



# FACT SHEET

## State Superfund Program

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**Site Name:** Castle Cleaners  
**NYSDEC Site No.** 808034  
**Site Address:** 221 Hoffman Street  
Elmira, NY 14905

Have questions?  
See  
"Who to Contact"  
Below

### Remedy Proposed for State Superfund Site; Public Comment Period and Public Meeting Announced

**Public Meeting, Thursday, 06/09/2016 at 7:00 PM**  
**Steele Memorial Library, 101 East Church Street, Elmira, NY 14901**  
The New York State Department of Environmental Conservation (NYSDEC) invites you to a public meeting to discuss the remedy proposed for this site. You are encouraged to provide comments at the meeting, and during the comment period described in this fact sheet.

The public is invited to comment on a remedy proposed by the NYSDEC related to the Castle Cleaners site (site) located at 221 Hoffman Street, Elmira, Chemung County. Please see the map below for the site location.

Documents related to the investigation and cleanup of this site can be found at the location identified below under "Where to Find Information." The estimated cost to implement the remedy is \$2,122,000.

Additional site details, including environmental and health assessment summaries, are available on NYSDEC's website at:

<http://www.dec.ny.gov/cfmx/extapps/derexternal/haz/details.cfm?pageid=3&progno=808034>

#### How to Comment

NYSDEC is accepting written comments about the proposed plan, from **May 13, 2016** through **June 21, 2016**. The proposed plan is available for review at the location identified below under "Where to Find Information." Please submit comments to the NYSDEC project manager listed under Project-Related Questions in the "Who to Contact" area below.

The site is listed as a Class 2 site in the State Registry of Inactive Hazardous Waste Disposal Sites (list of State Superfund sites). A Class 2 site represents a significant threat to public health or the environment; action is required.

## Proposed Remedial Action Plan

To be selected, the remedy must be protective of public health and the environment, be cost-effective, comply with other statutory requirements, and implement permanent solutions, to the maximum extent practicable. The remedy must also attain the remedial action objectives identified for the site, presented in Section 6.5. The Feasibility Study (FS) identified, screened and evaluated potential remedial alternatives for the site. In addition to those alternatives discussed by the PRP in the FS, DEC generated two additional options, in consultation with the DOH and City of Elmira Water Board, to address the City's impacted municipal water supply well by other methods.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit B and more fully discussed in the FS. Cost information is presented in the form of present worth, which represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance or monitoring would cease after 30 years if remediation goals are not achieved, nor does it assume that remediation will take 30 years to complete. A summary of the Remedial Alternatives Costs is included as Exhibit C.

The basis for the Department's proposed remedy is set forth at Exhibit D.

The proposed remedy is referred to as Municipal Wellhead Treatment with soil vapor extraction (SVE) and Bio-amendment (Alternative Four). The elements of the proposed remedy address the site-related contaminants of concern by implementing the following technologies. Municipal wellhead treatment, or the restoration of the Elmira Water Board's water supply capabilities, by one of three methods, all of which will be designed to supply water that meets applicable standards. The three methods to be evaluated include: wellhead air-stripping and carbon adsorption as necessary; the siting of new wells; or the installation of a water transmission line to connect existing wells to the central processing facility. SVE will address contaminants in soils beneath the Castle Cleaners structure. SVE will further abate the potential for impacted soil vapors from entering nearby structures. Lastly, bio-amendment will be applied to address the documented groundwater plume down-gradient of the Castle Cleaners site by enhancing the naturally occurring microorganisms' degradation of site contaminants.

### Additional Details

An Interim Remedial Measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision. The following IRM has been completed at this site based on conditions observed during the remedial investigation.

Sub-slab depressurization systems (SSDS) were installed by DEC contractors at four (4) off-site properties in the fall 2012 based on Remedial Investigation data gathering and the results of the Soil Vapor Intrusion investigation. The mitigated residential and commercial structures overlie the identified PCE plume down-gradient of the subject site. The PRP has also installed an SSDS in the adjacent tenant space of Castle Cleaners building.

### Summary of the Investigation

This section summarizes the assessment of existing and potential future environmental impacts

presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources impacted, the possible exposure pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary.

#### Nature and Extent of Contamination:

**Soils:** Three (3) of the five (5) borings that evaluated the fill material used to backfill the former basement level of the Site building. The concentrations of volatile compounds, semi-volatile compounds and PCBs reported in the soil samples collected from the interior borings do not exceed the Restricted SCOs for Commercial Use, nor did they exceed SCOs for the Protection of Groundwater or Unrestricted use. Four (4) borings were evaluated the exterior of the building on the west side of the on-site structure. Two (2) unsaturated soil samples taken from these borings exceeded the Protection of Groundwater SCO of 1.3 ppm for PCE but were below the Commercial soil cleanup objectives of 150 ppm. The observed PCE detections in unsaturated soils were 1.5 ppm at one location from a depth of eight (8) to 10 feet below ground surface (bgs) and 1.9 ppm from a second location at a depth of 10 to 12 feet bgs. Concentration gradients do not suggest an increasing or decreasing trend with depth.

**Groundwater:** PCE has been detected in groundwater samples collected from 10 of the 16 sample locations at and surrounding the site; concentrations detected exceeded the New York State groundwater standard of five (5) parts per billion (ppb) for PCE at each of the 10 locations where detections occurred. PCE was detected at the highest concentrations in groundwater samples collected from locations adjacent to the rear entrance (west) of the site building (3,800 ppb) and immediately downgradient (south) of the site building (830 ppb). Concentrations and locations of PCE detected in groundwater indicate that PCE was released at the site (no PCE detections in upgradient samples) and analytical results indicate that contamination is migrating off-site in groundwater at concentrations above the NYS standard for PCE and for several degradation products. Low concentrations of PCE have been detected in the City of Elmira's Foster Island municipal water supply wells No. 41 and well No. 42, with well No. 42 exceeding the 10 NYCRR Part 5 Maximum Contaminant Level for drinking water and the Class GA ambient water quality standards and guidance value for PCE of 5 ppb. As a result, this well was taken offline in June of 2003 and is no longer used by the City of Elmira to supply drinking water. After the well was taken out of service, a site characterization was performed to determine whether the site meets the state's definition of a hazardous waste site by confirming or denying the presence of hazardous waste and determining whether or not the site poses a significant threat to public health or the environment. This was followed by a soil vapor intrusion evaluation and subsequent vapor mitigation to address this potential exposure pathway. A remedial investigation and feasibility study was then performed to gather detailed site information to work toward an effective remedial action, which culminated in the proposed plan being made available for public review now. Well No. 41 remains in service. Both wells are located approximately 1,600 feet south of the site on Foster Island. Groundwater elevation measurements collected at the site indicate that groundwater flow is generally to the south toward the river and the municipal wells on Foster Island.

**Soil Vapor and Indoor Air:** PCE and TCE were detected in the indoor air on-site at levels above their respective air guidelines and actions were recommended to reduce exposure. A SSDS was installed in the tenant space of the Castle Cleaners building based on this recommendation. PCE was also detected in an exterior soil gas sample, adjacent to a residential building down gradient

of the site, at a concentration of 2,321  $\mu\text{g}/\text{m}^3$ ; trichloroethene (TCE) was also detected in the same soil gas sample at a concentration of 21.9  $\mu\text{g}/\text{m}^3$ . Soil vapor intrusion sampling was performed at 16 off-site structures. The results indicated; actions to address exposures were warranted at eight (8) structures – four structures were mitigated by the DEC, one was mitigated by the PRP and three remain incomplete due to lack of response from property owners despite repeated attempts at contact, additional sampling at three (3) structures – has been or will be performed in subsequent heating seasons, and no additional actions are required at the remaining five (5) structures sampled. Additional assessment of structures in the area of groundwater contamination is proposed as part of the remedy.

#### Special Resources Impacted or Threatened

City of Elmira Public Water Supply Well No. 42 was taken off-line in June 2003 due to PCE concentrations above applicable standards. Well No. 41 also has PCE detections; however, concentrations are below applicable standards and this well remains in use.

#### Next Steps

NYSDEC will consider public comments as it finalizes the remedy for the site. The selected remedy will be described in a document referred to as the Record of Decision, which will explain why the remedy was selected and respond to public comments. A detailed design of the selected remedy will then be prepared, and the cleanup will be performed.

NYSDEC will keep the public informed throughout the remedy design and cleanup of the site.

#### Background

##### Location:

The Castle Cleaners site is located at 221 Hoffman Street, in the City of Elmira, Chemung County. The site is on the west side of Hoffman Street, just south of West Church Street and across from a petroleum filling station. Historically, the site address appears as 219-225 Hoffman Street but was changed to 221 Hoffman Street as part of a re-address campaign performed for emergency response (911) planning.

##### Site Features:

The Castle Cleaners site property is a flat commercial 1.0 acre lot containing the dry cleaning structure and a small paved area on the west (back) side. There is a one-story masonry and metal-framed building on the parcel which contains two commercial spaces; the conjoined retail or tenant space is located on the south side with the active dry cleaner on the north side. The site is bordered by commercial properties to the north and south with common masonry walls shared by the two adjacent buildings. There is a paved parking area to the west of the site with residential properties further west. There is a multi-unit apartment building and a professional medical office north of the site across West Church Street. A convenience store and fuel dispensing station, and, a funeral home are located east of the site across Hoffman Street.

##### Current Zoning and Land Use:

The site is currently zoned for Commercial use and is active.

##### Past Use of Site:

A commercial building has occupied the site since at least 1944. The location has been an active dry cleaner since the mid 1950's, with Castle Cleaners first appearing in the Elmira City directories at the site in 1958. The site owner reported that the building caught fire in the late 1950's, at which time the dry cleaning machinery fell through the floor of the building into the basement. The site was also flooded during the Chemung River flood events of 1972 after which

the basement was filled, with a concrete slab poured at grade. The Elmira Department of Public Services reports that the water main along Hoffman Road was installed in approximately 1896 and the sewer line was installed in 1897 (18-inch vitrified clay pipe). It is therefore assumed that Castle Cleaners has always been serviced by public water and sewer. The site remains an active drycleaner today. As described in the Site Characterization report, tetrachloroethene (PCE) is present in soils and groundwater at and down-gradient of the site. The presence of this contaminant is believed to be due to the fire in the structure and/or past housekeeping and spent solvent disposal practices.

**Site Geology and Hydrogeology:**

The site area is generally underlain by three primary geologic units. They consist of a silty sand and gravel underlain by lacustrine sands, silt and clay. Below the lacustrine deposit, a dense clayey silt, sand and gravel glacial till was encountered. The water table resides in the silty sand and gravel unit at depths ranging between eight (8) and 16 feet. Shallow groundwater beneath the study area moves southward, discharging into the Chemung River. Based on regional geologic mapping, bedrock is expected to consist of shale and siltstones associated with the Upper Devonian West Falls Group. The City of Elmira's Foster Island water supply wells (Nos. 40, 41 and 42) are located on Foster Island approximately 1,600 feet south of Castle Cleaners, on the bank of the Chemung River.

A site location map is attached as Figure 1.

**State Superfund Program:** New York's State Superfund Program (SSF) identifies and characterizes suspected inactive hazardous waste disposal sites. Sites that pose a significant threat to public health and/or the environment go through a process of investigation, evaluation, cleanup and monitoring.

NYSDEC attempts to identify parties responsible for site contamination and require cleanup before committing State funds.

For more information about the SSF, visit: <http://www.dec.ny.gov/chemical/8439.html>

**FOR MORE INFORMATION**

**Where to Find Information**

Project documents are available at the following location(s) to help the public stay informed.

Chemung County Library District  
Steele Memorial Library  
101 East Church Street  
Elmira, NY 14901  
(607) 733-9175

The proposed plan available at the following link if you scroll down to Chemung County:

<http://www.dec.ny.gov/chemical/37556.html>

Project-Related  
Questions

Benjamin Rung  
Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway, 12<sup>th</sup> Floor  
Albany, NY 12233-7017  
(518) 402-9813  
benjamin.rung@dec.ny.gov

Site-Related Health Questions

Melissa Doroski  
New York State Department of Health  
Empire State Plaza  
Corning Tower - Room 1619  
Albany, NY 12237  
(518) 402-7860  
beei@health.ny.gov

**We encourage you to share this fact sheet with neighbors and tenants, and/or post this fact sheet in a prominent area of your building for others to see.**

**Receive Site Fact Sheets by Email**

Have site information such as this fact sheet sent right to your email inbox. NYSDEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page:  
<http://www.dec.ny.gov/chemical/61092.html>. It's quick, it's free, and it will help keep you better informed.



As a listserv member, you will periodically receive site-related information/announcements for all contaminated sites in the county, or counties, you select.

Note: Please disregard if you already have signed up and received this fact sheet electronically.



**CASTLE CLEANERS**  
Site No. 808034  
Chemung County  
City of Elmira

