow, upland agricultural, and woodlot resources. In addition to livestock and produce, seasonal capture of shad and salmon at several points remained important well into the 19th century. By the 1730s, areas east of the river were more intensively settled as use of pine tar for naval stores increased. Grist, saw, and fulling mills appeared on local streams to process household grain, lumber, and woolen or flax cloth goods. Flax also supplied linseed processed at local oil mills, and cider mills flourished as well. Until the 1830s, Warehouse Point remained a small but important transhipment center until well into the 19th century, and the only nucleated river community along the Enfield Rapids. Boat and ship yards operated here and in Windsor, and to a less extent just above the rapids in Suffield. Warehouse Point was well-placed to manufacture and ship commodities for the coastal and West Indies trades. By the early 19th century, gin distillers operated on both sides of the river, part of a large Hartford county trade which capitalized on the river route and the lowland climate conducive to rye culture. East Windsor had six distilleries by 1819, the largest of which were at Warehouse Point. Local distilling lasted into the 1830s, but was damaged by an 1810 Hartford bridge, along with some other local trades such as shipbuilding which depended on river transportation (Pease and Niles 1819:65-6; Tarbox 1886; Winch 1886; Stiles 1892, I:5-4-5; McClure 1949:13).

Cereal crop distilling was one of several Federal Period strategies practiced by local landowner-merchants searching for new investments in the face of depleted natural resources, trade fluctuations, or fortuitous opportunities. In Suffield and East Windsor, small-scale manufacture of cigars from local leaf flourished for several decades, c1810-30, after the adoption by Samuel Viets of methods imparted by an unnamed itinerant Cuban cigar maker. Specialized production of Connecticut Valley cigar wrapper after 1830, for final cigar assembly elsewhere, ended the growth of local cigar plants. East Windsor remained generally rural, with the

villages of Scantic, Melrose, Broad Brook, and Windsorville focused on commercial tobacco production from c1810-1945, with scattered paper, cider, gin, and textile mills at various times. Brick yards flourished at times in the 19th century between the Scantic and Connecticut Rivers, using the glacial lake bottom clays to supply Hartford and other downriver Connecticut River urban centers via scow. The river and rapids gradually became less important to the river communities beginning c1850, as river traffic disappeared, bridges replaced ferries, flood control programs were introduced, and riverside industries closed. As tobacco land values declined, the town gradually transformed into a series of predominantly bedroom communities (Ramsey 1930; Potwin 1952; DeVito 1968; Raber and Malone 1991; Ransom and Andrews 1992).

There is almost no documented Euroamerican activity for the Project area. Less than a mile from the Project area, the village of Windsorville grew as noted above based on waterpower from Ketch Brook, which was used to operate three or four mill sites for sawmill, gristmill, and textile mill operations. All these mills were upstream of the Project area. Most of the Project area was formerly cultivated, but as noted above recent gravel extraction and soil stripping operations have removed some or all of the Project area soils except in a small wooded area on the south side (Figures 3-5; Warren and Gillet 1812; Woodford 1855; Baker and Tilden 1869; Fairchild Aerial Survey 1934; Robinson Aerial Surveys, Inc. 1951-52; Keystone Aerial Surveys, Inc. 1965; Ransom and Andrews 1992; Connecticut Department of Energy and Environmental Protection 2010).

IV. SUBSURFACE INVESTIGATION RESULTS AND INTERPRETATION

Background research indicated potential for Native American archaeological resources in any surviving postglacial soil strata, even below stripped plowzones. Reconnaissance field methods included:

walkover survey to identify areas sensitive for archaeological sites beyond gravel pit limits, amplified in the proposed solar array area with soil auger tests which identified possible intact B horizon soils when compared to soil maps;

hand-excavated shovel tests at no more than 15-meter/50-foot intervals in archaeologically sensitive areas, and comparison of test results with published profiles of typical intact Enfield and Haven silt loam soils (Figure 2 ; U.S. Department of Agriculture 1962, 2003).

The testing interval has proven successful in intercepting at least some evidence of all but perhaps the very smallest of Native American or Euroamerican archaeological sites. Each hand-excavated 50-cm.² shovel test was excavated with a shovel and small hand tools to well-defined pre-cultural, late glacial material or to refusal in dense fill, with all excavated material run through 0.25-inch-mesh hardware cloth to isolate artifacts.

In the open Project area east of the gravel pit, 75 shovel tests were completed at locations shown on Figure 2, to depths of 15-100 cm. below surface. All but 2 of these tests indicated stripping of plowzone soils; 30 tests retained intact subsoils, with the remainder indicating deeper excavation and deposition of fill including asphalt fragments, charred wood, and uncharred wood. Very limited amounts of recent Euroamerican cultural material were recovered, most of it likely associated with stripping and filling. The berm running along the east side of the proposed solar array area was likely created by recent bulldozing of material. In the densely-wooded project area on the south side of the Project area, an additional 13 shovel tests were completed at locations shown on Figure 2, to depths of 28-95 cm. below surface. Many tests in the latter group were offset from the reconnaissance testing grid because of trees. Most tests south of the proposed solar array had intact Enfield silt loam soils, but virtually no cultural material. Test profiles are summarized below. Field investigations indicated no cultural resources eligible for the National Register of Historic Places appear to exist within proposed Project limits.

Tests N0W0, N0W30, S105W120

0 - 21/35 cm.: compact brown sandy loam, plastic fragments, terminating in red sand and gravel (Fill 1 above C horizon)

<u>Tests N0W15, S15W15, S15W30, S15W120, S45W45, S45W120, S75W30, S120W105, S120W120, S135W120</u>

		<u>S155W120</u>
0 -	4/17 cm.:	brown silt loam, stones (B1 horizon)
4/17 -	19/59 cm.:	strong brown compact sandy loam, stones, some charcoal fragments
		(B2 horizon)
19/59 -	21/64 cm.:	red sand (C horizon)
		Test N0W45
0 -	14 cm.:	brown silt loam, small-medium gravel (Fill 1)
14 -	62 cm.:	compact strong brown sandy loam, small-medium stones.
		terminating in compact burnt wood and rocks (Fill 2)
		terminaning in compact burnt wood and rocks (r m 2)
		Test N0W60
0 -	10 cm ·	brown sandy loam (possible A horizon)
10 -	20 cm :	vellow brown sandy loam terminating in dense rock (possible B
10	20 cm	horizon)
Tests NOW1	20 \$15W45 \$1	5W75 \$15W105 \$30W75 \$45W15 \$60W45 \$60W135
<u>10313 110 W 1</u>	15/32 cm :	brown/light brown/vallow brown sandy loam dense cobbles and
0 -	1 <i>5/52</i> cm	gravel (partial B1 horizon)
15/22	10/43 cm	rad brown compact and graval cobbles (C horizon)
15/52 -	1 <i>9</i> /4 <i>3</i> cm.	red brown compact sand, graver, cobbles (C norizon)
		Test S15W00
0	15 om 1	red brown condy loom rock group (Fill 1 ro deposited soils)
0 - 15	19 cm.	red cond (Fill 2 re denosited C horizon)
13 -	18 cm.:	red sand (Fill 2 - re-deposited C norizon)
18 -	21 cm.:	mottled compact red/brown sandy loam, boulders (Fill 3)
	00045 G200000	GAEWING GEOWING GOOWINE GLOEWINGE GLOOWINE
<u>1ests \$15w60, \$30</u>	<u>JW45, S30W90.</u>	<u>, 545 W 30, 560 W 90, 575 W 60, 590 W 45, 5105 W 135, 5120 W 165</u>
0 -	25/49 cm.:	red brown/light yellow brown/strong brown compact fine sandy
		loam, sand, cobbles and gravel (Fill 1 - redeposited soils)
25/49 -	38/62 cm.:	red brown sand, gravel, arkose fragments (C horizon)
cultural	material: S15W	60, S30W90- asphalt fragments, burned wood (Fill 1)
S30W45 - v	wood fragments	(Fill 1); S60W90 - 1 bottle glass fragment, plastic (Fill 1)
	Tests S	<u>S15E0, S30W30, S75W45, S75W60</u>
0 -	7/39 cm.:	dark brown silt loam, gravel, charred wood (Fill 1 - redeposited
		soils)

7/39 - 17/45 cm.: dark red brown silt loam (C horizon)

other cultural material: S75W60 - 1 black transfer ware fragment (Fill 1)

Test S30W15

- 0 30 cm.: dark yellow brown fine sandy loam, red sand, gravel, cobbles, charred wood (Fill 1)
- 30 38 cm.: red fine sand, gravel, cobbles (C horizon)

Tests S30W30, S90W150, S120W150

- 0 10/36 cm.: dark brown sandy loam, small stones, dense cobbles and gravel (partial B2 horizon)
- 10/36 15/38 cm.: red brown compact sand, gravel, cobbles (C horizon)

cultural material: S90W150-1 bottle glass fragment, 1 cloth fragment, 1 plastic fragment (partial B2 horizon)

Tests S30W60, S45W60, S45W75, S60W600 - 11/19 cm.:brown sandy loam, some small stones (possible re-deposited A horizon)11/19 - 26/33 cm.:red/white/gray sand, pebbles, cobbles (C horizon)Tests S30W105, S45W105, S60W30, S60W75, S6-0W120, S75W105, S75W1200 - 10/27 cm.:strong brown sandy loam, dense cobbles and gravel (partial B2 horizon)10/27 - 24/70 cm.:red brown sand, rocks (C horizon)

cultural material: S45W105, S60W30, S75W105 - burned wood, coal, plastic fragments (B2 horizon) S75W120 - 1 window glass fragment, coal

Tests S45W90, S90W90

0 -	10 cm.:	brown silt loam (Fill 1 - re-deposited A horizon)
10 -	30 cm.:	red sand, brown/yellow brown silt, gravel, rocks (Fill 2 - re-
20	26/20	deposited soils)
30 -	36/39 cm.:	red sand (C horizon)
		Test S60W105
0	30 om :	strong brown compact sendy loam rocks terminating in compact
0-	50 cm	strong brown compact sandy loan, rocks, terminating in compact
		rocks (Fill I - re-deposited B2 horizon)
		Test 75W75
0 -	13 cm.:	strong brown sandy loam (Fill 1 - re-deposited soils)
13 -	38 cm :	burned wood red arkose fragments (Fill 2) horizon)
20	16 cm .	rad cond (C horizon)
30 -	40 cm.:	reu sanu (C norizon)
		Test S75W90
0 -	20 cm.:	dark vellow brown compact fine sandy loam, gravel, cobbles (Fill 1
		- re-deposited B horizon)
20 -	60 cm ·	dark brown sandy loam gravel cobbles (Fill 2 - re-denosited A
20 -	00 cm	horizon)
C 0		
60 -	66 cm.:	brown fine sandy loam, gravel (Fill 3)
	1.	
	culti	ural material: asphalt fragments (Fill 2)

Tests S75W135, S90W105, S120W90

0 -	8/20 cm.:	red brown/strong brown stony sandy loam (Fill 1- re-deposited soils)
8/20 -	20/52 cm.:	mottled brown/yellow brown sandy loam, gravel (Fill 2 - re-deposited soils)
20/52 -	28/64 cm.:	red sand, gravel, cobbles (C horizon)

0 -	30 cm.:	Test S90W60 dark yellow brown fine sandy loam, coarse sand, gravel, cobbles,
30 -	40 cm.:	wood (Fill 1) brown fine sandy loam gravel, cobbles, wood (Fill 2)
40 -	50 cm.:	very dark brown sandy loam, organic matter (Fill 3)
0 -	10/35 cm.:	<u>Tests S90W75, S120W75</u> brown sandy loam, gravel, rocks (possible red-deposited A and B horizons)
10/35 -	45/47 cm.:	red sand (C horizon)
0 -	31 cm.:	<u>Test S90W120</u> brown sandy loam, red brown sand (Fill 1 - re-deposited B and C horizon soils)
0 -	17/18 cm.:	<u>Tests S90W135, S105W150</u> dark brown silt loam, pebbles, charred wood (Fill 1 - re-deposited soils)
17/18 -	23/35 cm.:	dark red sand (C horizon)
0 -	72 cm.:	Test S105W75 mottled dark yellow brown/red fine sandy loam, sand, dense gravel, cobbles (Fill 1)
72 -	93 cm.:	mottled dark yellow brown/yellow brown sandy silt, loamy sand (Fill 2)
73 -	100 cm.:	red fine sand (C horizon)
	cultura	al material: plastic fragments (Fill 1)
0 - 10 -	10 cm.: 38/40 cm.:	Tests S105W105, S135W105 strong brown sandy loam (partial B2 horizon) strong brown/yellow brown sandy loam, dense gravel (possible C horizon)
0 -	53/55 cm.:	<u>Tests S105W60, S120W60</u> mottled dark yellow brown/yellow brown/strong brown compact fine sandy loam, gravel, cobbles (Fill 1)
cultural material: S105W60 - asphalt fragments (Fill 1)		
0 - 10 -	10 cm.: 43 cm.:	<u>Test S105W90</u> brown silt loam (B1 horizon) strong brown/yellow brown compact silt loam, gravel (probable B2 horizon)
0 - 12 - 56 - 63 -	12 cm.: 56 cm.: 63 cm.: 79 cm.:	<u>Test S120W135</u> strong brown silt loam, small stones (Fill 1) strong brown compact silt loam, small stones (Fill 2) mottled dark yellow brown silt loam, organic matter (possible Fill 3) strong brown compact silt loam (possible buried B2 horizon or Fill 4)

cultural material: plastic fragments (Fill 2)

Test S135W90

0 -	33 cm.:	strong brown silt loam, gravel, cobbles (B1 horizon)

- 33 46 cm.: dark yellow brown silt loam, coarse sand, gravel (B2 horizon)
 - 46 70 cm.: layered red brown sand, gravel, sandy silt (C horizon)

Test S135W75

- 0 45 cm.: mottled strong brown/yellow/red compact silt loam, cobbles (Fill 1 - re-deposited soils)
- 45 66 cm.: light red silt and sand (probable C horizon)

<u>Tests S30W120, S150W102.5, S150W120, S150W135, S150W150, S162.5W165, S165W90, S165W101.5, S165W117, S165W180</u>

0 -	11/20 cm.:	dark brown/brown fine sandy loam/silt loam, gravel (Ap horizon)
11/20 -	16/66 cm.:	light brown/yellow brown fine sandy loam, gravel, cobbles (B1 horizon)
16/66 -	28/82 cm.:	light red brown fine/coarse sand, gravel, cobbles (C horizon)

cultural material: S150W150 - 1 solarized glass fragment, bailing rope fragment (B1 horizon)

Tests S137.5W131.5, S140W150

0 -	20/22 cm.:	dark brown fine sandy loam, gravel (Fill 1)
20/22 -	50/55 cm.:	dark yellow brown fine sandy loam, gravel, coal (Fill 2)
50/55 -	68/87 cm.:	yellow brown/light yellow brown compact fine sandy loam, gravel (B1 horizon)
68/87 -	79/95 cm.:	light red brown fine sand, gravel (C horizon)
		<u>Test S147.5W171</u>

0 -	20 cm.:	brown sandy loam, pebbles (Ap horizon)
20 -	29 cm.:	light brown compact sandy loam, coarse sand, gravel (B1 horizon)
29 -	60 cm.:	light brown/yellow brown compact sandy loam, terminating in light
		red brown sand (probable B2 horizon on C horizon)

cultural material: 1 window glass fragment, 1 bottle glass fragment (Ap horizon) 1 window glass fragment, 2 bottle glass fragments (probable B2 horizon)

V. ASSESSMENT OF VISUAL EFFECTS

Available guidelines for SHPO assessment of visual effects on cultural resources appear in Section 16-50p(a)(4)(C) of PUESA, and in regulations of the federal Advisory Council on Historic Preservation (36CFR 800.5). Both sets of guidelines apply to properties listed, or eligible for listing, on the National Register of Historic Places. Based on Federal Power Commission guidelines to which it refers, PUESA mandates avoidance of National Register properties where possible, or, if avoidance is not possible, minimization of transmission structure visibility or effects on the character of National Register property environ. Advisory Council on Historic Preservation (ACHP) regulations, while not required in SHPO review of Projects subject to Connecticut Siting Council approval, provide *de facto* guidelines commonly used by SHPO. Criteria for findings of adverse effects on historic properties include change of the physical features within a property's setting which contribute to property significance, and introduction of visual elements which diminish the integrity of a property's significant features. Previous studies by Raber Associates of visual effects on historic properties (e.g., Raber 2007), including consultations with SHPO, indicated that these guidelines provide no established or objective criteria for determining when a visual effect is adverse, leaving identification of adverse effects to the judgment of the reviewer. In general, visual effects will be diminished if new structures are as low as possible relative to existing structure heights, and/or if new structures are located further from historic properties. Most previous visual effects evaluations in Connecticut have addressed cell towers and electric transmission facilities, structures far taller than the 8-foot-high solar panels proposed for this Project. For electric transmission structures, SHPO has previously concurred that that adverse visual effects were highly unlikely at distances exceeding 0.25 mile.

Historic resource surveys and listings of properties on the National Register of Historic Places indicate no properties listed, eligible, or potentially eligible for the National Register are located within approximately 1.5 miles of the Project area (Ransom and Andrews 1992). Based on the criteria noted above, there appear to be no potential adverse visual effects from proposed construction.

VI. CONCLUSIONS AND RECOMMENDATIONS

The proposed Norcap South Solar Array will have no effects on any cultural resources listed, eligible, or potentially eligible for the national or state registers of historic places. No further investigations, or protective measures to address indirect visual effects, are recommended.

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Figure 1. LOCATION OF NORCAP SOUTH PROJECT ON BROAD BROOK, CONN. U.S.G.S. 7.5-MINUTE QUADRANGLE



RABER ASSOCIATES – CULTURAL RESOURCE INVESTIGATIONS FOR NORCAP SOUTH SOLAR DEVELOPMENT



RABER ASSOCIATES – CULTURAL RESOURCE INVESTIGATIONS FOR NORCA



Figure 3. EARLY 2016 PROJECT AREA CONDITIONS base image: Google Maps 2016





Department of Economic and Community Development

State Historic Preservation Office

March 13, 2017

Dr. Michael S. Raber 81 Dayton Road PO Box 46 South Glastonbury, CT 06073

> Subject: Cultural Resources Investigations Norcap South Solar Development Wapping Road East Windsor, Connecticut

Dear Dr. Raber:

The State Historic Preservation Office (SHPO) has reviewed the Cultural Resources Investigations report prepared by Raber Associates (Raber) for the referenced project. SHPO understands that the proposed ground-mounted solar facility will consist of approximately 9.8 acres within an 11.2 acre parcel located along the western edge of Wapping Road. The background research and pedestrian survey identified evidence of substantial prior subsurface disturbances related to gravel mining in the western half of the project area. As a result, subsurface testing was completed only within the eastern half of the project parcel. During the survey, 75 shovel tests were excavated to examine areas of potentially intact soils. Subsurface testing confirmed the extent of soil disturbances in approximately half of the completed shovel tests. Despite the presence of intact soil horizons, no significant archeological deposits were identified. The investigation meets the minimum standards set forth in the *Environmental Review Primer for Connecticut's Archaeological Resources*. SHPO concurs with Raber that no additional archeological investigation of the project area is warranted.

A consideration of potential visual effects also was considered as part of the investigation. SHPO concurs with Raber that the proposed project is not likely to cause visual impacts to historic properties. Based on the information provided to our office, it is SHPO's opinion that <u>no historic properties will be affected</u> by the proposed Norcap South Solar Development.

This office appreciates the opportunity to review and comment upon this project. These comments are provided in accordance with Connecticut Environmental Policy Act. For additional information, please contact me at (860) 256-2764 or catherine.labadia@ct.gov.

Sincerely,

Catherine Labadia Deputy State Historic Preservation Officer

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