Pappas Dry Cleaning
Operable Unit Number 02: Off-Site Groundwater
State Superfund Project
Dansville, Livingston County
Site No. 826018
March 2013

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation
DECLARATION STATEMENT - RECORD OF DECISION

Pappas Dry Cleaning
Operable Unit Number: 02
State Superfund Project
Dansville, Livingston County
Site No. 826018
March 2013

Statement of Purpose and Basis

This document presents the remedy for Operable Unit Number: 02: Off-Site Groundwater of the Pappas Dry Cleaning site, a Class 2 inactive hazardous waste disposal site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for Operable Unit Number: 02 of the Pappas Dry Cleaning site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRM(s) undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the remedy for the site.

The IRM(s) conducted at the site attained the remediation objectives identified for this site in Section 6.5 for the protection of public health and the environment.
New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 29, 2013

Date

Robert W. Schick, P.E., Director
Division of Environmental Remediation
SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of hazardous wastes at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRM), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRMs undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the remedy selected by this Record of Decision (ROD). A No Further Action remedy may include site management, which will include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This ROD identifies the IRM(s) conducted and discusses the basis for No Further Action.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made
available for review by the public at the following document repository:

Dansville Public Library  
200 Main Street  
Dansville, NY 14437  
Phone: (585) 335-6720

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the feasibility study (FS) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site is located at 44, 46 Ossian Street in the Village of Dansville, Livingston County, New York.

Site Features: The site is situated on a .44 acre lot in a primarily residential area with some commercial uses along Ossian Street. The property currently is a vacant lot, the building was demolished to implement the on-site remedy. A commercial property located northwest of the Pappas' property is the location of the New York State Electric and Gas (NYSEG) – Dansville Former Manufactured Gas Plant (MGP) Site, Site No. 826012. The MGP Site is currently being addressed under a consent order with the Department as a separate and downgradient source of soil and groundwater contamination.

Current Zoning/Use(s): The site is currently inactive and is zoned for commercial use.

Past Use of the Site: This site operated as a dry cleaning business which serviced various commercial and residential customers from 1952 until 2002 when operations ceased. PCE was disposed of at the rear of the original site building.

Site Geology and Hydrogeology: Site geology consists of a mixture of sandy-silt, gravel,
cobbles, rock fragments and other debris to thirteen feet below ground surface. At eleven to thirteen feet a confining clay unit is encountered beneath the site. This clay unit limits the potential for downward migration of the contamination from the soil and groundwater. Shallow groundwater is present between nine and thirteen feet below the ground surface. Groundwater flow is to the northwest towards the MGP site.

Operable Units: The site was divided into two operable units. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. Operable Unit 1 (OU1) is the location of the former dry cleaner and addressed on-site soil and groundwater. Operable Unit 2 (OU2) addresses the off-site groundwater plume.

Operable Unit (OU) Number 02 is the subject of this document.

A Record of Decision was issued previously for OU 01.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to residential use (which allows for restricted-residential use, commercial use and industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Pappas Bros., Inc.

Pappas Bros. Inc. is no longer a viable PRP and work is therefore being conducted under the State Superfund Program.
SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- indoor air
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCG in the footnotes. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants
of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified for this Operable Unit at this site is/are:

TETRACHLOROETHYLENE (PCE)

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

6.2: Interim Remedial Measures

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(s) has/have been completed at this site based on conditions observed during the RI.

IRM - Sub Slab Depressurization System (SSD) Installation

The Department performed Soil Vapor Intrusion (SVI) sampling in the off-site, neighborhood within the groundwater contamination plume starting at Morse Street and extending to the northwest. Nineteen property owners agreed to have their homes sampled of the 35 to which sampling was offered. Based on the sampling results, no further action was recommended for eleven residential structures, continued monitoring was recommended for one residential structure and sub-slab depressurization (SSD) systems were installed at seven residential structures.

6.3: Summary of Environmental Assessment

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 and 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 for OU 02.

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.

The site is located in a residential/commercial area in the Village of Dansville. There are no fish or wildlife receptors present. Tetrachloroethylene (PCE) and its daughter products from the
former dry cleaner have impacted the groundwater in the unconsolidated geologic unit
downgradient of the site.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related
contaminants. Chemicals can enter the body through three major pathways (breathing, touching
or swallowing). This is referred to as exposure.

People are not drinking contaminated groundwater associated with the site because the area is
served by a public water supply that obtains its water from a different source not affected by this
contamination. Volatile organic compounds in the groundwater may move into the soil vapor
(air spaces within the soil), which in turn may move into overlying buildings and affect the
indoor air quality. This process, which is similar to the movement of radon gas from the
subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Soil vapor
intrusion sampling has identified areas of concern and actions have been taken to address
exposures.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection
process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to
pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or
mitigate all significant threats to public health and the environment presented by the
contamination identified at the site through the proper application of scientific and engineering
principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection
- Prevent ingestion of groundwater with contaminant levels exceeding drinking
  water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

Soil Vapor

RAOs for Public Health Protection
- Mitigate impacts to public health resulting from existing, or the potential for,
  soil vapor intrusion into buildings at a site.

SECTION 7: SUMMARY OF SELECTED REMEDY

Based on the results of the investigations at the site, the IRMs that have been performed, and the
evaluation presented here, the Department is proposing No Further Action with continued
operation of the subslab depressurization systems in the residential properties and monitoring of
groundwater to assess the performance and effectiveness of the on-site remedy. The Department
and the NYSDOH have determined that this remedy is protective of human health and the environment.

Table 2 shows how each of the Remedial Objectives has been addressed.

The elements of the IRM already completed and the engineering controls are listed below:

1. The Site Management Plan for OU1 will be amended to include the continued operation, maintenance and monitoring of the subslab depressurization systems (SSDs) and groundwater monitoring.

   To accomplish this, the:
   a. institutional/engineering control plan for the site will include provisions for the management and inspection of the SSDSs; and include these systems in the site periodic reviews and certification of the engineering controls
   b. the Monitoring Plan will include:

      i. monitoring of groundwater in the OU2 area to assess the performance and effectiveness of the remedy;
      ii. schedule of monitoring and frequency of submittals to the Department; and
      iii. provision to evaluate the potential for vapor intrusion within the impacted area as shown on Figure 2, including provision for implementing actions recommended to address exposures.
Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1.2, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site.

Groundwater

Samples were collected from overburden groundwater which was encountered approximately 9 to 13 feet below grade surface (bgs) during the RI. The samples were collected to assess the off-site groundwater conditions downgradient of the former dry cleaner. The groundwater samples were submitted for analytical analysis for VOCs.

The groundwater sampling results indicate that the primary contaminants are VOCs in the overburden groundwater associated with the historic use of PCE at the former dry cleaner. The groundwater VOC plume has been delineated to originate on the northwest side of the site property and continues downgradient to the north toward the Dansville Municipal Airport. Figure 4 illustrates the contaminated groundwater plume delineations compiled from data collected during the RI.

The most frequent SCG exceedences were tetrachloroethene (PCE) and its associated daughter products including cis-1,2-dichloroethene (cis-1,2-DCE), trichloroethene (TCE) and vinyl chloride (VC). The highest concentrations of contamination were found on the northwest side of the property behind the former on-site building and extending across the MGP property. Little contamination extends beyond this area. As a result of the source area removal at the Pappas site and the planned removal at the MGP site. The entire area of source contamination will be excavated and removed. This encompasses the area shown in Figure 4. Beyond this area only a dilute plume of contamination remains present. No further action is necessary beyond the IRMs to address the dilute plume and any exposures resulting from this plume.

Table #1 – Groundwater - Post Remedial Action OU-1

<table>
<thead>
<tr>
<th>Detected Constituents</th>
<th>Concentration Range Detected (ppb)a</th>
<th>SCGb (ppb)</th>
<th>Frequency Exceeding SCG</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOCs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cis-1,2-Dichloroethene</td>
<td>ND – 7.0</td>
<td>5</td>
<td>2/25</td>
</tr>
<tr>
<td>Tetrachloroethene</td>
<td>ND – 220</td>
<td>5</td>
<td>9/25</td>
</tr>
<tr>
<td>Trichloroethene</td>
<td>ND – 31</td>
<td>5</td>
<td>3/25</td>
</tr>
<tr>
<td>Vinyl Chloride</td>
<td>ND – 8.1</td>
<td>2</td>
<td>1/25</td>
</tr>
</tbody>
</table>

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
The source of the groundwater contamination identified during the RI was addressed by the OU1 remedy. The impacts from soil vapor attributable to groundwater were addressed by the IRM described in Section 6.2.

**Soil Vapor**

The evaluation of the potential for soil vapor intrusion resulting from the presence of site related groundwater contamination was investigated by the sampling of sub-slab soil vapor under structures, indoor air inside structures and ambient outside air. At this site due to the presence of 34 buildings in the impacted area, a full suite of samples were collected to evaluate whether actions were needed to address exposure via soil vapor intrusion.

The soil vapor intrusion sampling was conducted during the 2009 and 2010 heating seasons and included the sampling of 19 structures for which access was granted to sample. For each structure sampled, sub-slab soil vapor and indoor air samples were collected in order to assess the potential for exposure via soil vapor intrusion. Outdoor air samples were collected concurrently with the sub-slab soil vapor and indoor air samples in order to evaluate outdoor air (background) quality in the vicinity of the study area. The results of the soil vapor intrusion sampling primarily indicated the presence of PCE and TCE.

Sample results were evaluated in accordance with the NYSDOH Soil Vapor Intrusion Guidance in order to determine whether actions were needed to address exposure via soil vapor intrusion. Based on the sampling results, actions, including installation of a sub-slab depressurization system at seven off-site buildings and continued monitoring at another off-site structure, was recommended. The nature and extent of the soil vapor contamination has been delineated based on the findings of the soil vapor intrusion investigations as well as the evaluation of the groundwater plume delineation.

Soil vapor contamination identified during the RI was addressed during the IRM described in Section 6.2.

**TABLE 2**

**SUMMARY OF SELECTED REMEDIAL ACTIONS TO MEET REMEDIAL OBJECTIVES**

<table>
<thead>
<tr>
<th>Remedial Action Objectives (RAOs)</th>
<th>Selected Remedial Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Groundwater RAOs for Protection of Public Health</strong></td>
<td></td>
</tr>
<tr>
<td>Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards</td>
<td>Monitoring of groundwater to assess the performance and effectiveness of the remedy. Community is served by municipal water</td>
</tr>
<tr>
<td>Prevent contact with, or inhalation of volatiles, from contaminated groundwater</td>
<td>The installation of a sub-slab depressurization (SSD) system at seven off-site structures.</td>
</tr>
<tr>
<td><strong>Soil Vapor RAOs for Protection of Public Health</strong></td>
<td></td>
</tr>
<tr>
<td>Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site</td>
<td>The installation of a sub-slab depressurization (SSD) system at seven off-site structures and continued monitoring for one residential structure.</td>
</tr>
</tbody>
</table>
INTERPRETED PCE ISOPLETHS
Based on February 2010 Groundwater Results

Legend:
- Monitoring Well
- Abandoned Monitoring Well
- Piezometer
- Site Boundary

PCE Concentration

Label Note:
- Monitoring Well ID
- Detected PCE Concentration - µg/L

MW-15 (0 µg/L)
MW-13 (0 µg/L)
MW-12 (0 µg/L)
MW-11 (0 µg/L)
MW-08 (0 µg/L)
MW-06 (0 µg/L)
PZ-37 (0 µg/L)
PZ-36 (4 µg/L)
PZ-32 (0 µg/L)
PZ-13 (0 µg/L)
PZ-04 (0 µg/L)
PZ-38 (0 µg/L)
PZ-10 (0 µg/L)
MW-10 (17 µg/L)
PZ-02 (12 µg/L)
MW-03S (0 µg/L)
MW-03D (0 µg/L)
PZ-24 (30 µg/L)
PZ-11 (16 µg/L)
MW-02 (24 µg/L)
MW-14 (1.6 µg/L)
MW-09 (8.4 µg/L)
MW-07 (9.5 µg/L)
PZ-01 (420 µg/L)
PZ-31 (190 µg/L)
PZ-15 (2.6 µg/L)
PZ-12 (6.7 µg/L)

FORMER PAPPAS DRY CLEANERS (826018)
REMEDIAL INVESTIGATION REPORT
OPERABLE UNIT - 2 (GROUNDWATER)
DANSVILLE, NEW YORK

PROJECT MGR:
RSC
DESIGNED BY:
RSC
CREATED BY:
JCP
CHECKED BY:
RSC
SCALE:
AS SHOWN
DATE:
JUNE 2010
PROJECT NO:
14368.08
FILE NO:
GIS/PROJECTS/FIGUREX.MXD

Source: NYS GIS Clearing House
APPENDIX A

Responsiveness Summary
RESPONSIVENESS SUMMARY

Pappas Dry Cleaning
Operable Unit No. 2: Off-Site Groundwater
State Superfund Project
Dansville, Livingston County, New York
Site No. 826018

The Proposed Remedial Action Plan (PRAP) for the Pappas Dry Cleaning site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February, 28, 2013. The PRAP outlined the remedial measure proposed for the contaminated groundwater at the Pappas Dry Cleaning site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 20, 2013, which included a presentation of the remedial investigation/feasibility study (RI/FS) for the Pappas Dry Cleaning as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 28, 2013.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: Are you done?

RESPONSE 1: The Department will continue to operate the sub-slab depressurization systems, continue to monitor the groundwater and continue to monitor the one residential structure where continued monitoring has been recommended. The Department will also issue a Final Engineering Report (FER) for Operable Unit No. 1 and install new monitoring wells on-site. Once this is complete the site will then be reclassified to a Class 4 and site management will begin and continue while the above noted monitoring is required.

COMMENT 2: Are you going to plant grass?

RESPONSE 2: Areas disturbed during the work will be reseeded as appropriate to re-establish grass.

COMMENT 3: How many systems did you install?

RESPONSE 3: The Department performed Soil Vapor Intrusion (SVI) sampling in the off-site neighborhood within the groundwater contamination plume starting at Morse Street and
extending to the northwest. Nineteen property owners agreed to have their homes sampled of the 35 to which sampling was offered. Based on the sampling results, no further action was recommended for eleven residential structures, continued monitoring was recommended for one residential structure and sub-slab depressurization (SSDs) systems were installed at seven residential structures.

**COMMENT 4:** Do the systems suck vapors from beneath the slab?

**RESPONSE 4:** Essentially yes. A fan is used to draw air out from under a basement, crawl space or slab on grade so that the entire area directly below the slab becomes negative in pressure as compared to the air above the slab. This results in lower sub-slab air pressure relative to indoor air pressure, which draws any vapors that may be present out of the sub-slab and prevents the infiltration of sub-slab vapors into the building.
APPENDIX B

Administrative Record
Administrative Record

Pappas Dry Cleaning
Operable Unit No. OU2: Off-Site Groundwater
State Superfund Project
Dansville, Livingston County, New York
Site No. 826018


2. Referral Memorandum dated July 21, 2006 for state funded Remedial Investigation/Feasibility Study ("RI/FS") and Remedial Design/Remedial Action ("RD/RA").
