

## **1.0 Hazardous Materials, Pollution Prevention, and Solid Waste**

### **1.1 Introduction**

CHA completed an environmental screening of the Triangle Hills area to provide a preliminary evaluation of environmental conditions and to assess potential liability for the presence of contamination within the Triangle Hills area. The environmental screening consisted of the following tasks:

- Review of federal, tribal, state, and local regulatory records/databases according to minimum search distances established in ASTM E 1527-05, relative to the Triangle Hills Area and immediately neighboring areas.
- Review of records that describe the physical setting of the Triangle Hills Area including such references as USGS topographic maps, surficial and geologic maps, soil unit mapping, and wetland maps.
- Review of historic resources to determine obvious past uses of the Triangle Hills area and adjacent lands.
- A visual inspection of the exterior portions of the properties within the limits of the Triangle Hills Area. The inspection was conducted from the public thoroughfares of the Triangle Hills Area. It should be noted that private properties were not entered upon.
- CHA spoke with Town public offices and accessed publically available records to obtain information specific to each parcel. This information was reviewed for indications of potential environmental concerns.

The results of the data reviews and site inspection are summarized in the following sections.

### **1.2 Records Review**

#### **1.2.1 Regulatory Databases**

Environmental regulatory agency records were searched through the use of State, Federal, and Tribal databases accessed and summarized through the services of Environmental Data Resources, Inc. (EDR). A listing of the databases searched and their respective search distances are provided in the following table.

### Federal, Tribal, and State Regulatory Agency Databases Reviewed

<b>TABLE 1 – DATABASES REVIEWED</b>			
<b>Database Searched</b>	<b>Listed Properties within the Affected Area</b>	<b>Approximate Minimum Search Distance from limits of Affected Area</b>	<b>Listed Sites Within Search Distance</b>
1. National Priorities List (NPL or Federal Superfund Listing)	No	1.0 mile	0
2. NPL De-Listed Site List	No	1.0 mile	0
3. Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS)	No	0.5 mile	2
4. CERCLIS-No Further Remedial Action Planned (CERCLIS-NFRAP)	No	0.5 mile	1
5. Resource Conservation and Recovery Act (RCRA) CORRACTS facilities	No	1.0 mile	0
6. RCRA Treatment, Storage, and Disposal facilities	No	0.5 mile	0
7. RCRA registered small or large quantity generators of hazardous waste (CESQG/SQG/LQG)	No	0.25 mile	2
8. Federal IC/EC Registry	No	0.5 mile	0
9. State & Tribal Leaking Underground Storage Tanks (LUST)	No	0.5 mile	0
10. State & Tribal Registered Storage Tanks (UST/AST)	No	0.25 mile	3
11. State & Tribal Voluntary Cleanup Program (VCP)	No	0.5 mile	1
12. State & Tribal Hazardous Waste Sites	No	1.0 mile	2
13. State & Tribal Solid Waste Facilities	No	0.5 mile	0
14. State & Tribal IC/EC/AUL Sites	No	0.5 mile	0
15. State & Tribal Brownfields	No	0.5 mile	0
16. State Spills/Releases	<b>YES - 2</b>	0.5 mile	8

*1251 Christian Road* – On September 3, 1993, 1,2 Dichloroethane was detected in the residential water well located at 1251 Christian Road. The well had been sampled due to complaints of the residents as to odors in their new well. The contamination found in the residential well was attributed to migration of contamination from the upgradient former Guerrero Trucking/Colonial Texaco site. Filtration was recommended as the remedial action for the release. The case file was closed.

*1362 Christian Road* – An unreported amount of fuel oil was released at 1362 Christian Road on January 17, 1991 as the result of a tank overflow by the fuel supplier. Speedi-Dri was applied to the release and the release was contained and removed. The case file is closed.

*Surrounding/Neighboring Properties* - Several listed sites/facilities were identified within specified search distances of the Triangle Hills Area. These sites/incidents are not expected to impact the subject site based on cross gradient or down gradient locations relative to the Triangle Hills Area, restriction of releases to lands of the spill sites, location at a lower elevation than the

Triangle Hills area, and/or appropriate regulatory closure of incidents/facilities, with the exception of the following:

- R.J. Guerrero, Inc., Kissewaug Road – located 0.48 miles north/northwest of the Triangle Hills Area. The facility is a former truck washing facility that discharged oil and grease to the ground. Contamination found in the residential well at 1251 Christian Road was attributed to this facility.
- Colonial Texaco, 115 Kissewaug Road – located 0.5 miles north/northwest of the Triangle Hills Area. A Property Transfer Program investigation indicated that a release of hazardous waste or a hazardous substance had occurred at the establishment. Remediation of the facility to meet remediation standard regulations was verified by a Licensed Environmental Professional (LEP) on 12/15/92.

### **1.2.2 Physical Setting Records**

The USGS 7.5 minute topographic map, Southbury, CT Quadrangle, indicates that the elevation of the Triangle Hills Area ranges from approximately 625 to 640 feet above mean sea level (AMSL). The topographic profile of the Triangle Hills Area slopes downward generally to the west. There were no unusual topographical features noted at the time of the site reconnaissance.

According to the USDA Soil Survey for New Haven County, CT, soils of the Triangle Hills Area consist of Paxton and Woodbridge fine sandy loams. Both of these soil types are moderate to well drained soils of moderately fine to fine textures.

Review of the *Surficial Geologic Map of Connecticut* (1992) indicates that the overburden on the site consists of thin till. Thin till is the classification given to areas where till is generally less than 10'-15' thick and includes areas of bedrock outcrop where till is absent. These soils are loose to moderate compact, generally sandy, commonly stony.

According to the *Geologic Map of Connecticut* (1985), the bedrock beneath the subject site consists of Waterbury gneiss.

Regional groundwater flow direction in the area of the Triangle Hills Area is inferred from topographic mapping of the area to flow to the west/southwest.

### **1.2.3 Historic Resources**

Historical usage of the Triangle Hills Area was evaluated through the review of standard historical references such as Sanborn Maps, aerial photographs, city directories, and local governmental records. Information obtained from the review of such references is summarized below, with the exception of the findings of the review of local governmental records which are summarized in Section 1.5.

*Sanborn Maps* – The Sanborn Map Report provided by EDR indicated that there is no Sanborn mapping for the Triangle Hills Area.

*Aerial Photographs* – The Aerial Photo Decade Package provided by EDR included aerials photographs dated 1941, 1955, 1963, 1975, 1980, 1991, and 2006.

The Triangle Hills Area appeared as undeveloped fields in the 1941, 1955, and 1963 aerial photographs. Heavily wooded areas were located to the north and east, agricultural fields were located to the south, while Christian Road and a limited number of residential structures were located to the west of the Triangle Hills Area.

Triangle Boulevard and Hill Parkway were evident with residential housing on both sides of the roadways in the 1975, 1980, 1991, and 2006 aerial photographs. Development within the Triangle Hills Area appeared the same as noted at the time of the November 2008 site inspection. The Waterbury-Oxford Airport is first evident to the south of the Triangle Hills Area in the 1975 aerial photograph. Remaining surrounding areas continued to consist of heavily wooded areas to the north and east with residences and wooded area to the west of the Triangle Hills Area.

There was no evidence of manufacturing plants, solid waste landfills, junk yards, or rail yards within or immediately adjacent to the Triangle Hills Area.

*City Directories* – The Middlebury public library indicated that there were no city directories available for the Triangle Hills Area.

### **1.3 Site Reconnaissance**

A street-side reconnaissance of the exterior portions of each parcel within the Triangle Hills Area was conducted on November 25, 2008. Each parcel was observed to the extent possible from Christian Street, Hill Parkway, and Triangle Boulevard. It should be noted that private property was not entered upon during the site inspections.

All of the parcels observed were improved with single-family wood frame residential structures, with the exception of parcel 7-02-76A which was a vacant wooded and overgrown lot on the southern side of Triangle Boulevard. There was no evidence observed that properties were being used for purposes other than residential purposes, with the exception of the rear portion of 362 Christian Street, Oxford, which was being used by the Southbury Tree Service for the storing and cutting of logs.

Parcel 7-02-36 abuts two of the parcels on the western side of Christian Road and is improved with Town of Middlebury sewer pump station #6. An emergency generator is located at the pump station. The generator unit has a self-contained fuel reservoir. There was no evidence of leakage or release noted in the immediate vicinity of the generator.

Town assessment records indicated that several of the homes are heated using fuel oil-fired systems. Fill and vent pipes were evident in several of the exterior basement and/or foundation walls indicating that fuel oil tanks are most likely located in the basement or lower levels of those homes. However, such piping was not outwardly obvious on the fronts or sides observable from the street for all of the structures listed as being heated by fuel oil.

There is no public water supply in the Triangle Hills Area. Private water wells were evident in the front yards of the majority of the homes. Public sewer is available to the Triangle Hills Area with manholes observed down the center of Hill Parkway. Storm drainage catch basins were located along Hill Parkway and Triangle Boulevard. Overhead electric lines provide power to and within the Triangle Hills Area.

#### 1.4 Interviews and Public Record Reviews

Zoning maps for the Town of Middlebury and the Town of Oxford were viewed on the respective Town websites. The majority of the Triangle Hills Area is located within an area of the Town of Middlebury zoned as residential property. The one parcel (17-22-2) located within the Town of Oxford is located within an area zoned as Industrial District property.

The Town-Wide Sewer Map for the Town of Oxford was reviewed on the Town's website. Mapping indicated that an eight-inch existing gravity feed sewer line runs along Christian Street north to the Town line and services the property located at 362 Christian Street.

The Town of Middlebury Sewer Department indicated that Triangle Boulevard, Hill Parkway, and the portions of Christian Road within the Triangle Hills Area utilize the public sewer service administered by the Town. Pump Station #6 located directly across from the western end of Hill Parkway services the Triangle Hills Area and will also be utilized for services to be provided to a new housing development being built to the north of the Triangle Hills Area. Sewage and septic wastes are treated at a secondary treatment facility located in the neighboring Town of Naugatuck.

Town Assessment records for the Town of Middlebury were reviewed through the Town's website. The Town of Oxford assessment records were reviewed in person for the one parcel located within the Town of Oxford. A summary of the assessment record information for each parcel within the Triangle Hills Area is provided in the following table.

<b>TABLE 2 – ASSESSMENT RECORD INFORMATION</b>				
<b>Tax Map # Address</b>	<b>Year Built</b>	<b>Heating Fuel Type</b>	<b>Lot Size (acres)</b>	<b>Description</b>
7-02-34 1363 Christian Rd	1965	Oil	0.59	Single-family, shed, in-ground concrete pool
7-02-35 1351 Christian Rd	1986	Oil	0.46	Single-family, no outbuildings
7-02-36 Christian Rd	NA	NA	0.46	Sewer pump station
7-02-38A 1251 Christian Rd	1993	Oil	0.92	Single-family, in-ground concrete pool
7-02-56 1264 Christian Rd	1988	Oil	3.9	Single-family, shed
7-02-56A 1240 Christian Rd	1986	Oil	0.97	Single-family, no outbuildings

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<b>Tax Map # Address</b>	<b>Year Built</b>	<b>Heating Fuel Type</b>	<b>Lot Size (acres)</b>	<b>Description</b>
7-02-56B 1254 Christian Rd	1986	Oil	1.0	Single-family, no outbuildings
7-02-56C 1276 Christian Rd	1986	Oil	1.21	Single-family, no outbuildings
7-02-57 1290 Christian Rd	1965	Oil	0.66	Single-family, no outbuildings
7-02-58 1304 Christian Rd	1966	Oil	0.53	Single-family, no outbuildings
7-02-59 1318 Christian Rd	1965	Oil	0.51	Single-family, no outbuildings
7-02-60 1332 Christian Rd	1900	Oil	0.47	Single-family, no outbuildings
7-02-61 24 Hill Parkway	1966	Oil	0.47	Single-family, shed
7-02-62 321 Triangle Blvd	1986	Oil	0.51	Single-family, no outbuildings
7-02-63 311 Triangle Blvd	1966	Electric	1.0	Single-family, shed
7-02-64 301 Triangle Blvd	1966	Electric	1.06	Single-family, no outbuildings
7-02-65 289 Triangle Blvd	1976	Electric	0.73	Single-family, shed
7-02-66 279 Triangle Blvd	1978	Oil	0.72	Single-family, shed
7-02-67 269 Triangle Blvd	1967	Electric	0.70	Single-family, patio, 2 sheds, in-ground concrete pool
7-02-68 253 Triangle Blvd	1967	Electric	0.86	Single-family, no outbuildings
7-02-69 237 Triangle Blvd	1986	Oil	0.77	Single-family, no outbuildings
7-02-70 221 Triangle Blvd	1968	Electric	0.67	Single-family, no outbuildings
7-02-71 209 Triangle Blvd	1986	Oil	0.64	Single-family, no outbuildings
7-02-72 187 Triangle Blvd	1965	Electric	1.57	Single-family, no outbuildings
7-02-73 177 Triangle Blvd	1967	Electric	1.99	Single-family, no outbuildings
7-02-74 167 Triangle Blvd	1966	Electric	0.87	Single-family, shed
7-02-75 155 Triangle Blvd	1966	Electric	0.51	Single-family, no outbuildings

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<b>Tax Map # Address</b>	<b>Year Built</b>	<b>Heating Fuel Type</b>	<b>Lot Size (acres)</b>	<b>Description</b>
7-02-76 145 Triangle Blvd	1966	Electric	0.47	Single-family, no outbuildings
7-02-76A Triangle Blvd	NA	NA	0.10	Vacant land
7-02-77 129 Triangle Blvd	1971	Electric	0.47	Single-family, no outbuildings
7-02-78 111 Triangle Blvd	1966	Oil	0.52	Single-family, shed
7-02-79 101 Triangle Blvd	1971	Electric	0.52	Single-family, no outbuildings
7-02-80 87 Triangle Blvd	1971	Electric	0.67	Single-family, no outbuildings
7-02-81 75 Triangle Blvd	1966	Oil	1.11	Single-family, no outbuildings
7-02-82 63 Triangle Blvd	1966	Oil	1.06	Single-family, shed
7-02-83 51 Triangle Blvd	1966	Oil	0.56	Single-family, outbuildings
7-02-84 43 Triangle Blvd	1974	Electric	0.46	Single-family, no outbuildings
7-02-85 31 Triangle Blvd	1967	Oil	0.46	Single-family, shed
7-02-86 25 Hill Parkway	1976	Electric	0.92	Single-family, shed
7-02-87 7 Hill Parkway	1966	Oil	0.46	Single-family, shed
7-02-88 1362 Christian Rd	1966	Oil	0.47	Single-family, shed
7-02-89 1378 Christian Rd	1987	Oil	0.47	Single-family, no outbuildings
7-02-90 1396 Christian Rd	1967	Oil	0.53	Single-family, no outbuildings
7-02-91 1408 Christian Rd	1966	Oil	0.52	Single-family, shed
7-02-92 1418 Christian Rd	1965	Oil	0.60	Single-family, no outbuildings
7-02-93 1432 Christian Rd	1966	Oil	0.55	Single-family, no outbuildings
7-02-94 1444 Christian Rd	1966	Electric	0.69	Single-family, no outbuildings
7-02-101 45 Hill Parkway	1966	Oil	0.51	Single-family, shed

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7-02-101 24 Triangle Blvd	1984	Oil	0.81	Single-family, shed
7-02-103 48 Triangle Blvd	1983	Electric	0.88	Single-family, no outbuildings
7-02-104 90 Triangle Blvd	1984	Oil	0.98	Single-family, no outbuildings
7-02-105 102 Triangle Blvd	1966	Electric	0.60	Single-family, no outbuildings
7-02-106 112 Triangle Blvd	1974	Electric	0.49	Single-family, shed, above-ground pool
7-02-107 117 Hill Parkway	1968	Oil	0.36	Single-family, metal shed
7-02-108 95 Hill Parkway	1973	Oil	0.38	Single-family, shed
7-02-109 79 Hill Parkway	1966	Oil	0.82	Single-family, shed
7-02-110 67 Hill Parkway	1966	Oil	0.83	Single-family, no outbuildings
7-02-111 332 Triangle Blvd	1966	Electric	0.48	Single-family, no outbuildings
7-02-112 44 Hill Parkway	1973	Electric	0.50	Single-family, no outbuildings
7-02-113 56 Hill Parkway	1967	Electric	0.46	Single-family, no outbuildings
7-02-114 68 Hill Parkway	1972	Oil	0.46	Single-family, no outbuildings
7-02-115 80 Hill Parkway	1966	Electric	0.46	Single-family, no outbuildings
7-02-116 92 Hill Parkway	1984	Oil	0.46	Single-family, no outbuildings
7-02-117 106 Hill Parkway	1966	Unknown	0.51	Single-family, no outbuildings
7-02-118 120 Hill Parkway	1974	Electric	0.68	Single-family, shed
7-02-119 172 Triangle Blvd	1968	Oil	0.50	Single-family, shed
7-02-120 212 Triangle Blvd	1975	Electric	0.69	Single-family, aboveground pool
7-02-121 224 Triangle Blvd	1975	Electric	0.46	Single-family, aboveground pool
7-02-122 234 Triangle Blvd	1969	Electric	0.46	Single-family, shed

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<b>Tax Map # Address</b>	<b>Year Built</b>	<b>Heating Fuel Type</b>	<b>Lot Size (acres)</b>	<b>Description</b>
7-02-123 244 Triangle Blvd	1974	Electric	0.46	Single-family, garage
7-02-124 254 Triangle Blvd	1966	Electric	0.46	Single-family, no outbuildings
7-02-125 266 Triangle Blvd	1975	Electric	0.69	Single-family, no outbuildings
7-02-126 300 Triangle Blvd	1974	Oil	0.68	Single-family, no outbuildings
17-22-2 362 Christian St		Oil	2.6	Single-family, wood shingle siding, poured concrete foundation, asphalt roofing, rear of lot used for log storage and cutting by the Southbury Tree Service.

### **1.5 Conclusions and Recommendations**

Based on review of regulatory databases, physical, and historical references, and the findings of the site reconnaissance the potential for adverse environmental conditions to be associated with the Triangle Hills Area is considered to be low, with the following condition applied:

- The location of fuel oil tanks should be determined for those homes indicated as heated using fuel oil-fired systems. Should underground storage tanks be present, the risk potential for those parcels will increase to a moderate risk to potentially encounter contamination and further investigation would be recommended for any such parcels prior to any demolition activities.
- Potentially contaminated groundwater formerly impacted from a nearby site, may be encountered near the northern limits of the Triangle Hills Area on the property located at 1251 Christian Road. Groundwater should be sampled and analyzed for volatile organic compounds should it be expected to be encountered during any construction or demolition activities at that parcel.
- Based on the age of the structures (built in the 1970s), asbestos-containing building materials and lead paint may be associated with the structures within the Triangle Hills Area. An Asbestos-Containing Material and Lead-Paint Pre-Demolition Survey is required to be completed prior to any demolition or renovation activities involving the structures and infrastructure (sewer lines) located within the Triangle Hills Area. The survey should be performed by appropriately certified personnel in accordance with applicable State and Federal regulations.